A Dark Mood in Düsseldorf

THE GLOBAL CREDIT CRUNCH, RECESSION, AND SUDDEN DROP IN COMMODITY PRICES—AND THE TRADE DIFFICULTIES THAT HAVE RESULTED—DOMINATED THE DISCUSSIONS AT THE FALL 2008 BIR MEETING.

BY RACHEL H. POLLACK

The Rhine River has carried people and goods through the heart of Düsseldorf, Germany, for more than eight centuries. On a brisk October day, a steady flow of barges moves north and south on the water, past the tree-lined promenade on the old city's waterfront. A few of those barges are clearly loaded with scrap—a sign that trade continues, even in some of the worst economic conditions in recent memory.

The economic downturn—its rapid onset, severity, and consequences for international trade—were the primary concern of the more than 950 delegates and guests at the fall convention of the Bureau of International Recycling (Brussels), held in Düsseldorf Oct. 30-31. "Whenever has our industry witnessed the evaporation of price, credit, and—more important—trust in such short order?" asked Nonferrous Division President **Robert Stein** of Alter Trading Corp. (St. Louis) in his opening remarks at the nonferrous roundtable.

Robert Stein

RACHEL H. POLLACK

BIR's newly formed International Trade Council, led by **Robert Voss** of Voss International (Harrow, England), jettisoned the other items on its agenda to craft and issue a public statement on trade conditions. In it, BIR recognizes the "inherently volatile" nature of scrap markets but notes that the downturn in the commodity and financial markets has negatively affected many BIR members "through various forms of lack of contractual performance." BIR encourages members and their trading partners to "engage in business within the moral and ethical guidelines which form the basis of the trust with which the recycling industry has transacted its business for so many years" and "urges suppliers and customers to fulfill their business obligations in accordance with good business ethics and to exercise appropriate and prudent diligence."

In his remarks at the nonferrous meeting, Stein summarized the now well-known events that precipitated this statement. In early fall, world credit markets and financial institutions "suffered a dramatic and historical transition from … perceived strength to weakness in very, very short order," he said, and scrap markets followed suit as "credit has tightened or is simply unavailable" in what he named a "commercial pandemic." The lack of credit drove down consumer spending, construction, and manufacturing, and as demand for goods fell, so did demand for and prices of scrap.

The scrap industry has endured recessions and commodity price drops before, but this time is different. As **Andy Wahl** of Newell Recycling (East Point, Ga.) put it, "We can handle lower prices, it's the lack of customer liquidity that's the problem." A contributing factor is the globalization of the scrap trade over the past decade, with the vast majority of demand growth coming from developing nations. As prices and demand fell, and buyers could not get financing from suddenly nonexistent credit markets, scrap sellers began to experience pushback from buyers (primarily—though not entirely—those in developing countries), often after the scrap was in transit or had arrived at an overseas destination. Sellers began to report inventory revaluations, contract cancellations, and the unilateral renegotiation of contract terms. "The performance of our trading partners" is the single biggest challenge the industry faces, Stein said.

He expressed an understanding of scrap buyers' position: "Many of our customers simply won't survive without these concessions from sellers, and they truly need help." At the same time, he said, "some suppliers may not survive because of them." Further, he noted, "there are always those who take advantage of situations like this," behavior he called "reprehensible and absolutely inexcusable."

The sudden disregard of sellers for mutually agreed upon contract terms has sent shockwaves through the scrap industry. Stein lauded the "wisdom and foresight" of scrap consumers and processors who are honoring their commitments, then he predicted how current circumstances will affect future scrap business. Once matters settle down, he said, "we need to ask ourselves questions we should have always been asking: who we'll trust to perform, how we'll get paid, whether we demand a high rate of performance deposits, or whether we revert to letters of credit to ensure payment performance." He also made the observation that "it will, in the future, be very difficult to make metal products out of air."

Stein predicted that recent events would result in "a redistribution of secondary metal shipments around the world," and he announced that the BIR's Nonferrous Division and ITC are working on establishing statistical procedures to monitor the global flow of scrap. He also noted the resilience of the scrap industry: "We have proven ourselves capable of surviving so many obstacles over the years and will survive this as well."

