Looking Ahead to Metals Through 2015

Publisher's Statement

"2015" is a comprehensive outlook at the metals and metalworking industry into the near future. Clearly, a recovery is underway and events may be happening sooner that originally predicted when this analysis was written in late 2010.

There have been several revisions of the U.S. GDP forecast by various sources including Bloomberg, JP Morgan, HS Global Insight and the federal government from 2.7% to nearly 4%. The double-dip doppelganger has faded into the past for the moment until events in the Middle East unfold and Japan’s stability can be factored into the equation.

At the moment, the next five years indicate a bright outlook for manufacturing which has led every U.S. recovery since WW II. Most industries will remain lean into 2012, and metals and metalworking will be no exception. The current GDP is about the same as mid-2008 with 7 million fewer jobs. If anything drags on the GDP, it will be slow job growth.

So, over the next 6 weeks, we will be releasing Looking Ahead to Metals through 2015 in a 3-part series so you can digest what will likely occur and plan on how to adapt to it. We hope you will enjoy the read.

Lewis A Weiss
Publisher

In this issue...

CHAPTER 3 - Metals prices are, will remain, erratic.
CHAPTER 4 - Metalworking recovery won't be evident until later.
In the next issue...

CHAPTER 5 - Purchasing is changing; it's getting better (May issue) Click Here
CHAPTER 6 - Hedging via futures remains exception, not rule (May issue) Click Here

METALS PRICES ARE, WILL REMAIN, ERRATIC

Commodity metals prices have increased significantly in recent years. This has boosted the economies of resource-rich nations but has added to the import bill in such consuming regions as North and South America, Europe, India and Asia. One of the most surprising aspects of commodities markets in the heart of the global recession was what analyst Gayle Berry at Barclays Capital calls "the remarkable strength of the recovery in metals prices." In fact, from the end of 1999 to the end of 2009, there was remarkable volatility in prices of commodities. The price of gold advanced 278% while silver gained 208%. Copper, the benchmark base metal, rose 287%. Prices for a market basket of 14 steel products tracked by Purchasing magazine increased 79%—after spiking as high as 182% just before the recession hit. The fact that "commodity prices were surprisingly buoyant" means to the economists that metals prices will stay elevated in 2010-2015.

IMF economist Thomas Heldring explains that, until recently, metals prices tracked historical patterns—never increasing more than 75% during previous cyclical upturns—but the continued run-up in metals prices in 2008 made the cumulative price increase significantly larger than usual. The drivers of the unusually strong run-up in metals prices are well known. First, "the roaring Asian (especially Chinese) demand" that triggered the prospect of continued short-term supply shortages. There was low investment throughout the metals sector in the late 1990s and the early 2000s that followed a period of earlier price declines. Some analysts have suggested that the intensity of the price upswing in this recent cycle has been amplified by such new factors as the increasing weight of rapidly growing emerging markets (especially China and India) in the world economy and arising financial
Annual Metals Price Averages

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>$2,638</td>
<td>$2,573</td>
<td>$1,665</td>
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<tr>
<td>Copper</td>
<td>$7,118</td>
<td>$6,956</td>
<td>$5,150</td>
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<tr>
<td>Lead</td>
<td>258.0</td>
<td>209.1</td>
<td>171.9</td>
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<tr>
<td>Nickel</td>
<td>$37,230</td>
<td>$21,111</td>
<td>$14,655</td>
</tr>
<tr>
<td>Tin</td>
<td>1,454</td>
<td>1,851</td>
<td>1,357</td>
</tr>
<tr>
<td>Zinc</td>
<td>324.2</td>
<td>187.5</td>
<td>165.5</td>
</tr>
<tr>
<td>Gold</td>
<td>697</td>
<td>872</td>
<td>973</td>
</tr>
<tr>
<td>Silver</td>
<td>1,341</td>
<td>1,500</td>
<td>1,469</td>
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<tr>
<td>Iron ore (Brazilian)</td>
<td>84.7</td>
<td>140.6</td>
<td>101.0</td>
</tr>
<tr>
<td>Steel hot-rolled coil sheet</td>
<td>$550</td>
<td>$883</td>
<td>683</td>
</tr>
<tr>
<td>Steel cold-rolled coil sheet</td>
<td>$650</td>
<td>$966</td>
<td>783</td>
</tr>
<tr>
<td>Steel rebars</td>
<td>$522</td>
<td>$760</td>
<td>486</td>
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<tr>
<td>Steel wire rod</td>
<td>$533</td>
<td>$1,010</td>
<td>970</td>
</tr>
<tr>
<td>Steel products index (Asia)</td>
<td>2000 = 100</td>
<td>182.0</td>
<td>289.3</td>
</tr>
</tbody>
</table>

