Part One

UNDERSTANDING THE COMMODITY MARKETS

Chapter 1

The Long-Term Commodity Boom

Why It's Here and Why It's Going to Last

Teach a parrot the terms "supply and demand" and you've got an economist.

—Thomas Carlye

With the price of oil tripling in value since 2001, gold prices reaching a 26-year high, and a slew of other commodities rising to their highest levels ever, it is not surprising that commodities have become a hot topic of conversation. Even the financial media coverage of commodities has picked up steadily over the last few years. In the past, it was difficult to find stories on the commodity markets. Today you need only to pick up a copy of *The Wall Street Journal* or turn on CNBC to learn about a commodity-related topic. Quite honestly, even the fact that you are reading this book is a testament to the growing interest in the commodity markets.

Yet despite this increased coverage and substantial appreciation, few investors have participated in the gains that these markets have offered over the past several years. The reasons for the lack of participation vary. Some people have readily bought into the fallacy that this is a commodity bubble, while others have simply overlooked this bull market for other investments. At the center of all these reasons is the simple truth that many investors do not understand how the commodity markets work, why commodity prices have escalated over the last several years, and what the advantages are of holding commodities in investment portfolios.

This chapter seeks to establish the case for why we are in the midst of a long-term commodity boom and to focus on the main factors that are instrumental to rising commodity prices. In addition, I elaborate on why it is still not too late to participate in what may be the greatest bull market of our generation. Subsequent chapters in Part One focus on the general makeup of the commodity markets, the common myths associated with commodities, and why commodities belong in every portfolio.

It's a Bull Market

Quite simply, we are in a roaring bull market in commodities. Not a bubble. I want to quickly address this point because many shortsighted economists have argued that the appreciation that has occurred in the commodity markets over the last several years has been nothing more than a bubble created by speculation. It seems that whenever there is a sell-off in the commodity markets, I am called upon by the media to answer the question of whether the commodity bubble has finally burst. My answer, of course, is always the same. This is a certifiable bull market that will last for several years. As long as China keeps industrializing, India continues consuming, and the world keeps on growing, the demand for commodities will grow exponentially over the next several years. Once I get wind that these factors have changed, I might consider changing my position. For now, though, none of these demand factors seems to be close to waning.

In the midst of this growing and soaring demand, the finite amount of raw materials around the world is declining, as expected. A major oil deposit, which typically takes thousands of years to form, has not

been found in 26 years. Copper and zinc, two significant industrial metals, are in a supply deficit. The price of sugar, which has always been dictated by food demand, is now heading higher as countries around the world are using sugar to create ethanol, a cheaper and more environmentally friendly fuel alternative. Consequently, the continued supply and demand imbalance facing the commodity markets today will not only propel this bull market further but will also translate to potentially the greatest bull market our generation will ever know.

A Look Back at the Market

In order to fully understand the current bull market, it is necessary to take a look back at the last several years in the commodity markets. At the start of this bull market, gold was trading at $250/ounce, sugar was trading at 5 cents/pound, and the debate was raging over whether crude oil prices would drop below $15/barrel. Interestingly enough, even with the pullbacks that have occurred periodically in the commodity markets, the last several years have been highlighted by prolific gains. Precious and industrial metals have tallied significant returns, the price of sugar moved up four times in value, and the price of oil has had a steady climb to nominal new highs. Indeed, commodities in general have mounted significant gains.

One by one, it seems, commodities have climbed off their bear market lows and appreciated in varying degrees over this first stage of this commodity bull market. At times, the energy sector has led the way; other times, it has been the metals sector. Most recently, the agricultural sector (corn, wheat, soybeans) has led the charge in terms of percentage appreciation.

Reuters CRB Index

Another way to look back at the commodity market is to focus on the Reuters-CRB (Commodity Research Bureau) index. In the same way that the Standard & Poor's (S&P) 500 is a good barometer for tracking the U.S. equity market, the Reuters CRB index is a fairly accurate measure for tracking commodities. There are several more commodity indices out

Table 1.1 Current Reuters-CRB Components

Subgroup	Markets	Subgroup Weight (percent)
Energy	Crude Oil, Heating Oil, Natural Gas	17.6
Grains	Wheat, Corn, Soybeans	17.6
Industrials	Copper, Cotton	11.8
Meats	Live Cattle, Lean Hogs	11.8
Softs	Coffee, Cocoa, Sugar, Orange Juice	23.5
Precious Metals	Gold, Silver, Platinum	17.6

there, but I believe that the Reuters-CRB captures the essence of the first stage of this bull market. The index is made up of 17 commodities that are equally weighted, as shown in Table 1.1.

Several commodities are not represented in the index, but it presents the various types of commodities. For instance, zinc and aluminum are not included in the mix, but copper and platinum are similar in that they are also industrial metals. In any case, since the end of the secular bear market in commodities, the Reuters-CRB index has consistently headed higher. In fact, if a chart could tell a thousand words, Figure 1.1 would aptly describe the commodity markets of the last five years.