NONFERROUS SELLERS STRUGGLE WITH PRICE, DEMAND DROPS

"A bloodbath. Catastrophic. Gravity-defying. Free-fall. Collapse. Default." **Mark Sellier**, a South Africa-based employee of KMR Stainless (Mülheim an der Ruhr, Germany), prefaced his nonferrous market report with those dramatic terms. In China, nonferrous metals lost 40 percent to 70 percent of their value in a short period, he said. Copper mill closures have resulted in the abandonment of scrap shipments at Chinese ports, while other shipments have been rejected or subject to "heavy price adjustment downwards." U.S. and U.K. scrap exporters both report cancellations, with buyers walking away from "substantial deposits." Such contractual defaults were a common theme throughout the country reports. Processors in the Middle East face similar conditions, with traditional markets seeing price reductions and defaults. Scrap flows are down at least 50 percent, and credit is nonexistent. The situation is boosting interest in a federation or association of recyclers in that region, Sellier added.

Mark Sellier

The domestic U.S. picture is not much better. U.S. aluminum consumption is poor, and with automakers in grave condition, Sellier advised recyclers to not expect a turnaround anytime soon. UBC prices have fallen along with LME aluminum. Copper consumers are "buying, but on a very careful basis," he noted, while Zorba markets are weak, with "large tonnages unsold overseas and new sales truly difficult to come by."

In the United Kingdom, "merchants who have realistic price expectations" are fulfilling the demand for domestic nonferrous, Sellier said, while others "sit and wait, if they can afford to, for an upturn." Brass, aluminum, and copper sellers are all suffering from almost no export demand, and "domestic buyers reluctant to quote." The country's processors predict "many bleak months ahead," he said.

Indian demand for nonferrous typically rises in the fall, but this year

EMIN LEYDIER WINS FIRST BIR PAPYRUS PRIZE

French paper mill Emin Leydier (Lyon) received the BIR Paper Division's first Papyrus prize at the October meeting. The award goes to a company that has a record of innovation, promotes trust, shows growth in the use of recycled fiber, and shows leadership in social, environmental, quality, and management issues, said Paper Division President **Ranjit Baxi** of J&H Sales International (London). The company, the first French mill to use recovered paper, consumes 800,000 mt of scrap fiber a year from 100 suppliers throughout Europe, it reported. It produces 720,000 mt of containerboard and 180,000 mt of boxboard and sheet annually.

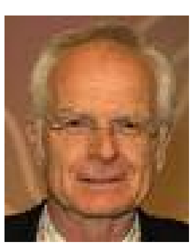
Christophe Leydier and Yyves Herbaut of French paper mill Emin Leydier accept the BIR Papyrus prize on behalf of the company.

demand has "almost vanished," Sellier said, in part because of the stronger U.S. dollar. On a brighter note, Indian banks remained healthy, with no bankruptcies, and credit had eased since the beginning of October. Growth of India's gross domestic product for 2008 was still expected to exceed 8 percent, he said.

In Russia, export duties continue to artificially support the country's domestic nonferrous processing, Sellier said. Many processors are investing in new equipment, possibly presaging an increased focus on processing ability and quality control over volume. South Africa is facing severe economic turmoil, with significant stock market drops, much slower growth, and a drop in currency value compared with the U.S. dollar.

Overall, Sellier noted the cyclical nature of the scrap business, saying "what comes down may still go up—if you're able to hang in there long enough."

Providing some historical perspective on the global economy was **Paul Thomes**, a professor of economic history at RWTH Aachen University (Aachen, Germany). Thomes pointed out similarities between the 1929 crash that precipitated the Great Depression and today: Both economic crises started in the United States and were preceded by predictions of continued strong growth, highly liquid capital markets, stock market surges, relaxed credit terms, and little economic regulation. The differences, he said, are that the relative isolation of many countries in the 1920s meant fewer were affected by the crisis. Further, the Depression began with the stock exchange and in industry, whereas today's crisis began with the credit markets and the banks.



Paul Thomes

Assuming that cycles of growth and recession are normal, why did the

1929 downturn move from recession to depression? There's no clear-cut answer, Thomes said, but "ideological convictions and ignorance paralyzed policy." Markets were left alone too long because there were no crisis management standards, he said. Today we can learn from the experience of the past—though we don't usually do so—and use tools such as deficit spending to manage the situation, he said. Further, today's leaders are not waiting for three years to act.

