A Market Divided

DREAMSTIME/KENAN ACAR

MARKET REPORTS AT BIR'S SPRING CONVENTION IN ISTANBUL WERE BOTH OPTIMISTIC AND PESSIMISTIC, AS RECYCLERS SAW RECENT MARKET MOMENTUM SLOW AND PRICES DROP, RAISING CONCERNS ABOUT THE INDUSTRY'S STRENGTH GOING FORWARD. **BY ROBERT J. GARINO AND KENT KISER**

The narrow Bosphorus Strait divides Turkey and its largest city, Istanbul, between two continents, Europe and Asia. This division aptly symbolizes the state of the global scrap markets, as described at the spring 2010 convention of the Bureau of International Recycling (Brussels), held in Istanbul May 31-June 2, where speakers' reports crossed back and forth between the shores of optimism and pessimism.

On the optimistic side, speakers noted the solid market gains since BIR's fall meeting in Amsterdam, when scrap traders expressed confidence that the worst market conditions were behind them. That was before the sovereign debt crisis in Europe, spurred by Greece's financial meltdown, and significant price declines in many markets, not to mention the ongoing environmental disaster in the Gulf of Mexico. Those developments, among others, prompted many investors to flee the commodity markets for safer harbors and raised the possibility of a double-dip recession, tempering recyclers' optimism with a healthy dose of worry. "Volatility and unpredictability are the two key words at this time," said BIR Plastics Committee Chairman **Surendra Borad** of Gemini Corp. (Antwerp, Belgium). "We are surrounded by sharp swings in prices everywhere. Currencies, commodity prices, and stock markets all are moving up and down so much that it is very difficult to predict sales, revenues, or cash flows."

The divided mood at the Istanbul convention didn't hinder the event's success, however. In addition to registering 1,400 delegates and guests, BIR approved the addition of 76 new members, bringing its membership roster to 770 entities in 72 countries. Those numbers gave an upbeat tilt to the meeting's good news/bad news balance, reminding attendees to accentuate the positive during such turbulent times.

FERROUS MARKET "FAR FROM BORING"

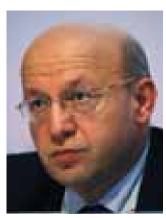
Apparent global steel demand is expected to grow nearly 11 percent this year, to about 1.24 billion mt, and an additional 5 percent to 6 percent in 2011, said Ferrous Division President **Christian Rubach** of Interseroh Hansa Recycling (Dortmund, Germany). Steel demand in North America, Europe, and Japan, however, will only reach levels recorded a decade ago, he noted, concluding that the recent financial crisis "has thrown these countries back between 14 and 28 years." There's little incentive to increase steelmaking capacity in those regions, he said, leaving China and other developing economies to claim an ever-larger share of global steel output.

Also affecting the steel market this year are fast-rising raw material costs, exacerbated by unfavorable currency exchange rates and inventory changes. With China's "ever-increasing" role in the world steel industry, ongoing foreign exchange turbulence, and "new export and import flows," the scrap industry will be "far from boring" going forward, he said.

In the U.S. market, **Blake Kelley** of Sims Group Global Trade Corp. (New York) noted that May ferrous scrap prices had weakened, with prime grades figured at $470 a gross ton delivered to domestic mills, shredded scrap at $370 a ton, and No. 1 HMS at $345 a ton. For June, Kelley noted a change in market sentiment that suggested lower offshore demand would allow domestic buyers to meet their scrap requirements "at lower prices than in May." Lower scrap prices also have slowed scrap collection efforts, with some U.S. regions experiencing a decline of more than 25 percent, he said.

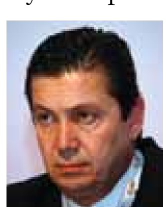
Blake Kelley

Finished steel prices likewise have softened, Kelley continued, with hot-rolled coil at $770 a mt, f.o.b., and U.S. mills operating at about 74 percent capacity in the third week of May. Though the near-term outlook is "not necessarily bullish," he said, scrap traders are "optimistic as we anticipate consistent demand," buoyed by decreased scrap supply available for export and the expected return of Turkey as a buyer for delivery of material in late June and July.



Veysel Yayan

Speaking of the Turkish market, that country's crude steel production is on track to reach about 29 million mt this year, with its ferrous scrap demand placed at roughly 25 million mt, reported **Veysel Yayan** of the Turkish Iron and Steel Producers Association (Ankara, Turkey) and **Uğur Dalbeler** of Çolakoğlu Metalurji (Istanbul). By 2012, the country's scrap consumption is expected to rise to about 30 million mt—75 percent of it imported—making Turkey among the largest scrap importers in the world, they noted. Current Turkish steel melting capacity, meanwhile, is approximately 43.4 million mt, with electric-arc furnaces accounting for 78 percent of the total.



