

July 18, 2012

**VIA EMAIL**

Elizabeth M. Murphy  
Secretary  
Securities and Exchange Commission  
100 F Street, NE  
Washington, D.C. 20549-1090

Re: **File No. SR-NYSE Arca-2-12-66**

Dear Ms. Murphy:

This firm represents represent Southwire Company, Encore Wire Corporation, Luvata, and AmRod, as well as RK Capital LLC. Southwire is based in Georgia, Encore in Texas, Amrod in New Jersey, and Luvata has plants in Ohio, Connecticut, Missouri, Kentucky, California, Wisconsin, Texas and Florida. Together these companies comprise about 50% of the copper fabricating capacity of the United States. RK is an international copper merchant with offices in London and New York. We oppose the rule-change.

This is the second of two rule-changes that NYSE is proposing to list and trade shares of a physical copper-backed exchange traded fund or "ETF." The first proposed rule change, on behalf of JPM XF Physical Copper Trust, calls for the initial removal from LME and Comex warehouses of as much a 61,800 metric tons of physical copper; the second proposed rule change, on behalf of BlackRock's iShares, calls for the initial removal from these same warehouses of as much 121,200 metric tons of physical copper, for a total of 183,000 metric tons.

Almost all of the refined copper produced annually worldwide is subject to long-term delivery contracts with copper fabricating companies. By contrast, the copper in the LME and Comex warehouses is the only refined copper generally available for immediate delivery.

At present, there is only about 240,000 metric tons of copper in LME warehouses worldwide, and an additional 60,000 metric tons of copper in Comex warehouses in the United States, or about 290,000 in total. If successful, the listing and trading of shares for these two funds would result in removing from the market as much as 63% of the copper from these warehouses.

As shown below, the removal of so much copper from these warehouses would disrupt the copper market, particularly in the United States, in numerous material ways. Indeed,

the risks associated with the removal of so much copper from the market could have potentially devastating effects not just on potential investors in the shares, which should be of concern to the SEC, but also on existing and future investors in industries that depend on copper for their primary feedstock – because it is these companies that will face artificially inflated prices, shortages of supply and increased price volatility if the listing and sale of these shares is successful. No ETF backed by a base metal used exclusively for industrial purposes has ever before been listed and sold on any nationally recognized exchange in the United States.

Significantly, even though the registration statements for both the JPM and BlackRock ETFs were first proposed in October 2010, because of the huge risks involved, they have had to be amended numerous times and yet, the SEC's Corporation Finance Division, which has been waiting for nearly a year for additional amendments from both applicants, has still not allowed either registration statement to become effective.

Indeed, BlackRock's most recent draft registration statement was filed on September 2, 2011 – nearly a year ago. Thus, the Exchange's latest proposed change in the rules – to allow shares of BlackRock's copper ETF to be listed and sold – is therefore based on a draft registration statement that is nearly a year old and whose contents will almost certainly be subject to change.

It is against that background that the Exchange believes the SEC should nevertheless now allow the Exchange to be permitted to list and sell shares in both BlackRock's and JPM's copper ETFs. We respectfully disagree.

First, there should be no doubt that the purpose of the BlackRock ETF, like the JPM ETF, is to remove enough copper from the market for copper available for immediate delivery, i.e., copper from the LME and Comex warehouses, to cause an artificial rise in price. Thus, the only copper that can qualify for delivery to the BlackRock Trust is copper that meets the LME specifications for copper on warrant. The most obvious and freely available source of such copper is copper on warrant in LME warehouses today; Comex copper will also qualify. All other copper that might qualify is either (i) part of the supply chain of copper that is subject to long-term contracts between producers and consumers and therefore not available to be acquired, or (ii) copper held in bonded warehouses in China and destined for the Chinese market; only on rare occasions are small amounts of such copper ever delivered to LME warehouses in Asia; or (iii) copper held by the governments of China and South Korea, respectively, for strategic reserves, and also not available for purchase. See Report on Refined Copper Inventories on the Global Market, Table 3: "Refined Copper Balance Detail," Bloomsbury Minerals Economics Ltd., October 12, 2011. Available at Exhibit A of Submitted Comment from Robert B. Bernstein, Vandenberg & Feliu LLC, July 13, 2012, p. 15. Bloomsbury Minerals Economics is a specialized consultancy engaged in base metals market and price analysis, focusing in particular on copper.

BlackRock's draft registration statement tries to convey the false impression that because there is copper tonnage outside of LME and Comex warehouses, such copper must therefore be available for its ETF to acquire. Thus, BlackRock states that in 2010, refined copper production totaled 19,075,000 tonnes, "more than 33 times greater than the 568,057 tonnes of combined copper inventories held in warehouses registered with the LME, the

Shanghai Futures Exchange and the Comex division of the CME Group,” that “at the end of 2010 world stocks of refined copper totaled 1,289,000 tonnes” and that “there are at least an additional 1.5 million tonnes of refined copper in global inventories based on reported Chinese copper usage and trade flow data statistics for China.” BlackRock draft prospectus, dated September 2, 2011, at 10-11.

However, BlackRock has no evidence to suggest that any of this non-exchange inventory is available for delivery for its ETF. Indeed, all BlackRock states in this regard is that “[m]etal stored in the area of the warehouse approved by the exchange that is not registered with the exchange [i.e., not on warrant] is not reported in exchange inventory data,” that “there are no comprehensive statistics or data on physical copper stockpiles held by all commercial and non-commercial market participants,” and that “the quantity of copper available in the physical market that meets LME specifications for “good delivery” cannot be calculated because detailed reporting on copper specifications is not typical for the industry.” Id. at 10, 22. In short, BlackRock appears to be playing fast and loose in not explaining that there in fact is no copper available for “good delivery” to its ETF other than copper in the LME and Comex warehouses, which may be one reason why the SEC’s Corporate Finance division has not allowed BlackRock’s registration statement, upon which the Exchange’s rulemaking is based, to become effective without further amendment.

What is more, BlackRock’s draft registration statement makes clear that by depleting warehouse stocks, they (and others marketing similar ETF products) will be able to artificially raise prices for copper and thus of the ETF shares themselves. First, BlackRock states that no matter how much copper stock may be available outside of the exchange warehouses, it is “inventory levels at exchange warehouses [which] tend [] to reflect market conditions.” BlackRock then states that “[a]n increase in the demand for copper, driven by the success of the trust or similar investment vehicles, could result in increases in the price of copper that are otherwise unrelated to other factors affecting the global copper markets.” Id. at 10.

BlackRock further explains that in order for the investment to be successful, they will have to continue to be able to remove enough copper from the market in order to keep raising prices high enough to cover the monthly costs of storing the copper. Thus, BlackRock states:

“If all of the 12,120,000 Shares registered in this offering had been issued on the day the initial Shares were issued to the Initial Purchaser at a per-Share consideration of 10 kilograms of copper, a total of 121,200 tonnes would have been deposited into the trust at that time. . . . The amount of copper represented by the Shares will decrease over the life of the trust due to the sales necessary to pay trust expenses. Without increases in the price of copper sufficient to compensate for that decrease, the price of the Shares will also decline and you will lose money on your investment in the Shares. However, because there is no limit to the number of Shares that the trust can issue, a very enthusiastic reception of the Shares by the market, or the proliferation of similar investment vehicles that issue shares backed by physical copper, would result in purchases of copper for deposit into the trust or such similar investment vehicles that could be large enough to

result in an increase in the price of physical copper. If that were the case, the price of the Shares would be expected to reflect that increase.”

Id. at 10. (emphasis added).

However, as with all artificially created squeezes, there comes a time when the boom will bust, and BlackRock admits that may occur here as well. Thus, BlackRock states:

“It is impossible to predict whether, or at what point, the demand for copper-backed investment instruments like the Shares would eventually stabilize and, if it does, whether the price of copper would remain stable or return to historical levels. An investor purchasing Shares at a time when they reflect a temporarily inflated price of copper will sustain losses upon the sale of such Shares after the effect of such events causing such inflated prices has ceased and the price of copper has returned to a deflated level.”

Id.

Given these disclosures, it should be clear that the listing and trading of shares in physical copper backed investment instruments like that being proposed by BlackRock and JPM – and the consequent drawdown and removal from the market of most of the copper in LME and Comex warehouses -- risk endangering the price discovery functions of the LME and Comex. In addition, industries which rely on copper as a feedstock will face artificially high prices, price volatility when prices collapse, and a risk that supplies from the market for copper available for immediate delivery may not be available when most needed to satisfy consumer demand.

What is more, these effects are, as a practical matter, most likely to be felt most directly in the United States. The reason is that, as with the JPM offering, the copper that is cheapest to acquire will most likely be copper on warrant in United States warehouses. This is because, for the most part, the cheapest location premiums for copper on warrant is from copper in LME warehouses in the United States. The “Authorized Participants,” like Goldman Sachs, who will be authorized to acquire copper for the BlackRock Trust will want to acquire copper at the cheapest location premiums possible in order for the price of ETF shares to be issued in exchange for the copper to mirror as closely as possible, the price per metric ton of copper on the LME. Thus, depletion of copper from the LME warehouses will most likely be felt the hardest in the United States and, once copper from the LME warehouses is depleted, copper from the Comex warehouses will be depleted as well, as copper there is moved to LME warehouses in order to take advantage of higher prices.

The principal victims will in the first instance be United States consumers who typically rely on supplies of copper for immediate delivery to augment their long-term supply. These fabricators will not only be forced to pay higher prices, and incur the risk of price volatility once prices collapse, but there may be periods of time when those who can least afford it will be unable to get supply.

Most U.S. copper fabricators enter into long-term supply contracts for about 85% of their annual requirements. In that way, they can protect against the risk of reductions in demand for product without having to incur the added expense of storing inventory they cannot

use. Thus, U.S. copper fabricators depend on the market for copper available for immediate delivery, which is to say, they depend on there being copper available in the LME and Comex warehouses. But the physical copper backed instruments that BlackRock and JPM wish to list and trade on the Exchange will substantially reduce the supply of copper available for immediate delivery in the United States, and with that comes the risk that some fabricators will not be able to acquire the supply they need to meet demand – particularly if the housing market were to recover and demand were to spike.

As supplies of copper in the United States get tighter as a result of the listing and trading of shares of physical copper backed investment instruments such as these, the chief beneficiary will likely be competitors in China. China consumes 40% of the world's copper, which makes it the world's largest copper consumer. Because the copper being taken off market will come mainly from the United States, Chinese manufacturers will have the copper feedstock on hand to produce copper rod, tubing and wire, while at least some of their American counterparts will not.

And to make matters even worse, it now appears that the overall market for copper globally, which has been in deficit for the past several years, will continue to be in deficit, that is, annual global demand will exceed annual global supply. See e.g., Bloomberg, "Looming Copper Surplus Contracting as Mining Fails: Commodities," July 18, 2012. Thus, Bloomberg reported today that "[a]nalysts are slashing predictions for the first copper glut in four years as producers from Chile to Indonesia contend with aging mines and strikes at a time of record demand." A copy of this story is enclosed.

In short, the proposed ETF is unlike any other metal ETF currently listed on the Exchange and would allow speculators in the guise of purchasers of shares to create a squeeze on the market. The proposed rule change is therefore inconsistent with Section 6(b)(5) of the Securities Exchange Act of 1934, which requires that rules be designed to prevent manipulative acts and protect investors and the public interest.

Finally, we agree with the comments of Senator Levin, dated July 16, 2012, in opposition to the Exchange's proposal to list and trade shares of the JPM XF Physical Copper Trust. Those comments apply with equal force here. Likewise, we incorporate by reference the comments and attachments which this firm filed on behalf of our clients also in opposition to the Exchange's proposal concerning the JPM Trust.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert B. Bernstein", written over a horizontal line.

Robert B. Bernstein

**From:** [Joe Williamson](#)  
**To:** [Robert Bernstein](#); [stephenslaw@comcast.net](mailto:stephenslaw@comcast.net)  
**Cc:** [Floyd Smith](#); [Jeff Herrin](#)  
**Subject:** Bloomberg Story  
**Date:** Wednesday, July 18, 2012 9:21:37 AM

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Good story – some major analyst are predicting a continuing deficit of copper supply into 2013.

### Looming Copper Surplus Contracting as Mining Fails: Commodities

By Maria Kolesnikova and Agnieszka Troszkiewicz

( For more commodity columns, click CMMKT. )

July 18 (Bloomberg) -- Analysts are slashing predictions for the first copper glut in four years as producers from Chile to Indonesia contend with aging mines and strikes at a time of record demand.

The global surplus will total 18,500 metric tons, according to the median of 22 analyst estimates compiled by Bloomberg, 85 percent less than a January forecast of 124,000 tons. Barclays Plc expects shortages in the first half of next year and Morgan Stanley and JPMorgan Chase & Co. anticipate an annual deficit. Prices will rally as much as 14 percent to \$8,700 a ton by Dec. 31, the median in a survey of 15 analysts shows.

Mining companies on average are processing about 15 percent more ore than they were in 2000 to extract the same amount of metal, according to Macquarie Group Ltd. Freeport-McMoRan Copper & Gold Inc. shut Grasberg, site of the world's largest reserves, for two weeks in the first quarter after violent protests, following a three-month strike in 2011. Demand growth will accelerate to 4.7 percent next year from 1.5 percent in 2012, Morgan Stanley estimates.

"It's really a matter of scarcity in copper, with mined supply lagging behind expectations," said Thomas Benedix, a Stuttgart, Germany-based metals analyst at Tiberius Group, which manages about \$2.1 billion of assets. "At the start of the year people were expecting that the supply side could really start delivering on their targets, and now it's not going to happen."

#### Bear Market

Copper fell 17 percent in the four months to June 8 on the London Metal Exchange, 3 percentage points less than the common definition of a bear market. It's since rallied 4.3 percent to \$7,608.50, for an annual gain of 0.1 percent, beating the 2.2 percent drop in the Standard & Poor's GSCI gauge of 24 raw materials. The MSCI All-Country World Index of equities rose 3.5 percent and Treasuries returned 2.8 percent, a Bank of America Corp. index shows.

While the International Copper Study Group forecasts mine output will expand 5.1 percent this year and 7.6 percent in 2013, production has missed the Lisbon-based group's initial forecasts in each of the past five years, data compiled by Bloomberg show.

Deutsche Bank AG cut its 2013 surplus forecast to 260,000 tons from 300,000 tons on July 3 and JPMorgan is now predicting a 295,000-ton shortfall, compared with a January projection for a 259,000-ton glut. Bank of America Merrill Lynch said July 9 it expects a 7,000-ton surplus from 120,000 tons forecast in April. Barclays puts the last surplus in 2009.

#### Largest Producer

Morgan Stanley's prediction for additional consumption of almost 1 million tons next year is more than Santiago-based Codelco, the world's largest producer, can extract from Codelco Norte, its

biggest source of copper, according to data compiled by Bloomberg.

The changing forecasts have yet to be recognized by hedge funds. Speculators more than doubled their net-short position, or bets on declining prices, in the week ended July 10, U.S. Commodity Futures Trading Commission data show.

The funds have been bearish since the end of May, the longest streak since January, on mounting concern that central banks and other policy makers will fail to shore up growth. About \$4.8 trillion was erased from the value of global equities since the end of March, data compiled by Bloomberg show. Copper buyers are delaying purchases because Europe's debt crisis may derail the global economy, Codelco Chief Executive Officer Thomas Keller said in an interview June 6.

#### Service Industries

A purchasing managers' index for China, the biggest copper consumer, reached a seven-month low in June, HSBC Holdings Plc and Markit Economics said July 2. U.S. manufacturing shrank in June for the first time since July 2009, the Institute for Supply Management reported the same day. Service industries and factory output in the 17-nation euro area contracted for a fifth consecutive month, Markit reported July 4.

"Things have definitely worsened in the past few months," said Dan Smith, a commodities analyst at Standard Chartered Plc in London. "In the short term, the economic picture is going to get weaker and that will affect the copper market. Sentiment is really what drives this stuff."

The European Central Bank reduced interest rates to a record low on July 5 and the Bank of England announced the resumption of bond purchases on the same day. Federal Reserve policy makers are scheduled to announce a rate decision Aug. 1.

#### Global Expansion

China cut rates in June and this month and reduced reserve requirements for banks three times since November. The stimulus may boost copper demand later this year, according to Jeremy Baker, who manages the \$800-million Vontobel Belvista Commodity Fund in Zurich. The country will use 6 percent more copper next year, almost twice the pace of the global expansion, Barclays estimates. The total amount of construction across China is equivalent to building a city the size of Chicago every year, JPMorgan Asset Management said in a report in May.

Mining companies will struggle to keep up because the metal content of ore is declining, new deposits are getting harder to find and wages and fuel bills are increasing. Costs are rising by as much as 10 percent a year for some producers, Macquarie said. The average ton of ore contains about 1.1 percent copper, compared with more than 1.3 percent in 2000, it estimates.

Codelco's first-quarter output was 10 percent lower than a year earlier and Rio Tinto Group's first-half production slid 7.5 percent. Its Bingham Canyon open pit mine in Utah, the London-based company's second-biggest copper operation, is more than 100 years old and now more than three-quarters of a mile deep. Melbourne-based BHP Billiton Ltd., the world's biggest mining company, extracted 10 percent less copper in the first three quarters of its financial year that ended June 30.

#### Industrial Metals

A rebound in prices would help sustain earnings for the companies as output contracts. Shares of BHP will rise 31 percent to A\$40.18 in the next 12 months, the average of 16 analyst estimates compiled by Bloomberg show. The company's industrial metals unit accounted for 20 percent of sales in the last fiscal year, data compiled by Bloomberg show.

Global stockpiles monitored by the LME fell 32 percent to 252,900 tons this year as inventories tracked by the Comex exchange in New York retreated 44 percent to a three-year low of 49,516 tons. Reserves in bonded warehouses in China stand at about 500,000 tons, from more than

600,000 tons in April, Barclays estimates.

"The issues facing the supply side of the copper market haven't disappeared overnight," said Gayle Berry, an analyst at Barclays in London. "The problems like declining ore grades, delays in bringing on new production and so on are not things that happen in one year and disappear."

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7/9/2010

Moving Av

	NLSCA Index	NLJCA Index	NLKCA Index		LME Chg	10
	LME Cu Stock (t)	LME Cu Inflow	LME Cu Outflow	LME Cu Outflow	LME Net Cl	LME Cu Sto
#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
7/6/2012	254450	2000	275	-275	1725	1502.5
7/5/2012	252725	400	1200	-1200	-800	1542.5
7/4/2012	253525	175	1825	-1825	-1650	1805
7/3/2012	255175	375	1500	-1500	-1125	1795
7/2/2012	256300	450	1300	-1300	-850	2110
6/29/2012	257150	2650	1600	-1600	1050	2182.5
6/28/2012	256100	2850	1625	-1625	1225	2440
6/27/2012	254875	3325	1700	-1700	1625	2482.5
6/26/2012	253250	1025	975	-975	50	2667.5
6/25/2012	253200	1775	1550	-1550	225	3170
6/22/2012	252975	2400	1575	-1575	825	3692.5
6/21/2012	252150	3025	1225	-1225	1800	3585
6/20/2012	250350	75	1400	-1400	-1325	3507.5
6/19/2012	251675	3525	975	-975	2550	3675
6/18/2012	249125	1175	1500	-1500	-325	3550
6/15/2012	249450	5225	850	-850	4375	3660
6/14/2012	245075	3275	1625	-1625	1650	3365
6/13/2012	243425	5175	1300	-1300	3875	3560
6/12/2012	239550	6050	1700	-1700	4350	3172.5
6/11/2012	235200	7000	1475	-1475	5525	2945
6/8/2012	229675	1325	950	-950	375	2520
6/7/2012	229300	2250	4150	-4150	-1900	2537.5
6/6/2012	231200	1750	1425	-1425	325	2427.5
6/5/2012	230875	2275	2075	-2075	0	2605
6/4/2012	230875	2275	2075	-2075	0	2807.5
6/1/2012	230875	2275	2075	-2075	200	3220
5/31/2012	230675	5225	1650	-1650	3575	3552.5
5/30/2012	227100	1300	0	0	1300	3622.5
5/29/2012	225800	3775	1025	-1025	2750	3772.5
5/28/2012	223050	2750	3200	-3200	-450	3777.5
5/25/2012	223500	1500	2075	-2075	-575	3875
5/24/2012	224075	1150	2775	-2775	-1625	4312.5
5/23/2012	225700	3525	1800	-1800	1725	4542.5
5/22/2012	223975	4300	4700	-4700	-400	4775
5/21/2012	224375	6400	3200	-3200	3200	4685
5/18/2012	221175	5600	1875	-1875	3725	4267.5
5/17/2012	217450	5925	3825	-3825	2100	3930
5/16/2012	215350	2800	3800	-3800	-1000	3597.5
5/15/2012	216350	3825	5775	-5775	-1950	3502.5
5/14/2012	218300	3725	6700	-6700	-2975	3320
5/11/2012	221275	5875	4450	-4450	1425	3245
5/10/2012	219850	3450	4525	-4525	-1075	2782.5

5/9/2012	220925	5850	13375	-13375	-7525	2680
5/8/2012	228450	3400	5575	-5575	-2175	2337.5
5/7/2012	230625	2225	6800	-6800	0	2042.5
5/4/2012	230625	2225	6800	-6800	-4575	1887.5
5/3/2012	235200	2600	6350	-6350	-3750	1797.5
5/2/2012	238950	1850	4450	-4450	-2600	2045
5/1/2012	241550	2000	8800	-8800	-6800	2207.5
4/30/2012	248350	2975	6450	-6450	-3475	2205
4/27/2012	251825	1250	4775	-4775	-3525	1957.5
4/26/2012	255350	2425	3475	-3475	-1050	1882.5
4/25/2012	256400	2425	2900	-2900	-475	1800
4/24/2012	256875	450	2425	-2425	-1975	1820
4/23/2012	258850	675	2975	-2975	-2300	2295
4/20/2012	261150	1325	2875	-2875	-1550	2877.5
4/19/2012	262700	5075	3525	-3525	1550	3395
4/18/2012	261150	3475	3400	-3400	75	3537.5
4/17/2012	261075	1975	2600	-2600	-625	3457.5
4/16/2012	261700	500	3200	-3200	-2700	3945
4/13/2012	264400	500	2175	-2175	-1675	4165
4/12/2012	266075	1600	2675	-2675	-1075	4315
4/11/2012	267150	2625	3875	-3875	-1250	4340
4/10/2012	268400	5200	1575	-1575	3625	4147.5
4/9/2012	264775	6500	1400	-1400	0	4130
4/6/2012	264775	6500	1400	-1400	0	3592.5
4/5/2012	264775	6500	1400	-1400	5100	3120
4/4/2012	259675	2675	3650	-3650	-975	2495
4/3/2012	260650	6850	3750	-3750	3100	2287.5
4/2/2012	257550	2700	1425	-1425	1275	1682.5
3/30/2012	256275	2000	1350	-1350	650	1500
3/29/2012	255625	1850	2375	-2375	-525	1302.5
3/28/2012	256150	700	2125	-2125	-1425	1155
3/27/2012	257575	5025	1450	-1450	3575	1175
3/26/2012	254000	1125	2300	-2300	-1175	802.5
3/23/2012	255175	1775	2050	-2050	-275	775
3/22/2012	255450	250	3125	-3125	-2875	647.5
3/21/2012	258325	600	3100	-3100	-2500	867.5
3/20/2012	260825	800	2550	-2550	-1750	807.5
3/19/2012	262575	875	2125	-2125	-1250	830
3/16/2012	263825	25	3950	-3950	-3925	742.5
3/15/2012	267750	375	3250	-3250	-2875	740
3/14/2012	270625	900	3275	-3275	-2375	702.5
3/13/2012	273000	1300	2225	-2225	-925	627.5
3/12/2012	273925	850	2950	-2950	-2100	700
3/9/2012	276025	500	4500	-4500	-4000	615
3/8/2012	280025	2450	3325	-3325	-875	567.5
3/7/2012	280900	0	2675	-2675	-2675	340
3/6/2012	283575	1025	3275	-3275	-2250	415

3/5/2012	285825	0	3175	-3175	-3175	527.5
3/2/2012	289000	0	3250	-3250	-3250	782.5
3/1/2012	292250	0	4175	-4175	-4175	782.5
2/29/2012	296425	150	2575	-2575	-2425	832.5
2/28/2012	298850	2025	3650	-3650	-1625	982.5
2/27/2012	300475	0	3025	-3025	-3025	1030
2/24/2012	303500	25	1400	-1400	-1375	1280
2/23/2012	304875	175	1025	-1025	-850	1332.5
2/22/2012	305725	750	450	-450	300	1315
2/21/2012	305425	2150	2600	-2600	-450	1240
2/20/2012	305875	2550	3050	-3050	-500	1045
2/17/2012	306375	0	4750	-4750	-4750	790
2/16/2012	311125	500	2425	-2425	-1925	817.5
2/15/2012	313050	1650	2400	-2400	-750	782.5
2/14/2012	313800	2500	2200	-2200	300	617.5
2/13/2012	313500	2500	1750	-1750	750	380
2/10/2012	312750	550	1400	-1400	-850	130
2/9/2012	313600	0	2750	-2750	-2750	175
2/8/2012	316350	0	3650	-3650	-3650	175
2/7/2012	320000	200	3350	-3350	-3150	210
2/6/2012	323150	0	2950	-2950	-2950	197.5
2/3/2012	326100	275	2850	-2850	-2575	197.5
2/2/2012	328675	150	775	-775	-625	170
2/1/2012	329300	0	1525	-1525	-1525	155
1/31/2012	330825	125	2425	-2425	-2300	175
1/30/2012	333125	0	2300	-2300	-2300	237.5
1/27/2012	335425	1000	3450	-3450	-2450	237.5
1/26/2012	337875	0	1875	-1875	-1875	182.5
1/25/2012	339750	350	2850	-2850	-2500	182.5
1/24/2012	342250	75	3600	-3600	-3525	197.5
1/23/2012	345775	0	2975	-2975	-2975	190
1/20/2012	348750	0	2450	-2450	-2450	250
1/19/2012	351200	0	1300	-1300	-1300	362.5
1/18/2012	352500	200	1125	-1125	-925	412.5
1/17/2012	353425	750	1900	-1900	-1150	392.5
1/16/2012	354575	0	2250	-2250	-2250	480
1/13/2012	356825	450	1875	-1875	-1425	622.5
1/12/2012	358250	0	6000	-6000	-6000	720
1/11/2012	364250	500	1625	-1625	-1125	767.5
1/10/2012	365375	0	1525	-1525	-1525	742.5
1/9/2012	366900	600	1825	-1825	-1225	930
1/6/2012	368125	1125	1400	-1400	-275	1057.5
1/5/2012	368400	500	1250	-1250	-750	1132.5
1/4/2012	369150	0	2425	-2425	-2425	1175
1/3/2012	371575	1625	950	-950	675	1252.5
1/2/2012	370900	1425	925	-925	0	1125
12/30/2011	370900	1425	925	-925	500	1212.5

12/29/2011	370400	475	1700	-1700	-1225	1262.5
12/28/2011	371625	250	925	-925	-675	1390
12/27/2011	372300	1875	1525	-1525	0	1415
12/26/2011	372300	1875	1525	-1525	0	1230
12/23/2011	372300	1875	1525	-1525	350	1070
12/22/2011	371950	925	275	-275	650	957.5
12/21/2011	371300	775	325	-325	450	915
12/20/2011	370850	350	3450	-3450	-3100	952.5
12/19/2011	373950	2300	9600	-9600	-7300	1067.5
12/16/2011	381250	1925	2750	-2750	-825	990
12/15/2011	382075	1750	1825	-1825	-75	1020
12/14/2011	382150	500	1375	-1375	-875	930
12/13/2011	383025	25	2575	-2575	-2550	925
12/12/2011	385575	275	775	-775	-500	932.5
12/9/2011	386075	750	2075	-2075	-1325	1025
12/8/2011	387400	500	2550	-2550	-2050	1085
12/7/2011	389450	1150	1800	-1800	-650	1065
12/6/2011	390100	1500	900	-900	600	1130
12/5/2011	389500	1525	175	-175	1350	1202.5
12/2/2011	388150	2225	775	-775	1450	1152.5
12/1/2011	386700	850	775	-775	75	952.5
11/30/2011	386625	450	4350	-4350	-3900	930
11/29/2011	390525	100	2350	-2350	-2250	990
11/28/2011	392775	1200	3150	-3150	-1950	980
11/25/2011	394725	1350	2600	-2600	-1250	917.5
11/24/2011	395975	300	1850	-1850	-1550	782.5
11/23/2011	397525	1800	1350	-1350	450	822.5
11/22/2011	397075	2225	1125	-1125	1100	707.5
11/21/2011	395975	1025	3300	-3300	-2275	485
11/18/2011	398250	225	1600	-1600	-1375	427.5
11/17/2011	399625	625	1925	-1925	-1300	405
11/16/2011	400925	1050	3425	-3425	-2375	472.5
11/15/2011	403300	0	2100	-2100	-2100	367.5
11/14/2011	405400	575	2875	-2875	-2300	415
11/11/2011	407700	0	2325	-2325	-2325	600
11/10/2011	410025	700	2825	-2825	-2125	1022.5
11/9/2011	412150	650	825	-825	-175	952.5
11/8/2011	412325	0	3000	-3000	-3000	967.5
11/7/2011	415325	450	2975	-2975	-2525	1042.5
11/4/2011	417850	0	4275	-4275	-4275	997.5
11/3/2011	422125	1300	2450	-2450	-1150	1017.5
11/2/2011	423275	0	1475	-1475	-1475	947.5
11/1/2011	424750	475	5100	-5100	-4625	1385
10/31/2011	429375	2425	5425	-5425	-3000	1872.5
10/28/2011	432375	4225	6525	-6525	-2300	2157.5
10/27/2011	434675	0	2750	-2750	-2750	1735
10/26/2011	437425	800	2525	-2525	-1725	1735