The lessons Thomes drew from the past and present crises are that "markets left alone tend to exaggerations" and that man is by nature selfish. To balance those forces, he called for market reforms that combine "systemic control" of economic players with transparency and space for "creative entrepreneurial action." He warned, however, that protectionism will only create stagnation.

A second guest speaker moved the perspective from the broader economy to the narrower world of metals. The current economic crisis did not begin in the metals business, explained **Christian Schirmeister**, senior account executive for RBS Sempra (Stamford, Conn.), who chairs the London Metal Exchange's copper committee. Instead, the crisis "has come from outside and hit us hard." Predicting where we are in the duration of this downturn, Schirmeister cited Winston Churchill speaking about the British military victory at El Alamein, Egypt, in World War II: "This is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning."


Christian Schirmeister

Business on the LME copper exchange has slowed since September, he said, with 50 percent of participants postponing, canceling, or rolling forward their positions. Institutional fund buying created a disconnect between metals prices and industry needs, he said, and "borrowed money created the bubble" in prices. Now the collapse in the financial markets has contributed to the downturn in metals because "people who have never seen a cathode have had to liquidate" to have the dollars to pay their margin calls and losses.

STAINLESS "NOT GOING OUT OF FASHION"

The global stainless market is entering "uncharted territory" and "a time of turmoil," said **Michael Wright** of ELG Haniel Metals (Sheffield, England), chair of the Stainless Steel & Special Alloys Committee. Unlike other metals, the stainless market was already "not excellent" at the beginning of 2008, he noted, as the industry waited to recover from the earlier destocking phase. Last January's expectations were that China would continue to drive stainless production, growing 15 percent—to 1.1 million mt—and global production levels would exceed 30 million mt.


Michael Wright

By the middle of 2008, the stainless market was "delicate," Wright said, and it became clear that 30 million mt in production was unlikely. With the then-unofficial U.S. and European recessions pressuring the industry, sharp cuts in production and low inventories are depressing raw material prices. Estimates of 2008 production now stand at 27.2 million mt, down from 28.5 million mt in 2007, and 2009 production will likely fall to 26.3 million mt, Wright said.

In 2009, production and demand might not increase until the second quarter or later, keeping the lid on nickel prices, Wright said. Production and demand both will rise slowly throughout the year, with a continuing propensity for ferritic over austenitic grades of stainless. External scrap supply will not fall, however, and scrap ratios will increase. "There will be no shortage of scrap," Wright added, so sellers "must keep it attractive in price and quality through 2009."

In the United States, the normal flow of stainless scrap—from collectors to processors to wholesalers to consumers—does not apply in these economic conditions, said **Barry Hunter** of Hunter Alloys (Boonton, N.J.). The major domestic mills are not buying—or they're doing so only "quietly on a spot basis"—and they're reducing their inventories. With prices at historically low levels, all market players are deciding whether to sell or hold based on physical space and financial need, he said: "Most suppliers with enough room seem to be willing and are prepared to hold material."


Barry Hunter

Hunter continues to question the accuracy of U.S. stainless export data in terms of volume, though he called it useful for looking at overall trends. Asia is still the primary destination for stainless scrap, taking in about 85 percent of all U.S. exports. Of that total, 40 percent goes to Taiwan. Hunter said he expects exports to trend downward from November 2008 to March 2009 "as economic conditions worldwide express a lack of need for our materials."

After the stainless sector's recent market highs, a correction in stainless prices was predictable, Hunter said, but "the speed and magnitude of that correction, unfortunately, was not." Prices will not rise as rapidly as they fell, in part due to the buildup in stainless scrap inventories, but "stainless is not going out of fashion," Hunter said. He pointed out factors that bode well for future demand: inventories of finished and semifinished products are relatively low, a lack of manufacturing has reduced the supply of prompt industrial scrap, reduced mill production has cut the

GOVERNMENT, INDUSTRY COOPERATION NEEDED ON RADIOACTIVE SCRAP

Radioactive scrap is a global problem that affects every recyclable metal, warned **Michael Wright** of ELG Haniel Metals (Sheffield, England), chair of the Stainless Steel & Special Alloys Committee, which convened a workshop on the subject at the Düsseldorf BIR meeting.

