The Effects of the Financial Crisis on Metals Markets

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World Bank
Extractive Industries Week
4 March 2009
Washington, D.C.

I have been asked today to talk about the effects of the financial crisis on metals markets. Let me start by saying there really are two issues here. There are the metals markets, by which we mean base metals and industrial commodities such as, to some extent, silver, platinum group metals, and specialty metals. And then there is gold. Gold is quite different from other metals, from industrial commodities. It has departed significantly from commodities price trends over the past several quarters, reflecting the dominant characteristic of gold as a financial asset as opposed to being an industrial commodity. So let me first talk about industrial metals and then discuss gold at the end.

Also I think you have to differentiate, or at least I will differentiate, between the fact that you have two inter-related serious crises abroad in the world today. One is the financial crisis. The other is the consequent collapse of final demand and the plunge into a very deep recession on a global basis. Now, the financial crisis in many ways precipitated the recession. And they are, in fact, part and parcel together.

I will try to focus on the financial crisis, but it is impossible not to pay attention to the recession's effect. For example, in a second I'll start talking about the collapse in demand for industrial commodities. That is primarily an effect or a result of recessionary economic conditions that are abroad in the market. Insofar as those were precipitated by the financial crisis, one could say that the financial crisis has, in fact, caused the collapse in demand for industrial commodities. But there is a very important intermediate step there in the causality which I think is a very important matter to remember and to consider when understanding it.

Industrial Metals

First, let's talk about industrial commodities and let's talk about the immediate effects on these metals markets. The single most obvious thing has been an enormous destruction of fabrication and consumption demand for a host of industrial commodities, as well as agricultural commodities. From the early part of this decade, 2001 - 2003 until the middle of 2008, commodities prices were rising more strongly than they have at any time since the Civil War. You had a tremendous amount of demand increase. We are talking about fabrication demand or consumption demand or real demand, as opposed to investment demand.

There were three sets of factors going into driving commodity prices higher. One was a very strong persistent worldwide increase in real demand of fabrication demand for commodities, reflecting very strong real economic growth around the world. The second was a surge of investment demand into commodities and commodities-related derivative products, many with very high leverages on them. The third factor was that coming after a period of 20 years of stagnant economics and financials in the extractive industries, both metals and energies, as well as agricultural commodities if you really wish to include them, you had a very slow supply response to both the increase in demand and the increase in prices.

All of that came to a crashing halt in the middle of 2008. Real demand fell. We heard several numbers yesterday. I'm going to try to avoid numbers today, but here are a few. Aluminum demand had risen about 10% in 2007. It fell probably 3% last year, almost all in the second half of the year. It will fall at least 6% this year and it could fall further in 2010, depending on how the recession evolves. Copper demand is likely to fall 5% this year. Zinc demand is going to fall at least 3%. We have had a very sharp decline in real demand for these commodities, reflecting the decline in final demand for metals-bearing products.

The crisis has also put a big dent in investment demand. Investment demand was rising into the middle of 2008, along with real or fabrication demand. Between around 2002 and 2008 several factors came together to stimulate investment demand for commodities, from individual investors, but most of all and importantly from institutional investors worldwide. One of the things that was going on was that the returns available on stocks and bonds were not particularly attractive, and the volatility of returns in these asset groups was already rising. You had a number of institutional investors looking for enhanced yields. The second thing that you had was the publication of some academic, some quasi-academic or pseudo-academic, depending on how grouchy you want to be, and some market-related research that said that commodities actually make sense as investments. If you look at commodities, they can compete with stocks and bonds effectively over time. A lot of this stuff was not particularly honest. If you disaggregated the returns that they looked at in the commodities markets, you notice that first they were talking about commodity futures, not commodities per se. Half of the returns that they were attributing to the commodities futures came from the fact that with futures you only put up 15% of the principal, and the other 85% of your capital you notionally invest in Treasury securities. So half of the yields that they were attributing to commodity investments were, in fact, interest rates. They were also playing the rolls of futures from nearby to forward contract months of commodities with negative contangos in markets such as oil. Dishonest at worst, sloppy and bad academic work at best, but widely received and accepted throughout the financial market in the period 2003 to 2008. This is emblematic of some of the problems in funds management activity that has put us where we are today.

Another thing that was going on was that commodity prices started rising. One characteristic that you will find across financial assets is that investors chase prices. They chase them up and they chase them down.