10/25/2011	439150	750	5875	-5875	-5125	1755
10/24/2011	444275	0	3525	-3525	-3525	1722.5
10/21/2011	447800	200	3250	-3250	-3050	1722.5
10/20/2011	450850	600	1925	-1925	-1325	1820
10/19/2011	452175	4375	4125	-4125	250	1760
10/18/2011	451925	5350	5075	-5075	275	1482.5
10/17/2011	451650	5275	3825	-3825	1450	1005
10/14/2011	450200	0	2900	-2900	-2900	752.5
10/13/2011	453100	0	3900	-3900	-3900	1152.5
10/12/2011	457000	1000	2525	-2525	-1525	1707.5
10/11/2011	458525	425	4425	-4425	-4000	1805
10/10/2011	462525	0	4575	-4575	-4575	2245
10/7/2011	467100	1175	5800	-5800	-4625	2245
10/6/2011	471725	0	3200	-3200	-3200	2147.5
10/5/2011	474925	1600	1700	-1700	-100	2217.5
10/4/2011	475025	575	500	-500	75	2202.5
10/3/2011	474950	2750	1500	-1500	1250	2200
9/30/2011	473700	4000	1000	-1000	3000	2375
9/29/2011	470700	5550	1525	-1525	4025	2030
9/28/2011	466675	1975	2700	-2700	-725	1500
9/27/2011	467400	4825	1000	-1000	3825	1415
9/26/2011	463575	0	975	-975	-975	1097.5
9/23/2011	464550	200	1725	-1725	-1525	1097.5
9/22/2011	466075	700	1575	-1575	-875	1077.5
9/21/2011	466950	1450	1425	-1425	25	1030
9/20/2011	466925	550	2750	-2750	-2200	900
9/19/2011	469125	4500	1400	-1400	3100	860
9/16/2011	466025	550	675	-675	-125	435
9/15/2011	466150	250	875	-875	-625	555
9/14/2011	466775	1125	350	-350	775	740
9/13/2011	466000	1650	775	-775	875	805
9/12/2011	465125	0	100	-100	-100	837.5
9/9/2011	465225	0	50	-50	-50	1042.5
9/8/2011	465275	225	200	-200	25	1247.5
9/7/2011	465250	150	275	-275	-125	1250
9/6/2011	465375	150	375	-375	-225	1235
9/5/2011	465600	250	725	-725	-475	1220
9/2/2011	466075	1750	300	-300	1450	1517.5
9/1/2011	464625	2100	1300	-1300	800	1437.5
8/31/2011	463825	1775	2325	-2325	-550	1252.5
8/30/2011	464375	1975	2525	-2525	-550	1117.5
8/29/2011	464925	2050	425	-425	0	1437.5
8/26/2011	464925	2050	425	-425	1625	1232.5
8/25/2011	463300	250	725	-725	-475	1032.5
8/24/2011	463775	0	1250	-1250	-1250	1055
8/23/2011	465025	0	1275	-1275	-1275	1105
8/22/2011	466300	3225	400	-400	2825	1132.5

8/19/2011	463475	950	450	-450	500	877.5
8/18/2011	462975	250	1900	-1900	-1650	835
8/17/2011	464625	425	1075	-1075	-650	850
8/16/2011	465275	5175	500	-500	4675	945
8/15/2011	460600	0	1175	-1175	-1175	555
8/12/2011	461775	50	1425	-1425	-1375	665
8/11/2011	463150	475	1350	-1350	-875	662.5
8/10/2011	464025	500	1175	-1175	-675	690
8/9/2011	464700	275	875	-875	-600	897.5
8/8/2011	465300	675	500	-500	175	920
8/5/2011	465125	525	725	-725	-200	1007.5
8/4/2011	465325	400	925	-925	-525	1045
8/3/2011	465850	1375	1150	-1150	225	1755
8/2/2011	465625	1275	1675	-1675	-400	1710
8/1/2011	466025	1100	1625	-1625	-525	2205
7/29/2011	466550	25	1825	-1825	-1800	2262.5
7/28/2011	468350	750	2200	-2200	-1450	2340
7/27/2011	469800	2575	1875	-1875	700	2370
7/26/2011	469100	500	2600	-2600	-2100	2227.5
7/25/2011	471200	1550	2675	-2675	-1125	2305
7/22/2011	472325	900	2625	-2625	-1725	2195
7/21/2011	474050	7500	1150	-1150	6350	2140
7/20/2011	467700	925	625	-625	300	1552.5
7/19/2011	467400	6225	1775	-1775	4450	1472.5
7/18/2011	462950	1675	750	-750	925	885
7/15/2011	462025	800	800	-800	0	852.5
7/14/2011	462025	1050	1000	-1000	50	855
7/13/2011	461975	1150	800	-800	350	752.5
7/12/2011	461625	1275	1275	-1275	0	765
7/11/2011	461625	450	675	-675	-225	697.5
7/8/2011	461850	350	450	-450	-100	740
7/7/2011	461950	1625	950	-950	675	910
7/6/2011	461275	125	1350	-1350	-1225	855
7/5/2011	462500	350	575	-575	-225	1107.5
7/4/2011	462725	1350	2075	-2075	-725	1325
7/1/2011	463450	825	2625	-2625	-1800	1447.5
6/30/2011	465250	25	1800	-1800	-1775	1472.5
6/29/2011	467025	1275	2625	-2625	-1350	1570
6/28/2011	468375	600	2750	-2750	-2150	1557.5
6/27/2011	470525	875	4050	-4050	-3175	1555
6/24/2011	473700	2050	2375	-2375	-325	1502.5
6/23/2011	474025	1075	1575	-1575	-500	1432.5
6/22/2011	474525	2650	950	-950	1700	1515
6/21/2011	472825	2525	1550	-1550	975	1372.5
6/20/2011	471850	2575	1550	-1550	1025	1330
6/17/2011	470825	1075	2400	-2400	-1325	1370
6/16/2011	472150	1000	1475	-1475	-475	1387.5

6/15/2011	472625	1150	2200	-2200	-1050	1582.5
6/14/2011	473675	575	2650	-2650	-2075	1925
6/13/2011	475750	350	2525	-2525	-2175	1987.5
6/10/2011	477925	1350	1275	-1275	75	2187.5
6/9/2011	477850	1900	1200	-1200	700	2287.5
6/8/2011	477150	1225	825	-825	400	2100
6/7/2011	476750	2100	1050	-1050	1050	2112.5
6/6/2011	475700	2975	750	-750	2225	2140
6/3/2011	473475	1250	1275	-1275	-25	2152.5
6/2/2011	473500	2950	300	-300	2650	2085
6/1/2011	470850	4575	1500	-1500	3075	1870
5/31/2011	467775	1200	2900	-2900	-1700	1570
5/30/2011	469475	2350	1100	-1100	0	1612.5
5/27/2011	469475	2350	1100	-1100	1250	1472.5
5/26/2011	468225	25	1175	-1175	-1150	1452.5
5/25/2011	469375	1350	1225	-1225	125	1557.5
5/24/2011	469250	2375	1300	-1300	1075	1562.5
5/23/2011	468175	3100	1175	-1175	1925	1457.5
5/20/2011	466250	575	1350	-1350	-775	1437.5
5/19/2011	467025	800	1575	-1575	-775	1537.5
5/18/2011	467800	1575	1350	-1350	225	2030
5/17/2011	467575	1625	1125	-1125	500	2302.5
5/16/2011	467075	950	2400	-2400	-1450	2285
5/13/2011	468525	2150	1350	-1350	800	2375
5/12/2011	467725	1075	1700	-1700	-625	2345
5/11/2011	468350	1400	1375	-1375	25	2422.5
5/10/2011	468325	1325	1600	-1600	-275	2862.5
5/9/2011	468600	2900	1475	-1475	1425	3215
5/6/2011	467175	1575	1850	-1850	-275	3290
5/5/2011	467450	5725	2200	-2200	3525	3497.5
5/4/2011	463925	4300	4175	-4175	125	3290
5/3/2011	463800	1450	1300	-1300	150	3157.5
5/2/2011	463650	1850	1700	-1700	0	3160
4/29/2011	463650	1850	1700	-1700	0	3315
4/28/2011	463650	1850	1700	-1700	150	3180
4/27/2011	463500	5800	2400	-2400	3400	3187.5
4/26/2011	460100	4850	1025	-1025	3825	3040
4/25/2011	456275	3650	1075	-1075	0	2735
4/22/2011	456275	3650	1075	-1075	0	2637.5
4/21/2011	456275	3650	1075	-1075	2575	2547.5
4/20/2011	453700	2975	1225	-1225	1750	2467.5
4/19/2011	451950	1475	1300	-1300	175	2170
4/18/2011	451775	3400	2050	-2050	1350	2622.5
4/15/2011	450425	500	875	-875	-375	2337.5
4/14/2011	450800	1925	1050	-1050	875	2347.5
4/13/2011	449925	4325	1100	-1100	3225	2275
4/12/2011	446700	1800	800	-800	1000	2015

4/11/2011	445700	2675	1150	-1150	1525	2002.5
4/8/2011	444175	2750	950	-950	1800	1892.5
4/7/2011	442375	2850	1350	-1350	1500	2207.5
4/6/2011	440875	0	1450	-1450	-1450	2047.5
4/5/2011	442325	6000	1575	-1575	4425	2097.5
4/4/2011	437900	550	1500	-1500	-950	1955
4/1/2011	438850	600	1600	-1600	-1000	2122.5
3/31/2011	439850	1200	1075	-1075	125	2312.5
3/30/2011	439725	1725	1500	-1500	225	2487.5
3/29/2011	439500	1675	2075	-2075	-400	2515
3/28/2011	439900	1575	950	-950	625	2487.5
3/25/2011	439275	5900	1250	-1250	4650	2500
3/24/2011	434625	1250	775	-775	475	2047.5
3/23/2011	434150	500	700	-700	-200	1960
3/22/2011	434350	4575	725	-725	3850	1910
3/21/2011	430500	2225	1375	-1375	850	1552.5
3/18/2011	429650	2500	1650	-1650	850	1595
3/17/2011	428800	2950	1125	-1125	1825	1582.5
3/16/2011	426975	2000	975	-975	1025	1485
3/15/2011	425950	1400	1450	-1450	-50	1697.5
3/14/2011	426000	1700	1575	-1575	125	1557.5
3/11/2011	425875	1375	975	-975	400	1897.5
3/10/2011	425475	375	625	-625	-250	2345
3/9/2011	425725	0	775	-775	-775	2510
3/8/2011	426500	1000	1650	-1650	-650	2560
3/7/2011	427150	2650	800	-800	1850	2560
3/4/2011	425300	2375	1125	-1125	1250	2717.5
3/3/2011	424050	1975	1475	-1475	500	2657.5
3/2/2011	423550	4125	850	-850	3275	2705
3/1/2011	420275	0	725	-725	-725	2705
2/28/2011	421000	5100	925	-925	4175	2860
2/25/2011	416825	5850	1700	-1700	4150	2980
2/24/2011	412675	2025	1050	-1050	975	2515
2/23/2011	411700	500	550	-550	-50	2472.5
2/22/2011	411750	1000	725	-725	275	2957.5
2/21/2011	411475	4225	675	-675	3550	2912.5
2/18/2011	407925	1775	1050	-1050	725	2515
2/17/2011	407200	2450	1050	-1050	1400	2432.5
2/16/2011	405800	4125	750	-750	3375	2317.5
2/15/2011	402425	1550	900	-900	650	1975
2/14/2011	401775	6300	1250	-1250	5050	1987.5
2/11/2011	396725	1200	1425	-1425	-225	1800
2/10/2011	396950	1600	1050	-1050	550	1985
2/9/2011	396400	5350	975	-975	4375	2215
2/8/2011	392025	550	2050	-2050	-1500	2390
2/7/2011	393525	250	875	-875	-625	3230
2/4/2011	394150	950	1275	-1275	-325	3362.5

2/3/2011	394475	1300	600	-600	700	3507.5
2/2/2011	393775	700	850	-850	-150	3412.5
2/1/2011	393925	1675	1775	-1775	-100	3757.5
1/31/2011	394025	4425	8475	-8475	-4050	3590
1/28/2011	398075	3050	2250	-2250	800	3527.5
1/27/2011	397275	3900	1325	-1325	2575	3222.5
1/26/2011	394700	7100	1475	-1475	5625	2832.5
1/25/2011	389075	8950	1375	-1375	7575	2132.5
1/24/2011	381500	1575	1375	-1375	200	1442.5
1/21/2011	381300	2400	1625	-1625	775	1285
1/20/2011	380525	350	1575	-1575	-1225	1130
1/19/2011	381750	4150	325	-325	3825	1157.5
1/18/2011	377925	0	1075	-1075	-1075	927.5
1/17/2011	379000	3800	1025	-1025	2775	940
1/14/2011	376225	0	1125	-1125	-1125	720
1/13/2011	377350	0	825	-825	-825	880
1/12/2011	378175	100	1575	-1575	-1475	1490
1/11/2011	379650	2050	700	-700	1350	1520
1/10/2011	378300	0	1225	-1225	-1225	1652.5
1/7/2011	379525	850	725	-725	125	1990
1/6/2011	379400	625	475	-475	150	2242.5
1/5/2011	379250	1850	275	-275	1575	2572.5
1/4/2011	377675	125	0	0	125	2582.5
1/3/2011	377550	1600	50	-50	0	2695
12/31/2010	377550	1600	50	-50	1550	2757.5
12/30/2010	376000	6100	1050	-1050	5050	2685
12/29/2010	370950	400	175	-175	225	2417.5
12/28/2010	370725	3375	375	-375	0	3160
12/27/2010	370725	3375	375	-375	0	2955
12/24/2010	370725	3375	375	-375	3000	2957.5
12/23/2010	367725	3925	150	-150	3775	2652.5
12/22/2010	363950	1950	725	-725	1225	2335
12/21/2010	362725	1250	1100	-1100	150	2232.5
12/20/2010	362575	2225	1050	-1050	1175	2107.5
12/17/2010	361400	875	275	-275	600	1987.5
12/16/2010	360800	3425	575	-575	2850	2157.5
12/15/2010	357950	7825	775	-775	7050	1815
12/14/2010	350900	1325	875	-875	450	1042.5
12/13/2010	350450	3400	1575	-1575	1825	910
12/10/2010	348625	325	1150	-1150	-825	570
12/9/2010	349450	750	1550	-1550	-800	637.5
12/8/2010	350250	925	2050	-2050	-1125	597.5
12/7/2010	351375	0	1000	-1000	-1000	505
12/6/2010	352375	1025	2275	-2275	-1250	540
12/3/2010	353625	2575	1375	-1375	1200	577.5
12/2/2010	352425	0	2425	-2425	-2425	370
12/1/2010	354850	100	1000	-1000	-900	370

11/30/2010	355750	0	800	-800	-800	365
11/29/2010	356550	0	450	-450	-450	365
11/26/2010	357000	1000	550	-550	450	377.5
11/25/2010	356550	350	925	-925	-575	370
11/24/2010	357125	0	925	-925	-925	382.5
11/23/2010	358050	350	1300	-1300	-950	385
11/22/2010	359000	1400	2225	-2225	-825	405
11/19/2010	359825	500	1275	-1275	-775	265
11/18/2010	360600	0	525	-525	-525	265
11/17/2010	361125	50	900	-900	-850	437.5
11/16/2010	361975	0	725	-725	-725	432.5
11/15/2010	362700	125	200	-200	-75	462.5
11/12/2010	362775	925	1100	-1100	-175	475
11/11/2010	362950	475	1475	-1475	-1000	557.5
11/10/2010	363950	25	950	-950	-925	542.5
11/9/2010	364875	550	875	-875	-325	785
11/8/2010	365200	0	1150	-1150	-1150	730
11/5/2010	366350	500	1475	-1475	-975	800
11/4/2010	367325	1725	475	-475	1250	750
11/3/2010	366075	0	875	-875	-875	582.5
11/2/2010	366950	300	925	-925	-625	717.5
11/1/2010	367575	250	1175	-1175	-925	695
10/29/2010	368500	1750	1275	-1275	475	700
10/28/2010	368025	325	900	-900	-575	565
10/27/2010	368600	2450	1325	-1325	1125	655
10/26/2010	367475	0	900	-900	-900	465
10/25/2010	368375	700	1150	-1150	-450	465
10/22/2010	368825	0	1175	-1175	-1175	545
10/21/2010	370000	50	800	-800	-750	545
10/20/2010	370750	1350	550	-550	800	635
10/19/2010	369950	75	575	-575	-500	640
10/18/2010	370450	300	875	-875	-575	727.5
10/15/2010	371025	400	875	-875	-475	937.5
10/14/2010	371500	1225	1000	-1000	225	1027.5
10/13/2010	371275	550	1025	-1025	-475	995
10/12/2010	371750	0	725	-725	-725	1095
10/11/2010	372475	1500	1025	-1025	475	1115
10/8/2010	372000	0	1450	-1450	-1450	965
10/7/2010	373450	950	1625	-1625	-675	1165
10/6/2010	374125	1400	1375	-1375	25	1100
10/5/2010	374100	950	1300	-1300	-350	1477.5
10/4/2010	374450	2400	1750	-1750	650	1382.5
10/1/2010	373800	1300	1650	-1650	-350	1202.5
9/30/2010	374150	900	1850	-1850	-950	1072.5
9/29/2010	375100	1550	1725	-1725	-175	982.5
9/28/2010	375275	200	3050	-3050	-2850	1267.5
9/27/2010	378125	0	2100	-2100	-2100	1340

9/24/2010	380225	2000	1900	-1900	100	1375
9/23/2010	380125	300	2275	-2275	-1975	1175
9/22/2010	382100	5175	3100	-3100	2075	1220
9/21/2010	380025	0	2475	-2475	-2475	702.5
9/20/2010	382500	600	2300	-2300	-1700	702.5
9/17/2010	384200	0	2950	-2950	-2950	732.5
9/16/2010	387150	0	2350	-2350	-2350	732.5
9/15/2010	389500	4400	5425	-5425	-1025	1020
9/14/2010	390525	925	850	-850	75	767.5
9/13/2010	390450	350	1300	-1300	-950	675
9/10/2010	391400	0	1975	-1975	-1975	657.5
9/9/2010	393375	750	1875	-1875	-1125	675
9/8/2010	394500	0	975	-975	-975	600
9/7/2010	395475	0	1400	-1400	-1400	600
9/6/2010	396875	900	1700	-1700	-800	852.5
9/3/2010	397675	0	1800	-1800	-1800	975
9/2/2010	399475	2875	2175	-2175	700	977.5
9/1/2010	398775	1875	1625	-1625	250	915
8/31/2010	398525	0	1575	-1575	-1575	727.5
8/30/2010	400100	175	1325	-1325	0	727.5
8/27/2010	400100	175	1325	-1325	-1150	710
8/26/2010	401250	0	1175	-1175	-1175	812.5
8/25/2010	402425	0	1400	-1400	-1400	1175
8/24/2010	403825	2525	900	-900	1625	1175
8/23/2010	402200	2125	1650	-1650	475	957.5
8/20/2010	401725	25	1825	-1825	-1800	745
8/19/2010	403525	2250	2025	-2025	225	922.5
8/18/2010	403300	0	1725	-1725	-1725	847.5
8/17/2010	405025	0	1675	-1675	-1675	1030
8/16/2010	406700	0	1850	-1850	-1850	1255
8/13/2010	408550	1200	1725	-1725	-525	1397.5
8/12/2010	409075	3625	875	-875	2750	1777.5
8/11/2010	406325	0	2050	-2050	-2050	1695
8/10/2010	408375	350	2450	-2450	-2100	1705
8/9/2010	410475	0	2150	-2150	-2150	1752.5
8/6/2010	412625	1800	2250	-2250	-450	1835
8/5/2010	413075	1500	2375	-2375	-875	2130
8/4/2010	413950	1825	1950	-1950	-125	2072.5
8/3/2010	414075	2250	1250	-1250	1000	1947.5
8/2/2010	413075	1425	1850	-1850	-425	1732.5
7/30/2010	413500	5000	3025	-3025	1975	1590
7/29/2010	411525	2800	2700	-2700	100	1207.5
7/28/2010	411425	100	2475	-2475	-2375	1075
7/27/2010	413800	825	3300	-3300	-2475	1065
7/26/2010	416275	825	4200	-4200	-3375	982.5
7/23/2010	419650	4750	1625	-1625	3125	1035
7/22/2010	416525	925	2025	-2025	-1100	710



10	10	NLSAH Index			COMXCOPR Comdty			10
LME Cu Stc	LME Cu Stc	LME Cu Stc	Stocks (Days o	LME Al Sto	COMEX Cu	COMEX Ne	COMEX Stock	Net Char
#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	
-1355	147.5	4.3	4818725	35.8	51848	-237	-295.2	60000
-1485	57.5	4.3	4809525	35.7	52085	-452	-307.9	
-1487.5	317.5	4.3	4805775	35.7	52537	0	-287.1	
-1445	350	4.3	4812625	35.8	52537	-411	-297.7	50000
-1392.5	717.5	4.3	4822650	35.8	52948	-387	-282.3	
-1412.5	770	4.4	4833925	35.9	53335	-400	-288.9	
-1337.5	1102.5	4.3	4844725	36.0	53735	-126	-292.9	40000
-1337.5	1145	4.3	4839150	36.0	53861	-148	-328.5	
-1297.5	1370	4.3	4849975	36.0	54009	-386	-354.5	
-1370	1800	4.3	4851700	36.1	54395	-405	-349.3	30000
-1362.5	2330	4.3	4861375	36.1	54800	-364	-306.5	
-1300	2285	4.3	4847075	36.0	55164	-244	-314.4	20000
-1592.5	1915	4.2	4858075	36.1	55408	-106	-337.1	
-1595	2080	4.3	4860575	36.1	55514	-257	-335.5	
-1705	1825	4.2	4849600	36.0	55771	-453	-329.9	10000
-1762.5	1857.5	4.2	4847550	36.0	56224	-440	-284.6	
-1885	1440	4.2	4860925	36.1	56664	-482	-308.8	
-1887.5	1632.5	4.1	4835125	35.9	57146	-408	-286.2	
-1757.5	1375	4.1	4848625	36.0	57554	-334	-272.3	
-1690	1215	4.0	4860200	36.1	57888	23	-280.9	
-1862.5	617.5	3.9	4864200	36.2	57865	-443	-283.2	
-1975	522.5	3.9	4875375	36.2	58308	-471	-280.8	6000
-1837.5	550	3.9	4904125	36.5	58779	-90	-269	
-1875	690	3.9	4917200	36.5	58869	-201	-294.9	4000
-2137.5	650	3.9	4917200	36.5	59070	0	-309.8	
-2250	970	3.9	4917200	36.5	59070	-682	-402.3	
-2230	1322.5	3.9	4918925	36.6	59752	-256	-439.3	2000
-2447.5	1175	3.8	4929350	36.6	60008	-269	-499.7	
-2827.5	945	3.8	4937600	36.7	60277	-420	-566.2	
-3302.5	475	3.8	4945325	36.8	60697	0	-626.4	
-3652.5	222.5	3.8	4943900	36.7	60697	-419	-745.7	-2000
-3890	422.5	3.8	4956325	36.8	61116	-353	-778.8	
-4065	477.5	3.8	4952975	36.8	61469	-349	-819.4	
-5222.5	-447.5	3.8	4958000	36.9	61818	-350	-869.6	-4000
-5310	-625	3.8	4964850	36.9	62168	-925	-945.4	
-5670	-945	3.7	4975175	37.0	63093	-1052	-934.5	-6000
-6162.5	-1775	3.7	4982900	37.0	64145	-860	-922.7	
-6415	-2360	3.6	4976500	37.0	65005	-934	-917.2	
-6480	-2520	3.7	4984650	37.1	65939	-1022	-911.2	-8000
-6782.5	-3005	3.7	4949900	36.8	66961	-1193	-904.3	
-6757.5	-3055	3.7	4951125	36.8	68154	-750	-801.7	
-6790	-3550	3.7	4946825	36.8	68904	-759	-756.7	

-6685	-3547.5	3.7	4959425	36.9	69663	-851	-773.2	11
-5637.5	-2842.5	3.9	4980300	37.0	70514	-1108	-748.7	
-5322.5	-2822.5	3.9	4990075	37.1	71622	-816	-722.1	10
-4940	-3052.5	3.9	4990075	37.1	72438	-934	-686	
-4547.5	-2750	4.0	5004200	37.2	73372	-805	-691.3	
-4265	-2220	4.0	5015500	37.3	74177	-874	-710	8
-4160	-1952.5	4.1	5014500	37.3	75051	-953	-682.3	
-3540	-1335	4.2	5024900	37.3	76004	-167	-652.4	
-3215	-1257.5	4.3	5035625	37.4	76171	-300	-649.3	6
-2955	-1072.5	4.3	5046350	37.5	76471	-924	-669.8	
-2875	-1075	4.3	5055675	37.6	77395	-606	-615.7	4
-2972.5	-1152.5	4.4	5046350	37.5	78001	-842	-587.7	2
-2887.5	-592.5	4.4	5052700	37.6	78843	-455	-542.8	
-2730	-362.5	4.4	5058475	37.6	79298	-987	-523.7	
-2582.5	-207.5	4.4	5062125	37.6	80285	-992	-425	2
-2370	147.5	4.4	5071000	37.7	81277	-597	-379.9	
-2395	42.5	4.4	5079900	37.8	81874	-654	-393	
-2510	415	4.4	5045275	37.5	82528	-136	-388.6	
-2332.5	812.5	4.5	5052700	37.6	82664	-505	-385.9	
-2250	1045	4.5	5059875	37.6	83169	-383	-399.1	
-2220	1100	4.5	5050925	37.5	83552	-326	-456.6	
-2045	1082.5	4.5	5066625	37.7	83878	-393	-499.4	
-2032.5	1077.5	4.5	5059075	37.6	84271	-264	-550.7	
-2122.5	960	4.5	5059075	37.6	84535	0	-542.6	
-2187.5	932.5	4.5	5059075	37.6	84535	-541	-551.7	
-2360	135	4.4	5064600	37.6	85076	-728	-508.4	
-2305	-17.5	4.4	5071100	37.7	85804	-610	-509.6	
-2185	-502.5	4.4	5076925	37.7	86414	-109	-451	
-2255	-755	4.3	5063350	37.6	86523	-637	-440.1	
-2515	-1212.5	4.3	5068575	37.7	87160	-958	-396.7	
-2602.5	-1447.5	4.3	5072525	37.7	88118	-754	-302.7	
-2717.5	-1542.5	4.4	5078225	37.7	88872	-906	-227.3	
-2795	-1992.5	4.3	5083300	37.8	89778	-183	-138.1	
-2860	-2085	4.3	5089250	37.8	89961	-91	-119.8	
-3105	-2457.5	4.3	5083900	37.8	90052	-108	-117.1	
-3125	-2257.5	4.4	5088775	37.8	90160	-740	-101.7	
-3082.5	-2275	4.4	5081950	37.8	90900	-24	-29.8	
-3155	-2325	4.4	5068950	37.7	90924	0	-63.2	
-3260	-2517.5	4.5	5071950	37.7	90924	-203	-63.2	
-3190	-2450	4.5	5073350	37.7	91127	-18	-52	
-3282.5	-2580	4.6	5071675	37.7	91145	0	-48.3	
-3212.5	-2585	4.6	5079500	37.8	91145	-14	-41.4	
-3355	-2655	4.6	5087925	37.8	91159	0	-26.4	
-3362.5	-2747.5	4.7	5090525	37.8	91159	-64	46.2	
-3052.5	-2485	4.7	5098325	37.9	91223	46	50.4	
-2822.5	-2482.5	4.8	5088275	37.8	91177	-21	90.7	
-2600	-2185	4.8	5087975	37.8	91198	-358	113.5	

-2532.5	-2005	4.8	5096075	37.9	91556	0	131.5
-2520	-1737.5	4.9	5101150	37.9	91556	-91	131.5
-2670	-1887.5	4.9	5103000	37.9	91647	19	134.4
-2495	-1662.5	5.0	5107775	38.0	91628	69	168.8
-2477.5	-1495	5.1	5113425	38.0	91559	136	185.6
-2332.5	-1302.5	5.1	5115775	38.0	91423	726	173.9
-2205	-925	5.1	5115475	38.0	90697	-22	109.8
-2205	-872.5	5.2	5118775	38.0	90719	449	123.4
-2377.5	-1062.5	5.2	5124100	38.1	90270	207	129.2
-2697.5	-1457.5	5.2	5125800	38.1	90063	-178	148.6
-2772.5	-1727.5	5.2	5117075	38.0	90241	0	192.2
-2762.5	-1972.5	5.2	5120650	38.1	90241	-62	179.7
-2572.5	-1755	5.3	5117975	38.0	90303	363	171.4
-2407.5	-1625	5.3	5121300	38.1	89940	237	119.4
-2320	-1702.5	5.3	5114175	38.0	89703	19	64.3
-2342.5	-1962.5	5.3	5064275	37.6	89684	85	3.3
-2397.5	-2267.5	5.3	5027450	37.4	89599	114	-5.2
-2602.5	-2427.5	5.3	5027475	37.4	89485	507	-56.6
-2515	-2340	5.4	5031250	37.4	88978	401	-136.3
-2435	-2225	5.4	5019075	37.3	88577	258	-147.8
-2460	-2262.5	5.5	5019525	37.3	88319	-125	-191.7
-2462.5	-2265	5.5	4989000	37.1	88444	-145	-137.1
-2422.5	-2252.5	5.6	4992500	37.1	88589	-157	-123.8
-2475	-2320	5.6	4996275	37.1	88746	-314	-87.5
-2435	-2260	5.6	4994425	37.1	89060	-591	-68.4
-2382.5	-2145	5.6	4996475	37.1	89651	0	-7.1
-2377.5	-2140	5.7	4996650	37.1	89651	-400	-7.1
-2220	-2037.5	5.7	5000150	37.2	90051	-290	35.1
-2632.5	-2450	5.8	5003800	37.2	90341	286	128.7
-2510	-2312.5	5.8	5007200	37.2	90055	-181	150.5
-2302.5	-2112.5	5.9	5010750	37.2	90236	421	207.3
-2187.5	-1937.5	5.9	5005050	37.2	89815	-12	165.2
-2082.5	-1720	5.9	5005225	37.2	89827	206	175.4
-2077.5	-1665	6.0	5005150	37.2	89621	-123	163.8
-2207.5	-1815	6.0	5006525	37.2	89744	22	176.1
-2112.5	-1632.5	6.0	4967450	36.9	89722	0	173.9
-1980	-1407.5	6.0	4970550	36.9	89722	22	173.9
-1885	-1215	6.1	4973725	37.0	89700	646	171.7
-1455	-737.5	6.2	4962650	36.9	89054	504	112.2
-1385	-692.5	6.2	4966475	36.9	88550	387	80.8
-1385	-540	6.2	4971075	36.9	88163	0	53.7
-1355	-417.5	6.2	4975600	37.0	88163	90	53.7
-1367.5	-355	6.2	4980625	37.0	88073	90	32.1
-1270	-215	6.3	4983175	37.0	87983	0	17
-1060	72.5	6.3	4978750	37.0	87983	0	39.5
-1310	-305	6.3	4970400	36.9	87983	0	40.3
-2177.5	-1035	6.6	4970400	40.0	87983	0	40.3