Most radioactive scrap comes from "orphan sources"—radioactive materials once licensed for use in research, medicine, or other purposes. Worldwide, governments lose track of 200 to 400 orphan sources each year, according to **Torsten Passvoss**, managing director of GHS-Strahlenschutz (Schwerte, Germany).

No one can see, feel, taste, or smell radioactive material, according to the panelists. Scientific instruments can detect and measure it, but even they have difficulty detecting material that's well-shielded. When the shield is damaged or removed during scrap processing or melted away in a metal furnace, the radioactive material that is released can put life and health at risk and have potentially disastrous consequences. More than 113 radioactive melting incidents have occurred in 26 countries since 1983.

Scrap processors face ongoing challenges related to "orphan" radioactive sources that end up in the scrap recycling stream.

A release of radiation creates a wide range of liability for the scrap consumer and scrap supplier, Wright said, from the contamination of the environment—including the scrap, any products created from it, and furnace dust and slag—to the risk to employee health and the costs of business interruption and remediation. Further, he said, most business insurance does not cover these risks.

Recently, scrap consumers have demanded that suppliers certify their materials are completely free of radioactivity, noted **Martin von Gehren**, also of ELG Haniel Metals (Duisburg, Germany). Such a guarantee is "not physically possible" due to natural background radiation, von Gehren said, and existing technologies cannot detect all radioactive scrap. Instead, he said, scrap suppliers should certify that a delivery was "checked within the limitations of accessibility" and that the yard's detection equipment did not detect dangerous levels of radioactivity. He warned that signing any guarantee of radiation-free scrap could jeopardize a scrap company's insurance coverage.

Stephanie Mansourian-Stephenson of the United Nations Economic Commission for Europe reviewed that group's recommendations for improving radiation protection in the scrap recycling industry, which the Geneva-based commission issued in 2006. The voluntary recommendations identify best practices across the scrap supply chain, from demolition to smelting; identify responsibilities, procedures, and mechanisms to help deal with the issue; encourage collaboration; and provide a framework for governments to develop their own strategies. The UNECE's goal, Mansourian-Stephenson said, is to assist governments and industries to effectively monitor, intercept, and respond to radioactive material in scrap metal.

Wright called on governments, scrap processors, and scrap consumers to share the responsibility for radioactive materials. Currently, governments are "not accepting their responsibility" for orphan sources, Wright said. "Nobody is volunteering cooperation with the scrap recycling industry, and as such we're accepting the responsibility fully on our own shoulders." Governments must provide funding for detection, isolation, and disposal as well as the cleanup of any releases of radioactivity, Wright said. Scrap processors must install, monitor, and maintain detection equipment and train workers on how to respond to detection alerts.

Von Gehren noted that the UNECE recommendations follow the "polluter pays" principle, naming the owner of the source the polluter. But the term *owner* is ambiguous, he said—it might be the holder of the license for the radioactive source, or it might be the company that purchases scrap and later finds it contains a radioactive source. "You don't want it to be the *finder* pays, you want it to be the *polluter* pays," he said. The UNECE recommendations also put no responsibility on governments, he said.

Workshop panelists spoke favorably of the "Spanish protocol," an approach that Spain instituted in 2005 that brings together government and the scrap processing and consuming industries to share the responsibility and costs for the problem. Wright called on BIR to promote the Spanish protocol through its member associations.

supply of revert scrap, and low prices are slowing scrap flows overall. These factors "must eventually impact need, competition, and price," he said, making patience and confidence essential.

The European stainless steel sector is suffering from production cuts in the third and fourth quarter of 2008, and consumers are keeping their inventories of stainless scrap low, Wright said. This decline is leading to predictions that 2008 European stainless production will decline 5.5 percent from 2007 to hit 7.6 million mt in 2008. "We do not see any sign of good news, certainly for the next six months, with the only room for optimism being the apparently low inventories," Wright said. European production could fall another 10 percent, to less than 7 million mt, in 2009.

Turning to Asia, **Anand Gupta** of Ambica Steels (New Delhi, India) noted that his country had "never seen turmoil like this before" in all commodities. India imported 172,000 mt of nickel and stainless in 2006 and 40 percent more, 242,000 mt, in 2007, Gupta said. In the first and second quarters of 2008, imports hit 140,000 mt. He did not expect the third quarter to show major declines, he said, but the fourth quarter would be a different story. He noted production cuts of 30 percent

Anand Gupta

to 40 percent and predicted "hard times ahead."

