CAMBRIDGE ASSOCIATES LLC

INVESTMENT PUBLICATIONS HIGHLIGHTS

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Investment Publications Highlights

Summarized by the Published Research Team

"2011 Outlook: The Return of the Cyclical Bull Market" by Jeffrey Currie, Goldman Sachs, December 13, 2010

In 2010, cyclical commodities (e.g., base metals and energy) were volatile but range bound. Calendar year performance, however, masked the late year surge led by copper and, more recently, oil. This shift is likely to continue into 2011, as the market for cyclical commodities becomes tighter. A stronger United States is likely to bump up against a China that is consuming dramatically more commodities than pre-crisis, making resource realignment (i.e., the need to redirect supplies away from developed markets to emerging markets) more pronounced. This rationing of limited supplies can only come about through higher prices.

In 2010, noncyclical commodities such as gold and agriculture were the best performers in the sector. Cyclical commodities (e.g., base metals and energy), meanwhile, were volatile but range bound. Calendar year performance, however, masked the late year surge in cyclical commodities, led by copper in the past several months and, more recently, oil. This shift is likely to continue into 2011, as the market for cyclical commodities becomes tighter thanks to two key factors: supply growth stabilization and demand growth rebalancing.

Bigger-than-expected supply increases over the past year caused some investors to question the validity of the structural supply constraint argument, particularly in oil. However, most of the upward surprises in commodity supply were cyclical as opposed to structural. Driving this cyclicality is the availability of oil and mining services. First, service industries typically add capacity at the end of a business cycle. That capacity does not become available until early in the next cycle (i.e., with a one- or two-year lag). Second, the usage of the services industry is typically much lower thanks to reduced levels of demand coming out of a contraction. Finally, commodity industries typically have much less competition for resources versus other industries during these time periods, providing them with even more slack during an economic recovery. Historically, it takes three to four years after a recession to close the gap on oil services spare capacity. Thus, capacity usage in services should reach 2008 levels again in 2012 or 2013, shifting risks to supply to the downside.

Despite the recent positive cyclical tailwinds for the supply of oil and other key commodities, the structural supply constraint thesis remains intact. Most supply-constrained markets have a very narrow geographic distribution of supply, which creates substantial barriers to entry that engineering and investment cannot reduce. Most of the markets in which China and India are able to make large-scale investments (e.g., aluminum smelting, nickel pig iron, petrochemicals, petroleum refining, and wheat) are actually overbuilt. This underscores an important point that is often missed: China is the world's largest commodity producer. In 2011, China's production will likely exceed $700 billion, surpassing the United States and Russia by 10% and 25%, respectively. Further, this estimate does not include midstream or upstream activities (e.g., aluminum or steel smelting, or oil refining), in which China is a large exporter, with upwards of 50% of global capacity.

While demand surprises were more uniformly to the upside than supply surprises in 2010, this masks two very important points of demand differentiation. The first was the decoupling of much stronger emerging markets demand growth from much weaker developed markets demand growth. More subtle, however, was the unprecedented difference in the demand paths for investment-related goods (e.g., metals) versus consumer-related goods (e.g., oil). This occurred because of the credit nature of the global economic downturn, which generated a smaller decline in the demand for consumer-related commodities and hence much weaker demand recovery in 2010.

With the U.S. economy on more solid footing and China dealing with inflationary concerns, demand risks in the former will likely begin to shift to the upside, while in the latter investors can expect the reverse, particularly should policy tightening become more aggressive. Further, a stronger U.S. economy will also likely trigger the re-emergence of consumer-driven commodity demand. More specifically, as the economic cycle matures in 2011, the composition of growth will likely favor consumer-related demand, causing "early-cycle" commodities such as oil that lagged the broader complex to catch up to "late-cycle" commodities like copper.

But most importantly, U.S. demand is recovering back to near pre-crisis levels and is beginning to compete for global commodity supplies. In 2010, this was not the case, as the much weaker demand levels that characterized developed markets economies (combined with the upward supply surprises) allowed China to consume commodities in many markets without any significant competition. This left emerging markets economies to expand nearly unconstrained, causing resource realignment (i.e., the need to redirect supplies away from developed markets and toward emerging markets) to proceed at an extremely rapid rate (e.g., China surpassed the United States as Saudi Arabia's biggest buyer of crude oil at several points during 2010). In 2011, however, competition for resources will likely become more pronounced, constraining emerging markets demand growth.

The most supply-constrained commodities (e.g., copper, cotton, crude oil, platinum, and soybeans) are best positioned to capture resource realignment in 2011. These commodities are also the markets in which China and other emerging markets are most short, which will require a greater level of redirection. This rationing of limited supplies can only come about through higher prices. Further, with U.S. growth likely to be on more solid footing, this dynamic may become more pronounced in 2011 when U.S. demand recovers to pre-crisis levels and bumps up against China, which is now consuming 23% more oil, 63% more copper, 18% more cotton and soybeans, and 29% more platinum than it did in 2007.