-2360	-1167.5	6.6	4969600	40.0	87983	51	29.5
-2372.5	-1052.5	6.6	4971375	40.0	87932	190	25.1
-2417.5	-1072.5	6.6	4950550	39.9	87742	116	-10.6
-2522.5	-1327.5	6.6	4950550	39.9	87626	0	-8.6
-2447.5	-1377.5	6.6	4950550	39.9	87626	-126	-11.1
-2502.5	-1545	6.6	4953025	39.9	87752	-61	1.5
-2730	-1815	6.6	4953725	39.9	87813	225	9.1
-2877.5	-1925	6.6	4922800	39.6	87588	8	-9.4
-2622.5	-1555	6.6	4873025	39.2	87580	0	-1
-1680	-690	6.8	4822725	38.8	87580	-108	0.9
-1482.5	-462.5	6.8	4825475	38.9	87688	7	36.4
-1377.5	-447.5	6.8	4826275	38.9	87681	-167	64.1
-1675	-750	6.8	4811550	38.8	87848	136	110.5
-1652.5	-720	6.8	4715700	38.0	87712	-25	125.7
-1890	-865	6.8	4589050	37.0	87737	0	133.2
-1942.5	-857.5	6.9	4546050	36.6	87737	15	133.2
-1872.5	-807.5	6.9	4549000	36.6	87722	40	131.7
-1827.5	-697.5	6.9	4549800	36.6	87682	92	109.7
-1850	-647.5	6.9	4550075	36.6	87590	19	94.1
-2162.5	-1010	6.9	4554975	36.7	87571	247	92.2
-2245	-1292.5	6.9	4557650	36.7	87324	284	33.9
-2360	-1430	6.9	4560350	36.7	87040	297	-11.9
-2267.5	-1277.5	6.9	4563000	36.8	86743	288	-56
-2242.5	-1262.5	7.0	4562675	36.7	86455	50	-111.4
-2215	-1297.5	7.0	4562675	36.7	86405	0	-123.8
-2187.5	-1405	7.0	4565300	36.8	86405	0	-172.5
-2285	-1462.5	7.0	4568375	36.8	86405	-180	-207.7
-2232.5	-1525	7.0	4554075	36.7	86585	-64	-200
-2420	-1935	7.0	4557325	36.7	86649	0	-222.8
-2387.5	-1960	7.1	4560275	36.7	86649	-336	-232.9
-2655	-2250	7.1	4561050	36.7	86985	-174	-228.6
-2707.5	-2235	7.1	4560975	36.7	87159	-144	-238.1
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-3480	-2527.5	7.3	4540925	36.6	88482	-103	-51.8
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-3692.5	-1937.5	7.8	4558850	36.7	88661	-3	54.3
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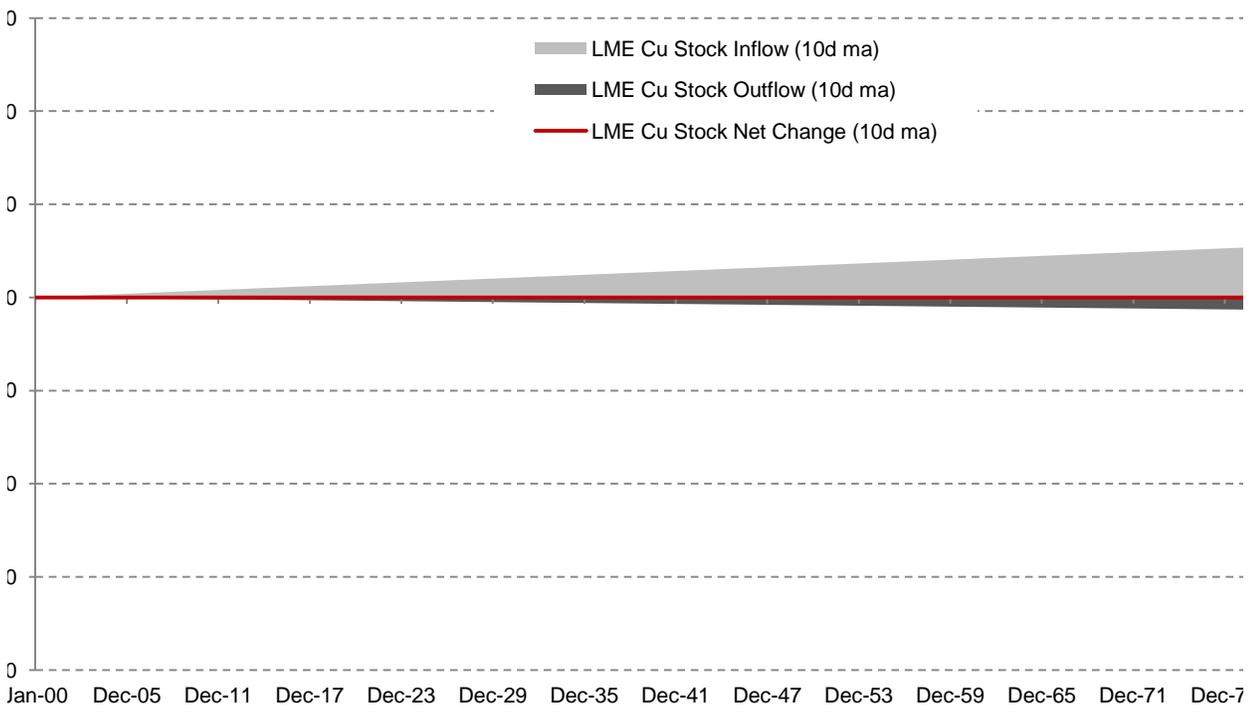
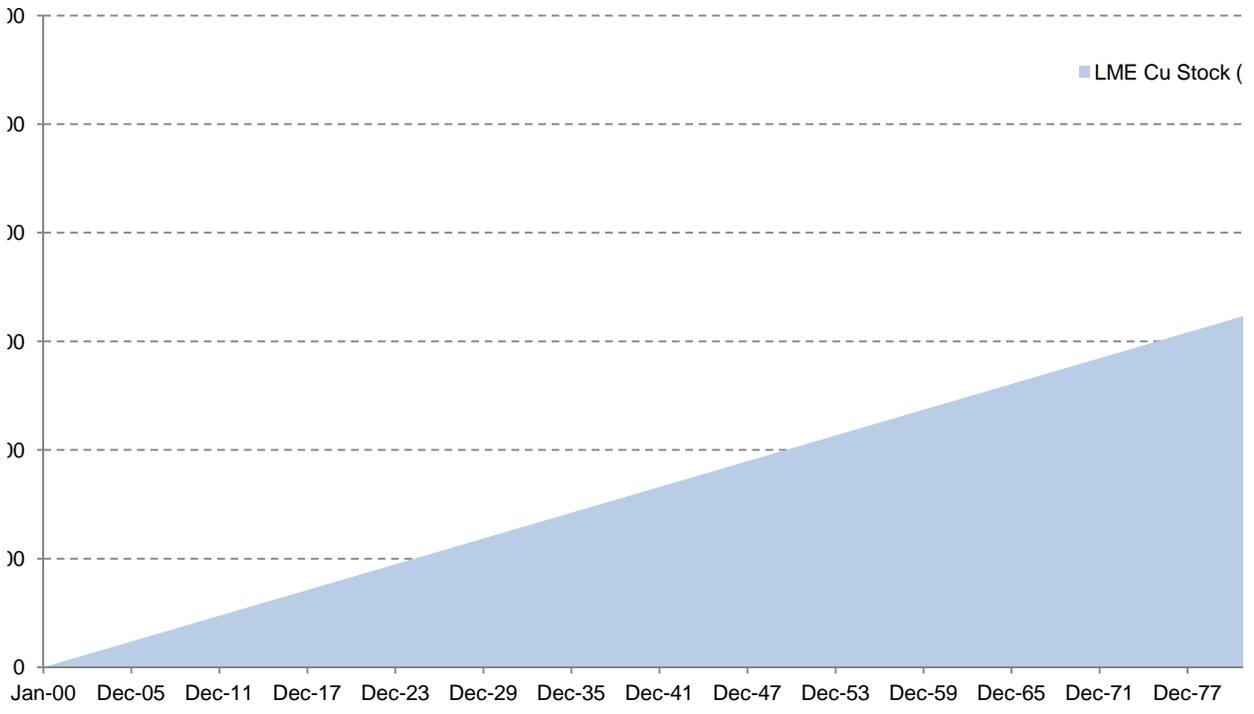
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-955	-577.5	6.7	4284125	37.1	72396	-150	-188.9
-1010	-640	6.7	4287900	37.2	72546	0	-178.9
-1065	-682.5	6.7	4291675	37.2	72546	-300	-178.9
-1067.5	-682.5	6.7	4294600	37.2	72846	-225	-148.9
-1025	-620	6.7	4298025	37.3	73071	-75	-150.9
-917.5	-652.5	6.7	4302125	37.3	73146	-300	-156.3
-937.5	-672.5	6.7	4305125	37.3	73446	-164	-126.3
-932.5	-495	6.7	4305900	37.3	73610	-251	-120.6
-930	-497.5	6.8	4299125	37.3	73861	-337	-115.2
-950	-487.5	6.8	4252125	36.9	74198	-87	-90.2
-1047.5	-572.5	6.8	4252550	36.9	74285	-50	-81.5
-1065	-507.5	6.8	4255175	36.9	74335	0	-91.8
-1007.5	-465	6.8	4262400	36.9	74335	0	-112.4
-1045	-260	6.8	4270975	37.0	74335	-245	-128.7
-1047.5	-317.5	6.8	4281450	37.1	74580	-129	-113
-1047.5	-247.5	6.8	4284275	37.1	74709	0	-116.5
-1017.5	-267.5	6.9	4294625	37.2	74709	-107	-156.8
-1050	-467.5	6.8	4299075	37.3	74816	-197	-194.6
-1017.5	-300	6.9	4297675	37.3	75013	-87	-250.8
-982.5	-287.5	6.9	4303075	37.3	75100	0	-266.5
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-922.5	-267.5	6.9	4310975	37.4	75459	-163	-493.5
-892.5	-427.5	6.9	4315075	37.4	75622	-88	-558.2
-875	-410	6.9	4319275	37.4	75710	-164	-588.7
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-972.5	-337.5	6.9	4329825	37.5	76762	-759	-674.3
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-1127.5	-400	6.9	4312375	37.4	77765	-659	-642.2
-1215	-277.5	6.9	4313975	37.4	78424	-1012	-615.9
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-1377.5	-382.5	6.9	4322250	37.5	80394	-810	-468.1
-1447.5	-352.5	6.9	4323750	37.5	81204	-393	-424.5
-1680	-565	7.0	4327575	37.5	81597	-1105	-425.3
-1787.5	-822.5	7.0	4331600	37.5	82702	-803	-343.2
-1832.5	-667.5	7.0	4336675	37.6	83505	0	-374
-1897.5	-797.5	7.0	4340675	37.6	83505	-382	-405.7
-2070	-592.5	7.0	4344500	37.7	83887	-300	-442.1
-2187.5	-805	7.0	4348850	37.7	84187	-396	-462.8
-2242.5	-1040	7.0	4352000	37.7	84583	-300	-483.3
-2372.5	-1300	7.0	4355650	37.8	84883	-192	-548.9
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-2792.5	-1525	7.0	4362150	37.8	85449	-401	-607.5
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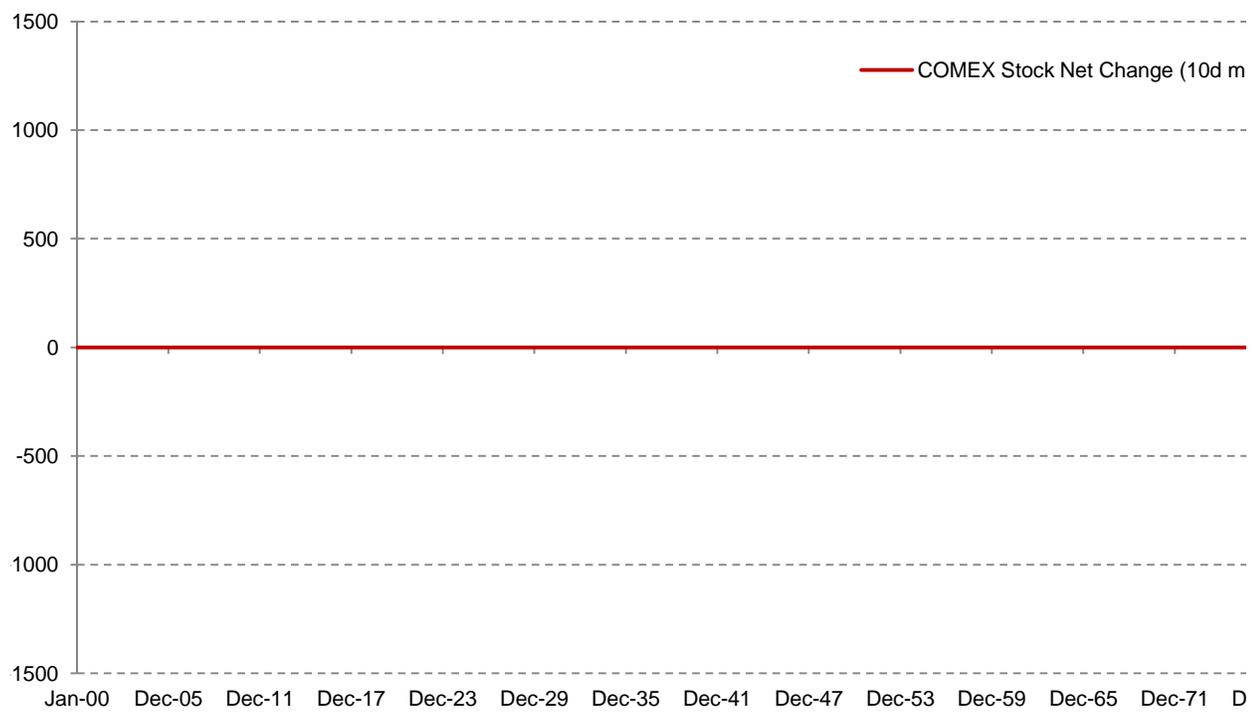
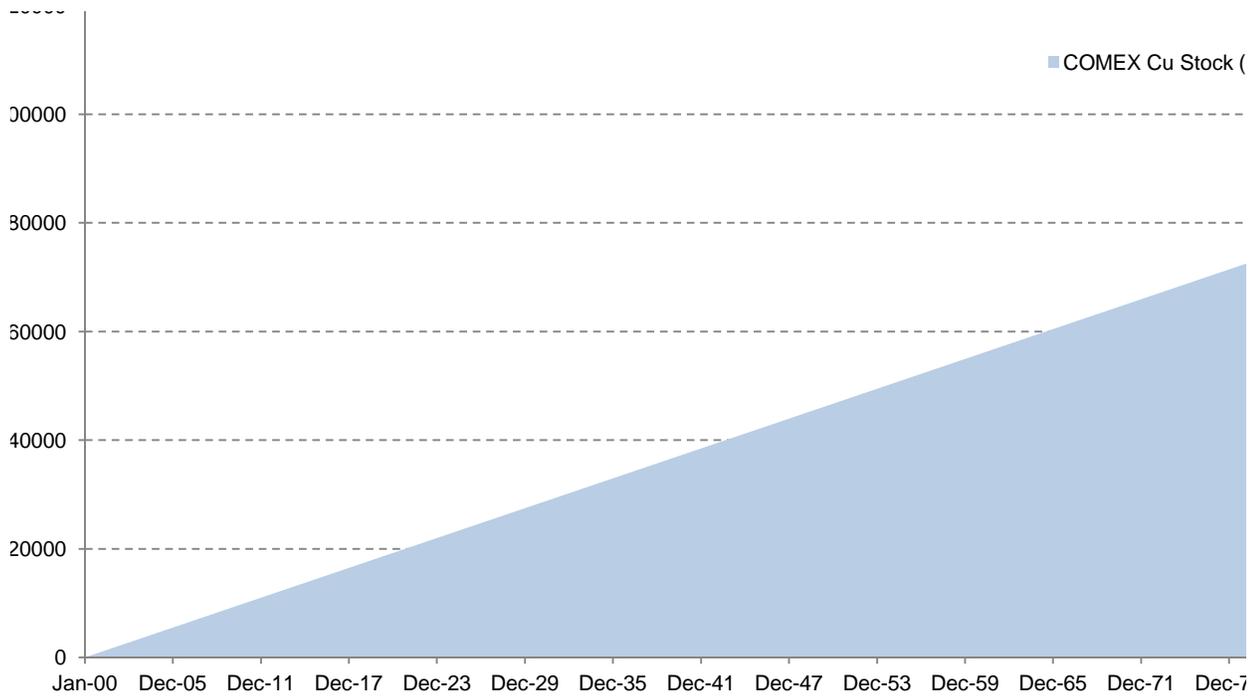
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-1595	-782.5	7.5	4448800	38.6	99556	-131	193.7
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-1630	-455	7.5	4456375	38.6	96156	-86	-243
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-1835	-1090	7.5	4464825	38.7	96462	-44	-314.1
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-2537.5	-702.5	7.7	4397675	38.1	99603	-367	-158.2
-2475	-345	7.7	4400500	38.1	99970	-392	-121.5
-2440	-367.5	7.7	4404975	38.2	100362	-76	-82.3
-2500	-552.5	7.7	4403750	38.2	100438	-181	-74.7
-2710	-977.5	7.7	4381100	38.0	100619	-108	-59.1
-2882.5	-1292.5	7.7	4385300	38.0	100727	-102	-48.3
-2827.5	-1620	7.7	4390625	38.1	100829	-129	-38.1
-2782.5	-1707.5	7.7	4395125	38.1	100958	-227	-25.2
-2940	-1875	7.7	4399775	38.1	101185	0	-2.5
-2880	-1897.5	7.8	4404650	38.2	101185	0	-2.5
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-2957.5	-2037.5	7.8	4415950	38.3	101185	0	-5



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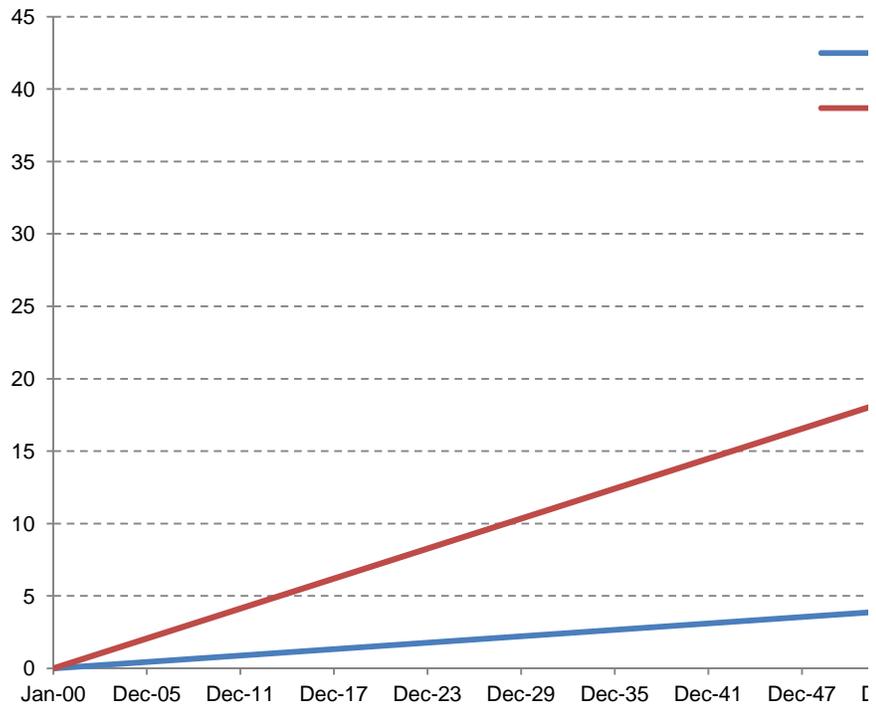




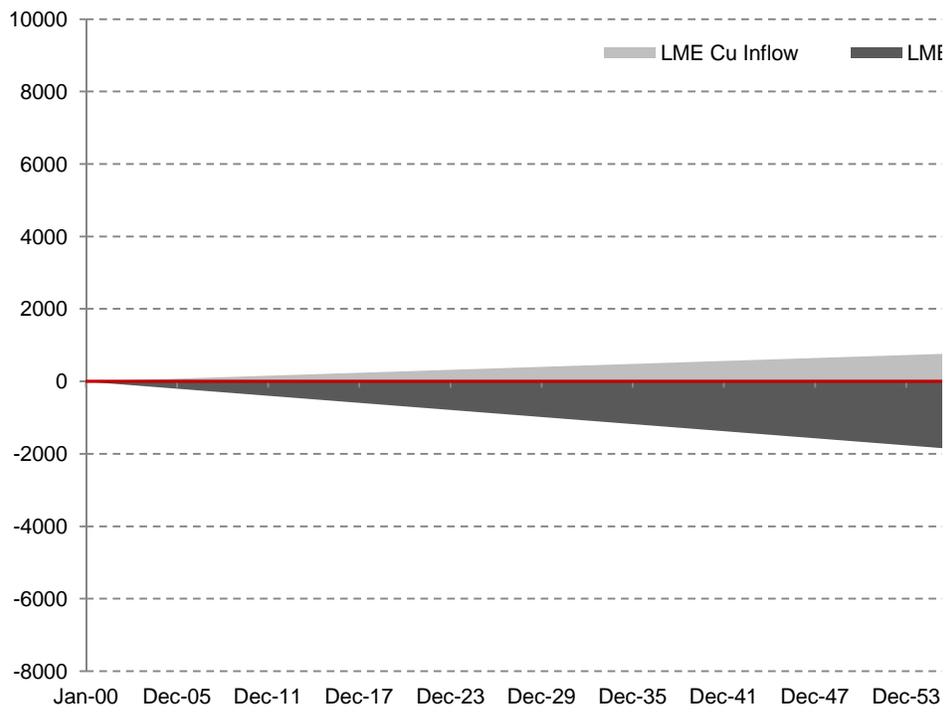
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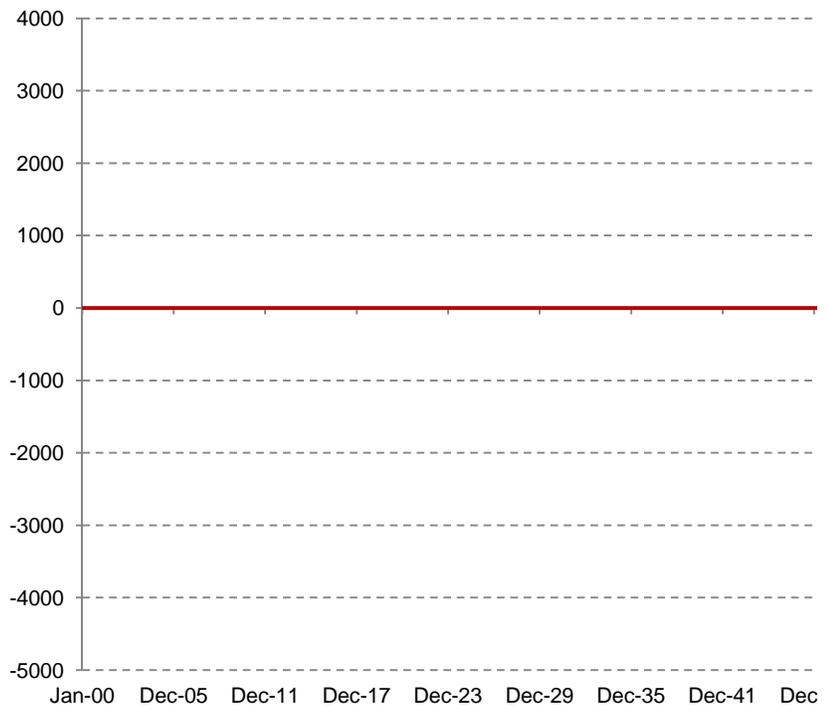
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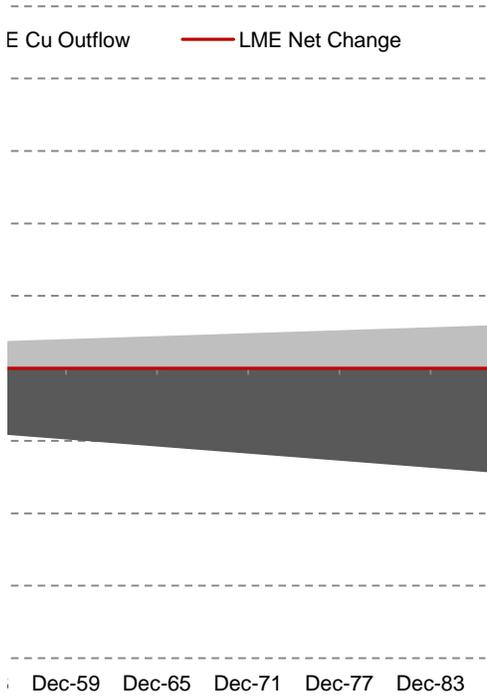
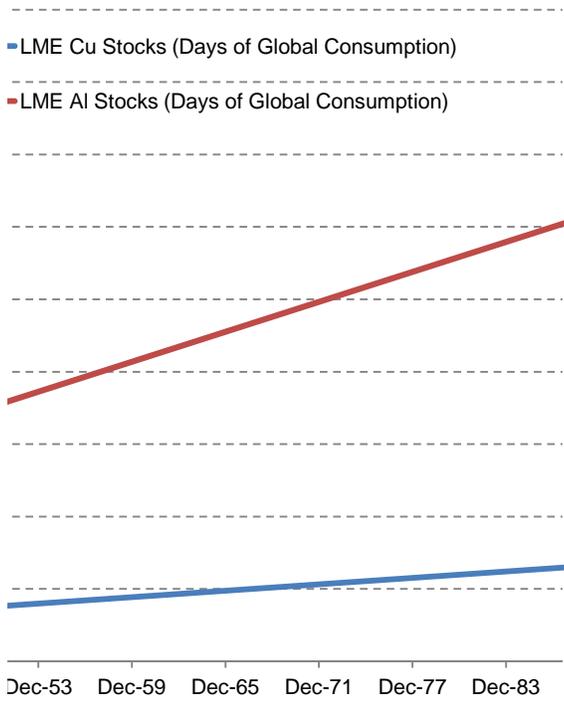












COMEX Net Change



Dec-47 Dec-53 Dec-59 Dec-65 Dec-71 Dec-77 Dec-83

July 13, 2012

**VIA EMAIL AND FEDERAL EXPRESS**

Elizabeth M. Murphy  
Secretary  
Securities and Exchange Commission  
100 F Street, NE  
Washington, D.C. 20549-1090

Re: **File No. SR-NYSE Arca-2012-28 – Response to Comment**

Dear Ms. Murphy:

This letter replies to the comment dated June 19, 2012 that NYSE Euronext (“NYSE ARCA or the “Exchange”) submitted to the Securities and Exchange Commission in response to this firm’s comment regarding the above-referenced rule filing, in which the Exchange proposes to list and trade shares of the JPM XF Physical Copper Trust (the “Trust”) pursuant to NYSE Arca Equities Rule 8.201.

We represent Southwire Company, Encore Wire Corporation, Luvata, and AmRod, as well as RK Capital LLC. Southwire is based in Georgia, Encore in Texas, Amrod in New Jersey, and Luvata has plants in Ohio, Connecticut, Missouri, Kentucky, California, Wisconsin, Texas and Florida. Together these companies comprise about 50% of the copper fabricating capacity of the United States. RK is an international copper merchant with offices in London and New York.

The Exchange asserts that the arguments set forth in our comment letter dated May 9, 2012 are based on “incorrect information” or “insufficiently substantiated.” We disagree.

**I. The Trust’s Physical Copper Holdings**

First, the Exchange states that, contrary to assertion in our letter, “The Trust will not invest in London Metals Exchange (“LME”) warranted copper” and that “moreover, the Exchange understands that it is unlikely that the Trust or its authorized participants (Aps”) would take LME-warranted copper “off-warrant” in connection with the Trust’s operations. In fact, as demonstrated below, the only substantial source of copper available to meet the Trust’s requirements, i.e., that it be acceptable brands meeting LME specifications for warranted copper, is warranted copper in LME warehouses. The Exchange can point to no substantial sources of such copper available for immediate delivery to the Trust other than warranted copper in LME warehouses because, as we shall show, there are none.

Second, the Exchange suggests that our concern that the Trust may pull as much as 61,800 metric tons of copper off-market is exaggerated because only a fraction of that amount will be required under the rules of the Exchange for the shares initially to be offered. In fact, as we shall show, that is the specific amount identified in the Trust's draft prospectus from July 11, 2011.

The Exchange next suggests that we did not substantiate our assertion that the "sole purpose" of the Trust is "to remove from the market a physical metal in short supply." In fact, as shown below, that purpose is amply supported by statements from the Trust's draft registration statements, from analyses showing only a small amount of copper is actually available for immediate delivery, the amount of which will be substantially if not completely depleted by the Trust if its offering (and the companion offering by BlackRock) are both successful, and by statistics showing that more copper is consumed annually than is produced, i.e., that copper is in deficit. For these reasons, the copper to be removed from the market by the Trust (and by others marketing the same form of derivative) will not only result in sharp price spikes and price volatility, but certain suppliers, most likely from the United States, will be unable to get supply.

More specifically, the Exchange states that we were wrong to suggest that the Trust will remove LME-warranted copper from the LME system. The Exchange thus states that "As both the Notice and the Registration Statement make clear, the Trust will only be permitted to hold copper that is not LME warranted." (emphasis in text) However, that is beside the point. The fact that the Trust will only be permitted to hold copper that is not warranted does not mean the Trust will not be acquiring warranted copper and then taking it off-warrant when, as we have said, and will show, that is the only physical copper likely to be available to satisfy the Trust's requirements. Indeed, the Trust would have to take such copper "off-warrant" because otherwise the holding of such warranted copper in an LME warehouse would subject the Trust to the LME's lending obligations and the draft registration statement makes clear that, consistent with its intent to take the Trust's copper off-market, the Trust does not intend to be subject to any of the LME's rules, including rules that would require the Trust to lend any of its copper.

The Exchange then quotes the draft Registration statement's assertion that "LME-approved warehouses may hold copper that is not registered with the LME (i.e., not underlying the issuance of an LME Warrant." That, of course, is precisely the point. The Trust can take delivery of copper that is registered with the LME, i.e., warranted, from LME-approved warehouses in the United States, such as the Henry Bath warehouses in New Orleans, which are owned by JPM and, without even having to incur the costs of moving the tonnage, simply take the warrants "off-warrant," thus transferring ownership of the metal to the Trust by keeping it exactly where it is.

The Exchange next states that "[t]he Exchange understands that the Sponsor currently anticipates that the Trust will be permitted to hold copper in both LME-approved warehouses and warehouses in LME-approved jurisdictions that are not part of the LME system." That statement, even if true, doesn't mean that the Trust will be able to acquire copper from non-registered sources. All that means is that, once acquired, the Trust is reserving the right to transfer such metal to a warehouse in an LME location, such as New Orleans, St. Louis or Baltimore, where storage costs might be less. The Exchange adds that it "understands that

none of the copper held by the Trust in any such warehouse locations will be LME-warranted.” Again, this is beside the point because once acquired by the Trust, the copper will have to be taken off-warrant to avoid being subject to LME lending rules which would potentially force the copper back into the market.

The Exchange also states that “The Sponsor has informed [the Exchange] that it currently expects that the Trust will initially be permitted to hold copper located in Shanghai, which does not presently have any LME-approved warehouses, and copper may also initially be held in the Netherlands (Rotterdam), Singapore, South Korea and the United States.” However, as we have demonstrated, the Notice and draft Registration Statement make clear that the Trust will be acquiring copper from the locations with the lowest cost premiums. And, as we have also already demonstrated, the premiums right now are the lowest in the United States and have been the lowest in the United States for the past seven years. That means that, even if the Trust is permitted to hold copper elsewhere, it will almost certainly be getting most of its copper from LME warehouses in the United States. What is more, given that China is the largest copper consuming country in the world – consuming 40% right now of the world’s production – it is difficult to expect the Trust to be acquiring any significant quantities of copper from China.

The Exchange further states that “the Sponsor has informed the Exchange that overall physical copper stocks – including stocks that are “immediately available for sale” – are substantially larger than the Comment Letter would suggest.” Letter, p. 3. However, the only copper that can be acquired by the Trust from the physical market, either initially or by Authorized Participants is copper that is “immediately available for sale” and the only such LME-grade copper known to exist is copper registered in either LME or Comex warehouses. Therefore, the fact that “overall physical copper stocks” may be substantially larger than stocks that are “immediately available for sale” is irrelevant because such stocks are simply not available to be acquired. These other stocks include copper that is subject to long-term contracts, and is generally held in the normal course by producers and consumers as buffer stocks to ensure smooth running of their logistics and to meet contingencies. Other such stocks consist of stock in bonded warehouses outside China – to avoid high Chinese tariffs – which are destined for the Chinese market. None of it, however, is available for purchase by the Trust.