Uğur Dalbeler

In Russia, the supply of ferrous scrap declined 40 percent in 2009 compared with 2008, forcing Russian mills to enter the winter with their lowest stocks in years, said **Andrey Moiseenko** of MAIR (Moscow). The scrap shortage boosted prices early in the year, increasing scrap availability to the point where mills have started to decrease their buying prices, he said. For the year, scrap collections in Russia will be "significantly higher" than in 2009, with most scrap consumed domestically and only limited quantities available for the export market, Moiseenko said. The scrap supply also declined in Ukraine in 2009, but only 10 percent—much less than in Russia, he added. Scrap remains tight, and Ukrainian mills are benefiting from the devaluation of the national currency, which has allowed them to pay competitive prices for domestic scrap, Moiseenko noted.

India's steel industry produced 60 million mt of crude steel in 2009 and is expected to reach 65 million mt in 2010 and up to 110 million mt by 2014, said **Ikbal Nathani** of the Nathani Group of Cos. (Mumbai). On the scrap side, India is on track to import about 5 million mt of ferrous scrap this year, up from about 4 million mt in 2009, he reported. India's scrap demand will show a "slight drop" in the monsoon season, after which mills likely will turn to domestic supplies of shipbreaking-based HMS and direct-reduced iron, Nathani noted.

Ikbal Nathani

Offering a glimpse into the Japanese market, **Tsunefumi Nakatsuji** of the Japan Iron and Steel Recycling Institute (Tokyo) said Japan produces about 100 million mt of steel annually, 75 percent in blast furnaces and the remainder in about 40 EAFs. He noted that 35 percent of Japan's total crude steel is made from recycled steel, estimating its ferrous scrap volume at about 35 million mt in 2009, including exports in excess of 9 million mt.

In 2008, Japan's ferrous scrap supply was about 47 million mt, including 14 million mt of home scrap but excluding about 6 million mt earmarked for export, Nakatsuji said.

He placed Japan's ferrous scrap reservoir at more than 1.3 billion mt—and growing 15 million mt a year—with global scrap reserves around 20 billion mt.

Martin Abbott of the London Metal Exchange discussed risk management and the use of hedging techniques to manage the inherent price risks of fluctuating commodities. After giving a brief history of the use of futures markets and hedging, he offered examples of a short hedge, as a means to protect inventory value; and a long hedge, which he described as a way to protect against price increases in the future. He noted the LME's commitment to establish a steel scrap contract and presented some data on the current use of the LME's two-year-old steel billet contract.


Martin Abbott

SETTING SAIL FOR THE PLASTIC VORTEX


Doug Woodring

In a remote part of the Pacific Ocean there's a "garbage patch" that's approximately twice the size of Texas, an area called both the Plastic Vortex and the North Pacific Gyre. Researching, reporting on, and eventually cleaning up that aquatic debris field is the focus of Project Kaisei, a nonprofit organization based in San Francisco and Hong Kong.

Speaking at the BIR general assembly meeting in Istanbul, **Doug Woodring,** the group's co-founder and director, noted that an estimated 11 billion pounds of plastics enter the world's oceans annually, with most coming from land-based sources. These materials create a variety of hazards: They kill marine life, enter the human food chain, pollute the ocean ecosystem, and more.

Project Kaisei, which BIR supports as a sponsor, has two missions—to remove and remediate the ocean debris and to influence corporate and societal behavior to prevent future damage, which includes advocating to increase recycling rates and expand the use of biodegradable plastics, Woodring said. His hope is that Project Kaisei will serve as the "tipping point" to motivate change on the issue of man-made debris in the ocean. "How much more pollution do we need to see before we realize that enough is enough?" he asked, reminding BIR attendees that the global economy is a "100-percent subsidiary" of the environment, which "touches everything we do in our business lives."

NONFERROUS PICTURE PARTLY SUNNY

The current economic climate is "not overly clear" due to concerns about sovereign debt in Europe, the economic recovery in the United States and elsewhere, and the economic effect of natural disasters such as the volcano in Iceland and the "undersea drilling disaster" in the Gulf of Mexico, said Nonferrous Division President **Robert Stein** of Alter Trading Corp. (St. Louis). With market volatility "somewhat more pronounced than we might like," he noted that price ranges within one day often exceed the margins that scrap processors can realize during normal times—and "there is no reason to believe that this situation will be remedied anytime soon."

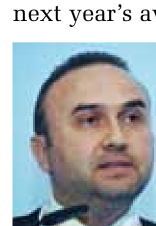

Robert Stein

In a summary of global nonferrous markets, **Carmelo Paolucci** of Trentavizi (Orvieto, Italy) pointed to key events such as the financial crisis in Greece and its subsequent effect on the euro; new Chinese import regulations on mixed scrap; continued price volatility; what he termed as "discrete" demand by the major economies; and the fundamental strength of the Chinese economy. China's demand for nonferrous metals continues to grow, with its copper demand expected to surge 12 percent this year, to almost 9 million mt, he said. In addition, the U.S. economy is "giving plenty of positive signs," especially in the automotive and manufacturing sectors, with secondary smelters taking advantage of stable demand and "good" availability of scrap, Paolucci stated. The Indian government also is confident it will achieve its medium-term target of 10 percent annual GDP growth, he said.