The fourth thing is that there was a very large increase in the marketing of commodities by investment banks and brokerage houses to institutional investors. Banks and brokerages that had gotten out of the commodities marketing business in the 1990s and early part of this decade returned to marketing investment products to institutions with a vengeance. As there was a resurgence of investor interest in commodities, investment banks accommodated that interest by marketing commodities to these institutional investors. Part of this marketing pitch was a great deal of talk about "Commodities Supercycles." There's no quantitative historical evidence of commodity supercycles, and when you hear terms like that, as with "The New Economic Paradigm" that supposedly justified the never-ending stock market boom that collapsed in 2000 – 2001, you must realize immediately that you are not listening to reasoned research, but rather to marketing hype. Terms like the Commodities Supercycle are used by brokers and others trying to sell investors products based not on research and analysis, but on hype.

There is so much more going on in the commodities markets, and the macro-economic developments that are affecting commodities, that is not explained by a 'supercycle.' The key here is that from around 2002 to the middle of 2008 the commodities markets were infested with such marketing hype, which contributed to the ferocity of institutional interest in commodities.

All of these factors were driving investors into commodities until the middle of 2008. A lot of what institutional and high net worth individual investors were buying were forwards, futures, exchange or over-the-counter traded options, or medium term notes issued by banks and brokerage houses and insurance companies with a enhanced yield indexed to some commodities. All of these products had massive leverage imbedded in them. The institutions themselves had massive leverage, and the banks and brokerage houses and insurance companies that were offering them had leverage. When the financial crisis froze credit in the investment banking market and in the hedge fund market in the middle of last year, specifically in August and September, you had a lot of that credit pulled. A lot of those positions had to be automatically and immediately unwound. As a result, the last 7 years of the 17-year upward trend in commodity prices that the super cycle had predicted evaporated overnight. By the end of 2008 commodity prices were back to where they were basically in 2002. That was the devastating part of it all.

Supply

However, we would contend that the single most important factor or effect of the financial crisis on commodity markets and on metals prices and metals markets has been on the supply side. We have seen a collapse in final demand, real demand. We have seen a collapse in investment demand. Most important for the future, we have seen a collapse in financing to producers.

As I mentioned earlier, one of the factors that contributed to the rise in prices was the fact that the producing industries – oil, gas, hard-rock mining, precious metals mining, agricultural – these companies and industries have been starved across all of their inputs for decades. They were starved financially, technologically, managerially. As a result of this, and other factors, they had a very difficult time between 2002 and 2008 trying to catch up with prices and demand for their products. The financial crisis brought all of their efforts to a screeching halt, in a much more devastating way than it has damaged the demand side.

This is extremely important, because supply will be much slower to recover than demand will be. We have seen massive cutbacks in exploration. Both David Humphreys and Fabio Barbosa this morning showed the Metals Economics Group's data on exploration expenditures, showing how exploration expenditures for hard-rock mining went from $1.9 billion in 2002 to $13.2 billion last year. Exploration spending will probably be down around $6 or $7 billion this year. If the recession persists into 2010, they will probably be back down to about $5.0 - $5.5 billion in 2010, which was the previous peak in the 1990's and was sort of the take-off place in expenditures' increases around 2005. We have seen an approximately 50% to 60% reduction in exploration, 2008 to 2009. You've seen a massive reduction in development projects, development projects put on hold, deferred, or outright cancelled, as well. Anything that was in the pipeline and was financed, slated to come on stream in 2009, is probably advancing. Those things that are slated to come on to 2010, depending on where they were in the financing process, may come on stream in the foreseeable future. Anything beyond that, anything that still needed financing, has been devastated and will be suffering for a long time. You've had projects cancelled, projects delayed, projects deferred indefinitely, projects, companies going bankrupt. Capacity equivalent to about 20% to 25% of zinc capacity that was slated to be developed over the next five years has been put on indefinite deferral or cancelled outright. There are similar cutbacks in copper, aluminum, molybdenum, iron ore, and a host of other commodities. The financing crisis has really put a freeze on mining development.

Again, supply will be much harder to bring back than demand. Demand will recovery relatively quickly when economic activity revives. There will be an economic recovery. This is not the end of the financial system that has existed for 300 years. It probably will emerge as early as late 2009 or 2010. When that happens, demand should be expected to recover. Supply will be much slower to recover. The massive decline in development expenditures that has been seen over the past year will have major consequences for supply.

