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The Commodity Super Cycle: Is This Time Different?

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Some analysts believe that the commodity price boom of the new millennium has played itself out. However, natural resource-based commodity prices (with the exception of shale gas and its downward pressure on U.S. natural gas prices) have remained high by historical records over the last few years, despite the feeble global economic recovery (Canuto 2014). The commodity price spike that started at the end of the 1990s has not been significantly affected by the global downturn, with average prices similar to 2008 levels (figure 1). Indeed, commodity prices have occasionally shown signs of reviving more quickly than the global economic output level (figure 2). So the question is: Have we entered a phase of descending commodity prices? This note argues that it may be too soon to say that the commodity super-cycle phenomenon is a thing of the past.

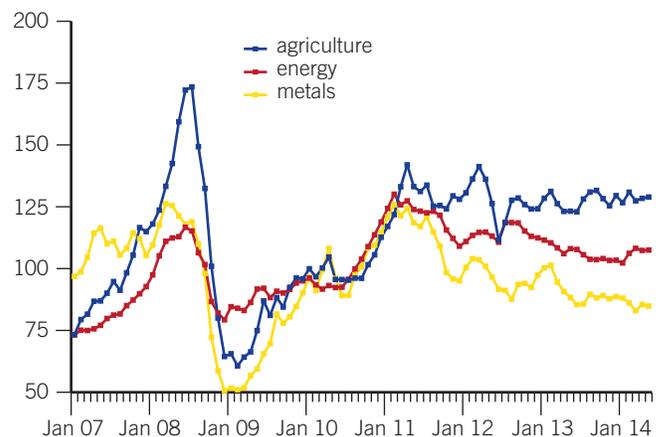
Can History Shed Some Light Here?

Several authors have recently revisited a long, historic series of commodity prices—including Ocampo and Erten (2013), Jacks (2013), and Arezki et al. (2013). The focus has been either on the old Prebisch-Singer hypothesis—according to which the “terms of trade” between primary products and manufactured goods tended to fall in the very long run—and/or on the frequency and shapes of past price cycles.

Since the late 19th century, commodity prices moved along three long-term general cycles, with a fourth cycle just recently identified. The first two cycles spanned roughly four decades, and the third one lasted 28 years. All four upward phases were primarily driven by rising global demand, though the main sources of that demand differed for each. This time, China’s rapid economic growth since the beginning of the new millennium is propelling demand, as illustrated by the country’s rising proportion of global natural resource-based commodities use (Canuto 2008a).

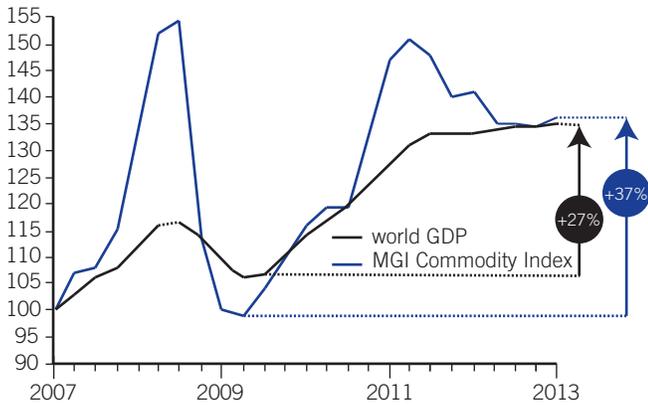
The direction, either upward or downward, of long-term price trends emerging from these studies varies across different types of commodities and depends on the starting

points used as reference. The picture gets blurrier in cases where commodities themselves have evolved and are hard to compare over time—for example, poultry or soybean production today is very different from what it was several decades ago.

Figure 1. Commodity Prices

Source: World Bank.

Figure 2. Resource Prices Rebounding Faster Than Global Economic Output Since 2009 (indexes)



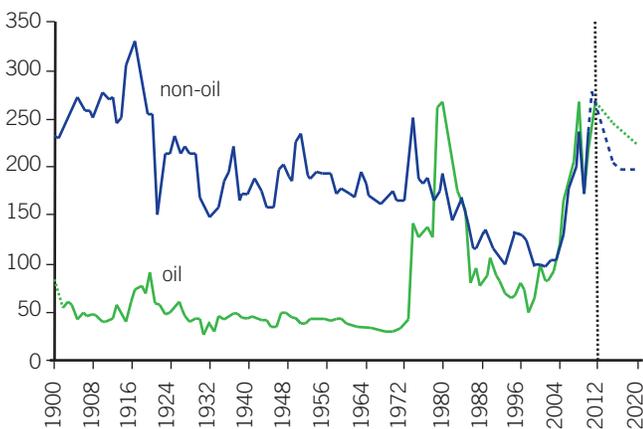
Source: Dobbs et al. (2013).

Reports on previous cycles and rising price volatility have been more convergent. Those works tend to agree on the localization of at least three commodity super cycles since the 19th century, as well as one beginning at the end of the 1990s. Typically 20-year boom periods are characterized by strong demand associated with moments of rapid industrialization and urbanization—as in the case of the United States in the 1890s, or China in the 2000s—in which supply takes a long time to match that demand. When this happens, periods of much lower commodity prices have followed.