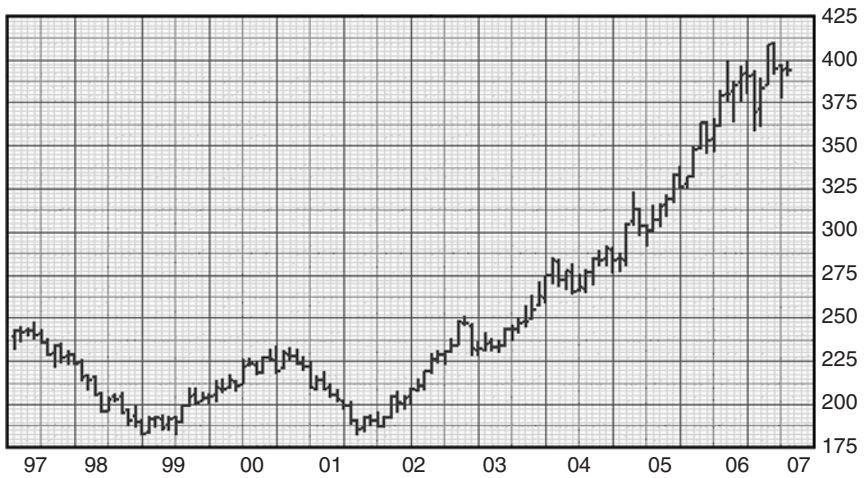

Figure 1.1 Continuous CRB Index (Monthly)
SOURCE: Barchart.com

You can see several things from this chart. If you follow technical analysis, you will likely notice a double bottom formation in 1999 and 2001. From a technical perspective, a double bottom formation is often a clear indicator of a strong uptrend. And sure enough, the Reuters-CRB index has moved up higher since its lows in 2001. The other detail that you should notice is that throughout this move up, there have been several times where the index has had notable declines. In fact, some of these declines have been pretty substantial (greater than 10 percent). What you will notice, however, is that the declines were followed by market rallies that eventually propelled the index to new highs. In some cases, a quick correction was met by a quick recovery; in other cases, the recovery took several months. Nonetheless, this is the nature of any bull market. Pullbacks and consolidations along the way are healthy for the overall direction of the market. As long as the fundamentals are still intact, these pullbacks simply represent a buying opportunity. Take, for example, the gold bull market of the 1970s.

A Golden Example

During the first stage of the 1970s gold bull market, the price of gold moved up from $40/ounce to $199/ounce. The move up, however, did not happen overnight. It took about a couple of years for the price of gold to finally close at just below the $200/ounce level. In 1975 the price of gold then sold off sharply, falling to just below $110/ounce. While this decline was substantial, especially in the moment, it ultimately just represented a correction in a substantial multiyear bull market.

In the 1970s, generally two types of investors participated in the gold market. The first investors purchased gold solely for speculative reasons. In other words, they had seen the price of gold appreciate from $40/ounce and simply wanted to participate in upcoming profits. Beyond this, there was no basis for their purchase. The second investors, however, purchased gold because they understood the fundamentals that were driving prices higher. For instance, these investors understood that the inflationary pressures would only intensify and that demand for the metal would continue to increase. As a result, they were confident that their long-term investment was supported by fundamental factors.

When gold prices corrected from their high, the first investors panicked and sold their positions. In fact, I am sure that many investors happened to get in right at or near the $199 high; this seems to be typical for investors who chase returns. The second investors, however, had a firm grasp on the fundamental factors that were driving the price of gold. Thus, they held on to their positions. In the end, they were able to profit handsomely from a metal that eventually reached $850/ounce in January 1980.

I bring up this example so that you can have an understanding of the dynamics of this commodity bull market. We are in the midst of a long-term bull market that will likely last for another 10 years, but there will also be moments where the commodity markets will experience some pretty significant sell-offs. Does this mean that you should panic? No. Does this mean that the bull market is over? No. As long as the fundamentals are still intact, you can expect commodities to continue their bull run. And it is precisely for this reason that you must understand the fundamentals that are driving this commodity bull market.

A Refresher Course in High School Economics

Believe it or not, it is not too difficult to understand the fundamentals that are driving this bull market. You need only to dust off your old high school economics book and reread the portion about supply and demand. In fact, I will even save you the time. Take a look at Figure 1.2. If the demand of a commodity increases while the supply stays the same or decreases, you can likely expect the price of the commodity to rise. Conversely, if the demand for the commodity decreases and there is more than enough supply to meet demand, the price will likely decrease.