The 1980s As A Template for the Future

If you go back to the 1980's and examine what happened after the last deep recession, you see how metals markets may evolve over the next few years. From 1980 to 1982 we had two recessions back to back, what was called a double-dip recession back then. At the time it was the deepest recession in the post-war experience. It was devastating. We had seen a quadrupling of oil prices and a rise of metals prices. Copper had gone from 60 cents to $1.80 in the run up to that recession. Inflation had gone from 5% to 14%. Interest rates had gone from 2% to 21%. You had a very devastating economic recession in 1980 - 1982. That recession caused demand to collapse. Producers were slower to respond to the reduction in demand for their products. Large surpluses of metals built up in inventories, both in the market and at producers.

By 1983 we were coming out of the recession. The recovery was fast and strong, and the world economy came roaring out of the recession in a way that offers a lot of hope for where we might go in the future economically. Within a year, by the end of 1983 or early 1984, many basic commodities moved from surpluses of newly refined metal relative to fabrication demand to deficit markets.

This stimulated a great deal of bullishness about copper, lead, aluminum, zinc prices in 1983, because demand was recovering so sharply and we were moving into deficit markets. However, we had these large inventories overhanging the market, and those were inventories that were held by producers and merchants, people who held them as part of their industrial process as opposed to an investor who might be seeking a higher price for it. So these inventories were readily available to the market at near-current prices. As a result, what you saw were base metal prices basically treading water from 1983 until about 1987, 1988, because there were ample inventories to meet demand. You had a great deal of bullishness about copper and aluminum and other metal prices start to appear in the market 1983 and 1984 and it went unrealized for about 4 or 5 years because of those inventories.
This is a very important historical analogy, because we are seeing inventories build up this time and you could see a repeat of this experience.

Longer Term Effects

Now, let me talk a little bit about the longer term. As I said earlier, we do expect the global economy to recover. It possibly could show signs of bottoming out in the second and third quarters of this year, showing further signs of recovering by the end of this year or early next year. It depends on whose forecast you use. The IMF has a relatively good forecast in that it expects a deep recession in 2008 - 2009 and a relatively quick recovery to relatively high levels of gross domestic product by 2010 - 2011. We are not quite sure. This has been our major economic outlook that we have been working with over the past several months. We may make this our secondary economic outlook, and move to more of an L-shaped real GDP profile with a slower recovery. It is hard to say at this time, as there is almost total uncertainty in economic expectations.

That said, one of the key aspects to bear in mind when considering the world economic outlook is that there is an enormous amount of investible money sidelined in the world today, waiting to be re-deployed and re-invested. This was true even before all of the financial and monetary stimuli packages were rolled out starting in September and October of last year. You had more money in cash and cash equivalents perhaps than ever before in history, looking for investments. You probably also had the highest percentage of world's wealth in cash and cash equivalents since World War II, looking for good investments when the recession hit. That money is basically still there, and a lot of it was in cash so it has not gone down. People have lost wealth in other assets, but that cash is still there and it still is waiting to be deployed. Then, there are the financial and monetary stimuli of the past half year on top of the pre-existing cash stash. There is an enormous amount of money waiting to be invested.

Fabio Barbosa this morning was talking about a $200 billion projected shortfall in the financing required by hard-rock mining over the next five years. I happen to think that that money will be there. It will be more expensive and it will come with more stringent conditions attached to it, but it will be there. It already is there. As I go around the world and talk to institutional investors, sovereign wealth funds, central banks, high net worth individuals, family offices of billionaires, what I find is a tremendous interest, especially in gold, which I have not even gotten to yet, but also in commodities, metals, and energies in general. Their view of commodity prices are similar to BP's view of the oil price: You could have weakness this year, maybe even to 2010, but within five years you are probably going to see a lot of upward pressure on commodity prices again, because the recovery will bring it along.

You will see a faster response in reviving fabrication demand or real demand for commodities than you will in supply. When that happens, you'll start seeing price pressures. Investors will see the revival in prices and return as buyers. Their re-engagement in commodities will exacerbate the upside, just as they exacerbated the upside from 2003 to 2008 and they exacerbated the downside in the second half of 2008. These trends probably will not re-emerge until 2011 or so, but they probably will happen.

There are risks to the economic recovery and I'm not sure if I'm more concerned today than I was in October. There are some very irresponsible behaviors that we're seeing on the part of major groups of stakeholders in the economy, which could prolong the economic problems and make the financial problems that we're facing today much worse. So I do not think we are out of the woods yet. That is one of the problems that I have with my main economic scenario. I am not sure on the timing.