For all of the Far East, Mark Sellier reported production cuts of more than 50 percent and the cancellation or renegotiation of sales orders in China, Taiwan, and South Korea. China has no significant imports arriving in the third and fourth quarters, he said.

Barry Hunter also presented a report by **Stuart Freilich** of Universal Metal Corp. (Worcester, Mass.) on aerospace and other special alloys. These markets have been hit equally as hard by the implosion of financial markets worldwide, cutbacks in automobile production, and slower housing starts, but Freilich was optimistic about a turnaround in 2009. He projected slower but continued demand from the automotive and housing sectors for ferrotitanium additive. Further, the end of the Boeing strike will increase demand for high-temperature alloys and titanium scrap, the latter of which is priced competitively compared with sponge, he said. Titanium scrap will see "moderate" consumption levels and prices in 2009, Freilich said, as warehouses and consumers restock and buying becomes more normalized, even if it does not return to the "robust levels of the past."

FERROUS FALLS DRAMATICALLY

Christian Rubach of Interseroh Hansa Recycling (Köln, Germany), president of the Ferrous Division, reminded attendees of the bullish mood at the BIR conference in Monte Carlo just five months earlier. "No one expected such dramatic price falls," he said, as steel scrap dropped 80 percent from its recent highs. Remarking on long-term contracts being breached, mostly in Asia, Rubach said most companies honor their contracts in good times and bad—"and we will watch the ones that don't."

Christian Rubach

Presenting the market reports, **Blake Kelley** of Sims Metal Management (New York) called the U.S. and international markets "not very pleasant." Dramatic price cuts have reduced scrap collection in the range of 40 percent to 50 percent, and everyone in the chain is desperately attempting to reduce inventories, he said. Global steel production declined 0.5 percent from August to September, according to World Steel Association data, but it was still up 4.6 percent year-to-date compared with 2007. Based on September data, the association projected 2008 steel production to grow by 72.1 million mt and apparent scrap consumption to rise 34.7 million mt compared with 2007. Those projections don't reflect the declines in October and November, Kelley said.

Blake Kelley

It's "painfully clear the supply of steel and raw materials finally surpassed demand, causing prices of each commodity to dramatically fall"—dropping 75 percent in about four months, Kelley said, though lower prices have not spurred increased buying. Buyers may be waiting for even more declines, the devaluation of their inventory might have reduced their access to credit, or sellers may be holding overpriced inventories and be unwilling to sell, he said.

In the United States, scrap suppliers were taking more of a hit than the steel mills, which were cutting their scrap purchases more than their production, he said. Kelley offered no current prices, saying "there may not be one a buyer and a seller would accept." There was "no adequate market" to absorb the current supply, he said. He pointed out that steel producers still have huge operating margins, with one company selling rebar for $900 a gross ton, ex works, at the same time it's buying scrap for $200 a gross ton—and "today's scrap prices are much lower." Despite these margins, Kelley said, producers announced plans to cut production in an effort to prevent oversupply. The dramatic decline in scrap prices while finished steel prices remain high contradicts the position of the newly formed American Scrap Coalition (Washington, D.C.), which has asserted that high steel prices are a result of high scrap prices, Kelley said.

Integrated steel producers in the United States will be squeezed, he predicted, by continued high prices for iron ore on one side and the weak automotive and other manufacturing sectors on the other. Some producers of steel, pig iron, and HBI are selling their product for less than it costs to produce, he said, which will result in less blast furnace production and more EAF production, which—on the plus side—will increase the consumption of scrap. As evidence of this trend, he pointed out that apparent purchased scrap consumption went up 4.6 percent in September compared with August, reversing two months of decline.

Falling prices, production, and demand, and efforts to reduce inventories characterize the global steel market as well, Kelley said. In Asia, the last deep-sea cargo purchase, "many weeks ago," was around $350 for shredded, but "the next price will be much lower." The "serious economic problems affecting the steel industry of many Asian countries" are resulting in contract cancellations and renegotiations and "dramatically reduced" demand for both bulk and containerized imports.