This simple economics equation can be applied to most investments. Take, for example, investing in a signed, limited edition Barry Bonds baseball card. Imagine purchasing this card earlier in Bonds's career. While Bonds was a good player, the demand for the card was not as great as after he broke the record for most home runs in a season. After that feat, the demand for his card increased substantially. More people had an interest in owning Barry Bonds paraphernalia. Consequently, the

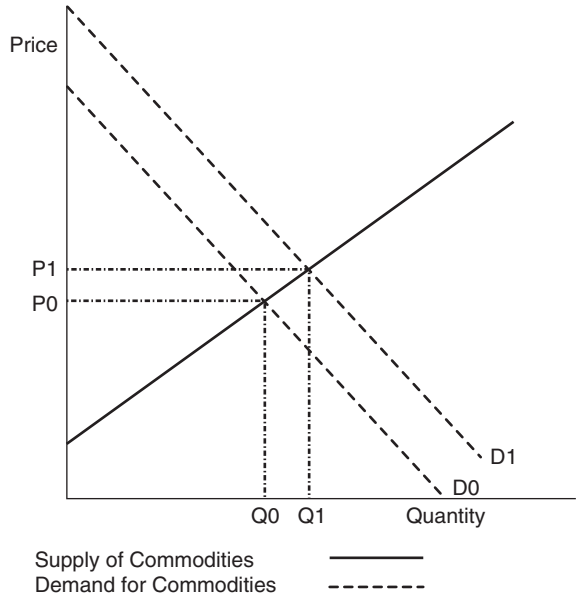

Figure 1.2 Commodity Supply versus Commodity Demand

demand curve moved to the right and the price for the card increased in value.

In the same manner, the main force behind the bull market in commodities has been a growing supply and demand imbalance. In the last several years, the demand for commodities has increased drastically. Simply put, more and more sources of demand have sprouted up that were not around several years ago. This is similar to more people having an interest in owning Barry Bonds paraphernalia. In a normal market environment, the demand in itself would serve as a sufficient catalyst for higher commodity prices. But there is more to this story. At the same time that demand has increased, the supply situation for many commodities has worsened. Can you imagine what would happen to the Barry Bonds baseball card if some of the top-rated cards were burned in a fire? The price of the remaining cards would likely head even higher.

Indeed, this is the situation today in the commodity markets. The price of oil, natural gas, copper, and other commodities has increased because of both rising demand and slowing supply. With that said, I will now address some of these fundamental factors more closely. I start off

by looking at the demand side of the equation and then focus on the supply situation.

Accelerating Demand

Many different sources are responsible for this accelerating commodity demand. On one end of the spectrum is the demand from multiple countries that need energy and industrial commodities. On the other end is the growing demand for food, goods, and services by the global consumer. Last is the fact that the world's population is growing at a rapid rate. In a sense, it is almost as if a perfect storm is brewing for commodity demand.

When it comes to evaluating these sources more closely, I encourage you to view things from a big-picture scenario. In other words, consider what these factors will mean for commodity demand five to ten years down the line. Many of the demand sources that have been instrumental during the first stage of this bull market will only accelerate in the years to come.

Growth of Developing Economies

Many of the world's developing economies are responsible for the first part of the increased demand for commodities. Brazil, Russia, India, and China (BRIC nations) have garnered most of the media attention when it comes to their growing commodity demand, but several other countries, mostly in Asia and Latin America, also fall in the developing economies category and have undergone tremendous growth during the first stage of this commodity bull market.

Before looking at the strength of this commodity demand, I want to briefly put into perspective the substantial economic growth that has occurred in many of these developing economies. One way of measuring economic growth is by focusing on the gross domestic product (GDP), which is the total value of goods and services produced by a country. GDP growth will provide you with insight into the economic activity of a given country. In the United States, yearly GDP growth has been around 3 percent. In contrast, the GDP growth for many of these

developing economies has been substantially greater (sometimes double or triple the growth rate of developed nations).

As you can imagine, most developing economies have been growing at a substantial rate. In fact, it is no coincidence that the growth of developing economies has coincided with the recent bull market in commodities. This type of economic growth is directly tied in to the fact that these countries are in the process of industrializing their economies. By nature, industrialization begets increased commodity consumption.

Process of Industrialization. At this point, it is important to clarify what usually takes place during industrialization. When most people think about industrialization, they consider it simply as a part of history. In the United States, for instance, industrialization spanned for several decades from the late 1800s to the early 1900s. During that time, the United States (and other western economies) transitioned to manufacturing economies. Beyond that, industrialization is somewhat difficult to grasp because most of us already live in an industrialized nation.

Nonetheless, the process of industrialization is the same regardless of the period during which it happens. During industrialization, agrarian economies transform into industrial or manufacturing-based economies. Factories are built, industries sprout up, cities expand, and the general economic infrastructure is revolutionized. As you can imagine, the transition from farmland to city does not happen overnight. This process typically takes decades to complete. Furthermore, great amounts of raw materials and manpower are needed to build the necessary infrastructure.

Take, for example, the construction of a factory. Besides the energy (oil, natural gas, coal, etc.) that is needed to accomplish this task, basic construction materials are also needed. While I have not been involved in the construction of a large factory, I have had the opportunity to help build a house. I know firsthand the sheer amount of materials that are needed to do so. Cement is needed to create the foundation. Steel, aluminum, and lumber are needed for framing and structure. Copper is needed for plumbing and electrical. You get the picture. Similarly, those same commodities are required to construct factories and buildings in developing economies.