The Exchange compounds the misinformation by including a table it obtained from JPM which purports to break down “registered and non-registered market stocks as of May 2012, as well as annual consumption and production estimates as of May 2012.

The table claims to report “total market stocks” as of May 2012 (emphasis added) of 2,798,000 metric tons, which is broken down to include 437,471 metric tons of copper in LME stocks, Shanghai Exchange stocks, and Comex stocks, and 2,360,529 metric tons in “total non-registered stocks.” Use of the term “market” by the Exchange in reference to “total non-registered stocks” suggests that such tonnage is actually available for purchase at market. However, there is no evidence that any of the 2,360,529 metric tons of “non-registered stocks” would be available for the Trust to purchase, and the tonnage in the Shanghai Exchange warehouses is for Chinese customers only. Consequently, the only tonnage that would be available to the Trust to purchase for its ETF would be the tonnage in the LME and Comex warehouses.

The absence of these so-called “hidden” stocks of copper – here denominated as “non-registered stocks” supposedly available at “market” -- that proponents of copper-backed ETFs have been pointing to as proof that there exists an abundance of copper available for delivery to the ETF outside of LME warehouses was documented last year by forensic copper statistician Bloomsbury Minerals Economics Ltd. Consultants (“BME”) and is reflected in the three charts attached hereto as Exhibit A.

Table 1 is a summary table showing total annual refined output and consumption between 2002 and 2010, along with estimates for 2011 and 2012, plus exchange stocks and total stocks for that period. The data also shows pricing per metric ton increasing from \$1560 per metric ton in 2002 to the much higher levels where they are today.

Table 2 provides a breakdown of all refined copper stocks for each year from 2002 through 2012. “Normal country stocks” refers to total amounts at producers, at consumers, and in domestic transit. “Other country stocks” refers to exchange stocks, strategic stocks held by government agencies in China (the Strategic Reserve Bureau”) and to a lesser extent in South Korea’s Public Procure Service, both of which hold what might be termed “emergency stocks,” for release to local manufacturers in times of extreme supply stress. The term “abnormal country stocks” which is included as part of “other country stocks” refers to amounts held by producers and consumers as buffer stocks to ensure the smooth running of their logistics and to meet contingencies.

BME has told us that it is usual for both producers and consumers to have a considerable holding of “abnormal” stock, but at present this is not the case because consumers, in particular, have drawn down inventories to the bare minimum in order to reduce working capital requirements at a time of high copper prices.

The final category consists of “non country stocks” which is refined copper in international transit and miscellaneous bonded stocks, which are those that have not passed through customs in importing countries. BME reports that China is the major location for this bonded warehouse stock, as merchants with stock destined for China store the metal in such warehouses in order to avoid paying China’s high value added tax on imported metal until such time as Chinese prices and premiums are attractive enough for them to do so.

Table 3 shows the refined copper market in detail to reflect liquid stocks, i.e., those stocks available for immediate delivery to satisfy an ETF, and non-liquid stocks. Here, the chart shows the only stocks which would be available to meet an ETF’s requirements are exchange stocks because the only other source of such liquidity would potentially be “abnormal country stocks” which, as indicated above in Table 2, is mostly held by producers to meet contingent demands from their customers, and bonded stocks, which is mostly held outside China for the Chinese market.

Table 3 also shows that the total amount of liquid stocks is expected to drop from 1.425 million metric tons in 2010 to 808,000 metric tons in 2011 and to 435,000 metric tons in 2012 – before taking into account the removal of any metric tons from one exchange warehouses to satisfy the ETFs. All other stocks are already committed to the supply chain or held in strategic reserve and cannot be considered available for immediate delivery. Table 3 also shows

how little liquid stock is currently available – and projected to be available in 2011 and 2012 – in terms of days of consumption.

BME's analysis was the subject of a report by Reuters on September 9, 2011, a copy of which is attached hereto as Exhibit B. Reuters reported as follows:

“BME provides a comprehensive estimate of stocks at every stage of the copper supply chain in its monthly “Copper Briefing Service.” And, as it happens, its estimate for total refined copper stocks at the end of last year is higher than CRU's [another UK-based commodities research house] at 4.027 million tons, including exchange inventory. Usefully, though, they provide a detailed breakdown of their assessment, which runs pretty much as follows. Refined metal stocks held by producer and consumers totaled 1.079 million tons at the end of 2010. Such holdings are categorized by BME under the heading “Normal Country Stocks.” This metal forms part of the “normal” physical copper supply chain. All producers hold inventory. So do all consumers. If they didn't, the supply chain would not function. Nor would it function were metal not always moving between producer and consumer. BME estimates that 332,000 tons were in domestic transit and another 499,000 tons in international transit at the end of last year. Add that to the “normal” industry stock figure and you already have close to 2 million tons that is either waiting to be shipped by producers, already en route to consumers, or waiting to be used by fabricators.”

The Reuters article points out that “[o]nly if the supply chain collapses will such metal ever see the statistical light of day in the form of exchange inventory.”

Because the 2.3 million tons of “total non-registered stocks” in the NYSE's chart consists mainly of metal in the supply chain, this is metal which by definition will not be available to be acquired by the Trust. Also not available to the Trust is metal which is being held as buffer stock by producers and consumers, as well as metal in strategic reserve by China and by South Korea. The balance of such “non-registered stock” consists of stock in bonded warehouses but here too the evidence is that such metal is in China destined for the Chinese market. In short, the only cover available to satisfy the Trust would be copper from the LME and Comex warehouses and, because the Trust represents that it intends to acquire copper from locations where premiums are the lowest, that copper will almost certainly come from LME warehouses in the United States. Significantly, the Exchange's comment letter nowhere disputes that premiums are lowest in the United States.

The Exchange nevertheless suggests that “[t]he Sponsor has informed NYSE Arca that it currently expects that the Trust will initially be permitted to hold copper located in Shanghai, which does not presently have any LME-approved warehouses.” Letter at 3, n. 7. Being permitted to hold copper in China, however, is quite different from actually being able to acquire it. China is the largest copper consuming country in the world, currently consuming at least 40% of the world's annual production. Even if such copper could be acquired for the Trust, it is difficult to imagine how the world's most copper dependent country could ever be deemed a viable source of supply for an ETF. We understand that from time to time a small portion of copper in bonded warehouses in China might become available to the market – but there is no guarantee that such copper will ever be available or that, even if it is, it will be copper that can be acquired at the least cost premium.

The Exchange dismisses as speculative our comment that the Trust's "Authorized Participants" – broker-dealers who would be permitted to acquire creation units from the Trust – "will do so by acquiring LME-warranted copper and taking it off-warrant" so that it can be deposited with the Trust in exchange for Shares" because "[t]he Sponsor has informed the Exchange that the economics do not support the suggestion given the large supply of non-warranted physical copper and the cost and time that would be required in order to take LME warranted copper off warrant solely for the purposes of creating Shares of the Trust." Letter at 3. We do not understand this comment.

First, the Trust provides that "Authorized Participants" looking to acquire creation units must first obtain a minimum of 25 metric tons of LME grade copper per unit to get 2500 shares. The only known market by which an Authorized Participant may obtain LME grade copper available for immediate delivery, which is what an AP needs to obtain a creation unit, is from owners of LME grade copper in LME warehouses. Authorized participants may easily obtain such copper by purchasing long positions on the LME and taking delivery. If they do so, they would acquire the inventory at "LME flat," i.e., the prevailing LME price with no premium. However, there is no guarantee where such copper might be. Thus, such copper might be at locations that might be too expensive to transfer to a Trust warehouse.

The other way to acquire the copper is simply to purchase warrants from warrant-holders of copper in LME warehouses with the least location cost premiums. As we have said, those would be warrants from locations in New Orleans, St. Louis and Baltimore, where premiums are the cheapest. Once acquired, the Authorized Participant would be responsible for transferring the copper to one of the Trust's warehouses. The Trust owns the Henry Bath warehouses in New Orleans, among other places, and represents that it expects to store its copper in such warehouses. Thus, if the Authorized Participant is able to acquire warrants for copper located in one of the Henry Bath warehouses in New Orleans, the Authorized Participant can pay the lowest premiums for delivery and "deliver" the required amount of copper without having to incur any material delivery costs at all. Indeed, for all intents and purposes, such copper can stay exactly where it is. Based on these economics, it is therefore reasonable to assume that that is how the Trust will acquire all or most of the copper it intends initially to remove from the market.

The Exchange's suggestion that there is instead a "large supply of non-warranted physical copper" available is, as we have said, unsubstantiated and, based on the research we've seen, not credible. Equally unsubstantiated and lacking in credibility is the further suggestion that taking the warranted copper "off-warrant" would involve too much "cost and time." As demonstrated above, taking LME warranted copper off-warrant can be done with little or no cost by simply purchasing copper warrants at the least cost premiums from locations where Henry Bath already stores LME-warranted copper. What is more, the ease with which market participants can already squeeze the copper market today – even without an ETF having been issued -- by simply acquiring a substantial percentage of LME warrants – likewise demonstrates that so-called "hidden" or stealth supplies of copper, which can ease an artificially induced squeeze, simply do not exist, and therefore cannot be counted on to address any near term supply shortages that were to result if one or more ETFs were to make things worse by, as will inevitably be the case, depleting LME copper stocks even more. Thus, one of our clients, Southwire, recently forwarded to us an article from Reuters dated July 2, 2012, entitled, "Copper

Market Expects Squeeze, Big Holding Appears,” which shows how fragile the market for copper available for immediate delivery already is, even without an ETF drawing down the supply. A copy of the article is attached as Exhibit C.

The Exchange next suggests that any concern about copper being taken off warrant and thus off-market “does not account for the fact that Shares will be both purchased and sold, and redemptions of Creation units will return copper to the physical markets.” Letter at 3. However, there is no guarantee that anyone purchasing shares of the Trust will have any interest in redeeming the shares for physical copper. Indeed, there are a number of reasons why investors would not want to bear that risk or assume that burden. First of all, if the Trust succeeds in removing enough metal from the market so as to inflate prices artificially, holders of shares can profit simply by selling their shares. Second, if any investor actually wanted to redeem shares for copper, the investor would not know from where the copper would be delivered or what brands would be received. Thus, the investor would have to bear logistical risks it would not otherwise have to bear. By contrast, a copper fabricator would be able to acquire metal direct from the LME warehouse closest to the fabricator’s location and, at the same time, determine which brands of copper to take. Moreover, a copper fabricator is unlikely to invest in the Trust, and incur the risk that the price might fall – simply to acquire the right to redeem such shares for copper which may not be acceptable in terms of brand from locations which may be logistically too impractical. In short, it is possible that the Trust’s redemption rights might not be exercised at all.

## **II. Size of the Trust and Potential Copper Market Impact**

The Exchange tries to convey the impression that even if the Trust will be taking warranted copper from the LME warehouses off-market, there will be little or no impact because the initial size of the offering will be too small to make any difference. Thus, the Exchange says that even though the Trust initially seeks to register 6,180,000 shares, the Trust will not immediately issue that number of shares, but would rather only issue shares as investor demand warrants, and that even if there is sufficient investor demand, the Trust might not need to take more metal off market -- “to the extent that such issuances are offset by redemptions” of physical metal.

Specifically, the Exchange states that “the Sponsor currently expects that the value of the initial Creation Units issued by the Trust will not exceed \$75 million, which corresponds to approximately 10,185 metric tons in the “current cheapest to deliver location for the Trust as of June 6, 2012.” (emphasis added.) However, we understand that these is the “initial” size of the Trust only because Exchange regulations require that, for liquidity purposes, in order for shares to be listed in the first place, they must meet this initial threshold level. Thus, there is no assurance that this Exchange-required minimum will have any bearing at all on the ultimate size of the offering. The Exchange states that based on this regulatory minimum, our claim that “the Trust will result in the ‘immediate removal from the market of as much as 61,800 metric tons of such copper’ is unsubstantiated.” Letter, page 4 (emphasis added).

The 61,800 metric ton figure comes directly from the Trust’s draft July 11, 2011 prospectus which states in pertinent part as follows:

“The Trust estimates, based upon an LME settlement price of copper of \$9,432 per metric ton on July 6, 2011, that its registration of 6,800,00 shares under this registration statement is roughly equivalent to a hypothetical maximum offering price of \$582,897,600, or the holding of approximately 61,800 metric tons of copper by the Trust (assuming all registered shares).”

Draft Registration statement, p. 21.

And far from representing that the offering “will not exceed \$75 million” corresponding to approximately 10,185 metric tons, the Trust further states that “[t]he Trust Agreement places no limit on the amount of copper the Trust may hold. Moreover, the Trust may issue an unlimited number of shares, subject to registration requirements, and thereby may in theory acquire an unlimited amount of copper.” *Id.* at 20.

The Exchange dismisses as “speculative and misplaced” our concern that the Trust will have the effect of enticing investors seeking quick profits to participate in an artificially inflated market because the more that is invested in physical copper backed ETFs, the more such copper will be removed from the market. . . thus forcing prices even higher.” However, the Trust’s draft registration statement states in pertinent part as follows, “[b]ecause there is no limit on the amount of copper that the Trust may acquire, the Trust, as it grows, may have an impact on supply and demand for copper that ultimately may affect the price of the shares in a manner unrelated to other factors affecting the global markets for copper.” *Id.* at 20. In short, far from being “speculative and misplaced,” our concern about the Trust creating an artificially inflated market is reflected directly in the Trust’s draft registration statement.

Similarly, the Exchange dismisses as “speculative and misplaced” our concern that “as investor demand for [the Trust’s Shares] wanes. . . the bubble will burst, leaving in its wake a glut of physical copper that the [Trust] will be forced to dump on the market,” causing a decline in prices that harms both the physical copper market and investors in the Shares. Exchange Letter, p. 4. However, the Trust’s draft prospectus warns of this as well, stating, “[i]f the amount of copper acquired by the Trust were large enough in relation to global copper supply and demand, in-kind creations and redemptions of shares could have an impact on the supply and demand for copper unrelated to other factors affecting the global markets for copper. Such an impact could affect the prices for copper and, as a result, could affect the price at which shares are traded on the Exchange or the value of future Creation Units created or redeemed by the Trust.” Draft Registration Statement at 21. In short, the concerns we raised, which the Exchange dismisses as “speculative and misplaced,” were expressly acknowledged by the Trust itself.

The Exchange nevertheless dismisses these concerns as merely theoretical. Letter, p. 5. Thus, the Exchange concedes that “[i]f extremely high investor demand for shares of an ETV caused it to grow very rapidly relative to the size of the market for the underlying asset, such demand could place upward pressure on prices of the underlying asset.” Here, as we have shown, the size of the market for copper available for immediate delivery is relatively small in that there is only 230,000 metric tons available on the LME, with an additional 60,000 metric tons available on the Comex. The Trust proposes to remove as much as 61,800 metric tons or about 21.3%, while BlackRock, which has, through the Exchange, recently asked that its own

shares be listed, proposed to remove more than 120,000 metric tons, which together, constitutes about two thirds of the entire combined LME and Comex market.

In short, given the small size of the overall market, one would need not “extremely high investor demand” in order for the size of the ETFs of the Trust and BlackRock to grow very rapidly relative to the size of the overall market for the underlying asset, which is copper available for immediate delivery and, as a result, even modest demand could place upward pressure on prices of the underlying asset. Indeed, the amount of copper proposed to be removed from the market, conceivably almost immediately, or certainly within a few weeks, would greatly exceed the amount of copper that normally flows in and out of the LME warehouses on any given day or week. In this regard, we are enclosing as Exhibit D a chart that tracks the total inflow and outflow of copper in LME warehouses over the past two years. These ETFs, if launched, could therefore trigger enormous price spikes simply because of the huge volumes that would be withdrawn from the market relative to the limited size of the market overall. The Exchange argues that our concerns about artificial price spikes and massive redemptions over a very short period of time are not supported by evidence and as such, they are “merely speculation.” We believe these assertions are supported by the substantial evidence we have provided as to the size of the market we expect to be impacted, and that the Exchange’s assurances to the contrary are not in fact supported by evidence and are themselves mere speculation.

### **III. Purpose and Objective of the Trust**

The Exchange takes issue with our assertion that the “sole purpose” of the Trust is to “remove from the market a physical metal in short supply” claiming that the letter offered no basis for this statement or for other claims regarding the intent of the Sponsor and the Exchange in seeking to list and trade the Shares. Letter, pp. 5-6. The Exchange asserts instead that its intent, and that of JP Morgan Chase, is to “create a competitive product that offers retail investors access to the copper market.” However, there is substantial evidence to suggest otherwise. First of all, it goes without saying that if JP Morgan Chase agreed with one of its customers to remove from the market substantial amounts of copper from the LME warehouses, with the understanding that such removal would artificially inflate prices, such conduct would be per se anticompetitive, i.e., a direct violation of Section 1 of the Sherman Act. Here, the effect of what the Trust is proposing is to do the same thing – except that instead of using one of its customers to underwriting the cost, the Trust proposes to use investors.

The Exchange states that because the Authorized Participants will be permitted to acquire creation units of shares “using copper in multiple global locations,” the Trust intends to provide a “larger, more liquid supply of copper than would be available if creations and redemptions were only permitted using copper held in a single location.” However, the removal of tens of thousands of metric tons of copper from LME warehouses will make the supply of copper much less liquid – not more liquid as the Exchange contends. And the overall tightening of supply which will result will have spillover effects in a wide variety of markets, particularly in the United States. That is because the Trust makes clear that it intends to acquire copper from locations where the premiums are the lowest, and that, as we have said, is in the United States. Therefore, the United States is likely to suffer the great impacts.

The Exchange claims that the Trust “offers complete transparency through its website, where all of the Trust’s holdings as well as additional detailed data regarding the Trust’s operations will be available.” However, what the Trust is not disclosing is the fact that the only copper that it and its Authorized Participants can acquire is copper from the LME and Comex warehouses and that once that copper has been taken off market, the “transparency” the Trust promotes will merely inform prospective investors on a daily basis just how successful the Trust has been in cornering the market. Thus, every day investors will be able to compare how much copper has been removed from the LME and Comex warehouses with how much copper has been taken off market by the Trust. Such information is critical for those looking to see how much copper needs to be removed on any given day in order to artificially inflate prices and thus the price of the Trust’s shares.

The Exchange also touts the Trust’s supposedly transparent “rules-based” process for “selecting copper lots” for various activities, such as satisfying redemption orders and calculating and paying expenses. However, what the Trust does not disclose is that absent an intent to profit by driving up copper prices artificially, the Trust’s offering makes no sense economically. Thus, because of tight supplies, which the Trust will make even tighter, the Trust will either create or further enhance a backwardation in the copper futures market. A backwardation occurs when near term prices are higher than prices over the medium and long term. When a backwardation occurs, anyone who wants to invest in copper would generally be better off purchasing a cheaper long-dated futures position, waiting for the futures position to mature, and then either rolling it over at a profit or cash-settling it. By purchasing a physical copper backed ETF, however, not only is the investor purchasing copper for immediate delivery at a premium, but the investor must bear the cost of storage – a cost that the purchaser of a long-dated futures position does not have to bear. In order to ensure that the ETF shares become profitable, the investor must hope that the amount of copper acquired is sufficient to artificially inflate the price just enough to cover the cost of storage every month. And as more and more copper gets acquired every month, the cost of storage goes up as well, as does the need to continually acquire more copper to move the price artificially upward.

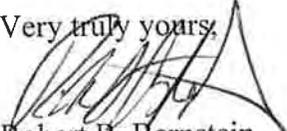
These are risks that a purchaser of a long-date futures position would not have to face. And it begs the question: if the Sponsor is so eager to give “retail investors access to the copper market” as the Exchange represents, then why isn’t the Sponsor offering an ETF backed by copper futures? Instead, the entire premise of the investment here is based on removing from a very small market -- the market for copper available for immediate delivery, which is copper in the LME and Comex warehouses -- as much copper as needed to move the price upward, and to continue to do so until the monthly storage costs are met and the investment makes a profit, and to keep doing so, until investors lose interest, at which point the Trust will have no choice but to redeem its copper as quickly as possible, the effect of which will be force prices downward which, as is true whenever any commodity squeeze comes to an end, will create huge losses not just among investors but in industry as well.

#### **IV. Other Physical Metal ETFs**

In our opening comment letter, we pointed out that copper is not like gold, silver, platinum and palladium, because unlike copper, which is a base metal, these are not just precious metals, but these are the only precious metals trade-able worldwide as currencies. In response,

the Exchange notes that platinum and palladium are used for “industrial purposes” and that “ETVs that include these metals as a significant component have been listed on the Exchange since 2009” with no empirical evidence suggesting these vehicles have “disrupted the markets for physical platinum and palladium or caused an increase in prices.” In fact, platinum and palladium are used for both industrial and investment purposes and, unlike copper, there is enough of a supply of platinum and palladium available in storage and being produced that the introduction of ETFs backed by these metals did not cause the kind of disruption to the market that a copper-backed ETF would cause. Thus, recent years' palladium surplus condition has reportedly been caused by the Russian government selling off government stockpiles built up during the Soviet era at a pace of about 1.6 to 2 million ounces a year. The amount and status of this stockpile is kept as a state secret. Platinum is not nearly as plentiful, but there is reportedly about a year's supply in reserves above ground. Thus, unlike copper, which is in relatively short supply with only about a week or two of world supply available on the LME, supplies of platinum and palladium are sufficiently plentiful – and priced very high in any event -- so that an ETF containing these metals did not have, and was not expected to have, much of an impact on industrial supply.

For these reasons, we continue to believe that the listing and trading of the Trust's Shares would be inconsistent with the requirements of the 1934 Securities Exchange Act.

Very truly yours,  
  
Robert B. Bernstein

# Exhibit A

**BLOOMSBURY**  
Minerals Economics Ltd



# Refined Copper Inventories in the Global Market

DATA & CHARTS FOR

## RK Capital Management LLP

Bloomsbury Minerals Economics Ltd.,  
5 Warren Mews,  
London W1T 6AP,  
England

Telephone: + 44 (0) 20 7529 8915

[www.bloomsburyminerals.com](http://www.bloomsburyminerals.com)

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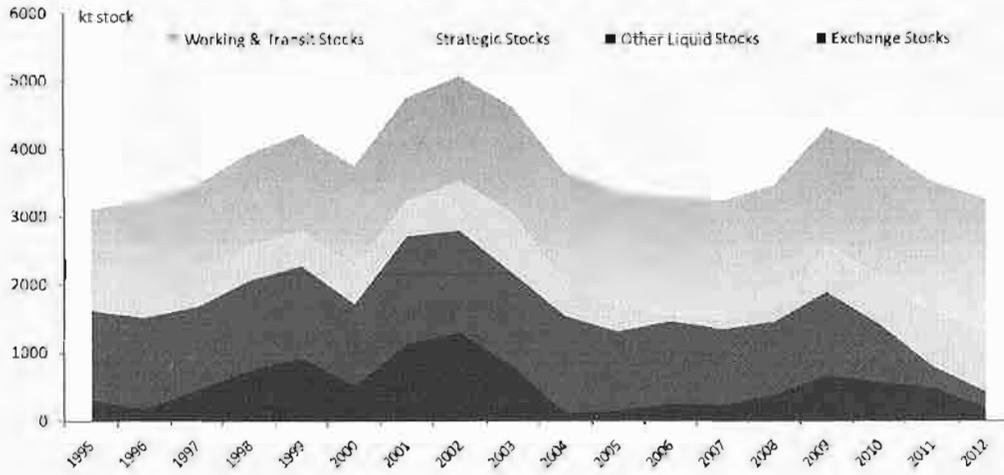
TABLE 1	Summary Data Table										Various Indicators		
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
Industrial Production Index	100.6	103.7	108.9	113.0	118.8	125.7	126.1	115.9	126.5	132.7	137.8		
% Ch Y-O-Y	7.4%	3.1%	5.0%	3.8%	5.2%	5.7%	0.4%	-8.1%	9.2%	4.9%	3.9%		
Mine Output (kt)	13603	13707	14585	14952	15061	15465	15635	16057	16129	16323	17157		
% Ch Y-O-Y	-0.3%	0.8%	6.4%	2.5%	0.7%	2.7%	1.1%	2.7%	0.4%	1.2%	5.1%		
Smelter Output (kt)	12244	12343	12679	13447	13904	14144	14555	14481	14938	15177	15795		
% Ch Y-O-Y	-2.1%	0.8%	2.7%	6.1%	3.4%	1.7%	2.9%	-0.5%	3.2%	1.6%	4.1%		
Refined Output (kt)	15323	15295	15890	16639	17389	18032	18383	18428	19174	19732	20395		
% Ch Y-O-Y	-1.7%	-0.2%	3.9%	4.7%	4.5%	3.7%	1.9%	0.2%	4.1%	2.9%	3.4%		
Refined Use (kt)	15027	15736	16860	16938	17469	18061	18156	17575	19475	20238	20775		
% Ch Y-O-Y	3.1%	4.7%	7.1%	0.5%	3.1%	3.4%	0.5%	-3.2%	10.8%	3.9%	2.7%		
Refined Balance (kt)	296	-440	-969	-299	-80	-30	227	853	-300	-506	-260		
Exchange Stocks (kt)	1294	808	124	156	253	239	390	686	575	503	197		
% Ch Y-O-Y	13.8%	-37.5%	-84.6%	25.8%	61.8%	-5.7%	63.7%	75.8%	-16.3%	-12.4%	-60.8%		
Total Stocks (kt)	5066	4625	3656	3357	3278	3248	3475	4327	4027	3522	3262		
% Ch Y-O-Y	6.2%	-8.7%	-21.0%	-8.2%	-2.4%	-0.9%	7.0%	24.5%	-6.9%	-12.6%	-7.4%		
LME Cash (Current \$/t)	1560	1779	2865	3678	6721	7117	6939	5165	7538	9320	9622		
% Ch Y-O-Y	-1.2%	14.1%	61.1%	28.4%	82.7%	5.9%	-2.5%	-25.6%	46.0%	23.7%	3.2%		
LME Cash (2010 \$/t)	1872	2106	3347	4211	7522	7783	7323	5337	7538	9005	8983		
% Ch Y-O-Y	-3.7%	12.5%	58.0%	25.8%	78.6%	3.5%	-5.9%	-27.1%	41.2%	19.5%	-0.3%		

<b>TABLE 2</b>	<b>Refined Copper Balance and Stocks</b>										<b>'000 tonnes Cu</b>
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>REFINED COPPER BALANCE</b>											
Production	15373	15295	15890	16639	17389	18037	18383	18428	19174	19737	20515
Consumption	15077	15736	16860	16938	17469	18061	18156	17575	19475	20238	20775
<b>Balance</b>	<b>296</b>	<b>-440</b>	<b>-969</b>	<b>-299</b>	<b>-80</b>	<b>-30</b>	<b>227</b>	<b>853</b>	<b>-300</b>	<b>-506</b>	<b>-260</b>
<b>REFINED COPPER STOCKS</b>											
<b>Normal Country Stocks</b>	<b>1120</b>	<b>1147</b>	<b>1183</b>	<b>1208</b>	<b>1237</b>	<b>1262</b>	<b>1283</b>	<b>1289</b>	<b>1373</b>	<b>1384</b>	<b>1407</b>
At producers	416	415	431	457	477	488	406	496	511	523	539
At consumers	428	455	483	477	484	495	498	487	539	549	558
In domestic transit	277	277	268	279	280	279	289	305	323	312	309
<b>Other Country Stocks</b>	<b>2733</b>	<b>2604</b>	<b>1357</b>	<b>1128</b>	<b>865</b>	<b>944</b>	<b>990</b>	<b>1834</b>	<b>1711</b>	<b>1462</b>	<b>1198</b>
LME	856	433	49	97	191	199	341	502	378	356	132
Other Exchanges	437	376	75	64	62	39	50	184	197	145	65
Strategic Stocks	734	884	459	353	90	150	245	675	725	820	895
Abnormal Country Stocks	705	911	773	619	572	556	355	472	411	139	106
<b>Non Country Stocks</b>	<b>1206</b>	<b>868</b>	<b>1111</b>	<b>1015</b>	<b>1169</b>	<b>1036</b>	<b>1195</b>	<b>1199</b>	<b>937</b>	<b>670</b>	<b>653</b>
International Transit	411	412	468	472	486	479	480	455	499	503	518
Misc. Bonded Stocks	795	457	642	543	683	556	715	743	438	166	132
<b>Total</b>	<b>5059</b>	<b>4619</b>	<b>3650</b>	<b>3351</b>	<b>3271</b>	<b>3241</b>	<b>3468</b>	<b>4321</b>	<b>4021</b>	<b>3515</b>	<b>3256</b>