Spotting trends or previous cycles is a highly useful exercise because it calls attention to the interplay between demand and supply over time. However, past trends cannot be used to forecast future paths of specific or general commodity prices at a certain point in time—as illustrated by the non-homogeneity of shapes of previous cycles.

As shown clearly in figure 3, commodity prices relative to manufactured goods may move and stay significantly lower or higher for substantial periods regardless of the presence of a long-run trend or drift. Movement or lack thereof hinges on

Figure 3. Commodity Prices in Real Terms (1900–2020)



Source: Brahmabhatt and Canuto (2010).

the strength of forces behind the demand for primary commodities relative to the demand for manufactures and the supply of commodities relative to the supply of manufactures (Brahmbhatt and Canuto 2010). When looking ahead to a certain point in time, the first step is to approach the nature, intensity, and time length of factors on each side of the equation at that specific moment: one cannot look for any predetermined historic shape of commodity super cycles.

Whither the Prebisch-Singer Dynamics?

When independently raising their very long-term gloomy prospects regarding commodity prices, Hans Singer and Raul Prebisch in 1949 emphasized two different sides of the equation. Singer’s price pessimism was based on strong beliefs regarding the relatively unfavorable price and income elasticities of demand for commodities, whereas Prebisch’s pessimism is based on an asymmetry in the appropriation of productivity gains between commodity-dependent and industrialized countries. While eventual productivity gains on the former’s side were automatically transmitted into lower prices, they were captured in the form of stable prices and rising wages and profit volumes in the latter, given the prevalence of cost-plus pricing and labor unionization in industry. This fit well with Prebisch’s critical views about social and political structures inherited by Latin America from its past as a leading commodity producer, compared to evolution toward a welfare state in advanced, industrialized countries such as the United States and in Europe. From this came his belief that Latin America should diversify toward a manufacturing industry-based society, like other natural resource-rich advanced economies such as Canada and Australia.

This is not the time or place for any evaluation of how dated or incomplete those “structuralist” views were/are, much less of the policy proposals that came to be associated with them over time. However, it remains useful to think of the evolution of commodity prices relative to manufactured goods as reflecting the relative paths of demand elasticities, productivity, and supply bottlenecks.

Has the Descending Phase of the Super Cycle Begun?

It is worth highlighting two distinctive features of the current commodity super cycle, the peak of which has supposedly been reached. First, the correlation between resource prices over the past 30 years has substantially increased (Dobbs et al. 2013). Beyond the strong demand pull on all commodities wrought by China’s industrialization-cum-urbanization, there is a higher correlation induced by the technological evolution. Natural resource-based products have risen as input and, therefore, as costs to other commodities (for example, fertilizers in agriculture). Furthermore, substitution (for ex-

ample, sugarcane can turn into either ethanol or sugar) and sources (for example, alternative fuels and forms of power generation) have increased, making price shock transmission more widespread.

Second, volatility has increased and continues to rise in comparison to the past (Arezki et al. 2013). This is often associated with the increased size of commodities as a class of financial assets, even if supply and demand fundamentals ultimately operate as gravity centers (Canuto 2008). There is also discussion of the role played by an increasing incidence of natural phenomena (floods, droughts, variable temperatures) on agriculture production, as well as the social and political factors that accompany oil, metal, and mineral extraction (conflicts, labor strikes). Nevertheless, these factors are largely associated with short-term volatility.

Beyond short-term supply and price fluctuations, more structural factors seem to be at play behind the persistent volatility:

Supply appears to be progressively less able to adjust rapidly to changes in demand because new reserves are more challenging and expensive to access. For example, offshore oil requires more sophisticated production techniques. Available arable land is not connected to markets through infrastructure. Mineral resources increasingly need to be developed in regions that have high political risks. Such factors not only increase the risk of disruptions to supply but also make supply even more inelastic. As supply becomes increasingly unresponsive to demand, even small changes in that demand can result in significant changes in prices. Investors may be deterred by the volatility in resource prices and become less inclined to invest in new supply or resource productivity initiatives. (Dobbs et al. 2013, 1)

At the margin, supply-side costs are still pointing upward almost everywhere in the commodities universe, with the exception of shale gas. However, the pace of innovation and physical investment is not enough to grant the supply elasticity necessary for the price-descending phase of the super cycle to unfold. And, as promising as the shale-gas revolution may look to the U.S. economy in the years ahead, it seems a stretch to expect it—through substitution and correlation—to be a fully countervailing factor to rising marginal costs of other natural resource-based products.

On the other side of the equation, in turn, the current growth soft patch faced by many emerging markets does not point to any drastic future reversal of commodity demand. Urbanization and poverty reduction have remained steady in the developing world, and there is no sign of a major macroeconomic downturn beyond the recent accommodation to lower growth rates (Canuto 2013a).

There may be changes in demand intensity for different types of commodities. For instance, China's changing growth pattern (Canuto 2013b) may lead to a less metal-intensive growth, but this is not necessarily the case for foodstuffs. As seen in figure 1, trajectories of commodity prices do not necessarily follow similar paths.

Canuto (2008b) argues that:

If one may paraphrase Mark Twain, recent news about the death of the commodity super cycle and of a 'commodity bust' were somewhat exaggerated.

Six years later, this still applies.

About the Author

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