"Food Commodity Inflation as a Global Macro Influence" by Bob Prince, Karen Karniol-Tambour, Ray Dalio, Jason Rotenberg, and George London, Bridgewater Associates, January 13, 2011

As the demand for commodities increases and supply tightens, there has been greater upward pressure on commodity prices recently than any time in the past 50 years. Increasing prices will have a larger effect on the emerging world, where food costs have a significant impact on inflation. Rising food commodity inflation is likely to bring about increased regulation in the emerging markets world, and may have monetary and fiscal policy consequences.

Commodity prices are surging and many are near record highs, as a combination of supply and demand forces creates upward pressure on prices

that is stronger than any time in the past 50 years. Rising living standards in emerging markets countries and reflationary impacts of developed markets policies have contributed to increased demand, while supplies are tightening amid environmental shocks. Food inflation will have global implications, but its impact will be greatest on emerging economies, where food costs compose a greater percentage of inflation measures than in the developed world. Continued food commodity inflation will require a policy response in the emerging markets world, especially in countries where existing monetary and exchange rate policies undervalue currencies and contribute toward inflationary pressures.

As emerging economies have grown wealthier and living standards have risen, the increased demand for food has been compounded by changes in preferences. Chief among these is the growing appetite for meat, the production of which is more resource intensive than that of grains. Increased demand for meat translates into higher demand for feedstuffs that are used in its production, such as corn and soymeal. It is likely that this trend will continue, as rising emerging markets wages lead to increased demand for meat and put upward pressure on prices for feedstuffs.

Increased demand for food is currently colliding with supply pressures. Stocks of many agricultural commodity supplies are at record lows given levels of demand, as increases in supply have not kept pace. Prices are likely to soar if further disruptions to production occur. One reason is the weather: last year, the drought in Russia contributed to a 5% reduction in wheat production, and a 2% drop in coarse grain output. As corn is a source of feed for beef, pork, and chicken, any supply disruption to corn would have far-reaching price effects.

The upward pressure on commodity prices has caused governments in the emerging world to implement a number of tightening measures, such as wheat export bans in Russia, export quotas in the Ukraine, and a ban on cotton exports—which was recently extended into 2011—in India. It is likely that more interventions will occur to cool food inflation. For example, Brazil has enacted multiple tax increases on foreign investments to control surging capital inflows. In addition, as some countries rely on imports for food supplies, or commodities needed to create food supplies, governments may also begin to aggressively try to lock in future supply. These measures will distort necessary adjustments, but ultimately will do little to rectify current imbalances.

Rising Chinese demand has impacted some global food commodity prices, but not in all circumstances. Domestic production has been able to keep pace with increased demand for some food commodities such as corn, so the impact on global prices has been muted. China also imports a relatively small percentage of the world's export supply of commodities such as sugar and coffee, and therefore has a minimal impact on their prices. However, for food commodities like soybeans, the potential for Chinese demand to influence global prices is enormous. China now imports around 60% of the world's exports of soybeans, a figure that may exceed 80% within five years.

Food commodity inflation presents a particular dilemma for emerging markets policymakers as these commodities constitute a much larger part of people's consumption baskets than in developed markets. Food accounts for between 33% and 47% of the inflation baskets across emerging markets, and thus contributes greatly to the variability in measures of emerging markets consumer price inflation (around 47% of total). Chronic shortages and rising prices create political problems.

Food price inflation is becoming an important global macroeconomic force because it compounds

the inflation pressures that are already building in emerging markets. These pressures come about in part from linked exchange-rate policies, which result in excessively low interest rates that over-stimulate economies. Rising food price inflation has the potential to be an important catalyst for monetary policy tightening and exchange rate revaluations that should be happening anyway. Depending on the magnitude of these moves, they could have knock-on effects for the United States because linked exchange-rate policies have required massive purchases of U.S. Treasury bonds. Without the purchases of U.S. Treasury bonds by foreign central banks in their fight against exchange rate appreciation, the United States would have higher bond yields, which would either slow the economic recovery or prompt more aggressive monetization by the Federal Reserve and have inflationary and other effects. Therefore, food price inflation in emerging markets is more than a local concern—it could have a significant global impact, especially if there are supply disruptions this year.

"Commodities: Headed Down a Rabbit Hole in 2011?" by John LaForge and Chay Norbom, Ned Davis Research, January 11, 2011

Over the past two years, commodities have enjoyed a tremendous run. Thanks to structural changes in the global economic landscape and increased demand for commodities from emerging markets, particularly China, the case for exposure to commodities seems to be intact. However, in the short term, investors should be prepared for a potentially volatile ride in the commodity markets as market participants begin to digest permanent factors affecting the demand for commodities and the structural outlook for supply.