Thailand, India . . . . In Thailand, for example, the country has transitioned from an economy that relied heavily on exports of agricultural products to an economy that is expanding its manufacturing industries. Both Toyota and Nissan have invested billions of dollars in several projects across the country. Various other industries have also emerged over the last several years. It should be no surprise that steel consumption is growing at a rate of 10 percent in Thailand. Nor should it be much of a surprise that energy demand is expected to double in the next 10 years.

Industrial growth has also been explosive in India. Manufacturing cities, created by the Indian government with the explicit purpose of luring foreign companies, have sprouted up all over the country. Mahindra World City, for instance, is a 1,400 acre special economic zone that has attracted a diverse group of manufacturers. From BMW to Infosys Technologies to Kryoland Cosmetics, these foreign corporations are spending billions of dollars to build factories. Once again, the direct effect of these manufacturing cities and industrial expansions points to the demand for commodities. In India, copper consumption is growing at an 8 percent annual rate.

While the demand for commodities from Thailand, India, and other developing economies has been stellar over the last several years, the trend is by no means over. As long as these countries don't stop midway through their industrialization, I expect commodity demand to continue.

China Factor

Even though China falls into the developing economies category, the country clearly deserves a section all by itself. In a recent television interview, I was asked whether I thought that China was getting too much credit for the rise in commodity prices over the last several years. My response was that China was not getting enough credit. While other emerging nations have increased their demand for commodities over the last several years, none even come close to comparing to China.

In 2004 an article appeared in *The Economist* about China titled "The Hungry Dragon." Beneath the title was a picture of an overweight dragon eating buckets of iron, copper, aluminum, cement, and oil. While the picture was meant to be humorous, it did portray reality. Over the past 15 years, China's demand for base metals (copper, aluminum, zinc,

nickel, steel, and iron ore) has tripled. In 1993, China consumed about 7 to 10 percent of the world's base metals. Today it consumes greater than 25 percent.

For most commodities, China is at the top or near the top of yearly consumption. In 2004 China consumed 33 percent of the world's cotton. In 2005 it surpassed Japan as the second largest consumer of oil. In 2006 it was responsible for greater than 50 percent of world's cement demand. Imagine the sheer magnitude of one country consuming more than 50 percent of the world's cement. Not only does this number epitomize the voraciousness of China's commodity appetite, but it also paints a picture of the extent and enormity of China's industrialization.

Indeed, China's industrialization is the linchpin behind its commodity demand. Over the past 20 years, China has transitioned from a heavily agrarian economy into a manufacturing powerhouse. Companies from all over the world have moved either part or all of their manufacturing plants to China. In Shanghai, for example, over 300 of the world's Fortune 500 companies have already set up shop. This number is only going to grow as foreign companies continue taking advantage of China's cheap labor force and growing infrastructure.

With this continued growth in the manufacturing sector, it is no surprise that China's economy is booming. As I pointed out earlier, China's GDP has averaged a yearly growth of 9 percent. Not only has this growth translated into an even greater demand for commodities, but it has also resulted in China's central bank reserves reaching over $1 trillion and growing at a record pace. (See Table 1.2.)

What is most amazing about this economic growth is that it has happened in such a relatively short period of time. To be sure, the speed of China's growth has left the country scrambling for commodities. In the past, China was a net exporter of commodities. In other words, the amount of commodities that China produced was much greater than what it consumed. As a result, China would export these commodities to other countries. Because of the constantly growing commodity demand, China has now become a net importer of commodities. One clear example of this is China's oil production and consumption, shown in Figure 1.3.

Since the early 1990s, China's consumption has been much greater than what it has produced. Undoubtedly, this statistic falls in line with

Table 1.2 China's Central Bank Reserves

Year	US$ (billion)
2001	212.2
2002	286.4
2003	403.3
2004	609.9
2005	818.9
2006	941.1
2007	1000+

SOURCE: State Administration of Foreign Exchange, People's Republic of China

the country's rapid industrialization. Whereas China's production of oil was enough to meet its consumption needs before industrialization, it now has to rely on importing additional oil. And before you think this growth in China is over, think again. According to the United Nations Development Programme, over 300 million Chinese farmers are going to move into the cities within 20 years. This in itself translates to more cheap labor for manufacturing companies, expansion of cities, and the continued growth of the Chinese economy.