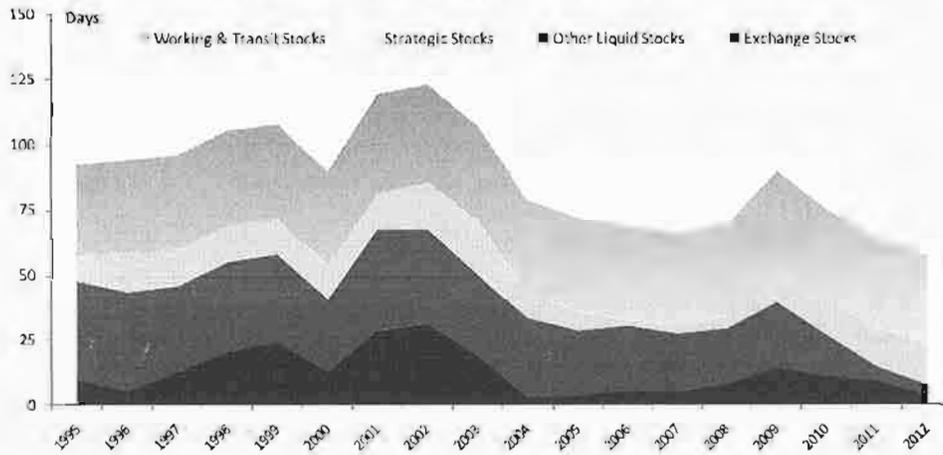
<b>TABLE 3</b>	<b>Refined Copper Balance Detail</b>										<b>'000 tonnes Cu / Days Consumption</b>
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>PRODUCTION-CONSUMPTION BALANCE (kt)</b>											
Production	15373	15295	15890	16639	17389	18032	18383	18428	19174	19732	20515
Consumption	15077	15736	16860	16938	17469	18061	18156	17575	19475	20238	20775
<b>Prod-Cons Balance</b>	<b>296</b>	<b>-440</b>	<b>-969</b>	<b>-299</b>	<b>-80</b>	<b>-30</b>	<b>227</b>	<b>853</b>	<b>-300</b>	<b>-506</b>	<b>-260</b>
<b>EFFECTIVE MARKET BALANCE (kt)</b>											
Added to Working Stocks	18	27	92	20	43	18	22	-19	127	15	37
Added to Strategic Stocks	200	150	425	106	-763	60	95	430	50	95	75
<b>Effective Market Balance</b>	<b>78</b>	<b>-617</b>	<b>-637</b>	<b>-222</b>	<b>140</b>	<b>-107</b>	<b>110</b>	<b>441</b>	<b>-477</b>	<b>-616</b>	<b>-372</b>
<b>TOTAL STOCKS AND LIQUID STOCKS (kt)</b>											
<b>Total Stocks</b>	<b>5059</b>	<b>4619</b>	<b>3650</b>	<b>3351</b>	<b>3271</b>	<b>3241</b>	<b>3468</b>	<b>4321</b>	<b>4021</b>	<b>3515</b>	<b>3256</b>
<b>Liquid Stocks</b>	<b>2794</b>	<b>2177</b>	<b>1540</b>	<b>1318</b>	<b>1458</b>	<b>1350</b>	<b>1461</b>	<b>1902</b>	<b>1425</b>	<b>808</b>	<b>435</b>
LME	856	433	49	92	191	199	341	502	378	358	132
Other Exchanges	437	376	75	64	62	39	50	184	197	145	65
Abnormal Country Stocks	705	911	773	619	572	556	355	472	411	139	106
Exchange Traded Funds	0	0	0	0	0	0	0	0	1	1	1
Misc. Bonded Stocks	795	457	642	543	683	556	715	743	437	165	131
<b>TOTAL STOCKS, LIQUID STOCKS AND WORKING, TRANSIT STOCK &amp; OTHER NON LIQUID STOCKS (Days Consumption)</b>											
<b>Total Stocks</b>	<b>123</b>	<b>107</b>	<b>79</b>	<b>72</b>	<b>68</b>	<b>66</b>	<b>70</b>	<b>90</b>	<b>75</b>	<b>63</b>	<b>57</b>
<b>Liquid Stocks</b>	<b>68</b>	<b>50</b>	<b>33</b>	<b>28</b>	<b>30</b>	<b>27</b>	<b>29</b>	<b>39</b>	<b>27</b>	<b>15</b>	<b>8</b>
LME	21	10	1	2	4	4	7	10	7	6	2
Other Exchanges	11	9	2	1	1	1	1	4	4	3	1
Abnormal Country Stocks	17	21	17	13	11	11	7	10	8	3	2
Exchange Traded Funds	0	0	0	0	0	0	0	0	0	0	0
Misc. Bonded Stocks	19	11	14	12	14	11	14	15	8	3	7
<b>Working &amp; Transit Stocks</b>	<b>36</b>	<b>34</b>	<b>36</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>37</b>	<b>33</b>	<b>34</b>	<b>33</b>	<b>33</b>
Producer Stocks	10	9	9	9	10	10	10	9	9	9	9
Consumer Stocks	10	10	10	10	10	10	10	9	10	10	10
Domestic Transit	6	6	6	6	6	6	6	6	6	5	5
International Transit	10	9	10	10	10	10	10	9	9	9	9
<b>Other Non Liquid Stocks</b>	<b>20</b>	<b>23</b>	<b>10</b>	<b>9</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>18</b>	<b>15</b>	<b>16</b>	<b>17</b>
Strategic Reserves	20	23	10	9	3	3	4	18	15	16	17

**Notes:** Increase in Total Stocks equals Production-Consumption Balance, increase in Liquid Stocks equals Effective Market Balance  
Abnormal Country Stocks are mainly non-bonded merchant stocks and excess stocks at producers and consumers

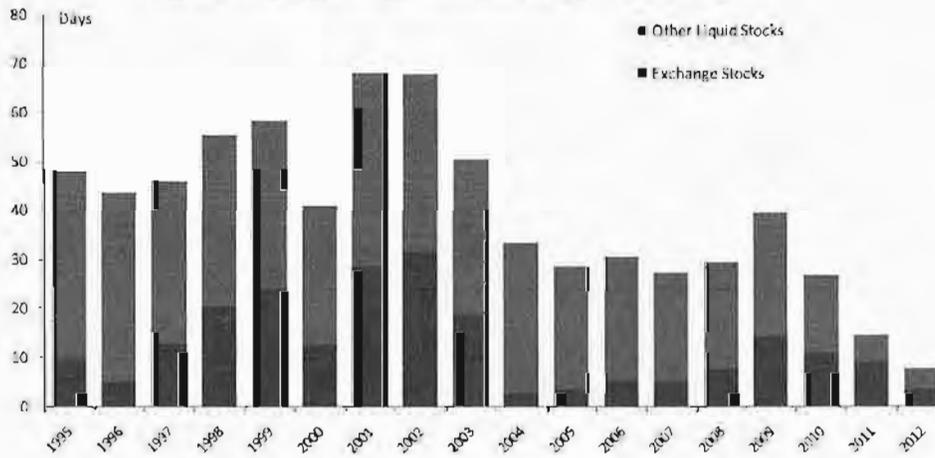
Refined Copper Stocks by Type in Tonnes



Refined Copper Stocks in Days Consumption



Liquid Stocks on and Off Exchange in Days Consumption



# Exhibit B

## Robert Bernstein

---

**From:** Robert Bernstein  
**Sent:** Monday, July 09, 2012 11:38 PM  
**To:** 'robertbrucebernstein@yahoo.com'  
**Subject:** FW: Copper stocks

---

**From:** David Lilley [mailto:David.Lilley@rkcapital.co.uk]  
**Sent:** Monday, September 12, 2011 4:35 AM  
**To:** Robert Bernstein  
**Cc:** Barry Feldman  
**Subject:** Copper stocks

Hi,

This is a very good and accurate article from Andy Home of Reuters. Interestingly enough it sources from BME who are the people I was going to get to prepare an independent study for us. I will see what I can get from them but their numbers in this article are to my opinion pretty accurate and highlight well the misinformation in trying to say that these stocks are surplus and available for industry or investors in any meaningful way.

COLUMN Those 'hidden' copper stocks found (again):

Andy Home

--Andy Home is a Reuters columnist. The opinions expressed are his own--

LONDON, Sept 9 (Reuters) - Do you believe that the copper price is an illusion? An artifice created by investment banks to sucker the gullible into buying their structured notes, their indexes and exchange-traded funds?

Do you believe that the narrative of copper market tightness is a fairy tale, propagated by those same banks' research departments?

Do you believe that even while the banks tell the world there is not enough metal to meet demand, they are quietly squirreling away ever greater amounts of the stuff in "hidden" stocks?

If you do, you're not alone.

A small but influential group of market commentators has long argued that the copper bull narrative is an illusion, maintained by the systematic withholding of stocks from the marketplace.

And now, they have found the proof! Even better, with delicious irony, it's one of those very same banks that has inadvertently lifted the lid on the scandal.

"THE SMOKING GUN"

The "smoking gun" comes in the unlikely form of an amended regulatory filing by J.P. Morgan for its proposed physical copper exchange-traded fund.

Here's the key part, included within the "Risk Factors" section of the filing, that has excited copper conspiracy theorists:

"In 2010, there were approximately 3.1 million metric tons of copper stocks in the overall global copper market, of which approximately 568,000 metric tons of copper stocks were registered within systems or exchanges such as the LME, COMEX and the SHFE and approximately 2.53 million metric tons of copper stocks existed in the physical market."

Two and a half million tonnes of a metal that is supposed to be in short supply!

And JP Morgan, LME ring-dealing member and owner of the Henry Bath warehousing company. Talk about being condemned "out of their own mouths"!

You may wish to pause for a moment to relish the prospect of shame-faced bankers being led to the stocks to face public retribution for lying to the world about copper stocks.

OK. Finished? Now I'll tell you why it's not going to happen. HIDDEN?

Something of a clue comes when the statement quoted above is put into context.

It is not JP Morgan's assessment of the market. Rather, the figures are taken from "the latest data available as provided by CRU Analysis".

UK-based CRU is not so much market whistle-blower as heavy-weight commodities research house.

And along with other forensic copper market statisticians such as Brook Hunt and Bloomsbury Minerals Economics (BME), it has the unenviable task of trying to calculate what is happening "out there" in the dark recesses of the physical market.

Exchange stocks we can all count. Other sorts of stocks we can't. They have to be estimated and that involves a lot of poring over trade data to identify flows of metal around the world.

Such stocks are "hidden" in so far as they are statistically opaque. It is possible that they include stocks which have been deliberately "hidden" by market players for their own purposes, not always nefarious.

The question is how to separate out the "hidden" from the "hidden", as it were.

METAL, METAL EVERYWHERE...

BME provides a comprehensive estimate of stocks at every stage of the copper supply chain in its monthly "Copper Briefing Service".

And, as it happens, its estimate for total refined copper stocks at the end of last year is higher than CRU's at 4.027 million tonnes, including exchange inventory.

Usefully, though, they provide a detailed breakdown of their assessment, which runs pretty much as follows.

Refined metal stocks held by producers and consumers totalled 1.079 million tonnes at the end of 2010. Such holdings are categorised by BME under the heading "Normal Country Stocks".

This metal forms part of the "normal" physical copper supply chain. All producers hold inventory. So do all consumers. If they didn't, the supply chain would not function.

Nor would it function were metal not always moving between producer and consumer.

BME estimates that 332,000 tonnes were in domestic transit and another 499,000 tonnes in international transit at the end of last year.

Add that to the "normal" industry stock figure and you already have close to 2 million tonnes that is either waiting to be shipped by producers, already en route to consumers or waiting to be used by fabricators.

Only if the supply-chain collapses will such metal ever see the statistical light of day in the form of exchange inventory. The Great Contraction of late 2008 was the last time it happened to any significant extent.

And only if the supply chain fails through extreme physical tightness will you see the 725,000 tonnes that BME estimates are held as "Strategic Stocks".

Think China's State Reserves Bureau and South Korea's Public Procurement Service, both of which hold what might be termed "emergency stocks" for release to local manufacturers in times of extreme supply stress.

...BUT SO LITTLE FOR DELIVERY

Strip out exchange stocks from the remaining total stocks figure and you're left with 817,000 tonnes of "hidden" inventory.

BME categorises this under two headings: "Abnormal Country Stocks" (379,000 tonnes) and "Miscellaneous Bonded Stocks and ETFs" (438,000 tonnes).

"Abnormal" stocks captures shifts in the industry stocking cycle. Consumers, for example, will collectively lift working inventory levels during times of low prices and good availability.

Conversely, such stocks will fall during periods of high price and low availability. It's worth noting that BME forecasts a dramatic slide in "Abnormal Country Stocks" to just 143,000 tonnes over the course of this year and a move into negative territory next year.

It is the tonnage in bonded warehouse that could best be described as "hidden" in so far as the owners, ranging from investment banks to merchants to Chinese construction companies using it as collateral, have chosen not to place it on an exchange.

Some of them will have very good reasons not to. What, for example, is the point of being in the merchanting game if you don't hold consignment stocks?

Such stock does, however, have the potential to destabilise market balance calculations and price.

Think, for example, of the copper in bonded warehouse in Shanghai.

Such metal should be merely pausing between clearing Chinese customs and being sold on to a mainland buyer, at which stage VAT is payable.

But if the arbitrage is closed or the Chinese authorities tighten the rules governing the finance trade, such stock can turn around and head towards the nearest LME warehouse location in South Korea.

This is what happened in the second quarter, when reexports mushroomed, causing the downtrend in LME stocks to reverse and halting the bull price run dead in its tracks.

Shanghai bonded stocks are statistically "hidden" but they are now a "known unknown" in the market, critical to deciphering the Dragon's fluctuating appetite for copper. More on which on Monday when we get the first snapshot of

China's August import figures.

But as for all the other copper that is "hidden" out there in the statistical murk. You can't see it. And you don't want to see it. If you do, it means something has gone very, very wrong with the industrial supply chain.

# Exhibit C

## Copper market expects squeeze, big holding appears

By Eric Onstad

LONDON, July 2 (Reuters) - Traders are bracing for a replay of the April squeeze that made copper expensive to obtain quickly, saying major trader Glencore controls almost half the inventories of the commodity held in London Metal Exchange registered warehouses worldwide.

A potential rebound of demand in China, the world's top copper consumer, combined with strongly-held LME stocks, could constrict the market in coming months in an even more severe version of what happened this spring.

A squeeze gripped the market in April, as one entity took control of up to 90 percent of cash contracts and inventories on the LME, facing off against Chinese market participants who were caught with short positions.

Glencore, which traders also named as holding the huge position in April, declined to comment.

The tightness faded in May and the dominant position evaporated as Chinese copper producers shifted metal into LME

Asian warehouses and copper prices were swept lower along with other risk assets on renewed fears about the euro zone.

Demand in China was disappointing in the second quarter, usually a peak period for buying, as an economic slowdown hit, but analysts expect a moderate revival in the second half.

"It's not a market that's particularly well supplied with metal at a time when demand globally has been pretty weak in the last six months," said analyst Wiktor Bielski at VTB Capital Markets in London.

"If you ignore the short-term noise, any sort of recovery in the second half would suggest that you should get a decent second half rally in copper."

### LARGE POSITION REAPPEARS

A combination of lacklustre demand and the European debt crisis has weighed on benchmark three-month copper futures prices, but nearby spreads are telling a different story.

While three-month copper shed 9 percent in the second quarter, over the past week the nearby market has moved into backwardation, in which cash prices are higher than three month futures, indicating tightness.

On Monday, the premium of cash copper over the three month price was \$8 a tonne, compared to a peak of \$155 per tonne in April at the height of the squeeze, the highest in 3-1/2 years.

The backwardation has coincided with the reappearance of a large position in copper after having disappeared for many weeks.

LME data showed that 40-50 percent of inventory warrants are controlled by one party. Warrants are ownership documents for LME stocks.

The LME begins reporting positions when one party moves above 30 percent and when the combined inventory and cash position rises above 50 percent, it is regarded as dominant.

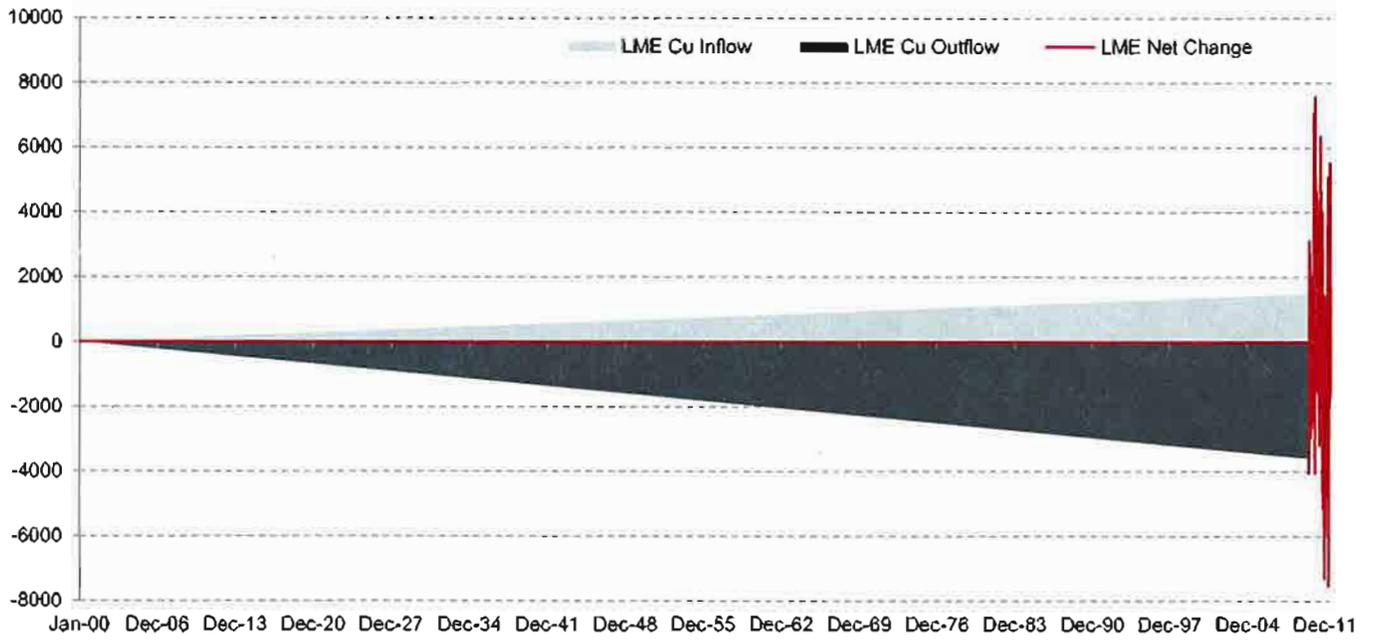
At that point, the exchange applies a mechanism to avoid disorderly markets and limit the exposure of short position holders.

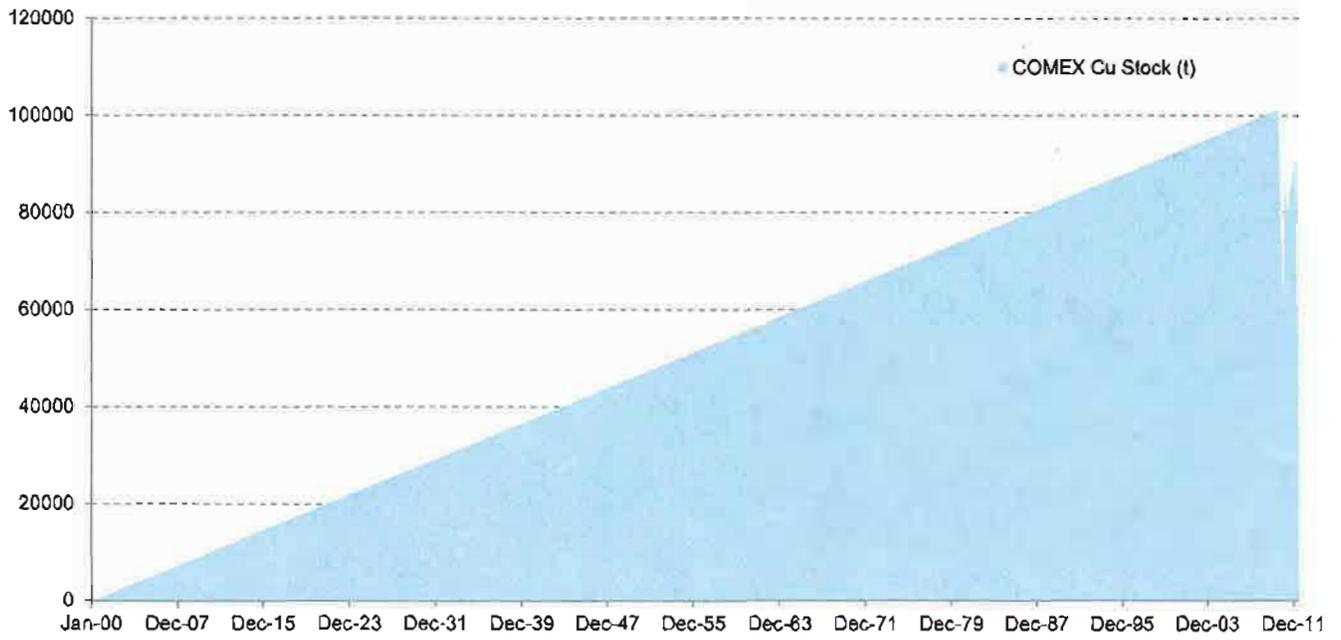
Under these LME "lending guidance" rules a dominant position holder must supply metal at little or no premium to parties with expiring positions.

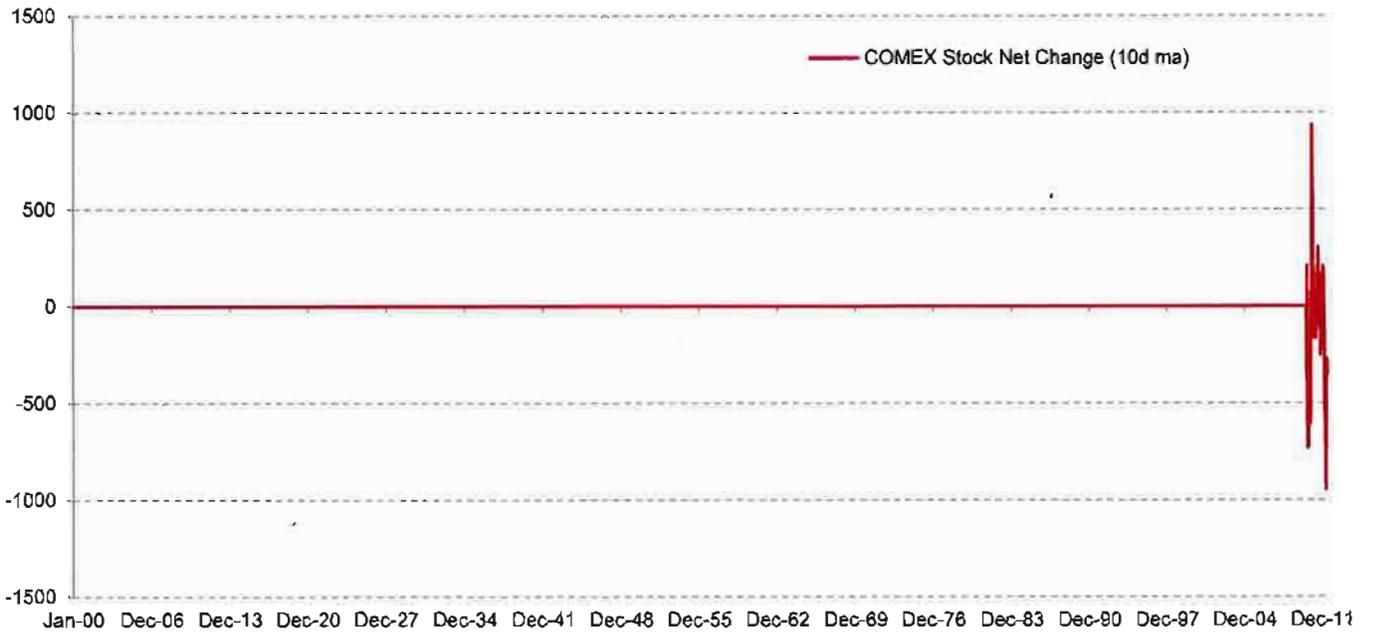
The LME does not identify holders of large positions, but traders said Glencore had built up the position in copper.

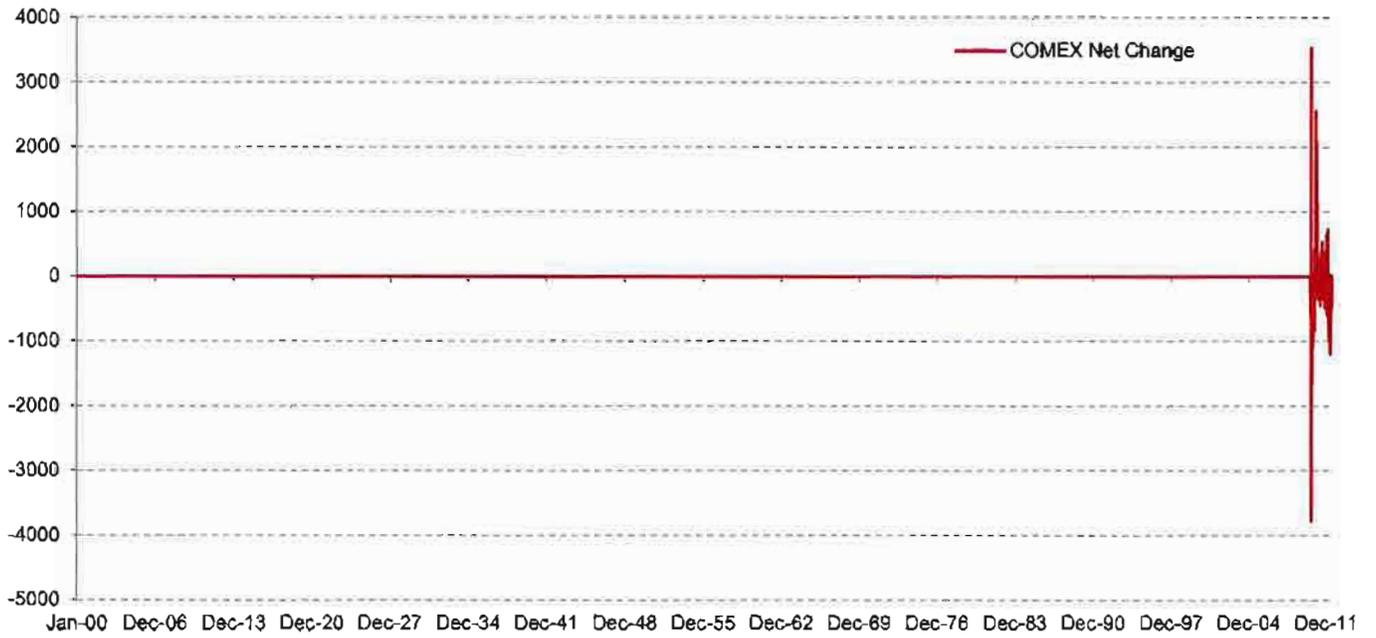
Large holdings of LME stocks and futures can occur unintentionally and are not unusual for big companies with many divisions and with clients that participate in metals markets.