Freight rates, which had risen dramatically over the past several years, are down at least 75 percent for bulk shipping. Container shipping lines, in contrast, are reluctant to reduce their rates, Kelley said. Falling freight rates come with some risk, he noted, because if a shipping firm declares bankruptcy, any cargo in transit could be "impaired."

Kelley condemned the attempts to renegotiate contracts, but he also singled out "fictitious quality claims" and allegations of discrepancies in letters of credit. "Scrap suppliers performed their obligations when markets were rising," he pointed out, "despite obvious opportunity to renegotiate for a higher price or better terms." He did acknowledge that some buyers were unable to buy, regardless of price, but the questionable reliability of LCs in some countries will "restrict international commerce in all commodities and products, especially since cash in advance is not an alternative."

The world economies are likely to shrink in the fourth quarter of 2008 and beyond, Kelley said, almost certainly leading to less steel production and raw material consumption. The bottom for scrap prices could come soon—there are some signs of prices firming, he said—and the situation

REVIEWING THE ECONOMIC SCENARIOS

How did the U.S. subprime lending crisis lead to a predicted global recession? Professor **Norbert Walter**, chief economist of Deutsche Bank Group and head of Deutsche Bank Research (Frankfurt, Germany), gave his explanation during the Ferrous Division roundtable. The problem started with the U.S. Federal Reserve's cut in the federal funds rate in the early part of the decade to combat deflation, Walter said. Cheap credit terms resulted in huge growth in mortgage lending. The United States was not the only country with a housing bubble, however, he noted. Housing prices increased rapidly in the United Kingdom, Spain, France, and Ireland—but not Germany—in the past few years, becoming unaffordable for many. Then the credit markets collapsed, and the falling housing and automotive sectors took their toll on commodities prices. Walter dismissed the concept of "decoupling," noting that Europe and Japan's GDPs declined simultaneously with the United States.

Norbert Walter

The economic pain also spread through emerging market economies, which are tightly linked through trade to the United States and Europe. Walter said he's still bullish on emerging markets, believing they will be less affected by this recession. "I still think Asia will outperform other regions, but it won't grow at above 10 percent anymore," he said. The "continental" emerging markets of India and China can and will stimulate their economies to get through the recession, he said, though inflation remains an issue for these and other developing countries. Further, he expressed concerns about the environment and labor supply in China; government bureaucracy and the potential for terrorism in India (a fear unfortunately realized the following month); and endemic corruption in Vietnam. Latin America, too, has great unrealized potential, he said.

Walter predicted that the crisis was far from over, and governments would need to address other economic problems by cutting interest rates—down to 1 percent in the United States, 3 percent in Europe, he said—and taking other measures to inject liquidity into the financial markets. The expected recession was unavoidable, Walter said, but he gave three possible scenarios for how it might play out. His baseline assumption, which he gave a 45 percent probability, is that the recession continues until a weak recovery in 2010. Slightly less likely (with a 30 percent probability) is that "we're lucky," he said: the government safeguards work, the recession is not deep, and it will be over in 2009. The least likely but most worrisome scenario Walter envisioned is the end of the free market—the determination that "capitalism has run its course" and that economies need more state control. This would help a country's banks, its automotive industry, and other strategic sectors, he said, but it can lead to protectionism, as it did after World War I, and could end the benefits of globalization. He gave this alternative only a 25 percent probability, however.

will improve as inventories clear. In sum, "Plan for the worst, hope for the best, and be grateful for past prosperity," Kelley said.

Kevin Fitzpatrick, also with Sims (Stratford-upon-Avon, England), reported Europe is seeing record price drops, with more expected in November. European scrap demand could fall 60 percent in the fourth quarter. Fitzpatrick called "disappointing" steel companies' canceling of contracts, saying it will put a strain on some operators. He blamed the production cutbacks on oversupply earlier in the year. Finished steel stock levels are starting to move, he noted, but it won't help until 2009.

Roman Genkel of Mair Industrial Group (Moscow) reported that Russia's consumption of steel scrap had fallen along with prices, which had declined from $500 to $100 a mt in the previous two months. Crude steel production was down 25 percent to 30 percent, he said. Falling prices and a lack of credit have left mills unable to pay their suppliers, Genkel said, leading to price renegotiations and overdue payments. The result may be market consolidation as marginal players are eliminated. He urged steel mills and scrap processors worldwide to reduce production to stabilize the steel products market.