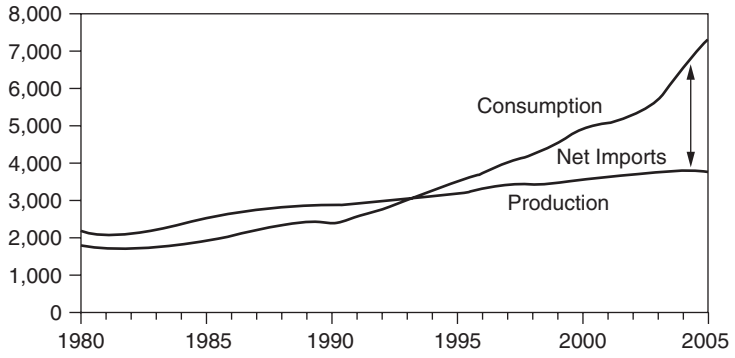

Figure 1.3 China's Oil Production and Consumption, 1980 to 2005 (1,000 barrels/day)
SOURCE: Energy Information Administration

Growth of the Consumer

As you can imagine, the industrialization of emerging economies makes up a significant portion of the increased commodity demand over the last several years. But a question that I am often asked is: what happens once China and other emerging economies complete their industrialization? Does the completion of industrialization signal an end to the commodity bull market? I don't believe it does.

One of the transitions that will occur in the midst of this commodity boom is a shift in the primary demand for commodities. The first stage of this commodity boom is undoubtedly driven by the massive demand for raw materials, such as copper, aluminum, and oil, which are essential in the development of the economic infrastructure. This is why we have seen industrial commodities lead the way in terms of appreciation. The second stage, however, is centered on the growing wealth and spending habits of consumers who reside in most of these developing economies.

This change, of course, is quite logical. One by-product of industrialization is the creation of a wealthier and more educated working class. Therefore, greater than one-third of the world's population (the population in the world's economies) will now have more money to spend: on food, on entertainment, on goods and services that consume commodities. To illustrate this point, imagine this scenario:

> In China, a major U.S. company decides to open a manufacturing plant on the outskirts of a city. In order for their plant to run at maximum capacity, they will need to find 2,000 workers. Soon the word is out that the company is paying 20 percent more than what the local farm worker earns. The jobs are immediately filled, and 2,000 people are now making more money. Since most of these workers have no debt, they now have additional income to spend.
>
> With the additional discretionary income comes a change in lifestyle. Some of the workers might eat out more often; others might purchase more expensive food products, such as meat; still others might actually go out and purchase the washer and dryer that they have always wanted. Regardless of their expenditure, the end result is the same. Average Chinese consumers are well on the way to westernizing their lifestyles.

This type of wealth creation will occur not only in China, but in most of the other developing economies. Citizens who typically spend money only on necessary expenditures will begin to indulge in the consumption of goods and services that are standard in most western economies. In fact, if you look at other historical examples of industrialization that occurred in the United States and European countries, a similar type of change took place.

In addition to the spending by these factory workers, there will also be a trickle-down effect as these workers now have more money to spend in the local economy. When they go out to eat, the local restaurant owners benefit. When they buy new clothes or electronic gadgets, local merchants will earn more. In short, the new wealth and spending habits of the factory workers will translate into additional wealth for the business economy. In turn, this will eventually lead to further spending, further growth, and a continued demand for commodities.

As a matter of fact, you can already see this cycle begin to play out in China. The increase in both discretionary income and spending was affirmed in a 2005 survey taken by the National Bureau of Statistics of China. According to the survey, per capita disposable income grew by 11.6 percent year over year. In other words, the average Chinese urban household had additional 11.6 percent more money to spend. Not surprisingly, per capita consumption also increased by 9.8 percent during that time period. Specifically, food expenditures increased by 6.2 percent; clothing expenditures increased by 12 percent; appliances and services expenditures rose by 10.4 percent, transportation and communication expenditures rose by 15.2 percent, and education and entertainment expenditures grew by 11.7 percent.

Indeed, the rise in consumer spending throughout the developing economies is bullish for most commodities. Hard commodities will benefit as the demand for electronics, appliances, and transportation increases. Imagine if the Chinese start trading in their bicycles for automobiles. Not only will there be a greater demand for fuel, but there will also be increased demands for aluminum, copper, platinum, palladium, zinc, and other raw materials that are necessary to build cars. The same can be said for any products that require commodities.

Besides the consumer demand for commodity-based products, there will also be rising demand for agricultural commodities as food

expenditures grow. As mentioned, in China, food expenditures increased by 6.2 percent. This increase symbolizes a couple of different things. Not only are Chinese citizens eating more food, but they are spending more money on more expensive food. In other words, instead of relying on diets that are made up of primarily rice, potatoes, and some vegetables, they are now eating more meat and higher-priced agricultural products.

Increased consumption of grain-fed meat and other commodities equates to an increase demand for those commodities. Thus, it should not come as a surprise that over the next several years, many of these developing countries will likely transition from being self-reliant on agricultural commodities to importing commodities from other nations. China has already started this process. In the past several years, it has transitioned from being a net exporter of some agricultural commodities to being a net importer. If you connect the dots, you will easily come to the conclusion that China is now vying for the same bushel of corn that is coming out of the Midwest. As a result, prices will naturally increase.

Global Population Growth

The increase in the global population also has contributed to the demand for commodities over the last several years. Since the mid-1970s, the world's population has increased from 4 billion people to 6.5 billion people (see Figure 1.4). While some people might argue that this trend has been occurring for the last several hundred years, population growth has clearly accelerated over the last century. In fact, the world's population has tripled over the last 75 years. As a result of this exponential population growth, there will be a lot more people competing for the same raw materials.