Financing Future Production

I think there also are going to be major constraints on financing in the future. As I said, you will see tighter conditions; you will see more expensive financing. Probably, possibly, hopefully you'll see much more stringent project evaluations and reviews, and much more thorough due diligence. What passed for due diligence and project reviews on the part of a lot of institutional investors over the last five years has really been appalling to a financial conservative like myself.

You also are going to see political problems, resource nationalism and a number of other issues, increased royalties, wanting to re-negotiate contracts and royalties regimes that will cause problems for financing many projects. But the financing will be available.

One of the reasons I say that is because I see the financing on the sideline waiting. Many of these fund managers have not worked as hard as they are now in years. They are not making investment decisions, but they are intensely studying projects, building up portfolios of things they would like to invest in when they feel the time is right.

The source and structure of financing for future energy and mining projects will shift. We have heard some comments about this over the last few days. One trend that is already emerging in the financial crisis, which will continue in the future, is the enhanced and increased role of Chinese, other Asian, and Middle Eastern funding sources. We will see a lot of investing from such geographic sources. Throughout Asia and the Middle East people at defense and strategic study institutes are studying their economic dependency the same way the EU is studying its economic dependency on rare metals that are sourced in extremely poor developing countries that have failed or quasi-failed governments.

Another issue about which I get asked is whether mining and energy companies will have learned anything about the unpredictability and volatility of commodity prices over the recent period, and whether they will adopt a more sophisticated posture toward financial management and price risk management going forward. I am hesitant to say that they will. In fact, I think they probably will not. The question is whether they will continue their recent and past posture, which in far too many companies has been to be a bull about metals price prospects and think that these commodity prices will rise forever. Given that the hucksters on TV probably will come back with their hype about a 'commodity supercycle,' many managers may forego sound financial management and effective hedging of their exposure to what obviously are volatile and unpredictable prices. I suspect these bad habits will continue. There are a variety of what we can call structural impediments that will keep mining companies from effective commodity price risk management.

Gold

I said I would talk about gold. I probably am running low on time here. So I will just say this.

We are coming out with the **CPM Gold Yearbook** at the end of March. I have supervised a team of analysts that have produced and written these gold yearbooks since 1980. I started when we were part of J. Aron and Company, and then we went to Goldman Sachs. We spun off in 1986. Each year I write or co-author a gold review. This year's review is somewhat different. If you look at the gold market, the market is different now from what it has been for most of the time from 1980, really 1970, until a few years ago. So, it makes sense if our report is different.

This is important since gold represents about 40% of investment into the extractive industries. It may be the thing that we should be least interested in from an industrial perspective, but from a financial market perspective, it is the most important commodity.

For 5,000 years gold was a monetary asset, a financial asset, and a commodity. Since the 1960's gold has been removed as a basis of the international monetary system. It is still used as a monetary reserve, but it is no longer the anchor of any currency systems, and probably never will be. Gold also been deprecated and reduced as a financial asset. In 1968 gold may have represented 4.5% to 5.0% of the world's wealth. By 1980 it was down to about 2%. By the 1990's it was down to 0.2% of the world's wealth. Not that gold was falling in value so much as the other wealth - stocks, bonds, paper assets, government bonds, corporate bonds, bank deposits - were exploding once the tie to gold was severed. In 2006 gold represented 0.2% of world wealth. At the end of 2007, it was about 0.4%. Depending on what you think about wealth destruction in 2008, it may have been 0.6%.

Over the past 40 years there have been five bull markets in gold prior to the current one. Each one coincided with an economic crisis, a currency crisis, a recession, high inflation, financial market instability. Each one lasted one or two years. This one is eight years old now and showing signs of continuing for a while yet, maybe many years. At this point you have to conclude that this is not a garden variety bull market, the same way it is not a garden variety financial crisis. We appear to be witnessing the early stages of gold's rehabilitation as a financial asset. I say that for a variety of reasons. One is our economic analysis. Another factor is that around the world people are demonstrating an unprecedented interest in gold, at sovereign wealth funds, central banks, institutional investors, private equity investors, and high net worth individual investors. There is greater interest in gold as a long-term investment asset and store of value that I have not seen in the 34 years that I have been working in this industry. Gold is a special case. It is quite different from industrial metals and it will continue to prosper, even beyond the economic recovery.

Thank you.