Guest speaker **Jost Massenberg**, an executive board member of Thyssen Krupp Steel (Düsseldorf, Germany), gave an overview of the company's operations and goals. In steel the company has left the long products business to focus on premium flat carbon steel. Raw material costs have risen to 73 percent of expenses of producing hot-rolled coil, he noted, up from 56 percent in 2004. More than 60 percent of the company's purchases are based on annual contracts, typically for a calendar year. In the future, he said, the company will still use annual contracts, but contract periods "will be matched to react quickly to changes in pricing." The three pillars of its steel business will be a slab-making facility in Brazil, a carbon and stainless steel plant in Alabama, and its existing facilities in Europe, he said.

Jost Massenberg

PAPER KEEPS ITS EYES ON THE SEAS

Though the recovered paper market is facing the same crises as the other recyclable commodities, participants at the Paper Division roundtable largely turned their focus to ocean shipping and the ports. Division president **Ranjit Baxi** of J&H Sales International (London) noted October's abolition of Europe's Far Eastern Freight Conference, opening up European Union companies to greater competition among shippers. The FEFC used to bring "price stability through a common tariff and capacity coordination" among its members, Baxi said. Now every line must set rates directly with customers. At the same time, new shipping capacities have come online, demand for shipping has fallen, and charter vessel rates have dropped, Baxi said. With more capacity growth in the pipeline—he named 160 new ships on order, for a total of 15.9 million TEUs by December 2010—the shipping industry must withdraw ships and travel more slowly to save on fuel and maintain profitability, he said.

Ranjit Baxi

Earlier in 2008, U.S. paper recyclers were concerned about a container shortage, said **George Chen** of G&T Trading International (Clifton, N.J.), as shippers cut back on service from Asia to the United States as demand for imports slowed. Though the overall economic slowdown has temporarily solved the problem, Chen says transportation is still a long-term concern. The "clean trucks" program at the ports of Los Angeles and Long Beach, which bans trucks from 1988 and earlier due to emissions concerns—is another impediment, he said, and ports in San Francisco and New York might implement similar bans on older trucks.

George Chen

Fear and panic characterize the current global paper market, Chen said. The first three quarters of 2008 were "party time," Chen said, with pulp inventories dropping, a weak U.S. dollar, and all major recovered paper grades in high demand domestically and internationally. Then came September, and mills facing credit and cash-flow problems began to shut down and reduce their inventories. Demand for recovered paper dropped, and prices began to fall.

Chinese demand for imported fiber is growing half as fast as it had in recent years, Baxi noted, up about 7 percent year to date compared with 14 percent to 15 percent in previous years. Imports from Europe fell from 2.2 million mt in the second quarter to 1.2 million mt in the third quarter, the first sign of the decline, he said. The fourth quarter of 2008 and first quarter of 2009 should be "the most challenging and difficult."

Chen pointed out special obstacles facing U.S. paper recyclers. The country's 56 percent recovery rate might not be enough to meet future demands, he said. Further, the spread of single-stream recycling saves energy, but the glass in the stream causes serious problems for paper mills both domestically and internationally. Chinese mills are increasingly mechanized, Chen said, and mill operators are less willing to use workers to hand-sort poor quality imported mixed paper.

"Recovered paper recyclers are satisfying the fiber needs of European paper mills," said **Horst Menge**, raw materials coordinator for Myllykoski (Helsinki, Finland). Paper recovery and paper utilization are both going up, he said, though country-by-country rates vary greatly. Only about 75 percent of paper can be recovered, he said, with the rest going to the "point of no return" into books or tissue products. He advocated better quality through source separation and better cooperation between mills and their suppliers. "Suppliers must professionalize, and the way ahead must be based on partnership," he said.


Horst Menge

European Recovered Paper Association President **Merja Helander** of Paperinkerays (Helsinki, Finland) announced that the industry reached a 64.7 percent recycling rate in 2007, very close to the 67 percent voluntary target it intends to reach by 2010. European paper recyclers collected 60 million mt in 2007, 15 percent of which it exported, she said.