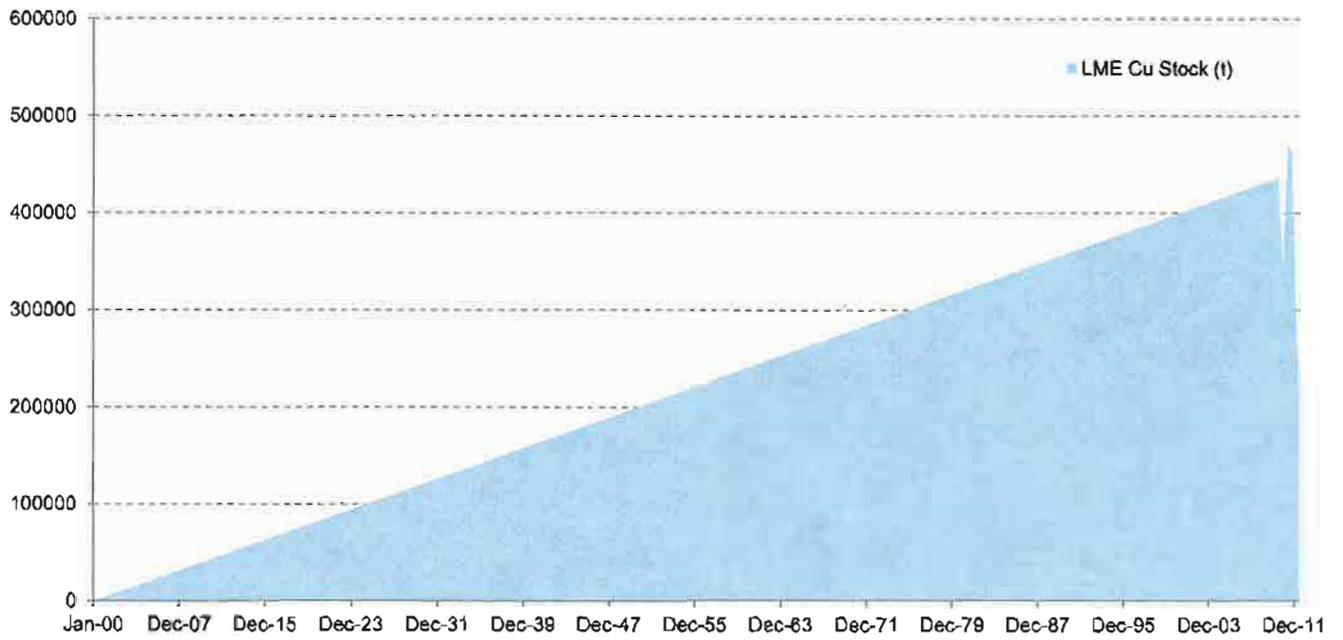
# Exhibit D

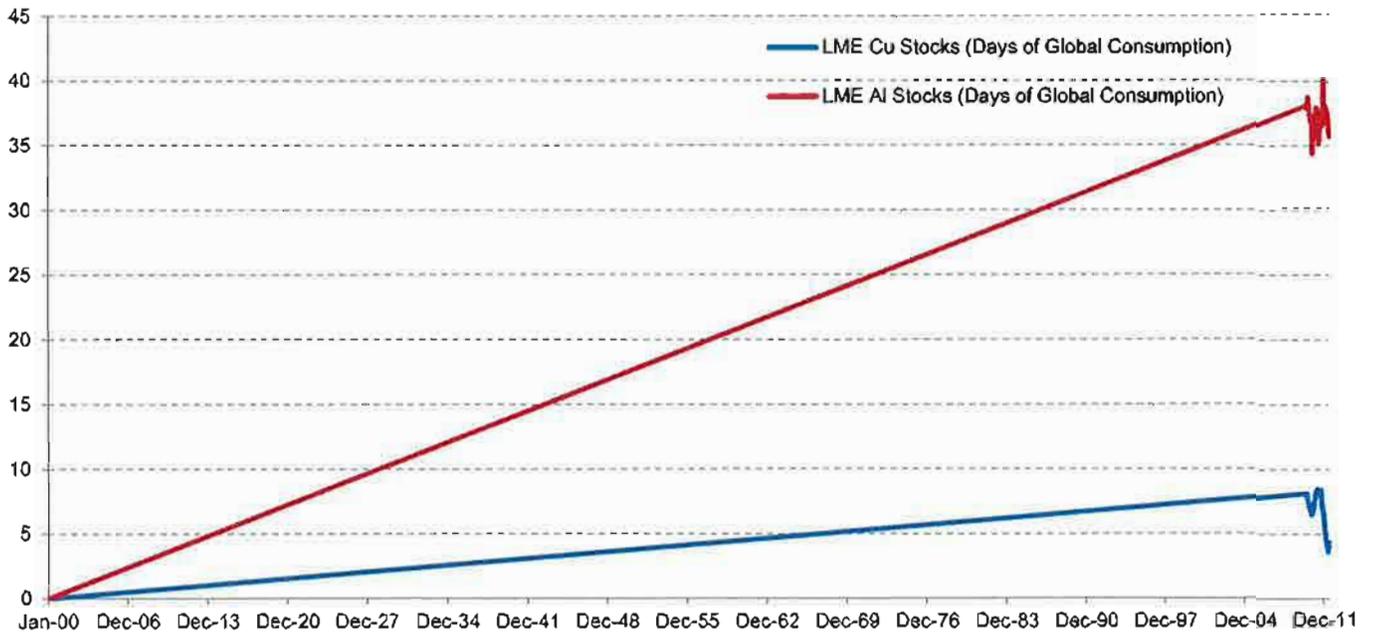


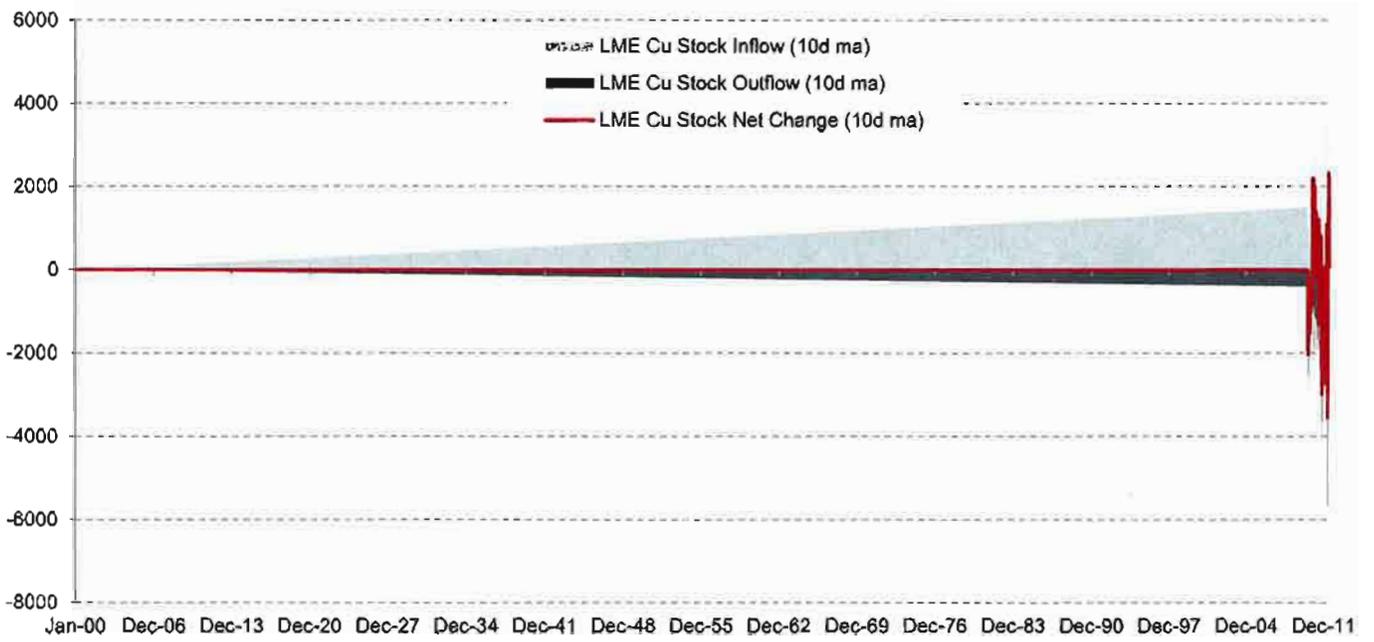












7/9/2010

	NLSCA Index	NLCA Index	NLKCA Index		LME Chg	Moving Av
	LME Cu Stock (t)	LME Cu Inflow	LME Cu Outflow	LME Cu Outflow	LME Net Ch	10
#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
7/6/2012	254450	2000	275	-275	1725	1502.5
7/5/2012	252725	400	1200	-1200	-800	1542.5
7/4/2012	253525	175	1825	-1825	-1650	1805
7/3/2012	255175	375	1500	-1500	-1125	1795
7/2/2012	256300	450	1300	-1300	-850	2110
6/29/2012	257150	2650	1600	-1600	1050	2182.5
6/28/2012	256100	2850	1625	-1625	1225	2440
6/27/2012	254875	3325	1700	-1700	1625	2482.5
6/26/2012	253250	1025	975	-975	50	2667.5
6/25/2012	253200	1775	1550	-1550	225	3170
6/22/2012	252975	2400	1575	-1575	825	3692.5
6/21/2012	252150	3025	1225	-1225	1800	3585
6/20/2012	250350	75	1400	-1400	-1325	3507.5
6/19/2012	251675	3525	975	-975	2550	3675
6/18/2012	249125	1175	1500	-1500	-325	3550
6/15/2012	249450	5225	850	-850	4375	3660
6/14/2012	245075	3275	1625	-1625	1650	3365
6/13/2012	243425	5175	1300	-1300	3875	3560
6/12/2012	239550	6050	1700	-1700	4350	3172.5
6/11/2012	235200	7000	1475	-1475	5525	2945
6/8/2012	229675	1325	950	-950	375	2520
6/7/2012	229300	2250	4150	-4150	-1900	2537.5
6/6/2012	231200	1750	1425	-1425	325	2427.5
6/5/2012	230875	2275	2075	-2075	0	2605
6/4/2012	230875	2275	2075	-2075	0	2807.5
6/1/2012	230875	2275	2075	-2075	200	3220
5/31/2012	230675	5225	1650	-1650	3575	3552.5
5/30/2012	227100	1300	0	0	1300	3622.5
5/29/2012	225800	3775	1025	-1025	2750	3772.5
5/28/2012	223050	2750	3200	-3200	-450	3777.5
5/25/2012	223500	1500	2075	-2075	-575	3875
5/24/2012	224075	1150	2775	-2775	-1625	4312.5
5/23/2012	225700	3525	1800	-1800	1725	4542.5
5/22/2012	223975	4300	4700	-4700	-400	4775
5/21/2012	224375	6400	3200	-3200	3200	4685
5/18/2012	221175	5600	1875	-1875	3725	4267.5
5/17/2012	217450	5925	3825	-3825	2100	3930
5/16/2012	215350	2800	3800	-3800	-1000	3597.5
5/15/2012	216350	3825	5775	-5775	-1950	3502.5
5/14/2012	218300	3725	6700	-6700	-2975	3320
5/11/2012	221275	5875	4450	-4450	1425	3245
5/10/2012	219850	3450	4525	-4525	-1075	2782.5
5/9/2012	220925	5850	13375	-13375	-7525	2680
5/8/2012	228450	3400	5575	-5575	-2175	2337.5

5/7/2012	230625	2225	6800	-6800	0	2042.5
5/4/2012	230625	2225	6800	-6800	-4575	1887.5
5/3/2012	235200	2600	6350	-6350	-3750	1797.5
5/2/2012	238950	1850	4450	-4450	-2600	2045
5/1/2012	241550	2000	8800	-8800	-6800	2207.5
4/30/2012	248350	2975	6450	-6450	-3475	2205
4/27/2012	251825	1250	4775	-4775	-3525	1957.5
4/26/2012	255350	2425	3475	-3475	-1050	1882.5
4/25/2012	256400	2425	2900	-2900	-475	1800
4/24/2012	256875	450	2425	-2425	-1975	1820
4/23/2012	258850	675	2975	-2975	-2300	2295
4/20/2012	261150	1325	2875	-2875	-1550	2877.5
4/19/2012	262700	5075	3525	-3525	1550	3395
4/18/2012	261150	3475	3400	-3400	75	3537.5
4/17/2012	261075	1975	2600	-2600	-625	3457.5
4/16/2012	261700	500	3200	-3200	-2700	3945
4/13/2012	264400	500	2175	-2175	-1675	4165
4/12/2012	266075	1600	2675	-2675	-1075	4315
4/11/2012	267150	2625	3875	-3875	-1250	4340
4/10/2012	268400	5200	1575	-1575	3625	4147.5
4/9/2012	264775	6500	1400	-1400	0	4130
4/6/2012	264775	6500	1400	-1400	0	3592.5
4/5/2012	264775	6500	1400	-1400	5100	3120
4/4/2012	259675	2675	3650	-3650	-975	2495
4/3/2012	260650	6850	3750	-3750	3100	2287.5
4/2/2012	257550	2700	1425	-1425	1275	1682.5
3/30/2012	256275	2000	1350	-1350	650	1500
3/29/2012	255625	1850	2375	-2375	-525	1302.5
3/28/2012	256150	700	2125	-2125	-1425	1155
3/27/2012	257575	5025	1450	-1450	3575	1175
3/26/2012	254000	1125	2300	-2300	-1175	802.5
3/23/2012	255175	1775	2050	-2050	-275	775
3/22/2012	255450	250	3125	-3125	-2875	647.5
3/21/2012	258325	600	3100	-3100	-2500	867.5
3/20/2012	260825	800	2550	-2550	-1750	807.5
3/19/2012	262575	875	2125	-2125	-1250	830
3/16/2012	263825	25	3950	-3950	-3925	742.5
3/15/2012	267750	375	3250	-3250	-2875	740
3/14/2012	270625	900	3275	-3275	-2375	702.5
3/13/2012	273000	1300	2225	-2225	-925	627.5
3/12/2012	273925	850	2950	-2950	-2100	700
3/9/2012	276025	500	4500	-4500	-4000	615
3/8/2012	280025	2450	3325	-3325	-875	567.5
3/7/2012	280900	0	2675	-2675	-2675	340
3/6/2012	283575	1025	3275	-3275	-2250	415
3/5/2012	285825	0	3175	-3175	-3175	527.5
3/2/2012	289000	0	3250	-3250	-3250	782.5
3/1/2012	292250	0	4175	-4175	-4175	782.5
2/29/2012	296425	150	2575	-2575	-2425	832.5

2/28/2012	298850	2025	3650	-3650	-1625	982.5
2/27/2012	300475	0	3025	-3025	-3025	1030
2/24/2012	303500	25	1400	-1400	-1375	1280
2/23/2012	304875	175	1025	-1025	-850	1332.5
2/22/2012	305725	750	450	-450	300	1315
2/21/2012	305425	2150	2600	-2600	-450	1240
2/20/2012	305875	2550	3050	-3050	-500	1045
2/17/2012	306375	0	4750	-4750	-4750	790
2/16/2012	311125	500	2425	-2425	-1925	817.5
2/15/2012	313050	1650	2400	-2400	-750	782.5
2/14/2012	313800	2500	2200	-2200	300	617.5
2/13/2012	313500	2500	1750	-1750	750	380
2/10/2012	312750	550	1400	-1400	-850	130
2/9/2012	313600	0	2750	-2750	-2750	175
2/8/2012	316350	0	3650	-3650	-3650	175
2/7/2012	320000	200	3350	-3350	-3150	210
2/6/2012	323150	0	2950	-2950	-2950	197.5
2/3/2012	326100	275	2850	-2850	-2575	197.5
2/2/2012	328675	150	775	-775	-625	170
2/1/2012	329300	0	1525	-1525	-1525	155
1/31/2012	330825	125	2425	-2425	-2300	175
1/30/2012	333125	0	2300	-2300	-2300	237.5
1/27/2012	335425	1000	3450	-3450	-2450	237.5
1/26/2012	337875	0	1875	-1875	-1875	182.5
1/25/2012	339750	350	2850	-2850	-2500	182.5
1/24/2012	342250	75	3600	-3600	-3525	197.5
1/23/2012	345775	0	2975	-2975	-2975	190
1/20/2012	348750	0	2450	-2450	-2450	250
1/19/2012	351200	0	1300	-1300	-1300	362.5
1/18/2012	352500	200	1125	-1125	-925	412.5
1/17/2012	353425	750	1900	-1900	-1150	392.5
1/16/2012	354575	0	2250	-2250	-2250	480
1/13/2012	356825	450	1875	-1875	-1425	622.5
1/12/2012	358250	0	6000	-6000	-6000	720
1/11/2012	364250	500	1625	-1625	-1125	767.5
1/10/2012	365375	0	1525	-1525	-1525	742.5
1/9/2012	366900	600	1825	-1825	-1225	930
1/6/2012	368125	1125	1400	-1400	-275	1057.5
1/5/2012	368400	500	1250	-1250	-750	1132.5
1/4/2012	369150	0	2425	-2425	-2425	1175
1/3/2012	371575	1625	950	-950	675	1252.5
1/2/2012	370900	1425	925	-925	0	1125
12/30/2011	370900	1425	925	-925	500	1212.5
12/29/2011	370400	475	1700	-1700	-1225	1262.5
12/28/2011	371625	250	925	-925	-675	1390
12/27/2011	372300	1875	1525	-1525	0	1415
12/26/2011	372300	1875	1525	-1525	0	1230
12/23/2011	372300	1875	1525	-1525	350	1070
12/22/2011	371950	925	275	-275	650	957.5

12/21/2011	371300	775	325	-325	450	915
12/20/2011	370850	350	3450	-3450	-3100	952.5
12/19/2011	373950	2300	9600	-9600	-7300	1067.5
12/16/2011	381250	1925	2750	-2750	-825	990
12/15/2011	382075	1750	1825	-1825	-75	1020
12/14/2011	382150	500	1375	-1375	-875	930
12/13/2011	383025	25	2575	-2575	-2550	925
12/12/2011	385575	275	775	-775	-500	932.5
12/9/2011	386075	750	2075	-2075	-1325	1025
12/8/2011	387400	500	2550	-2550	-2050	1085
12/7/2011	389450	1150	1800	-1800	-650	1065
12/6/2011	390100	1500	900	-900	600	1130
12/5/2011	389500	1525	175	-175	1350	1202.5
12/2/2011	388150	2225	775	-775	1450	1152.5
12/1/2011	386700	850	775	-775	75	952.5
11/30/2011	386625	450	4350	-4350	-3900	930
11/29/2011	390525	100	2350	-2350	-2250	990
11/28/2011	392775	1200	3150	-3150	-1950	980
11/25/2011	394725	1350	2600	-2600	-1250	917.5
11/24/2011	395975	300	1850	-1850	-1550	782.5
11/23/2011	397525	1800	1350	-1350	450	822.5
11/22/2011	397075	2225	1125	-1125	1100	707.5
11/21/2011	395975	1025	3300	-3300	-2275	485
11/18/2011	398250	225	1600	-1600	-1375	427.5
11/17/2011	399625	625	1925	-1925	-1300	405
11/16/2011	400925	1050	3425	-3425	-2375	472.5
11/15/2011	403300	0	2100	-2100	-2100	367.5
11/14/2011	405400	575	2875	-2875	-2300	415
11/11/2011	407700	0	2325	-2325	-2325	600
11/10/2011	410025	700	2825	-2825	-2125	1022.5
11/9/2011	412150	650	825	-825	-175	952.5
11/8/2011	412325	0	3000	-3000	-3000	967.5
11/7/2011	415325	450	2975	-2975	-2525	1042.5
11/4/2011	417850	0	4275	-4275	-4275	997.5
11/3/2011	422125	1300	2450	-2450	-1150	1017.5
11/2/2011	423275	0	1475	-1475	-1475	947.5
11/1/2011	424750	475	5100	-5100	-4625	1385
10/31/2011	429375	2425	5425	-5425	-3000	1872.5
10/28/2011	432375	4225	6525	-6525	-2300	2157.5
10/27/2011	434675	0	2750	-2750	-2750	1735
10/26/2011	437425	800	2525	-2525	-1725	1735
10/25/2011	439150	750	5875	-5875	-5125	1755
10/24/2011	444275	0	3525	-3525	-3525	1722.5
10/21/2011	447800	200	3250	-3250	-3050	1722.5
10/20/2011	450850	600	1925	-1925	-1325	1820
10/19/2011	452175	4375	4125	-4125	250	1760
10/18/2011	451925	5350	5075	-5075	275	1482.5
10/17/2011	451650	5275	3825	-3825	1450	1005
10/14/2011	450200	0	2900	-2900	-2900	752.5

10/13/2011	453100	0	3900	-3900	-3900	1152.5
10/12/2011	457000	1000	2525	-2525	-1525	1707.5
10/11/2011	458525	425	4425	-4425	-4000	1805
10/10/2011	462525	0	4575	-4575	-4575	2245
10/7/2011	467100	1175	5800	-5800	-4625	2245
10/6/2011	471725	0	3200	-3200	-3200	2147.5
10/5/2011	474925	1600	1700	-1700	-100	2217.5
10/4/2011	475025	575	500	-500	75	2202.5
10/3/2011	474950	2750	1500	-1500	1250	2200
9/30/2011	473700	4000	1000	-1000	3000	2375
9/29/2011	470700	5550	1525	-1525	4025	2030
9/28/2011	466675	1975	2700	-2700	-725	1500
9/27/2011	467400	4825	1000	-1000	3825	1415
9/26/2011	463575	0	975	-975	-975	1097.5
9/23/2011	464550	200	1725	-1725	-1525	1097.5
9/22/2011	466075	700	1575	-1575	-875	1077.5
9/21/2011	466950	1450	1425	-1425	25	1030
9/20/2011	466925	550	2750	-2750	-2200	900
9/19/2011	469125	4500	1400	-1400	3100	860
9/16/2011	466025	550	675	-675	-125	435
9/15/2011	466150	250	875	-875	-625	555
9/14/2011	466775	1125	350	-350	775	740
9/13/2011	466000	1650	775	-775	875	805
9/12/2011	465125	0	100	-100	-100	837.5
9/9/2011	465225	0	50	-50	-50	1042.5
9/8/2011	465275	225	200	-200	25	1247.5
9/7/2011	465250	150	275	-275	-125	1250
9/6/2011	465375	150	375	-375	-225	1235
9/5/2011	465600	250	725	-725	-475	1220
9/2/2011	466075	1750	300	-300	1450	1517.5
9/1/2011	464625	2100	1300	-1300	800	1437.5
8/31/2011	463825	1775	2325	-2325	-550	1252.5
8/30/2011	464375	1975	2525	-2525	-550	1117.5
8/29/2011	464925	2050	425	-425	0	1437.5
8/26/2011	464925	2050	425	-425	1625	1232.5
8/25/2011	463300	250	725	-725	-475	1032.5
8/24/2011	463775	0	1250	-1250	-1250	1055
8/23/2011	465025	0	1275	-1275	-1275	1105
8/22/2011	466300	3225	400	-400	2825	1132.5
8/19/2011	463475	950	450	-450	500	877.5
8/18/2011	462975	250	1900	-1900	-1650	835
8/17/2011	464625	425	1075	-1075	-650	850
8/16/2011	465275	5175	500	-500	4675	945
8/15/2011	460600	0	1175	-1175	-1175	555
8/12/2011	461775	50	1425	-1425	-1375	665
8/11/2011	463150	475	1350	-1350	-875	662.5
8/10/2011	464025	500	1175	-1175	-675	690
8/9/2011	464700	275	875	-875	-600	897.5
8/8/2011	465300	675	500	-500	175	920

8/5/2011	465125	525	725	-725	-200	1007.5
8/4/2011	465325	400	925	-925	-525	1045
8/3/2011	465850	1375	1150	-1150	225	1755
8/2/2011	465625	1275	1675	-1675	-400	1710
8/1/2011	466025	1100	1625	-1625	-525	2205
7/29/2011	466550	25	1825	-1825	-1800	2262.5
7/28/2011	468350	750	2200	-2200	-1450	2340
7/27/2011	469800	2575	1875	-1875	700	2370
7/26/2011	469100	500	2600	-2600	-2100	2227.5
7/25/2011	471200	1550	2675	-2675	-1125	2305
7/22/2011	472325	900	2625	-2625	-1725	2195
7/21/2011	474050	7500	1150	-1150	6350	2140
7/20/2011	467700	925	625	-625	300	1552.5
7/19/2011	467400	6225	1775	-1775	4450	1472.5
7/18/2011	462950	1675	750	-750	925	885
7/15/2011	462025	800	800	-800	0	852.5
7/14/2011	462025	1050	1000	-1000	50	855
7/13/2011	461975	1150	800	-800	350	752.5
7/12/2011	461625	1275	1275	-1275	0	765
7/11/2011	461625	450	675	-675	-225	697.5
7/8/2011	461850	350	450	-450	-100	740
7/7/2011	461950	1625	950	-950	675	910
7/6/2011	461275	125	1350	-1350	-1225	855
7/5/2011	462500	350	575	-575	-225	1107.5
7/4/2011	462725	1350	2075	-2075	-725	1325
7/1/2011	463450	825	2625	-2625	-1800	1447.5
6/30/2011	465250	25	1800	-1800	-1775	1472.5
6/29/2011	467025	1275	2625	-2625	-1350	1570
6/28/2011	468375	600	2750	-2750	-2150	1557.5
6/27/2011	470525	875	4050	-4050	-3175	1555
6/24/2011	473700	2050	2375	-2375	-325	1502.5
6/23/2011	474025	1075	1575	-1575	-500	1432.5
6/22/2011	474525	2650	950	-950	1700	1515
6/21/2011	472825	2525	1550	-1550	975	1372.5
6/20/2011	471850	2575	1550	-1550	1025	1330
6/17/2011	470825	1075	2400	-2400	-1325	1370
6/16/2011	472150	1000	1475	-1475	-475	1387.5
6/15/2011	472625	1150	2200	-2200	-1050	1582.5
6/14/2011	473675	575	2650	-2650	-2075	1925
6/13/2011	475750	350	2525	-2525	-2175	1987.5
6/10/2011	477925	1350	1275	-1275	75	2187.5
6/9/2011	477850	1900	1200	-1200	700	2287.5
6/8/2011	477150	1225	825	-825	400	2100
6/7/2011	476750	2100	1050	-1050	1050	2112.5
6/6/2011	475700	2975	750	-750	2225	2140
6/3/2011	473475	1250	1275	-1275	-25	2152.5
6/2/2011	473500	2950	300	-300	2650	2085
6/1/2011	470850	4575	1500	-1500	3075	1870
5/31/2011	467775	1200	2900	-2900	-1700	1570

5/30/2011	469475	2350	1100	-1100	0	1612.5
5/27/2011	469475	2350	1100	-1100	1250	1472.5
5/26/2011	468225	25	1175	-1175	-1150	1452.5
5/25/2011	469375	1350	1225	-1225	125	1557.5
5/24/2011	469250	2375	1300	-1300	1075	1562.5
5/23/2011	468175	3100	1175	-1175	1925	1457.5
5/20/2011	466250	575	1350	-1350	-775	1437.5
5/19/2011	467025	800	1575	-1575	-775	1537.5
5/18/2011	467800	1575	1350	-1350	225	2030
5/17/2011	467575	1625	1125	-1125	500	2302.5
5/16/2011	467075	950	2400	-2400	-1450	2285
5/13/2011	468525	2150	1350	-1350	800	2375
5/12/2011	467725	1075	1700	-1700	-625	2345
5/11/2011	468350	1400	1375	-1375	25	2422.5
5/10/2011	468325	1325	1600	-1600	-275	2862.5
5/9/2011	468600	2900	1475	-1475	1425	3215
5/6/2011	467175	1575	1850	-1850	-275	3290
5/5/2011	467450	5725	2200	-2200	3525	3497.5
5/4/2011	463925	4300	4175	-4175	125	3290
5/3/2011	463800	1450	1300	-1300	150	3157.5
5/2/2011	463650	1850	1700	-1700	0	3160
4/29/2011	463650	1850	1700	-1700	0	3315
4/28/2011	463650	1850	1700	-1700	150	3180
4/27/2011	463500	5800	2400	-2400	3400	3187.5
4/26/2011	460100	4850	1025	-1025	3825	3040
4/25/2011	456275	3650	1075	-1075	0	2735
4/22/2011	456275	3650	1075	-1075	0	2637.5
4/21/2011	456275	3650	1075	-1075	2575	2547.5
4/20/2011	453700	2975	1225	-1225	1750	2467.5
4/19/2011	451950	1475	1300	-1300	175	2170
4/18/2011	451775	3400	2050	-2050	1350	2622.5
4/15/2011	450425	500	875	-875	-375	2337.5
4/14/2011	450800	1925	1050	-1050	875	2347.5
4/13/2011	449925	4325	1100	-1100	3225	2275
4/12/2011	446700	1800	800	-800	1000	2015
4/11/2011	445700	2675	1150	-1150	1525	2002.5
4/8/2011	444175	2750	950	-950	1800	1892.5
4/7/2011	442375	2850	1350	-1350	1500	2207.5
4/6/2011	440875	0	1450	-1450	-1450	2047.5
4/5/2011	442325	6000	1575	-1575	4425	2097.5
4/4/2011	437900	550	1500	-1500	-950	1955
4/1/2011	438850	600	1600	-1600	-1000	2122.5
3/31/2011	439850	1200	1075	-1075	125	2312.5
3/30/2011	439725	1725	1500	-1500	225	2487.5
3/29/2011	439500	1675	2075	-2075	-400	2515
3/28/2011	439900	1575	950	-950	625	2487.5
3/25/2011	439275	5900	1250	-1250	4650	2500
3/24/2011	434625	1250	775	-775	475	2047.5
3/23/2011	434150	500	700	-700	-200	1960

3/22/2011	434350	4575	725	-725	3850	1910
3/21/2011	430500	2225	1375	-1375	850	1552.5
3/18/2011	429650	2500	1650	-1650	850	1595
3/17/2011	428800	2950	1125	-1125	1825	1582.5
3/16/2011	426975	2000	975	-975	1025	1485
3/15/2011	425950	1400	1450	-1450	-50	1697.5
3/14/2011	426000	1700	1575	-1575	125	1557.5
3/11/2011	425875	1375	975	-975	400	1897.5
3/10/2011	425475	375	625	-625	-250	2345
3/9/2011	425725	0	775	-775	-775	2510
3/8/2011	426500	1000	1650	-1650	-650	2560
3/7/2011	427150	2650	800	-800	1850	2560
3/4/2011	425300	2375	1125	-1125	1250	2717.5
3/3/2011	424050	1975	1475	-1475	500	2657.5
3/2/2011	423550	4125	850	-850	3275	2705
3/1/2011	420275	0	725	-725	-725	2705
2/28/2011	421000	5100	925	-925	4175	2860
2/25/2011	416825	5850	1700	-1700	4150	2980
2/24/2011	412675	2025	1050	-1050	975	2515
2/23/2011	411700	500	550	-550	-50	2472.5
2/22/2011	411750	1000	725	-725	275	2957.5
2/21/2011	411475	4225	675	-675	3550	2912.5
2/18/2011	407925	1775	1050	-1050	725	2515
2/17/2011	407200	2450	1050	-1050	1400	2432.5
2/16/2011	405800	4125	750	-750	3375	2317.5
2/15/2011	402425	1550	900	-900	650	1975
2/14/2011	401775	6300	1250	-1250	5050	1987.5
2/11/2011	396725	1200	1425	-1425	-225	1800
2/10/2011	396950	1600	1050	-1050	550	1985
2/9/2011	396400	5350	975	-975	4375	2215
2/8/2011	392025	550	2050	-2050	-1500	2390
2/7/2011	393525	250	875	-875	-625	3230
2/4/2011	394150	950	1275	-1275	-325	3362.5
2/3/2011	394475	1300	600	-600	700	3507.5
2/2/2011	393775	700	850	-850	-150	3412.5
2/1/2011	393925	1675	1775	-1775	-100	3757.5
1/31/2011	394025	4425	8475	-8475	-4050	3590
1/28/2011	398075	3050	2250	-2250	800	3527.5
1/27/2011	397275	3900	1325	-1325	2575	3222.5
1/26/2011	394700	7100	1475	-1475	5625	2832.5
1/25/2011	389075	8950	1375	-1375	7575	2132.5
1/24/2011	381500	1575	1375	-1375	200	1442.5
1/21/2011	381300	2400	1625	-1625	775	1285
1/20/2011	380525	350	1575	-1575	-1225	1130
1/19/2011	381750	4150	325	-325	3825	1157.5
1/18/2011	377925	0	1075	-1075	-1075	927.5
1/17/2011	379000	3800	1025	-1025	2775	940
1/14/2011	376225	0	1125	-1125	-1125	720
1/13/2011	377350	0	825	-825	-825	880

1/12/2011	378175	100	1575	-1575	-1475	1490
1/11/2011	379650	2050	700	-700	1350	1520
1/10/2011	378300	0	1225	-1225	-1225	1652.5
1/7/2011	379525	850	725	-725	125	1990
1/6/2011	379400	625	475	-475	150	2242.5
1/5/2011	379250	1850	275	-275	1575	2572.5
1/4/2011	377675	125	0	0	125	2582.5
1/3/2011	377550	1600	50	-50	0	2695
12/31/2010	377550	1600	50	-50	1550	2757.5
12/30/2010	376000	6100	1050	-1050	5050	2685
12/29/2010	370950	400	175	-175	225	2417.5
12/28/2010	370725	3375	375	-375	0	3160
12/27/2010	370725	3375	375	-375	0	2955
12/24/2010	370725	3375	375	-375	3000	2957.5
12/23/2010	367725	3925	150	-150	3775	2652.5
12/22/2010	363950	1950	725	-725	1225	2335
12/21/2010	362725	1250	1100	-1100	150	2232.5
12/20/2010	362575	2225	1050	-1050	1175	2107.5
12/17/2010	361400	875	275	-275	600	1987.5
12/16/2010	360800	3425	575	-575	2850	2157.5
12/15/2010	357950	7825	775	-775	7050	1815
12/14/2010	350900	1325	875	-875	450	1042.5
12/13/2010	350450	3400	1575	-1575	1825	910
12/10/2010	348625	325	1150	-1150	-825	570
12/9/2010	349450	750	1550	-1550	-800	637.5
12/8/2010	350250	925	2050	-2050	-1125	597.5
12/7/2010	351375	0	1000	-1000	-1000	505
12/6/2010	352375	1025	2275	-2275	-1250	540
12/3/2010	353625	2575	1375	-1375	1200	577.5
12/2/2010	352425	0	2425	-2425	-2425	370
12/1/2010	354850	100	1000	-1000	-900	370
11/30/2010	355750	0	800	-800	-800	365
11/29/2010	356550	0	450	-450	-450	365
11/26/2010	357000	1000	550	-550	450	377.5
11/25/2010	356550	350	925	-925	-575	370
11/24/2010	357125	0	925	-925	-925	382.5
11/23/2010	358050	350	1300	-1300	-950	385
11/22/2010	359000	1400	2225	-2225	-825	405
11/19/2010	359825	500	1275	-1275	-775	265
11/18/2010	360600	0	525	-525	-525	265
11/17/2010	361125	50	900	-900	-850	437.5
11/16/2010	361975	0	725	-725	-725	432.5
11/15/2010	362700	125	200	-200	-75	462.5
11/12/2010	362775	925	1100	-1100	-175	475
11/11/2010	362950	475	1475	-1475	-1000	557.5
11/10/2010	363950	25	950	-950	-925	542.5
11/9/2010	364875	550	875	-875	-325	785
11/8/2010	365200	0	1150	-1150	-1150	730
11/5/2010	366350	500	1475	-1475	-975	800

11/4/2010	367325	1725	475	-475	1250	750
11/3/2010	366075	0	875	-875	-875	582.5
11/2/2010	366950	300	925	-925	-625	717.5
11/1/2010	367575	250	1175	-1175	-925	695
10/29/2010	368500	1750	1275	-1275	475	700
10/28/2010	368025	325	900	-900	-575	565
10/27/2010	368600	2450	1325	-1325	1125	655
10/26/2010	367475	0	900	-900	-900	465
10/25/2010	368375	700	1150	-1150	-450	465
10/22/2010	368825	0	1175	-1175	-1175	545
10/21/2010	370000	50	800	-800	-750	545
10/20/2010	370750	1350	550	-550	800	635
10/19/2010	369950	75	575	-575	-500	640
10/18/2010	370450	300	875	-875	-575	727.5
10/15/2010	371025	400	875	-875	-475	937.5
10/14/2010	371500	1225	1000	-1000	225	1027.5
10/13/2010	371275	550	1025	-1025	-475	995
10/12/2010	371750	0	725	-725	-725	1095
10/11/2010	372475	1500	1025	-1025	475	1115
10/8/2010	372000	0	1450	-1450	-1450	965
10/7/2010	373450	950	1625	-1625	-675	1165
10/6/2010	374125	1400	1375	-1375	25	1100
10/5/2010	374100	950	1300	-1300	-350	1477.5
10/4/2010	374450	2400	1750	-1750	650	1382.5
10/1/2010	373800	1300	1650	-1650	-350	1202.5
9/30/2010	374150	900	1850	-1850	-950	1072.5
9/29/2010	375100	1550	1725	-1725	-175	982.5
9/28/2010	375275	200	3050	-3050	-2850	1267.5
9/27/2010	378125	0	2100	-2100	-2100	1340
9/24/2010	380225	2000	1900	-1900	100	1375
9/23/2010	380125	300	2275	-2275	-1975	1175
9/22/2010	382100	5175	3100	-3100	2075	1220
9/21/2010	380025	0	2475	-2475	-2475	702.5
9/20/2010	382500	600	2300	-2300	-1700	702.5
9/17/2010	384200	0	2950	-2950	-2950	732.5
9/16/2010	387150	0	2350	-2350	-2350	732.5
9/15/2010	389500	4400	5425	-5425	-1025	1020
9/14/2010	390525	925	850	-850	75	767.5
9/13/2010	390450	350	1300	-1300	-950	675
9/10/2010	391400	0	1975	-1975	-1975	657.5
9/9/2010	393375	750	1875	-1875	-1125	675
9/8/2010	394500	0	975	-975	-975	600
9/7/2010	395475	0	1400	-1400	-1400	600
9/6/2010	396875	900	1700	-1700	-800	852.5
9/3/2010	397675	0	1800	-1800	-1800	975
9/2/2010	399475	2875	2175	-2175	700	977.5
9/1/2010	398775	1875	1625	-1625	250	915
8/31/2010	398525	0	1575	-1575	-1575	727.5
8/30/2010	400100	175	1325	-1325	0	727.5