Source: World Bank

“At the outset of 2009, sharp declines in prices seemed to foretell the usual misery for commodity markets during and after a global downturn,” notes the IMF report. “In the end, however, prices rebounded relatively soon and staged a strong rally that began in the late second quarter of 2009—despite generally high inventories and weakened demand.”

Berry agrees with this analysis, writing that metals markets typically are tightly linked to the global industrial production cycle as the main driver of demand. “So, at a time when global output dropped at the fastest rates seen in many decades, prices of industrial metals should have fallen, nor risen, in 2009.” Her analysis and that of other economists suggest that metals prices were elevated during the 2008-2009 recession partially because of tight supply and partially because of investment activity by speculators and fund managers.

First, as metal prices approached or fell below marginal costs of production in 2008, producers of such key nonferrous metals as aluminum, lead, zinc and nickel began cutting production runs to save costs. Heblin at the IMF says “global production of a few key metals—such as aluminum, tin and zinc—declined by about or more than 10% (seasonally adjusted annual rate) during April 2008—February 2009, just when global industrial production was contracting.” Second, the IMF economist says that besides the improvement in near-term global economic and financial prospects—which elicted strong price responses from the cyclically sensitive base metals—the price rebound also reflected speculative buying of commodity exchange futures and exchange-traded funds (ETFs) by investors switching away from dollar-denominated securities.

This year’s metals price rally at the early stage of the recovery in global industrial production (and ahead of global economic growth) contrasts with past experiences. After previous global industrial downturns, prices typically continued to fall or rose at very modest rates, far below the increases recorded this year. The IMF’s commodity price index, for example, rose by more than 40% in the eight months since global industrial production reached a trough in February 2009. In contrast, after earlier downturns, it rose by only 5% on average over the eight months after a trough. “However, commodity prices also fell faster and by larger magnitudes in the second half of 2008 than in previous recessions,” says Heblin at the IMF.

Looking ahead through the middle of this decade, global metal prices could retreat from their current high levels as new mining and smelting output boosts supplies and metalworking companies adjust to the “new normal” of metals requirements. Still, the key word for industrial metals is erratic when buyers are mapping long-term acquisition plans and risk management programs. From aluminum to zinc, market economists say metal prices tend to respond sharply to relatively minor changes in demand and supply conditions. That’s why they believe prices of industrial metal commodities will maintain their volatility in the 2009-2015 timeframe as the markets slide in and out of supply tightness.

Interestingly, the IMF report says that “a long-term perspective highlights how prices are expected to remain high by historical standards.” The effects of the two-year financial crisis have been to reduce prices somewhat below their 2008 peaks, but demand is expected to continue rising at a solid pace as industrialization continues in emerging and developing economies. “Accommodating this demand will eventually require further capacity expansion in many commodity sectors, with some need to tap higher-cost sources,” says Heblin at the IMF.
In 2010, aluminum production is expected to exceed consumption for the fourth consecutive year and, hence, stocks are forecast to increase further to around 8 million metric tons (or about 12 weeks of consumption). Reflecting the continued increase in stocks and lower forecast import demand from China, the aluminum price in 2010 is forecast to average around $1,950/metric ton—which is higher than 2009 but lower than 2007 and 2008. Looking ahead, light metal price forecasts range from an annual growth average of 5% to projections of 10%. Major risks to any aluminum forecast include the extent to which expectations about recovering demand from developed economies are met in 2010-2015 and the extent that large stockpiles, which are expected to continue to accumulate through 2012, impact price future.

**MATERIAL WORKING RECOVERY WONT BE EVIDENT UNTIL LATER**

The government's industrial production diffusion index has been improving since last July, reflecting stronger manufacturing of fabricated metal products, machinery and electrical equipment, appliances, and cars, light trucks and transportation equipment other than airplanes. However, based on historic tendencies, it probably will be 2013 before the index returns to the high levels of early 2007 and early 2008—and only if manufacturing can recover from a smaller supply base and lost jobs and regain momentum. Federal Reserve Board economists are optimistic that 2010-2015 industrial production gains will be broad based, and particularly strong for consumer durables and materials. It is a good sign, they say, that monthly surveys of business conditions, sentiment, and capital spending plans all point to a moderate rise in business spending going forward.