This demand for commodities will likely occur on multiple levels. Not only will there be more mouths to feed (leading to increased demand for food commodities), but there will be more individuals in need of housing, transportation, basic goods, and services that require energy. Indeed, even when every nation is fully industrialized, global population growth will continue to affect the demand side of the equation.

Another thing that is worth mentioning about the global population is that even as industrialization and wealth creation is occurring in many

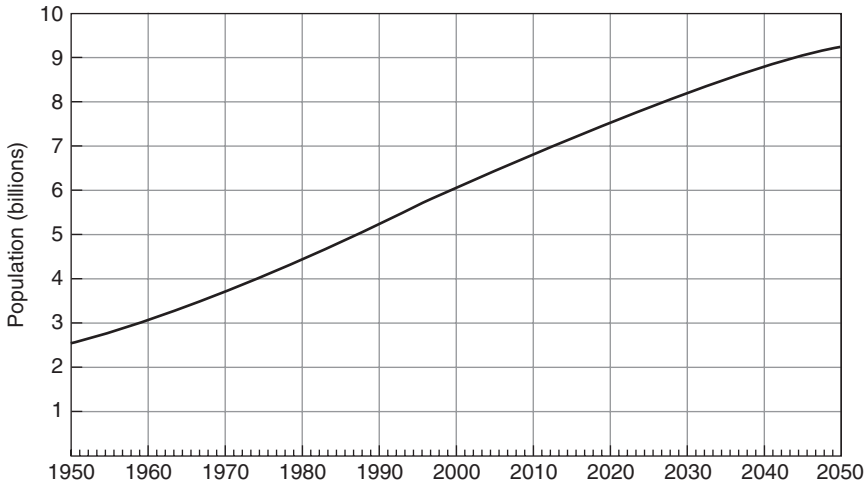

Figure 1.4 Global Population Growth

developing economies, the populations in the developed economies of North America, Europe, and elsewhere are continuing their voracious consumption of commodities. The United States, for example, is still the number-one consumer of oil and many other commodities. Although I will not go into detail about this, suffice it to say that the continued commodity consumption of developed economies is significant and relevant to the demand side of this commodity boom.

Dwindling Supply

Whether it is the industrialization of emerging economies, the massive demand coming out of China, the continual growth of the world's population, or simply the fact that more than one-third of the world is getting richer by the day, the demand for commodities is magnified by the fact that supply is steadily dwindling. In fact, not only is the supply of most commodities dwindling, but we are actually in a supply deficit for some of the world's most needed commodities, such as copper, zinc, nickel, and sugar. A supply deficit occurs when there is more consumption than production of a commodity on yearly basis. When this happens, countries typically tap into their aboveground stockpiles

or reserves. However, this is only a temporary fix, not a cure for the problem.

To be sure, the supply situation of most commodities is more dire than just tapping into reserves for a year or two. The dwindling supply is a direct result of the trends that have occurred prior to this bull market, the finite nature of most commodities, and future trends that will occur as a result of industrialization and growth.

Bear Market Blues

One of the key reasons behind the dwindling supply and the subsequent supply deficits in commodities is that we have recently emerged from a multiyear bear market in commodities. From the early 1980s to 2001, commodity prices were at multiyear lows. Oil was trading between $10 and $20 a barrel. Sugar was trading at 5 cents. Gold declined nearly $600/ounce from its 1980 highs. Commodity prices across the board had declined from their previous bull market highs.

While lower prices were a positive thing for consumers, they had a negative impact on producers. With oil trading at $10/barrel, it was not in the best interests for an oil company to spend millions of dollars on oil exploration. With gold prices trading at $300/ounce, it was also not in the best interests for companies to mine for gold. Similarly, other commodity producing companies slowed their investment in future supplies.

The reason for this lack of investment is twofold. First, it is not cost-effective for oil and mining companies to spend money finding new deposits, extracting the deposits, and finally bringing them to the market. Second, many of these companies had experienced falling commodity prices for the better part of two decades. As a result, it was difficult to convince investors (and the companies themselves) that initiating new projects was economically prudent.

Thus, many companies that produced commodities failed to spend the necessary capital looking for future deposits. Of course, the bear market actions of these commodity companies eventually contributed to the shortfall in today's commodity supply. For example, most of the oil fields and mines in production today are a result of exploration that took place several decades ago.

Today, with commodity prices rising to new heights, many commodity-producing companies are upping up their exploration efforts. Oil companies are scrambling to find new oil reserves; mining companies are spending capital exploring for the next mineral find; and in Brazil, acres and acres of sugar are being planted to meet the soaring demand for ethanol. Because of this increased activity and the amount of money being spent on exploration, some pundits will argue that it is only a matter of time before adequate supply will reach the market. When a new oil field is discovered or a new copper mine is in production, supply will meet demand and commodity prices will stabilize or even come down.