10	10	NLSAH Index		COMXCOPR Comdty			10	
LME Cu Sto	LME Cu Sto	LME Cu Stocks	(Days o	LME AI Sto	COMEX Cu	COMEX Ne	COMEX Stock	Net Char
#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	
-1355	147.5	4.3	4818725	35.8	51848	-237	-295.2	60000
-1485	57.5	4.3	4809525	35.7	52085	-452	-307.9	
-1487.5	317.5	4.3	4805775	35.7	52537	0	-287.1	
-1445	350	4.3	4812625	35.8	52537	-411	-297.7	50000
-1392.5	717.5	4.3	4822650	35.8	52948	-387	-282.3	
-1412.5	770	4.4	4833925	35.9	53335	-400	-288.9	40000
-1337.5	1102.5	4.3	4844725	36.0	53735	-126	-292.9	
-1337.5	1145	4.3	4839150	36.0	53861	-148	-328.5	
-1297.5	1370	4.3	4849975	36.0	54009	-386	-354.5	30000
-1370	1800	4.3	4851700	36.1	54395	-405	-349.3	
-1362.5	2330	4.3	4861375	36.1	54800	-364	-306.5	
-1300	2285	4.3	4847075	36.0	55164	-244	-314.4	20000
-1592.5	1915	4.2	4858075	36.1	55408	-106	-337.1	
-1595	2080	4.3	4860575	36.1	55514	-257	-335.5	
-1705	1825	4.2	4849600	36.0	55771	-453	-329.9	10000
-1762.5	1857.5	4.2	4847550	36.0	56224	-440	-284.6	
-1885	1440	4.2	4860925	36.1	56664	-482	-308.8	
-1887.5	1632.5	4.1	4835125	35.9	57146	-408	-286.2	
-1757.5	1375	4.1	4848625	36.0	57554	-334	-272.3	
-1690	1215	4.0	4860200	36.1	57888	23	-280.9	
-1862.5	617.5	3.9	4864200	36.2	57865	-443	-283.2	
-1975	522.5	3.9	4875375	36.2	58308	-471	-280.8	6000
-1837.5	550	3.9	4904125	36.5	58779	-90	-269	
-1875	690	3.9	4917200	36.5	58869	-201	-294.9	4000
-2137.5	650	3.9	4917200	36.5	59070	0	-309.8	
-2250	970	3.9	4917200	36.5	59070	-682	-402.3	
-2230	1322.5	3.9	4918925	36.6	59752	-256	-439.3	2000
-2447.5	1175	3.8	4929350	36.6	60008	-269	-499.7	
-2827.5	945	3.8	4937600	36.7	60277	-420	-566.2	
-3302.5	475	3.8	4945325	36.8	60697	0	-626.4	
-3652.5	222.5	3.8	4943900	36.7	60697	-419	-745.7	-2000
-3890	422.5	3.8	4956325	36.8	61116	-353	-778.8	
-4065	477.5	3.8	4952975	36.8	61469	-349	-819.4	
-5222.5	-447.5	3.8	4958000	36.9	61818	-350	-869.6	-4000
-5310	-625	3.8	4964850	36.9	62168	-925	-945.4	
-5670	-945	3.7	4975175	37.0	63093	-1052	-934.5	-6000
-6162.5	-1775	3.7	4982900	37.0	64145	-860	-922.7	
-6415	-2360	3.6	4976500	37.0	65005	-934	-917.2	
-6480	-2520	3.7	4984650	37.1	65939	-1022	-911.2	-8000
-6782.5	-3005	3.7	4949900	36.8	66961	-1193	-904.3	
-6757.5	-3055	3.7	4951125	36.8	68154	-750	-801.7	
-6790	-3550	3.7	4946825	36.8	68904	-759	-756.7	
-6685	-3547.5	3.7	4959425	36.9	69663	-851	-773.2	12
-5637.5	-2842.5	3.9	4980300	37.0	70514	-1108	-748.7	

-5322.5	-2822.5	3.9	4990075	37.1	71622	-816	-722.1	10
-4940	-3052.5	3.9	4990075	37.1	72438	-934	-686	
-4547.5	-2750	4.0	5004200	37.2	73372	-805	-691.3	
-4265	-2220	4.0	5015500	37.3	74177	-874	-710	ε
-4160	-1952.5	4.1	5014500	37.3	75051	-953	-682.3	
-3540	-1335	4.2	5024900	37.3	76004	-167	-652.4	ε
-3215	-1257.5	4.3	5035625	37.4	76171	-300	-649.3	
-2955	-1072.5	4.3	5046350	37.5	76471	-924	-669.8	
-2875	-1075	4.3	5055675	37.6	77395	-606	-615.7	
-2972.5	-1152.5	4.4	5046350	37.5	78001	-842	-587.7	ε
-2887.5	-592.5	4.4	5052700	37.6	78843	-455	-542.8	
-2730	-362.5	4.4	5058475	37.6	79298	-987	-523.7	ε
-2582.5	-207.5	4.4	5062125	37.6	80285	-992	-425	
-2370	147.5	4.4	5071000	37.7	81277	-597	-379.9	
-2395	42.5	4.4	5079900	37.8	81874	-654	-393	
-2510	415	4.4	5045275	37.5	82528	-136	-388.6	
-2332.5	812.5	4.5	5052700	37.6	82664	-505	-385.9	
-2250	1045	4.5	5059875	37.6	83169	-383	-399.1	
-2220	1100	4.5	5050925	37.5	83552	-326	-456.6	
-2045	1082.5	4.5	5066625	37.7	83878	-393	-499.4	
-2032.5	1077.5	4.5	5059075	37.6	84271	-264	-550.7	
-2122.5	960	4.5	5059075	37.6	84535	0	-542.6	
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-2360	135	4.4	5064600	37.6	85076	-728	-508.4	
-2305	-17.5	4.4	5071100	37.7	85804	-610	-509.6	
-2185	-502.5	4.4	5076925	37.7	86414	-109	-451	
-2255	-755	4.3	5063350	37.6	86523	-637	-440.1	
-2515	-1212.5	4.3	5068575	37.7	87160	-958	-396.7	
-2602.5	-1447.5	4.3	5072525	37.7	88118	-754	-302.7	
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-2795	-1992.5	4.3	5083300	37.8	89778	-183	-138.1	
-2860	-2085	4.3	5089250	37.8	89961	-91	-119.8	
-3105	-2457.5	4.3	5083900	37.8	90052	-108	-117.1	
-3125	-2257.5	4.4	5088775	37.8	90160	-740	-101.7	
-3082.5	-2275	4.4	5081950	37.8	90900	-24	-29.8	
-3155	-2325	4.4	5068950	37.7	90924	0	-63.2	
-3260	-2517.5	4.5	5071950	37.7	90924	-203	-63.2	
-3190	-2450	4.5	5073350	37.7	91127	-18	-52	
-3282.5	-2580	4.6	5071675	37.7	91145	0	-48.3	
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-3362.5	-2747.5	4.7	5090525	37.8	91159	-64	46.2	
-3052.5	-2485	4.7	5098325	37.9	91223	46	50.4	
-2822.5	-2482.5	4.8	5088275	37.8	91177	-21	90.7	
-2600	-2185	4.8	5087975	37.8	91198	-358	113.5	
-2532.5	-2005	4.8	5096075	37.9	91556	0	131.5	
-2520	-1737.5	4.9	5101150	37.9	91556	-91	131.5	
-2670	-1887.5	4.9	5103000	37.9	91647	19	134.4	
-2495	-1662.5	5.0	5107775	38.0	91628	69	168.8	

-2477.5	-1495	5.1	5113425	38.0	91559	136	185.6
-2332.5	-1302.5	5.1	5115775	38.0	91423	726	173.9
-2205	-925	5.1	5115475	38.0	90697	-22	109.8
-2205	-872.5	5.2	5118775	38.0	90719	449	123.4
-2377.5	-1062.5	5.2	5124100	38.1	90270	207	129.2
-2697.5	-1457.5	5.2	5125800	38.1	90063	-178	148.6
-2772.5	-1727.5	5.2	5117075	38.0	90241	0	192.2
-2762.5	-1972.5	5.2	5120650	38.1	90241	-62	179.7
-2572.5	-1755	5.3	5117975	38.0	90303	363	171.4
-2407.5	-1625	5.3	5121300	38.1	89940	237	119.4
-2320	-1702.5	5.3	5114175	38.0	89703	19	64.3
-2342.5	-1962.5	5.3	5064275	37.6	89684	85	3.3
-2397.5	-2267.5	5.3	5027450	37.4	89599	114	-5.2
-2602.5	-2427.5	5.3	5027475	37.4	89485	507	-56.6
-2515	-2340	5.4	5031250	37.4	88978	401	-136.3
-2435	-2225	5.4	5019075	37.3	88577	258	-147.8
-2460	-2262.5	5.5	5019525	37.3	88319	-125	-191.7
-2462.5	-2265	5.5	4989000	37.1	88444	-145	-137.1
-2422.5	-2252.5	5.6	4992500	37.1	88589	-157	-123.8
-2475	-2320	5.6	4996275	37.1	88746	-314	-87.5
-2435	-2260	5.6	4994425	37.1	89060	-591	-68.4
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-2377.5	-2140	5.7	4996650	37.1	89651	-400	-7.1
-2220	-2037.5	5.7	5000150	37.2	90051	-290	35.1
-2632.5	-2450	5.8	5003800	37.2	90341	286	128.7
-2510	-2312.5	5.8	5007200	37.2	90055	-181	150.5
-2302.5	-2112.5	5.9	5010750	37.2	90236	421	207.3
-2187.5	-1937.5	5.9	5005050	37.2	89815	-12	165.2
-2082.5	-1720	5.9	5005225	37.2	89827	206	175.4
-2077.5	-1665	6.0	5005150	37.2	89621	-123	163.8
-2207.5	-1815	6.0	5006525	37.2	89744	22	176.1
-2112.5	-1632.5	6.0	4967450	36.9	89722	0	173.9
-1980	-1407.5	6.0	4970550	36.9	89722	22	173.9
-1885	-1215	6.1	4973725	37.0	89700	646	171.7
-1455	-737.5	6.2	4962650	36.9	89054	504	112.2
-1385	-692.5	6.2	4966475	36.9	88550	387	80.8
-1385	-540	6.2	4971075	36.9	88163	0	53.7
-1355	-417.5	6.2	4975600	37.0	88163	90	53.7
-1367.5	-355	6.2	4980625	37.0	88073	90	32.1
-1270	-215	6.3	4983175	37.0	87983	0	17
-1060	72.5	6.3	4978750	37.0	87983	0	39.5
-1310	-305	6.3	4970400	36.9	87983	0	40.3
-2177.5	-1035	6.6	4970400	40.0	87983	0	40.3
-2360	-1167.5	6.6	4969600	40.0	87983	51	29.5
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-2447.5	-1377.5	6.6	4950550	39.9	87626	-126	-11.1
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-2730	-1815	6.6	4953725	39.9	87813	225	9.1
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-1680	-690	6.8	4822725	38.8	87580	-108	0.9
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-1890	-865	6.8	4589050	37.0	87737	0	133.2
-1942.5	-857.5	6.9	4546050	36.6	87737	15	133.2
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-1850	-647.5	6.9	4550075	36.6	87590	19	94.1
-2162.5	-1010	6.9	4554975	36.7	87571	247	92.2
-2245	-1292.5	6.9	4557650	36.7	87324	284	33.9
-2360	-1430	6.9	4560350	36.7	87040	297	-11.9
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-2242.5	-1262.5	7.0	4562675	36.7	86455	50	-111.4
-2215	-1297.5	7.0	4562675	36.7	86405	0	-123.8
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-2285	-1462.5	7.0	4568375	36.8	86405	-180	-207.7
-2232.5	-1525	7.0	4554075	36.7	86585	-64	-200
-2420	-1935	7.0	4557325	36.7	86649	0	-222.8
-2387.5	-1960	7.1	4560275	36.7	86649	-336	-232.9
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-3487.5	-2465	7.3	4536875	36.5	88130	-352	-117.5
-3480	-2527.5	7.3	4540925	36.6	88482	-103	-51.8
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-4100	-2227.5	7.6	4548025	36.6	89917	232	152.5
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-3792.5	-2310	8.0	4574350	36.8	88402	10	83.5
-3335	-2330	8.0	4557400	36.7	88392	66	81.4
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-1607.5	767.5	8.4	4567325	36.8	87515	168	161.7
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-1510	-10	8.3	4573025	36.8	87444	54	152.1
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-860	170	8.3	4592900	37.0	86550	327	128.7
-745	155	8.3	4599350	37.0	86223	325	96.2
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-402.5	152.5	8.3	4588400	37.0	85923	0	61.8
-445	295	8.3	4595525	37.0	85923	85	44.2
-642.5	162.5	8.3	4601225	37.1	85838	65	0.7
-817.5	20	8.2	4608825	37.1	85773	195	-15.6
-850	30	8.2	4604700	37.1	85578	290	-69.2
-887.5	197.5	8.2	4609750	37.1	85288	25	-96.6
-940	147.5	8.2	4614775	37.2	85263	2	-79.1
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-1127.5	-70	8.3	4623900	37.2	85261	0	21.1
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-1110	165	8.2	4632525	37.3	85305	-176	67.7
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-842.5	432.5	8.2	4649000	37.4	85929	-341	251.9
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-2162.5	-690	8.2	4499650	36.2	80105	163	-25.7
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-2087.5	-530	8.3	4523250	36.4	79759	159	-61.5
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-1777.5	-262.5	8.4	4566675	36.8	79617	-441	-144.8
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-1305	722.5	8.4	4680925	37.7	81011	0	-18
-1312.5	647.5	8.4	4685100	37.7	81011	0	-40.1
-1440	305	8.3	4691450	37.8	81011	0	-57.6
-1425	20	8.3	4699300	37.8	81011	0	-82.1

-1247.5	240	8.3	4702825	37.9	81011	0	-104
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-2010	822.5	8.3	4594750	37.0	82292	-155	-75.9
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-1427.5	1187.5	8.2	4612050	37.1	83165	-25	-53.5
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-1162.5	1057.5	8.1	4603075	37.1	82976	-43	-151.2
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-1117.5	842.5	7.7	4594450	37.0	84653	-62	19

-1125	785	7.7	4600925	37.1	84715	229	32.1
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-2792.5	-1525	7.0	4362150	37.8	85449	-401	-607.5
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-2460	-1240	7.1	4378775	38.0	87562	-746	-687.3
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-2080	-1347.5	7.2	4393425	38.1	89416	-956	-563
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-1550	-835	7.4	4417075	38.3	94821	-225	-133.5
-1500	-532.5	7.4	4421650	38.3	95046	0	-119.6
-1495	-405	7.4	4426825	38.4	95046	-300	-141.6
-1497.5	-405	7.5	4432200	38.4	95346	0	-116
-1482.5	-452.5	7.5	4435475	38.4	95346	0	-129.2
-1492.5	-650	7.4	4442475	38.5	95346	-373	-163.1
-1502.5	-660	7.5	4445600	38.5	95719	-3771	-150.1



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## United States Senate

COMMITTEE ON  
HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS

WASHINGTON, DC 20510-6250

July 16, 2012

VIA EMAIL (rule-comments@sec.gov)

Elizabeth M. Murphy  
Secretary  
Securities and Exchange Commission  
100 F Street, NE  
Washington, DC 20549

**RE: Proposed Rule Change to List and Trade Shares of the JPM XF Physical Copper Trust Pursuant to NYSE Arca Equities Rule 8.201;  
Release No. 34-67075; File No. SR-NYSEArca-2012-28**

Dear Ms. Murphy:

The purpose of this comment letter is to express concern about a proposed rule change by the NYSE Arca, Inc. ("NYSE Arca") to list and trade shares of JPM XF Physical Copper Trust ("the Trust"), a commodity-based Exchange Traded Fund ("ETF") linked to copper. There is ample evidence that the proposed ETF will disrupt the market supply of copper by removing from the market a substantial percentage of the copper available for immediate delivery. This supply disruption is likely to affect the cash and futures market for copper, increasing volatility and driving up its price to create a bubble and burst cycle. The proposed ETF is unlike any other metal ETF currently listed on the NYSE and would allow speculators to create a squeeze on the market. The proposed rule change is inconsistent with Section 6(b)(5) of the Securities Exchange Act of 1934 ("Act"), which requires that rules be designed to prevent manipulative acts and protect investors and the public interest. This letter respectfully suggests that the proposed rule change should be denied.

**Exchange Traded Funds.** Exchange Traded Funds enable investors to buy and sell shares in the fund on a stock exchange in the same way that investors can use the stock exchange to buy and sell shares in a corporation. ETFs linked to commodities appeared on U.S. stock exchanges for the first time in 2004, when an ETF linked to gold was offered for sale. Today, retail investors and other market participants can use stock exchanges to buy and sell shares in a wide variety of commodity-based ETFs, some of which track broad commodity indexes, others of which track sub-indexes, and some of which reference a single commodity. By buying and selling these shares, commodity-based ETF traders gain exposure to commodity prices without ever having to transact business on a commodity exchange subject to CFTC oversight.

The particular type of ETF addressed in the NYSE Arca proposal is structured as a trust whose assets are limited to a single physical commodity, copper. The ETF's investment objective is to track the spot price of copper, less trust expenses and fees, and provide its

shareholders with exposure to changes in the commodity price. The ETF does not sell or redeem individual shares, but instead sells large blocks or “Creation Units,” in units of 2,500 shares each, to broker-dealers or other financial institutions known as Authorized Participants (AP). In return, as a condition of the sale, APs are required to deliver to the ETF a specified amount of the physical commodity to support the value of the ETF shares being issued.

APs then sell the individual ETF shares to investors through the stock exchange. If the commodity price increases, the share values increase, and the investors gain; if the price drops, the share values fall, and investors lose. If the fund attracts more investors, the ETF typically sells more creation units (or blocks of shares) and receives additional physical copper deliveries to support those shares; if investments in the fund decrease, the ETF typically reduces its commodity holdings. The copper underlying the ETF may be purchased in cash markets or in commodity futures markets.

**Subcommittee Investigations.** The Permanent Subcommittee on Investigations, which I chair, has conducted several in-depth investigations into commodity markets, examining how speculation overwhelms normal supply and demand factors and increases prices at the expense of consumers and American businesses.

In 2006, for example, the Subcommittee released a report which found that billions of dollars in commodity index trading on the crude oil market had pushed up futures prices in 2006, caused a corresponding increase in cash prices, and was responsible for an estimated \$20 out of the then \$70 cost for a barrel of oil.<sup>1</sup> In 2007, the Subcommittee released a report showing how a single hedge fund named Amaranth made huge, speculative trades on the natural gas market using futures on a regulated futures exchange and swaps on an unregulated electronic energy exchange.<sup>2</sup> These trades pushed up futures prices and increased natural gas prices for consumers and American businesses.

In 2009, the Subcommittee released a bipartisan 260-page staff report and held a hearing examining commodity index trading in the wheat market.<sup>3</sup> One key topic was the impact of commodity index-based ETFs on futures contracts and commodity prices. Essentially, the report found that the purchase of wheat futures contracts to support the commodity index financial instruments, including ETFs, swaps, and exchange traded notes, had created a new demand for those futures contracts; had distorted the prices of those futures contracts by overwhelming normal supply and demand factors; had interfered with the convergence of wheat futures and cash prices; and had hurt American businesses and consumers by causing unreliable wheat prices and hedging failures.

In 2011, the Subcommittee held a hearing on excessive speculation in commodity markets and compliance with the Dodd-Frank Act. We studied the rise of commodity index

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<sup>1</sup> “The Role of Market Speculation in Rising Oil and Gas Prices: A Need to Put the Cop Back on the Beat,” U.S. Senate Permanent Subcommittee on Investigations Report, S. Prt. 109-65, June 27, 2006.

<sup>2</sup> “Excessive Speculation in the Natural Gas Market,” U.S. Senate Permanent Subcommittee on Investigations Report, S. Hrg. 110-235, June 25 and July 9, 2007.

<sup>3</sup> “Excessive Speculation in the Wheat Market,” U.S. Senate Permanent Subcommittee on Investigations Report, S. Hrg. 111-155, July 21, 2009.

funds, commodity-related Exchange Traded Products, and the mutual fund industry.<sup>4</sup> Our investigation discovered that these funds had put billions in speculative money into U.S. commodities markets, causing increased price volatility. The investigation identified the risk posed to the American economy from unstable prices for materials essential to industry, including copper.<sup>5</sup>

In January of this year, the Subcommittee investigated mutual fund speculation in commodity markets. Through our investigation we learned that IRS private letter rulings had allowed mutual funds to use either wholly-owned offshore corporations or financial instruments called “commodity linked notes” to make unrestricted commodities investments, although the law restricts them from deriving no more than 10% of their income from commodity investments. These investment strategies permitted a flood of billions in new speculative commodity investments.<sup>6</sup>

**Copper Market Background.** The global copper supply comes either from primary production through the extraction and processing of copper ore or from secondary production through the recycling of copper scrap.<sup>7</sup> The supply of copper is inelastic,<sup>8</sup> in part because extraction from old mines is declining and new mine projects have encountered delays.<sup>9</sup>

Copper is used in vital industries such as the construction, electrical, and electronics industries.<sup>10</sup> It is used to produce cable and wire used in power transmission and generation and in telecommunication, as well as for pipes used in plumbing and heating.<sup>11</sup> Copper demand comes from fabricators and manufacturers who create these products and copper is used as an end product by consumers throughout the world.

The majority of the copper produced annually is sold through long-term supply contracts. While such contracts specify the amount of copper to be delivered, price is typically not fixed until the time of delivery, exposing market participants to price uncertainty.<sup>12</sup> Copper prices tend to experience wide and unpredictable fluctuations.<sup>13</sup> Producers and consumers participate in

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<sup>4</sup> “Excessive Speculation and Compliance with the Dodd-Frank Act,” Opening Statement of Senator Carl Levin before the U.S. Senate Permanent Subcommittee on Investigations, November 3, 2011.

<sup>5</sup> *Id.*

<sup>6</sup> “Compliance with Tax Limits on Mutual Fund Commodity Speculation,” Opening Statement of Senator Carl Levin before the U.S. Senate Permanent Subcommittee on Investigations, January 26, 2012.

<sup>7</sup> Amendment No. 5 to SEC Form S-1 Registration Statement for JPM XF Physical Copper Trust, July 12, 2011, at p. 32-34 (hereinafter “Registration Statement”).

<sup>8</sup> Inelasticity of supply means that an increase in the global demand for copper cannot be met with a short-term increase in supply.

<sup>9</sup> Registration Statement, at p. 32.

<sup>10</sup> *Id.*, at p. 34.

<sup>11</sup> *Id.*, at p. 31.

<sup>12</sup> SEC Notice of Filing of Proposed Rule Change to List and Trade Shares of the JPM XF Physical Copper Trust; Release No. 34-66816; File No. SR-NYSEArca-2012-28, April 16, 2012, at p. 13 (hereinafter “SEC Notice”); available at <http://www.sec.gov/rules/sro/nysearca/2012/34-66816.pdf>.

<sup>13</sup> Registration Statement, at p. 14.

copper futures exchanges to hedge against this price instability.<sup>14</sup> Speculators also participate in these exchanges, buying price risk in exchange for potential profit.<sup>15</sup>

The London Metal Exchange (“LME”) is the largest and most influential copper futures exchange. “As a result of daily trading [of copper futures contracts on the LME], prices are ‘discovered’ and published by the LME.”<sup>16</sup> The LME’s prices are then used by producers and commercial end-users around world as the basis for the contract price for the physical purchase or sale of copper.<sup>17</sup> In addition to the base price, copper has an added “locational premia” based on the supply and demand for copper at the location from which it is supplied.<sup>18</sup>

The LME is the main source of information about the physical demand for and supply of copper, because it has traditionally been a “market of last resort” for producers to sell excess stock and consumers to fill short-term needs for copper beyond the amount for which they have contracted.<sup>19</sup> Copper is sold on the LME through “warrants,” or “bearer document[s] evidencing the right of the holder to possession of a specified lot of metal at a specified LME warehouse location.”<sup>20</sup> Copper sold on the LME must be Grade A and of an “Acceptable Delivery Brand,” a brand registered with the LME.<sup>21</sup>

**Disrupting Supply.** There is ample evidence that if the ETF shares are listed and traded on the NYSE exchange, the Trust will disrupt the global supply of copper. Although the Trust’s registration statement cites that in 2008 there was an estimated 2.47 million metric tons of copper stocks in the global copper market, only 390,000 metric tons of this copper was registered with exchanges.<sup>22</sup> The copper registered with exchanges is part of the small percentage of global refined copper stocks that are “liquid stocks” available for immediate delivery.<sup>23</sup> For example, in 2011, total global copper stocks were 3.515 million metric tons while liquid stocks were only 808,000 metric tons.<sup>24</sup>

Of those “liquid stocks,” only a small percentage of physical copper is truly available for purchase by third parties. When one removes from the calculation of “liquid stocks” extra copper held by consumers and producers, stocks that are waiting to pass through customs into importing countries, and stocks on the Shanghai Futures Exchange (“SHFE”) which are

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<sup>14</sup> SEC Notice, at p. 14

<sup>15</sup> *Id.*

<sup>16</sup> Registration Statement, at p. 40.

<sup>17</sup> *Id.*

<sup>18</sup> SEC Notice, at p. 25

<sup>19</sup> Registration Statement, at p. 41.

<sup>20</sup> *Id.*, at p. 40-41.

<sup>21</sup> *Id.*, at p. 42.

<sup>22</sup> *Id.*, at p. 20.

<sup>23</sup> *Report on Refined Copper Inventories on the Global Market*, Table 3: “Refined Copper Balance Detail,” Bloomsbury Minerals Economics Ltd, October 12, 2011 (hereinafter “BME Report”). Available at <http://www.sec.gov/comments/sr-nysearca-2012-28/nysearca201228-5.pdf> as Exhibit A of Submitted Comment from Robert B. Bernstein, Vandenberg & Feliu LLC, July 13, 2012, p. 15. Bloomsbury Minerals Economics is a specialized consultancy engaged in base metals market and price analysis, focusing in particular on copper.

<sup>24</sup> BME report, Table 3.

unavailable outside of China, it appears that most of the remaining copper stocks available for immediate delivery are on the LME and Commodity Exchange, Inc. (“COMEX”).<sup>25</sup>

Additionally, the proposed EFT will accept and hold only Grade A copper of an “Acceptable Delivery Brand,” exactly the type of copper on the LME.<sup>26</sup> Thus, even though the copper held by the Trust will not be held through LME warrants,<sup>27</sup> the set-up of the Trust makes it extremely likely that its copper will be acquired from LME warehouses.

In August 2011, the LME reported that it possessed approximately 464,000 metric tons of copper stocks and the COMEX had about 81,000 short tons (or about 73,500 metric tons), giving them combined approximately 537,500 metric tons of copper stocks.<sup>28</sup> As discussed above, copper supply is inelastic, so even with advance warning about an increase in the demand for copper, supply on these exchanges is not likely to increase. According to the Trust’s registration statement, the Trust will acquire 61,800 metric tons of copper to back its initial shares.<sup>29</sup> In addition, on June 22, 2012, NYSE Arca filed a rule proposal to list another copper trust, iShares® Copper Trust, sponsored by BlackRock Asset Management International, Inc., which would also significantly increase the demand for physical copper.<sup>30</sup> If BlackRock’s copper ETF is also approved, it will acquire an initial 121,200 metric tons of copper.<sup>31</sup> Together these Trusts would hold approximately 34% of the stocks of copper available for immediate delivery.<sup>32</sup>

**Effecting Price.** Removing one third of the available copper stocks undoubtedly will affect and increase the price of copper. If the supply of copper available for immediate delivery drops by about 34%, it naturally follows that the price of copper will rise. As the price of copper in the market rises, demand for shares of the Trust will likely increase as well, leading the Trust to create more shares, removing even more copper from the market and further decreasing the liquid supply. This artificial supply and demand pattern is likely to create a boom and bust cycle, as speculators enter and leave the market.

The Trust itself warns that “[b]ecause there is no limit on the amount of copper that the Trust may acquire, the Trust, as it grows, may have an impact on supply and demand for copper that ultimately may affect the price of the shares in a manner unrelated to other factors affecting the global markets for copper.”<sup>33</sup>

Moreover, according to the Trust’s registration statement, “[p]urchasing activity in the copper market associated with the purchase of Creation Units from the Trust or selling activity

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<sup>25</sup> *Id.* The Commodity Exchange, Inc., or COMEX, is a division of the New York Mercantile Exchange.

<sup>26</sup> Registration Statement, at p. 44.

<sup>27</sup> Registration Statement, at p. 43.

<sup>28</sup> LME Stock Report, J.P.Morgan, 9:07 AM, August 10, 2011.

<sup>29</sup> Jack Farchy, *JPMorgan copper ETF plan would ‘wreck havoc,’* Financial Times, May 24, 2012.

<sup>30</sup> SEC Notice of Filing of Proposed Rule Change to List and Trade Shares of iShares Copper Trust; Release No. 34-67237; File No. SR-NYSEArca-2012-66, June 22, 2012.

<sup>31</sup> Jack Farchy, *JPMorgan copper ETF plan would ‘wreck havoc,’* Financial Times, May 24, 2012.

<sup>32</sup> See LME Stock Report, J.P.Morgan, 9:07 AM, August 10, 2011; and Jack Farchy, *JPMorgan copper ETF plan would ‘wreck havoc,’* Financial Times, May 24, 2012.

<sup>33</sup> Registration Statement, at p. 20.

following the redemption of Creation Units may affect the price of copper . . .”<sup>34</sup> There is nothing to prevent high investor demand from causing an increase in copper prices or a quick drop in demand from driving down copper prices. The risk of a bubble in the copper market creates a corresponding risk that the bubble will eventually burst. When it bursts, investors may dump thousands of metric tons of copper back onto the market, swamping the market and depressing the price, and again impacting the world economy at large.

**U.S. Impact.** The impact on copper supply and price will be strongest in the United States because it is likely that the ETF’s copper will come from LME warehouses in the United States. The Trust will likely acquire its initial copper holdings from the location with the lowest locational premia. In addition, of the countries where the Trust has “initially permitted warehouse locations,”<sup>35</sup> the United States is the country with the lowest locational premia.