Following a devastating 2008, commodities have enjoyed a tremendous run. From early 2009 until the end of 2010, the Reuters Continuous Commodity Index gained 73%. As a group, commodities have only performed this well twice since 1900: once from 1915 to 1917 and again from 1973 to 1974. Indeed, commodities have had such a great run over the last two years that some are starting to caution that certain commodities might be in a bubble. There are two questions investors need to ask themselves when thinking about the outlook for commodities going forward. First, what are the long-term prospects for investing in commodities? Second, how do the long-term prospects balance with the potential for short-term headwinds? Thanks to structural changes in the global economic landscape and increased demand for commodities from emerging markets, particularly China, the case for exposure to commodities seems to be intact. However, in the short term, investors should be prepared for a potentially volatile ride in the commodity market as participants begin to digest permanent factors affecting the demand for commodities and the structural outlook for supply.

A number of long-term positives can be cited when thinking about where commodities can go from current levels. Most importantly, the demand side of the equation has permanently changed due to the rapid development and relative strength of emerging markets economies. While this is not a new story, the increase in demand for basic commodities from emerging markets consumers as they change their lifestyles and eating habits seems to represent a paradigm shift. Additionally, the argument that emerging markets growth will continue is still viable. The emerging markets members of the G20 have only half the GDP of the G7, yet they have five times the population and three times the rate of GDP growth. The market for crude oil is an excellent example of how the demand landscape for commodities will likely change as a result of increased emerging markets demand. Over the last 30 years, most of the growth in crude oil

demand has come from emerging, non-OECD countries. Still, on a per capita basis, Americans use on average 22.2 barrels of oil a year, compared with just 2.3 per person in China and 0.9 per person in India. As emerging countries continue to develop and living standards rise, their constituents will begin to demand more modern benefits, which all run on basic commodities such as crude oil. By any measure, there is still room for growth in consumption in the emerging world and its appetite for commodities will not likely wane.

China's influence on the commodity markets over the last 20 years—and especially the last ten years—has been nothing short of extraordinary. The biggest question now is how long China can maintain its rapid rate of GDP growth and economic expansion. It is difficult to argue that China can continue to grow at the nearly 14% (nominal) rate of GDP growth it has for the past 18 years. On the other hand, with so much at stake, it can be assumed that Chinese leaders will do whatever it can to keep growth strong. Even if the Chinese economy did slow, it is worth reiterating how emerging markets consumers' demand preferences have changed and what impact this is having on the demand for basic commodities. As an example, the demand for automobiles has quadrupled in China over the past decade.

While demand for commodities is clearly elevated at the moment and likely the main driver of commodity price changes, over longer time frames, supply factors have a larger input in setting commodity prices. Many see supply limits for certain commodities as a fundamental reason why prices will have to rise in the longer term. Production of both oil and gold has basically been flat since 2005. Oil prices have subsequently doubled during this time, with gold performing even better. Eventually, an equilibrium price for a commodity is established, balancing supply and demand; for many commodities, this may be at a much higher level than currently seen in the market.

A falling U.S. dollar has also been a key driver of commodity returns over the last two years as most commodities are priced in dollars. The dollar continues to lose its purchasing power against a variety of currencies, particularly those from commodity-based countries. The last 30 years of easy credit has finally caught up with the United States and other developed countries; paying back all of their accumulated debts will be extremely difficult. Some combination of taxation, growth, and default will be very painful, and these secular headwinds leave currencies like the dollar vulnerable to further devaluation. Even though the dollar is the most-linked currency to commodities, there has been a general distrust of fiat currencies, raising the long-term prospects for most commodities. Investors seem to be searching for an alternative store of value for their wealth, and commodities have been a large benefactor of this shift. This is unlikely to change going forward.

While the long-term case for commodities is intact, there are a number of short-term concerns that may make the next few months a very volatile time for commodity investing. China's demand for commodities has pushed domestic inflation to uncomfortably high levels. Food prices have recently skyrocketed, and with the average consumer spending a third of his or her income on food, the increases have not gone unnoticed. As consumer confidence drops in China, the government is trying to carefully rein in inflation while maintaining growth. If the government's attempts to limit price increases are too heavy-handed and growth stalls, commodity demand could plunge.

Gold's recent pullback and failure to breach its November 2010 highs should also give investors a pause in the short term. Given that gold has

historically led major moves in commodities by an average of ten months, the slowdown in gold could be a sign of things to come for other commodities. Other potential short-term headwinds for commodities are the direction of interest rates and the potential for a stronger U.S. dollar in the near term. While interest rates in the developed world are low, they have started to move higher, especially on the long end. Sharp rises in interest rates are historically a negative for commodities and commodity-related stocks. Further, with real bond yields negative in most of the developed world but less so in the United States, the dollar could strengthen against major currencies like the yen and euro, creating another headwind for commodities. Given the secure status of the dollar as the reserve currency of the world, it also may benefit from further risk-on, risk-off behavior in the markets as 2011 unfolds. Following two years of outperformance, many risk assets, including commodities, are due for a pullback.

The long-term, fundamental case for investing in commodities is sound, with demand structurally higher given emerging markets growth and limits to supply firmly in place. However, the first part of 2011 may be a bumpy ride for investors given uncertainties such as government efforts to curb inflation in China. Investors that can stomach the volatility should ultimately be rewarded. ■

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