This logic, however, fails to take into account several key factors. The first is that it typically takes years for these newfound commodities to be available for use. Consider the oil and gas exploration process. Companies have to first explore and try to find new oil deposits. Then they have to build the necessary infrastructure to extract the oil or gas. Last, they have to refine it and bring it to the market. From start to completion, this whole process can take several years.

The same is true about copper, gold, silver, zinc, and any other metal. Often it can take longer than five years before a mine is in production. Even agricultural commodities can take a while to produce. First, there has to be readily available agricultural land. Second, some commodities take years to produce a crop. For example, it can take three to five years of growth for a coffee tree to yield its first crop. It typically takes a sugarcane plant at least two years to mature. So the next time you are waiting in line for a cup of coffee, think about how long it took for the coffee and sugar to reach you.

The key point to take away from this section is that we have been experiencing rising commodity prices because many commodity producers were singing the bear market blues for too long. In hindsight, this dwindling supply situation could been seen from a mile away. But at the time, no one was looking.

Finite Commodities

Interestingly enough, even if commodity producers did spend money exploring for new deposits and reserves, there would still be no guarantee

that there would be enough supply to meet the soaring demand. Why? The answer has to do with the fact that most hard commodities are finite in nature.

By definition, something that is finite does not go on forever. Thus, expecting that we will always be able to find natural gas, silver, coal, or other natural resources to meet the accelerating demand is hopelessly optimistic. Moreover, as much as I would like to do so, I cannot go out and fabricate gold at the local factory. Nor can I create oil at the local laboratory. In short, copper, zinc, iron, lead, platinum, oil, and gas are just some of the commodities that cannot be replenished. As a result, we would expect that these natural resources would deplete over a period of time. And, in fact, this is the case.

For instance, the actual production of oil in the West has declined over the last several decades. There has also not been a major oil find since the Prudhoe Bay oil field was discovered in Alaska in 1968. Why do you think oil is both economically and politically important? Besides oil, other finite commodities have experienced slowing production. The mine supply for gold, for instance, has declined over the last several years.

What puts the finite supply of hard commodities further into perspective is that we really have been consuming most of these commodities only for the last couple hundred years. And some have already reached their production peak.

Lack of Cropland

While soft commodities are not finite, they too have their limitations. One obvious limitation is that you just cannot plant crops anywhere. In China, for instance, only 30 percent of the land is even suitable for farmland. And even if the farmland is available, the terrain or climate might not be appropriate for certain crops. As an example, sugarcane needs a humid, tropical climate in which to grow. Thus, as much as some countries would like to plant sugarcane, they are restricted by their locale. Not surprisingly, as ethanol demand has increased over the last several years, countries have had to rely on Brazil, Thailand, Australia, and other sugar-exporting countries.

The other growing limitation is actually a by-product of industrialization. One of the negatives of industrialization is the fact that expanding

cities and towns often replace farmland. In the past decade, over 40 million Chinese farmers have lost their land due to industrialization. In some cases, some of the land was illegally seized and immediately transformed into an industrial or residential area. And as mentioned, 300 million Chinese farmers are expected to leave their farms within the next 20 years. The net result of this transformation is less farmland, fewer farmers, and a smaller supply of agricultural commodities.

Commodity Bubble Argument Dismissed

Despite the fact that the case for investing in commodities is so overwhelming, many Wall Street pundits still argue that we are actually in the midst of a commodity bubble. Some people have even compared the recent move in commodities to the tech bubble of 2000. In truth, this comparison is neither accurate nor realistic. There are some clear differences between the price appreciation of commodities and the tech and dot-com bubble of 2000.

Imagine this dot-com bubble scenario. Say, for instance, that I owned a company. The bulk of my company was an idea, a business plan, and a Web site. My initial investors were willing to put up money and take the risk that the company would eventually be profitable. After a couple of years, the company was still not profitable. However, we had expanded our brand name, took on additional financing, and eventually decided to go public. After the initial public offering (IPO) was filed, the stock started trading at $50 a share. On the first day of trading, the stock moved up to $60 a share. All of a sudden, investors saw that this new "hot" IPO was up 16 percent. Pretty soon investors started piling into this new hot IPO. Eventually the price traded over $100 a share, my company was worth hundreds of millions of dollars, and I was the darling of Wall Street.

Of course, there was no reason or rationale for hundreds of companies to trade at $100 a share. In fact, there was no reason for these companies even to be publicly traded. Nonetheless, the investor euphoria pushed the price of these companies higher. Average people invested in the markets with an unprecedented zeal, some college students invested their tuition money, and a bubble was created. In the end, the

bubble burst. Companies went under, paper millionaires were no longer millionaires, and the price of remaining stocks retreated to more realistic levels.

Those who contend that we are in a bubble claim that the same euphoria exists today regarding the commodity market. They claim that it is irrational and illogical that oil is trading at $70 a barrel or that the price of gold is at a 26-year high. Of course, we know that this is not the case. Unlike the dot-com companies that were based purely on hype, commodity prices are a result of a growing supply and demand imbalance. This imbalance is the driving force behind higher prices.