Baxi and Chen were sanguine about the long-term outlook for paper. Paper recycling is important for environmental and global warming reasons, Chen said. Currently 45 percent of the world's paper is made from recovered paper, he added. "Paper mills are here to stay, and we're here to supply the fiber the mills need," Baxi said.

MAKING PLASTICS A PLAYER IN THE CARBON MARKET

The plastics and tire committees convened the first joint roundtable at the fall BIR meeting. The plastics presenters largely looked past the current turmoil and "dead market"—as plastics chair **Surendra Borad** of Gemini Corp. (Antwerp, Belgium) put it—to the potential of plastics recycling to reduce greenhouse gas emissions. "We must do our best to make plastics recycling eligible for carbon credits," Borad said.

That won't be easy, warned **Markus Götz**, an emissions trading consultant with FutureCamp (Munich, Germany).

Though "waste handing and disposal" projects in the developing world often qualify for carbon credits, none of them so far are recycling-related, he said, and the process of getting a project approved via the Kyoto Protocol is difficult. Still, Götz estimated that the European Union's recycling of 2.5 million mt of plastics in 2003 saved 3.6 million mt of carbon dioxide equivalent, and each metric ton is worth €15 to €20 on the carbon exchanges.

Markus Götz

Joachim Wuttke of the German Federal Environmental Agency (Dessau-Rosslau, Germany) also addressed the potential carbon emissions savings of plastics recycling. Landfill gases are one source of carbon emissions, he said, as is waste incineration with or without energy recovery, thus reuse and recycling have the potential to reduce those emissions. Plastics recycling plays a role in various scenarios for reducing the greenhouse gases coming from the material waste stream, he said.

In a brief market report, **Jacques Musa** of Veolia Propreté France Recycling (La Plaine St. Denis, France) noted prices for primary polypropylene in China had dropped from $1,600 a mt in September to $800 at the time of the meeting, and factory activity had declined 40 percent. China's secondary market was equally poor, with Musa expecting "much lower" prices in November, some Chinese companies facing bankruptcy, and others backing out of contracts. **Peter Daalder** of Daly Plastics (Zutphen, Netherlands) reported that PET sales from the Netherlands and Germany were down 50 percent in Asia, with buyers refusing cargo and banks not issuing letters of credit to buyers. Borad noted the Indian market was suffering as well, though not as badly as China. Prices for primary LDPE and HDPE in India had fallen more than $500 a mt, Borad said. He predicted the market was "waiting for signals from China."

TIRES ARE PART OF THE END OF WASTE

The tires segment of the roundtable focused primarily on how tire recycling fits into the current European Union regulatory environment. Tires Committee Chair **Barend Ten Bruggencate** said he was "pleased" with the EU Waste Framework Directive, including its position that material recovery is preferable to energy recovery. After much effort, tires have been incorpo-

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rated into the EU's end of waste criteria, he noted. The directive as proposed mandates separate collection schemes for each recyclable material by 2015, which might be difficult, he added. Ten Bruggencate criticized the Basel Convention's procedures for investigating disputes as too slow. A dispute between Brazil and the European Union over scrap tires started in July 2008 and will not be final until 2010, he noted.

Recycled rubber granules used as infill on artificial turf soccer fields in the Netherlands were found safe in studies of two specific hazards, according to **Ulbert Hofstra** of Intron (Sittard, Netherlands). About 700 fields in the Netherlands use granulated rubber, to the tune of about 15 kg per square meter, or 114 tons per field.

Ulbert Hofstra

Intron and the Dutch government studied whether the granules leach unacceptable levels of zinc into the water supply, harming certain marine organisms, and whether inhaling, swallowing, or regular skin contact with the granules raises the body's level of polycyclic aromatic hydrocarbons, a potential carcinogen. The company found no increase in PAH in a study of soccer players' exposure to recycled rubber granulate in artificial turf. Intron concluded that the rubber infill poses no significant human health risk, Hofstra said. The company also determined that zinc leaching from the granules would be well below Dutch regulatory limits during the fields' 10- to 15-year lifespan, he noted.

Also in the plastic and tires meeting, **Kees Wielenga** of Ffact (Delft, Netherlands) gave an overview of potential recycler responsibilities under the EU's REACH and Waste Framework Directive regulations. S

Rachel H. Pollack is editor of Scrap.