Consumer spending will have to move ahead at "fairly respectable annual rates" of 2% to 4% to support overall economic growth, according to Brian Bethune, chief U.S. financial economist for IHS Global Insight in Lexington, Mass. Remember, consumer spending accounts for two-thirds of the U.S. economy. So, Bethune and other economists believe improved economic conditions will continue to boost spending on durable and nondurables alike in the 2010-2015 timeframe. Still, don't get super-excited: Consumer expenditures last grew at the high end of the range—actually by 3.4%—in 2005. Also, there might be several years of stubbornly high unemployment ahead. At this writing (in March 2010), there are 15 million employable people out of work, so the nation's unemployment rate remains close to 10%. Some economists think employers will remain wary about hiring and skeptical of the speed of overall economy recovery for some months to come. "It is a wait-and-see attitude," says Stuart Hoffman, chief economist at PNC Financial Services Group. The economy is growing, but too weakly to persuade employers to ramp up hiring. Most economists think unemployment will stay high into 2012. Complicating the jobs recovery will be remnants of the recession: high debt, a slow-recovering new-housing market, a tentative pickup in nonresidential construction and the instability and reluctance of people—and businesses—to borrow and spend.

U.S. government spending contracted by 20% in 2009 and will fall another 6% to 10% in 2010, economists suggest, before starting to rebound slowly in 2011-2012. This is good news for suppliers of plate, structural, rebar, copper products and other building materials. U.S. construction spending in January 2010 fell by $5.5 billion to $884 billion, the lowest level since June 2003, according to an analysis of new federal data by the Associated General Contractors of America. Declining investments in private-sector non-residential construction and public construction at all levels of government drove the decline. "What's clear from this data is that the downturn in nonresidential construction spending is far from over," says the trade group's chief economist, Ken Simonson. "Federal funding for construction is one of the few crutches propping up a deeply wounded construction industry."

Meanwhile, a leading indicator of U.S. residential construction spending shows that business conditions remain weak as the housing downturn lingers. The Home Design Survey Index of residential billings entered 2010 at 52, according to the American Institute of Architects. A score below 50 indicates a contraction in demand. A measure of inquiries for new projects was 45, meaning that "residential architects continue to report declining business conditions, indicating that the housing market is not yet entering a full recovery phase," the AIA says. Atop that, in today's uncertain economic environment, homeowners can't be certain their homes will appreciate in value, which has made them more restrained in their spending on kitchens and bathrooms. So, instead of larger kitchens and more bathrooms that require copper plumbing and stainless steel products, homeowners are placing a priority on products and features that promote energy efficiency, says the AIA's chief economist, Kermit Baker.

Fabricated metal production growth averaged 5% annual growth early in this decade but metalworking activity moved from down in 2007-2008 to total collapse in 2009. Now, in 2010, with improved orders for U.S.-made machinery, major appliances, motor vehicle, auto parts and capital goods equipment, metalworking activity for the end products and their components are bound to recover. Economists say that the turn in the inventory cycle that began at the start of the fourth quarter of 2009 will proceed rapidly—and should continue space through mid-decade. In fact, bullish economists at Moody's Economy.com and Global Insight.com suggest core orders for metal worksed goods will track annualized increases of 20% in 2010-2011 as Corporate America loosens its grip on the purse strings. And, in 2012-2015, expect spending on metalworked goods to rise in the 10%-20% range if industrial production meets bullish expectations.
The years 2008 and 2009 proved more disastrous for sales of light vehicles than had been expected. Even the “cash for clunkers” promotion was only marginally successful as consumers have continued to treat lightly what it comes to high-ticket acquisitions such as cars and light trucks. So, demand for light vehicles in the United States last year plummeted to levels not seen since 1962—falling from 16.5 million units in 2007 to 13.5 million in 2008 to 10.6 million in 2009. As the year closed, though, stabilizing used-car prices, lower interest rates and brightening economic data began to persuade more consumers to shell out dollars for a big-ticket item like a new car. A bullish forecast of 20% growth in deliveries to 12.7 million has come from Jean McAlinden, chief economist at the Ann Arbor, Michigan-based Center for Automotive Research. He believes the auto bazaar will be buoyed by pent-up demand and stronger credit markets—but his forecast admittedly is way more bullish than the consensus view. For example, economists at IHS Global Insight say better economic conditions in coming months will draw the consumer back into the automotive market place—but at a slow 5% average annual rate—so that sales won’t be fitting with 13 million units until 2013 or 2014.