Others have argued that the same speculation and euphoria that drove prices higher during the dot-com bubble are driving commodity prices higher today. Again, there is no truth to this statement. As I stated earlier, most investors are cautious and have not participated in commodity markets over the past five years. This is clearly different from the dot-com bubble when CNBC had record ratings and everyone was sure that the NASDAQ was heading higher. If anything, commodity prices have climbed in the face of pessimism. In the last several years, I have had the opportunity to attend and speak at various investment conferences. I can tell you firsthand that most people have failed to participate in the commodity markets.

Nevertheless, I must also mention that there are times during this bull market when mini-bubbles might form. That is, the price of a commodity might be getting ahead of itself due to excess speculation. Inevitably, the price will correct, speculators will exit, and the commodity will continue with its healthier uptrend. By no means, however, should these corrections be confused with a greater bubble.

Are Commodities Still Cheap?

All of the fundamental factors that I have mentioned can be expanded upon several times over. My purpose in bringing up some of the examples is to lay the foundation for why we have seen commodity prices rise over the last several years and why they will continue to rise in the near future. What makes these markets even more attractive is that commodity prices are still tremendously cheap.

How can this be? How can record oil prices be classified as cheap? Well, the first thing to realize is that comparing the price of a commodity today with the price of a commodity 30 years ago just does not make sense. When the price of oil reached $55 per barrel in October 2004, many proclaimed that oil was at an all-time high. In truth, however, $55-per-barrel oil was only at a *nominal* high. On an inflation-adjusted basis, the price of oil was still below its all-time high.

Confused? Think about it from this perspective. What could $55 buy you in 1980? A whole lot more than it can buy now. Back then, the prices of goods were substantially cheaper than they are today. Thus, in order to find out what the price of a good in 1980 would cost in today's dollars, you have to adjust the price for inflation. To compare with $55/barrel oil in 1980, the inflation-adjusted equivalent price is closer to $100 today.

The same can be said for the commodity market as a whole. Take a look at Figure 1.5, which shows the inflation-adjusted Reuters-CRB Index. As you can see, commodity prices, in real terms, are still cheap.

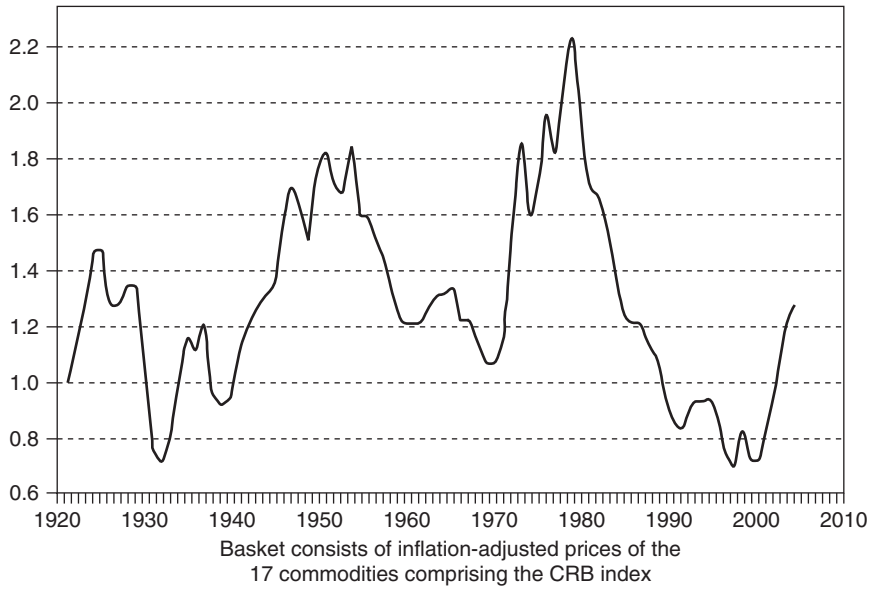

Figure 1.5 Reuters-CRB Index in Real Terms
SOURCE: Di Tomasso Group

We have a way to go before commodities reach their all-time highs. And even if they do reach their real all-time highs, there is a good chance that the prices will likely go even higher.

You can also see this by looking at the chart. Every new commodity bull market has resulted in new real all-time highs. For example, the commodity bull market that started in the early 1930s was eventually surpassed by the bull market of the 1970s. In the same manner, I expect the bull market of today to surpass the bull market of the 1970s.

Conclusion

It is human nature to assume that if you are late to the party, you shouldn't go at all. I have had numerous conversations with individuals who have claimed that they agree with my analysis but they feel that participating in the commodity markets at this juncture is a tad too late. In actuality, it is not too late to participate in this secular bull market in commodities. As impressive as the first stage of this bull market has been, it is only the beginning.

Keep in mind that over the next several years, we will see persistent demand for commodities coming from China, India, and other developing economies. These countries are far from being developed, and the living standards of their citizens are far from those of citizens of developed nations. As these countries play catch-up, there will be continued opportunities to participate in the commodity market.