Moreover, because of the difficulty and expense of transporting copper,<sup>36</sup> it is likely the Trust will acquire its copper in the same location as where it plans to store the copper. The Trust’s registration statement says that “under most circumstances, the Trust will hold most of its copper in the warehouse . . . that is in the cheapest-to-deliver location [with the lowest locational premium]. Therefore, that Trust’s storage of copper may ultimately be concentrated in only a few warehouse locations or even a single warehouse location.”<sup>37</sup> As discussed above, the United States is likely to be that “cheapest-to-deliver location.” Also, most of the copper in LME warehouses in the United States is stored by the Henry Bath Group, a J.P. Morgan affiliate, which has been designated the warehouse keeper for the Trust.<sup>38</sup> The Trust could acquire the copper currently stored by Henry Bath for the LME and have it already located in a Trust-permitted warehouse location without any transportation costs.

As of August 2011, there were only about 257,000 metric tons of copper in LME warehouses in the United States and only about 73,500 metric tons in COMEX warehouses, for a total of about 330,500 metric tons of copper stocks available on exchanges in the United States.<sup>39</sup> The Trust’s initial 61,800 metric tons alone would remove about 19% of the U.S. supply of copper available for immediate delivery. If BlackRock’s 121,200 metric tons are included, these ETFs would remove over 55% of available U.S. copper stocks from the market.

**Unlike Existing ETFs.** While the SEC permits U.S. exchange sales of commodity-backed ETFs for gold, silver, platinum, and palladium, these metals and their markets are substantially different than copper. These four permitted metals are the only precious metals that are currently treated as world currencies. For this reason, they are commonly held for investment purposes. As a result there are substantial existing supplies of these metals which could be acquired to back an ETF without affecting the world market price in these metals.

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<sup>34</sup> *Id.*, at p. 28.

<sup>35</sup> SEC Notice, at p. 26.

<sup>36</sup> *Id.*, at p. 11.

<sup>37</sup> Registration Statement, at p. 20.

<sup>38</sup> *Id.*, at p. 2.

<sup>39</sup> LME Stock Report, J.P.Morgan, 9:07 AM, August 10, 2011.

Conversely, copper is not currently held for investment purposes because it is, relative to precious metals, very expensive to store and difficult to transport.<sup>40</sup> Because copper has not been held for investment, there is not the same existing supply of copper for the Trust to acquire to back its ETF. Holding copper for investment purposes will have a significantly greater impact on the copper market than ETFs holding palladium, platinum, silver, or gold had on their respective markets and the broader economy.

**Squeezing the Market.** If the proposed rule change is approved, it will make the copper market more susceptible to squeezes and corners by speculators. Creating this market condition is inconsistent with Section 6(b)(5)'s requirement that exchange rules be designed to prevent manipulative practices. A squeeze on the copper market is when a lack of supply and excess demand forces the price upward, and a corner is when one party acquires enough copper to be able to manipulate its price. A squeeze on the copper market already purportedly occurred this year in April when one entity took control of up to 90% of the cash contracts and inventory on the LME.<sup>41</sup> The ETF will make the market more susceptible to squeezes, because it could be used by market participants to remove copper from the available supply in order to purposefully artificially inflate the price. Moreover, their activities would go undetected by the LME, which conducts surveillance for dominant market participants, because ETFs are not currently subject to any form of commodity regulations. By holding physical copper rather than LME warrants, the Trust can control more of the available supply of copper without triggering LME reporting or rules.

Section 6(b)(5) requires that NYSE rules be designed to prevent manipulative acts and protect investors and the public interest. The proposed rule change is not designed to prevent manipulative acts. To the contrary, it may encourage such acts. This ETF may allow speculators to squeeze or corner the market in copper. If approved, the ETF is likely to distort the global price of copper, leading to a boom and bust pricing cycle which will hurt manufacturers who rely on this essential industrial product and will ultimately hurt consumers and the larger economy. It is not in the public interest for a new investment instrument to disrupt the delicate balance of supply and demand that sets the price for an essential commodity. The proposed rule change will benefit speculators at the expense of consumers and American businesses. The proposed rule change should be denied.

Thank you for this opportunity to comment on the proposed rule.

Sincerely,



Carl Levin  
Chairman  
Permanent Subcommittee on Investigations

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<sup>40</sup> Registration Statement, at p. 36-37.

<sup>41</sup> Eric Onstad, *Copper market expects squeeze, big holding appears*, Reuters, July 2, 2012.

May 9, 2012

**Re: File Number SR-NYSEArca-2012-28**

**Comments of Vandenberg & Feliu LLP on Proposed Rule change To List and Trade Shares of the JPM XF Physical Copper Trust Pursuant to NYSE Arca Equities Rule 8.201.**

Vandenberg & Feliu is a U.S. law firm based in New York that represents a major copper merchant company and several copper fabricators around the United States. Our clients are active traders of copper on the LME. From time to time, merchants are net short sellers of copper on the LME, which means they may require physical copper from LME warehouses to close out their hedge positions. Fabricators and/or merchants may from time to time purchase physical copper from LME warehouses in order to satisfy short-term needs for additional supply.

We oppose the rule-change. If approved, the NYSE will permit the JPM XF Physical Copper Trust to sell shares of an ETF backed by physical copper that must meet the LME requirements for copper available for immediate delivery. The copper backing this ETF will be removed from the market. For the most part, the only such copper available to satisfy the ETF's requirements is copper in LME warehouses. This is physical copper available to satisfy short positions on the LME and is also used as a market of last resort by physical sellers who may have a surplus not otherwise committed to fabricators in sudden need of supply. There is currently only around 200,000 metric tons of copper stored in LME warehouses, which represents a 57% drop in inventory since last year.

JPM's offering initially calls for the immediate removal from the market of as much as 61,800 metric tons of such copper, or the withdrawal of more than 30% of the copper available for immediate delivery worldwide. JPM's offering will therefore result in a substantial artificially-induced rise in near-term copper prices on the LME, which will severely disrupt the world market for the trading of such copper by, among other things, simulating the effects of an artificial squeeze or corner being financed by unsuspecting investors in JPM's ETF. What is worse, as explained in greater detail below, the effects are likely to be felt most severely in the United States, where the premiums for copper stored in LME warehouses are the cheapest and where JPM will likely acquire most if not all of its supply.

Like all commodity squeezes and corners, this activity, which the NYSE's rules will not only be powerless to stop – but will legally allow to occur -- will have the effect of enticing investors seeking quick profits to participate in an artificially inflated market because the more that is invested in physical copper backed ETFs, the more such copper will be removed from the market -- literally taken “off-warrant” and not available for sale -- thus forcing prices even higher.

However, like all bubbles, as investor demand for this product wanes, as it inevitably will, the bubble will burst, leaving in its wake a glut of physical copper that the JPM Trust will be forced to dump on the market, causing prices to plummet, and leaving in its wake unsuspecting investors who will have lost the value of their investment. In short, this proposed rule-change will allow the trading of an ETF whose sole purpose is to remove from the market a physical metal in short supply that, unlike other ETFs backed by physical metals that have been successfully offered for sale in the United States, is used only in manufacturing and for no other purpose. Adopting this rule change will therefore undermine the integrity of the very markets that the NYSE and the SEC are supposed to protect, grossly and artificially inflate prices for an industrial commodity already in short supply and, as a consequence, wreak havoc on the U.S. and global economy.

## **A. The Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for the Proposed Rule Change is Fundamentally Flawed**

### **1. The Purpose is Flawed**

The Exchange first tries to convey the impression that a copper –backed ETF is no different conceptually from previously approved ETFs backed by physical gold, silver, platinum and palladium. Thus, in seeking approval, the Exchange states that the SEC has previously approved listing on the Exchange commodity-based trust shares, or ETF’s backed by physical commodities, for gold, silver, platinum and palladium, as well as “baskets” of precious and other metals. Notice at 2. However, gold, silver, platinum and palladium are all precious metals which have traditionally been held for investment purposes, while physical copper is used exclusively for industrial purposes and is not generally held for investment .

In fact, gold, silver, platinum and palladium are not only precious metals, but they are the only precious metals in the world that are actually treated as currency. Thus, for purposes of global banking and trade, the International Standards Organization specifically includes gold, silver, platinum and palladium on its list of tradable currencies, see, i.e., ISO 4217, and the international standard unit of such precious metal currency is the “troy ounce.” Indeed, the ISO has assigned these metals their own international currency codes. Thus, gold is XAU 959, silver is OAG 961, palladium is XPO 964 and platinum is XPT 962. Copper is obviously not a precious metal and it is certainly not tradable as a currency.

Because they are tradable as currencies, there are ample stored sources of gold, silver, platinum and palladium that can easily be acquired to back an ETF without any disruption in the market. For example, approximately 40% of the gold produced every year worldwide is held for investment purposes, while about 46% of the silver produced is held investment purposes. Large amounts of platinum and palladium are likewise stored worldwide. Consequently, because there is already a substantial quantity of these precious metals being held for investment purposes, the introduction of ETFs backed by these precious metals had virtually no impact on the available supply.

That would not be true for physical copper. The Exchange states that there are around 18 million metric tons of refined copper produced each year. However, the copper produced is not only used exclusively for industrial purposes, but the demand for copper each year generally

exceeds the available supply. In fact, almost all copper produced in the world is delivered pursuant to long term contracts to copper fabricators, with the result that, at any given time, there is only a limited amount of copper not otherwise committed that is available for immediate delivery. Such copper is generally stored in LME warehouses around the world. These warehouses are generally located at ports where copper can be delivered to countries that are net importers of copper. The amount of copper stored in LME warehouses generally reflects the delicate global balance of supply and demand for such copper. Thus, it is usually deposited there by producers with excess supply or by copper merchants looking for purchasers, and sold either to traders seeking to close out short positions on the LME or to fabricators in sudden need of additional supply.

Today, even though as much as 18 million metric tons are produced annually, as the Exchange recognizes, global copper consumption in 2011 is estimated to be nearly 20 million metric tons, an increase of approximately 3.5% from 2010, and the combination of a Western economic recovery and ongoing robust demand in emerging markets is expected to result in growth of global copper demand of close to 3.7% in 2012. And while there may not always be agreement as to actual global supply and production, the consensus among the experts is that copper is in deficit, i.e., annual consumption exceeds annual production, it has been in deficit for the past three years, and it is expected to remain in deficit for at least the next couple of years. Consequently, merchants and fabricators are really dependent on warehouse stocks for supply.

However, there are only about 200,000 metric tons of copper available today in LME warehouses worldwide. As indicated above, this represents a substantial 57% drop in available inventory in the past year, and represents the lowest levels since 2009. Excluding copper that is stored in China and only available to Chinese fabricators, the only other copper available for immediate delivery is about 50,000 metric tons of copper stored in COMEX warehouses in the U.S.

More importantly, though, while there may be some private sources of copper available, this LME copper is the only visible copper available to satisfy the Trust's requirements for copper to back the proposed JPM ETF. According to the Exchange, if the initial offering of the Trust's shares is successful, the Trust will immediately acquire as much as 61,800 metric tons of copper. Because the only copper that can be deposited into the Trust's warehouse is copper meeting LME specifications, the only visible source of such copper is copper in LME warehouses. Thus, if the Trust is successful, it will almost certainly remove from LME warehouses as much as 30% of the global supply of copper available for immediate delivery. Nothing even remotely comparable occurred when the SEC approved rules allowing for the sale of ETFs backed by gold, silver, platinum and palladium.

However, the market impact – particularly in the United States – is likely to be much more severe. The United States is a net importer of copper. In other words, the U.S. consumes more copper annually than it produces. Much of the copper consumed in the U.S. comes from South America through the port in New Orleans, where an LME warehouse is located, and also through the port in Panama City, where it is delivered generally to fabricators. As demonstrated below, the launch of a copper backed ETF on the Exchange is likely to upset the delicate balance of copper supplied to the United States, with potentially devastating consequences economically across a wide spectrum of industries.

According to the Exchange, the Trust plans to acquire its copper from locations with the lowest premiums. The locations with the lowest premiums for copper are all in the United States. The biggest reason for these lower premiums is that demand for copper in the United States has remained relatively flat over the past several years, while demand in China has more than quadrupled over the past ten years and continues to grow. Indeed as the Exchange itself reports, Chinese consumption has increased from 1.8 million metric tons in 2000 to 7.8 million metric tons in 2011, and with the Chinese economy expected to grow at about 8% a year, Chinese consumption will only be increasing. At the same time, America's consumption over the same period has declined from about 3.2 million tons to 1.9 million tons. However, with the U.S. economy expected to start growing by as much as 3 per cent beginning this year, demand will be increasing. European consumption has meanwhile remained relatively steady at around 4 million metric tons.

Based on the present level of demand, though, location premiums for copper in the United States are at least ten times lower than they are in Europe and Asia. Thus, the copper likely to be acquired by the Trust – and taken off market -- will be copper in the United States. This will drive up the price of copper in the United States just as the U.S. will be competing globally for production that, as indicated above, has been increasingly going to China.

There are at three main LME warehouses in the United States that will be impacted: in New Orleans, Chicago and St. Louis. According to JPM's draft Registration Statement, if the Trust is successful, it will acquire as much as 61,800 metric tons of LME copper and because the cheapest location premiums are in the United States, much if not all of that copper will come from these three U.S. warehouses. In fact, if successful, the Trust may be in a position to acquire all or substantially all of the entire U.S. supply of copper available for immediately delivery.

All copper stored in LME warehouses is on "warrant," which means that it is immediately available for sale. The total amount of copper in New Orleans today is about 45,000 metric tons, most of which is stored by Henry Bath, an affiliate of the Trust and JP Morgan. The Trust could thus acquire all of the available supply of copper in New Orleans by simply acquiring what Henry Bath currently has in storage, and taking it "off-warrant" – all without incurring any transportation costs. The same is true in warehouses in Chicago and St. Louis. Chicago has around 25,000 metric tons and St. Louis has around 53,000 metric tons. Again, all that has to occur is for Henry Bath to transfer ownership of copper in its own warehouses without having to incur any transportation costs.

The situation will also have an impact on copper stored in Comex warehouses. Unlike the LME, which generally has its warehouses in ports, such as New Orleans, or in major transportation hubs, like St. Louis and Chicago, Comex warehouses are generally located near U.S. producers of copper in Arizona and California. Copper in Comex warehouses is generally available to short sellers on the Comex and to manufacturers and fabricators located in relatively close proximity to the producers. However, the removal of large quantities of copper from the LME warehouses in the U.S. will result in the emptying out of substantial quantities of copper from the Comex warehouses. Such copper will either be delivered to LME warehouses, where the demand would be greatest, or it will be shipped to fabricators in other parts of the United States that are no longer able to get copper for immediate delivery from the LME.

If the Trust is successful, and copper in such huge quantities is taken off-market, the impact on the U.S. economy will be swift and severe. There will almost certainly be an immediate spike in the cash price for copper, as well as an immediate spike in the cash to three-month spread price of copper, known as the backwardation, as near term prices for delivery accelerate compared to prices for delivery later in time. Manufacturers and fabricators will have to pass these increases in price on to their customers, and because it is the U.S. supplies that will be hit the hardest, it will be U.S. consumers that will be hit the hardest. Everything that requires copper, including copper pipes in new homes, to copper wiring for electricity, to the copper used in air conditioning units and also in automotive wiring, will all increase in price.

The other problem, besides higher prices, is increased volatility. Prices today are already volatile. The delicate balance of supply reflected in the diminished quantities available in LME warehouses for immediate delivery can be altered at any time a large supplier or trader decides, for whatever reason, to shift quantities elsewhere. The LME publishes its warehouse stocks on a daily basis and prices tend to move in tandem with the ebb and flow of such stocks. However, when supplies are moved elsewhere, prices and/or backwardation can go up dramatically, and when the market stabilizes, they can just as easily come down. If one adds to the mix the risk of an ETF removing indefinitely all or substantially all of the copper available for immediate delivery, the risk of price volatility becomes enormous. This is because the greater amount of copper artificially kept off-the-market, the greater the chance that investors will eventually no longer keep propping up the price with further purchases, and the greater the likelihood that the bubble will burst, thus flooding the market with surplus copper, and severely depressing the price.

In addition to the limited amount of supply currently on hand, there is also the problem of supply inelasticity generally. Normally, when prices for a commodity increase, there is a corresponding increase in supply as producers react to the higher price and produce more. Here, however, as the Exchange recognizes in its discussion of general supply inelasticity worldwide, it is difficult for copper producers to increase supply, sometimes taking 15 years or longer before a new mine is opened up, and even in areas where copper is considered plentiful, political instability can keep a mine from producing. Moreover, United States producers do not have surplus product to deliver. Therefore, once the copper they place in Comex warehouses disappears, it will not likely be replenished any time soon.

Against this backdrop, the Exchange tries to convey the impression that even though the Trust will be removing substantial quantities of copper from the market, the impact will be slight because investors in the ETF would always have the right to redeem their shares for the Trust's physical copper. However, most investors in a copper-backed ETF would not have any real economic incentive to redeem their shares for physical delivery. The principal reason for this is that an investor in a copper-backed ETF would benefit immediately from any increase in price for copper because the more copper removed from the market to satisfy the demand for the ETF, the higher the price not only of copper, but also of the ETF itself. And investors willing to take advantage of that increase could easily sell their shares of the ETF on the exchange – without having to assume any risk of delivery.

Of course, once taken off-warrant and held by the Trust, copper may re-enter the market when an ETF shareholder elects to redeem his shares for actual copper metal. Thus, fabricators

could protect themselves against the risk of not being able to obtain immediate delivery by purchasing shares of an ETF and then redeeming the shares whenever they may need supply. The problem, though, is that (1) this would still represent an added cost – and risk -- to fabricators who would otherwise simply purchase available stocks from LME warehouses; (2) if already tight supplies are made artificially tighter in a rising market by reason of the ETF, the exercise of any such redemption rights will not likely have any appreciable effect on price or supply in any event; and (3) there are potential lead time issues in getting delivery from the warehouses (which if Henry Bath, are owned by JPM).

And to make matters worse, if this rulemaking is approved, and the other major competing ETF follows suit, it is conceivable that all or nearly all copper available for immediate delivery on the LME might be taken off market. Thus, for example, while nowhere mentioned in the Exchange's proposed rulemaking, at the same time that JPM filed its proposed offering with the SEC, BlackRock filed its own proposed offering for a copper backed ETF that, if successful, would remove as much as 120,000 metric tons of copper from the market. And like JPM, BlackRock also intends to acquire LME-grade copper from the LME warehouses where the location premiums being charged are the lowest. Thus, approval of this rulemaking could lead to the removal of all or nearly all of the LME and Comex supply of copper available for immediate delivery.

The ramifications are not difficult to predict. The last time U.S. supplies of copper in LME warehouses was subject to a squeeze of this magnitude was in 1995-1996 when Sumitomo Corporation in Japan conspired with a U.S. trader to squeeze the price of copper on the LME in the United States by, among other things, removing 100% of the copper from the LME warehouse in Long Beach, California. In that case, the removal of copper from the LME warehouses caused an immediate sharp spike in the near term price of copper on LME worldwide, which not only squeezed holders of short positions on the LME in the United States and abroad who were forced to pay artificially high prices to close out their positions, but it also led to substantially higher near term prices for copper and created a substantial backwardation which, as indicated, is the phenomenon that occurs when near term prices for a commodity are greater than prices for delivery later in time. Copper prices are usually in contango, which means that near term prices for delivery are lower than prices for delivery in the future. Such pricing reflects the usual pattern that buying a commodity for delivery in the future usually factors in a cost of carry or storage, which is why it is ordinarily more expensive than the same commodity would be for short term delivery. Here, however, by creating an artificial shortage of copper in LME warehouses, traders will bid up prices for delivery in the near term and, consequently, a backwardation gets created.

The Exchange tries to minimize any such consequences by suggesting that “[t]he objective of the Trust is for the value of the Trust's Shares to reflect, at any given time, the value of copper owned by the Trust at that time, less the Trust's expenses and liabilities at that time.” That, however, is not an accurate statement of the Trust's objective. The Trust's objective is to remove from the United States market – where the location premiums for physical copper are the cheapest -- all or substantially all of the physical copper available for immediate delivery in the expectation that by creating an artificial shortage of a commodity used exclusively for industrial purposes, the Trust's investors will drive up the near term price of the commodity, and increase

the cash to three month spreads (or backwardation) of the commodity, and thereby drive up the price of the Trust's shares.

As BlackRock candidly admitted in its own draft registration statement, dated September 2, 2011, “[a]n increase in the demand for copper, driven by the success of the trust or of similar investment vehicles, could result in increases in the price of copper that are otherwise unrelated to other factors affecting the global copper markets. (at 10). As BlackRock further states, “because there is no limit to the number of Shares that the Trust can issue, a very enthusiastic reception of the Shares by the market or the proliferation of similar investment vehicles that issue shares backed by physical copper [such as the offering by JPM] would result in purchases of copper for deposit into the Trust or such similar investment vehicles that could be large enough to result in an increase in the price of physical copper.”

JPM's objective is no different. Thus, in its July 12, 2011 draft registration statement, JPM states “[t]he Trust Agreement places no limit on the amount of copper the Trust may hold,” that “[m]oreover, the Trust may issue an unlimited number of shares, subject to registration requirements, and thereby may in theory acquire an unlimited amount of copper” and that “[i]f the amount of copper acquired by the Trust were large enough in relation to global copper supply and demand, in-kind creations and redemptions of shares could have an impact on the supply and demand for copper unrelated to factors affecting the global markets for copper.” (at 21).

Again, the Exchange tries to minimize the consequences by suggesting that, like gold, silver, platinum and palladium, there is also a robust appetite among the investment community to invest in copper. Here, the Exchange states, “[t]he investment sector includes professional and private investors and speculators who are involved in investment and trading activities related to copper. Participants range from large hedge funds and other investment vehicles to day-traders on futures exchanges.”

In fact, there is very little evidence that anyone in the private sector actually holds physical copper for “investment.” For one thing, unlike gold, silver, platinum and palladium, which are all traded in troy ounces, copper is traded on the LME in lots of 25 metric tons, and on the Comex in lots of 25,000 pounds. As the Exchange concedes, “copper is bulky relative to precious metals such as gold, silver, platinum and palladium.” However, the essential point, which the Exchange omits, is that the equivalent cost of storing copper, as opposed to storing these precious metals, is enormous. Consequently, copper is generally not stored for investment purposes. Indeed, because of the fixed costs of storage, it is generally much cheaper to invest by buying copper futures or forward positions on the Comex and LME, respectively, and then either taking delivery, or rolling those positions over. If the market is in backwardation, meaning that the price for delivery in the future is lower than the price for immediate delivery, one can simply purchase a long futures position, hold on to it, and then, as delivery comes due, either sell or roll it forward at a profit – without ever having to take any delivery. Conversely, if the market is in contango, one can purchase a short futures position, hold on to it, and then as delivery comes due, do the converse. In either case, the investor does not incur the risk and huge cost of having to store the metal. Consequently, unlike gold, silver, platinum and palladium, physical copper itself has never been a metal that anyone realistically holds “for investment purposes.”

Indeed, the absence of any data showing anyone holding physical copper “for investment purposes” illustrates the huge difference between the holding of precious metals, which are stored privately for investment in vaults around the world, and the holding of physical copper which, if it meets LME specs, is either deposited in the LME warehouses or held as inventory by copper fabricators.

In short, the ramifications of a proposed rule allowing an ETF backed by physical copper to be marketed on the Exchange could be huge and widespread, and would in no way be comparable to the consequences that ensued when the SEC approved rules permitting the Exchange to offer ETFs backed by gold, silver, platinum and palladium. What is more, with this rule-change, the Exchange would be permitting the marketing of the first ever such product involving a non-investment, non-currency commodity. That could mean that in the future, all commodities could be used to back physical ETFs, including oil and agricultural products.

## **2. The Statutory Basis is Flawed**

The basis under the Act for this proposed rule change is the requirement under Section 6(b)(5), 15 U.S. C. 78(f)(b)(5) that an exchange have rules that are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest. As demonstrated, none of these requirements is satisfied.

The Exchange states that the proposed rule change is designed to prevent fraudulent and manipulative acts and practices “in that the Shares will be listed and traded on the Exchange pursuant to the initial and continued listing criteria in NYSE Arca Equities Rule 8.201.” However, the Exchange has no rules in place to prevent fraudulent and manipulative acts and practices that can arise with the marketing and sale of an ETF that is predicated entirely on an investor-financed removal from the marketplace of a commodity used exclusively for industrial production – solely for the purpose of profiting from a rise in price created by such artificially induced shortage. Thus, investors in the ETF, whether acting individually or in concert with others, will be engaged in the collective removal from the market of all or nearly all of the physical copper available for immediate delivery in the United States. Normally, the removal of a commodity from the market, for the purpose of artificially inflating its price, is considered a squeeze or corner, which is a violation of the prohibitions against manipulation under the Commodity Exchange Act and, if done in concert with others, is a violation of Section 1 of the Sherman Act. If the proposed rule change is approved, the SEC would be putting its imprimatur on the trading of instruments which will accomplish legally under the guise of a copper-backed ETF what would otherwise be prosecuted as a violation of federal law. Regardless, the effect will be the same.

Thus, by removing from the market a limited supply of a commodity otherwise available for immediate delivery, the Exchange with this rule will be sanctioning the creation of an artificial shortage of a commodity used exclusively for industrial purposes, and forcing a rise in the near term price of cathode copper, both on the cash market and on the spread between the cash market and deliveries in the near term. The elimination of such copper from the market will squeeze net short sellers on the LME, forcing them to pay artificially higher and higher

prices. Manufacturers and fabricators who rely on the supply of copper available in LME warehouses will be forced in the short term to pay substantially higher prices as the more successful the ETF is among investors, the more copper will be taken off market. They in turn will pass the additional costs on to consumers. In addition, the drawing down of stocks in LME and Comex warehouses will make it much easier and cheaper for speculators to engage in temporary market squeezes and corners. Thus, there will be less product to acquire, store and/or ship elsewhere to engineer such market anomalies.

At the end of the day, though, because the ETF will itself create an artificially induced squeeze, there will come a time when the appetite for such risk ceases, the costs of physical storage become too excessive, and investors lose interest. As is always the case in markets that are squeezed, this will lead to the release of such copper on the market, causing an immediate drop in price. The resulting volatility in price and price spreads will wreak havoc on many companies through the United States, including major manufacturers whose shares are undoubtedly traded on the Exchange. The Exchange may believe the same rules it has in place to address transparency in the trading of ETFs backed by gold, silver, platinum and palladium will work just as well for copper, but because the ETF for copper is specifically designed to upset the delicate balance of supply and demand reflected in the limited quantities available for immediate delivery in LME (as well as Comex) warehouses, the Exchange has no rules in place to address the risks of fraud and manipulation that would result if an ETF in copper is successful.

The Exchange further states that the proposed rule change is designed to promote “just and equitable principles of trade and to protect investors and the public interest in that a large amount of information is publicly available regard the Trust and the Shares, thereby promoting market transparency.” Here, too, the Exchange assumes that the just and equitable principles of trade that work to protect investors and the public interest with respect to the sale of ETFs backed by gold, silver, platinum and palladium will work just as well with ETFs backed by physical copper. For all the reasons explained herein, the Exchange is wrong. As we have shown, the supply of copper available for immediate delivery to satisfy the ETF’s requirements is quite limited. Unlike, gold, silver, platinum and palladium, which traditionally have been held in storage for long term investment, copper is used exclusively for industrial purposes, is not generally held in storage for long term investment purposes, and the quantities of copper that this ETF alone is calling for removal from the market would account for as much as 30% of the available stocks in LME warehouses worldwide, and because the ETF will give priority to those warehouse stocks which bear the cheapest locational premiums, could result in the removal of all or substantially all of the stocks in all of the LME warehouses in the United States, i.e., in New Orleans, St. Louis and Chicago. Nothing remotely comparable to that occurred when the SEC approved the sale of ETFs for gold, silver, platinum and palladium, respectively.

The Exchange suggests that any impacts may be avoided by the publication of data showing the amount of copper stored each day in ETF warehouses. However, merely showing the amount of copper being taken off market and tied up in ETF warehouses will not remove the impediments to supply – and resulting economic dislocations -- created by the removal of supply in the first place. Indeed, transparency in this regard can actually make things worse. Thus, investors in ETFs backed by copper will be able to measure how much impact each day their collective removal of copper from the supply available for immediate delivery will actually have on copper prices, and can adjust their purchasing strategies accordingly. Consequently, even

though copper stocks in LME warehouses today generally move up or down by around 3 or 4 percent daily, with only modest effects on price, the successful launch of JPM's ETF alone could see the immediate withdrawal of as much as 30% of copper stocks worldwide, and most of that withdrawal is likely to take place in the United States which could see all or most of its copper stocks depleted entirely. Purchasers of ETF shares will thus be able to see a direct correlation between the success of the ETF, the removal of available copper from the market, and the resulting rise in copper prices and the ETF itself. Investors will thus be able to see that the more ETF shares that are purchased, the more copper that will be withdrawn, and the higher the ETF price will rise. And once the rule allowing JPM's ETF is approved, the Exchange would likely have to list BlackRock's copper-backed ETF that is initially projected to be at least twice the size of the JPM ETF. Thus, unlike with the sale of ETFs backed by the precious metals gold, silver, platinum and palladium, the effects will be far-reaching and potentially devastating to the U.S. and world economies.

It is therefore difficult to imagine how, even if there is "market transparency," this process will be in the "public interest." Causing enormous artificially created spikes in price for copper available for immediate delivery will inevitably lead to shortages of copper, higher prices to consumers, and increased volatility when, as if the case with all bubbles, the copper taken off market is placed back on market.

Finally, the Exchange states that the proposed rule change is "designed to perfect the mechanism of a free and open market and, in general, to protect investors and the public interest in that it will facilitate the listing and trading of an additional type of Commodity-Based Trust Shares that will enhance competition among market participants, to the benefit of investors and the marketplace." In this regard, the Exchange points "surveillance procedures related to trading in the Shares" and the possibility of obtaining information from other exchanges with which it has entered into a "comprehensive surveillance sharing agreement." However, these measures are the kind of garden-variety measures that are always in place to prevent collusion and other forms of manipulation by traders. They will not address the myriad problems created by the intentional disruption of the delicate balance of supply and demand for a commodity used exclusively for industrial purposes. By using investors to underwrite collectively the costs of holding physical copper off-market and in storage for the purpose of driving up prices, the Exchange is facilitating the fixing of prices which, if engaged in by competitors, as was the case of Sumitomo Corp. and its U.S. conspirator in the 1990s, would be a clear violation of Section 1 of the Sherman Act. Needless to say, the effects of such conduct would be anticompetitive in both cases. Net short sellers on the LME who need the physical commodity to close out their short positions will be forced to pay higher prices. If such trading is for the purpose of hedging, these higher prices will be passed on to consumers in the form of higher prices for copper priced products. Similarly, manufacturers and fabricators who rely on copper in LME warehouses to supplement their normal supply of copper will likewise be forced to pay higher prices -- even if they have no choice but to purchase and redeem ETF shares to get their copper -- and they too, will pass on their higher costs to consumers.

In sum, none of these anticompetitive activities would arise if copper were like gold, silver, platinum and palladium which, while used industrially, are also widely held for investment purposes such that the creation of an ETF backed by these metals had only a negligible effect on supply. But copper, as we have indicated, is very different from these

precious metals and the successful launch of an ETF backed by copper would, by design, reduce the available supply, increase price and volatility, and ultimately, hurt competition, particularly in the United States.