Meanwhile, automaking capacity in North America shrank to 16.5 million units in 2009 from 17.3 million units in 2008—and will continue to decline to 14.9 million by 2013. In this environment, Ward’s Automotive Group reports that North American automaking dropped to 8.75 million units in 2009, a 33% decline from 12.92 million in 2008. The most-bullish car and light truck production forecasts for 2010 suggest assembly rebounding by as much as 20% to 10.3 million units—but that’s still well below the 15.4 million units assembled in 2007. Also, a key question remains to be answered: Just how much steel, aluminum, copper wiring and other production material will automotive need in 2010? Atop that, many auto parts companies are finding that managing the 2010-2013 upturn may be more difficult than weathering the 2008-2009 downturn. There is still too much capacity to meet the dramatically reduced demand for cars and trucks. And, with auto makers looking to pump up production as the economy rebounds, many suppliers are finding it challenging to secure the necessary raw materials at reasonable prices, obtain the crucial credit and working capital required to restart production or find qualified workers willing to return to jobs they lost previously.

Another big metals-using segment is major appliances, which hasn’t been very healthy. The decline in new housing starts and housing renovation projects reduced purchases of major appliances last year by 11%—or more than twice the drop that was forecast. Cooking, refrigeration, home laundry, dishwashing, heating and cooling, residential water heaters and commercial water heaters all declined in sales as consumers remained cautious about spending, especially on big-ticket items like major appliances. White goods manufacturing companies project a 5% to 9% pickup in 2010-2012 shipments, which will require some expanded production—and metal purchasing—over the next two-to-three years. Economists at Global Insight, however, don’t see a big pickup in major appliance manufacturing until 2012-2014.

Pre-buying to beat new Environmental Protection Agency diesel engine regulations helped prop up medium and heavy truck production in the closing weeks of 2009, although mainly for just the heaviest trucks. It is not yet time for the truck builders or their suppliers to celebrate, however. Economists at Global Insight say that pre-buying distorts normal buying patterns, so to the extent that 2009 ended up on a much stronger note, 2010 has started on a lower note. At the end of the day, the peak-to-trough drop (641,879 units in 2006 to 217,713 units in 2009 in NAFTA class 6-8 production) is still expected to hit 60%. Truck production will gain ground during 2010, but will not really put the pedal to the metal until 2011-2014.

Motor carriers have experienced weak traffic and dismal earnings, which has kept sales of such new equipment as steel and aluminum truck trailers soft. Trailer shipments declined by 54% last year after sliding 31% in 2008. Trailer production will continue at current depressed levels before beginning a slow recovery as 2010 plods into 2011, says Eric Starks, president of consultant FTR Associates. “At the moment, transport demand is so weak that in fact the trucking industry as a whole actually does not need any new trailers at all,” Starks said. Nevertheless, he predicts that the special needs of individual trucking firms would result in a continuation of the current low level of orders. A large over-supply of trailers will act as a continuing drag on new trailer demand, according to Starks, which resulted in very weak 2009 production of just under 70,000 units for the industry as a whole. He forecasts that truck trailer assembly will improve only modestly to 89,000 units in 2010—and not get back to the 283,000 units made in 2006 until 2015.

Orders for machinery and equipment still are struggling. Corporate America is likely to keep a fairly tight hold on the purse strings until the economic recovery hits its stride. With a global economic recovery underway and a weak dollar, the prospects for U.S. exports of machinery and equipment have brightened, however, so production may improve. U.S. production of machinery and equipment slipped 6% in 2008 and dropped 22% in 2009; it will grow slightly in 2010 and finally turn the corner in 2011 or 2012. Analyst Ken Kremar of IHS Global Insights suggests that assembly of agricultural equipment and oil, gas and mining machinery will show some growth in 2010. But, production and shipments of these products—as well as lawn and garden equipment, industrial machinery, metalworking machinery, power equipment and material handling equipment—will be flat in 2010-2011 and won’t increase briskly until 2012 or later.