Guest speaker **Robin Bhar** of Crédit Agricole Corporate & Investment Bank (London) pegged global aluminum production at 39 million mt in 2010 against consumption of 37.74 million mt, yielding a statistical surplus of 1.26 million mt. That overhang will diminish in 2011, he said, as production rises to 41 million mt and consumption jumps to 40.5 million mt, trimming the surplus to 500,000 mt. Bhar maintained that an LME aluminum cash price below $2,000 a mt (91 cents a pound) is not likely based on anticipated global growth, led by China and the developing world. His 2010 forecast calls for LME aluminum to average $1.04 a pound this year ($2,300 a mt), trading in a range of 91 cents to $1.18, with next year's average closer to $1.13 a pound ($2,500 a mt).


Robin Bhar

Another nonferrous guest speaker, **Sedat Göksu** of Özel Copper Co. (Istanbul), provided a statistical look at Turkey's copper industry, noting that it produced 295,000 mt of copper concentrate in 2009, resulting in 73,000 mt of copper content. Turkey's cop-


Sedat Göksu

per cathode production totaled 34,000 mt in 2009, a 61-percent decline from its 2008 cathode production of 88,000 mt, he noted. The country's copper rod production also decreased in 2009, slipping 9 percent, from 345,000 mt in 2008 to 310,000 last year, Göksu said.

SCRAP TIGHTNESS, NICKEL VOLATILITY HAMPER STAINLESS

After ending 2009 at about 26.5 million mt, global stainless production could reach 30 million mt this year, with 50 percent of that output coming from emerging markets such as China, India, the Middle East, and South America, said **Michael Wright** of ELG Haniel Metals (Sheffield, England), chair of the Stainless Steel & Special Alloys Committee.

Europe's stainless production is on track to reach 7.25 million mt in 2010, which would be a 21-percent rise over 2009 but still about 600,000 mt below the production total in 2008, Wright reported. Thanks to the upcoming summer holiday period, the third quarter will be a "testing time to see if the demand is real or merely continuing to fulfill the depleted pipeline of inventories," he said.

Michael Wright

Looking at specific European countries, Wright noted that demand for stainless scrap in Germany and Belgium was "quite strong" in the second quarter and was expected to "remain on a stable level until the end of June." Though supplies of production and obsolete scrap have grown about 4 percent, those countries face a dearth of stainless scrap supplies, especially turnings and moly-containing material. This "critical situation" means stainless mills in the region will have to seek additional supplies at times, he said.

Italy faces a similar tight scrap situation due to lower scrap generation from the manufacturing and demolition sectors and higher demand tied to "satisfactory" production of long and flat stainless products, Wright noted. Italian mills are favoring scrap to virgin raw materials, thus increasing the scrap ratio in their melts, with demand for 304 and 316 stainless scrap exceeding supply, he said. Despite solid scrap demand, mills appear to be "producing to replenish the stocks of service centers and dealers, whereas final consumption is still weak," Wright said. Notably, he added, Italian recyclers are shipping almost no stainless scrap to Asia at the moment.

Stainless production also is growing in the United Kingdom and Scandinavia, though inadequate scrap supplies likewise are hampering those markets, and participants remain concerned about a potential slowdown in the third quarter, Wright said.

In the United States, stainless steel ingot production totaled 733,000 mt in the first quarter of 2010, up 57 percent compared with ingot production in the fourth quarter of 2009, according to a report submitted by

INDUSTRY VETERANS RECEIVE BIR HONORS

BIR recognized two senior statesmen of the scrap recycling industry at its Istanbul meeting, bestowing certificates of merit on **Rolf Willeke** and **Robert J. Garino.**

Willeke, who retired last fall from his longtime position as managing director of the German ferrous scrap recycling association BDSV (Düsseldorf, Germany), wrapped up his many years as general delegate of BIR's Ferrous Division at the spring convention. Working as a consultant, he will continue to assist BIR with compiling statistics on the steel and ferrous scrap industries.

Garino, who will retire from his position as director of commodities for ISRI at the end of 2010, joined the National Association of Recycling Industries—an ISRI predecessor organization—in the mid-1980s, working in the group's New York office. When NARI merged with the Institute of Scrap Iron and Steel in 1987 to form ISRI, Garino moved to Washington, D.C., to work for the new association as director of commodities. Throughout his association career, Garino's knowledge of commodity markets has enabled him to organize, lead, and participate in numerous industry events around the world, launch two popular e-mail publications, *The Monday Report* and *The Friday Report*, and write numerous market-focused feature articles for *Scrap*, ISRI's bimonthly magazine. Prior to his association career, Garino held positions with CRU, a market research company, and National Lead Co., a producer of primary lead and related products.

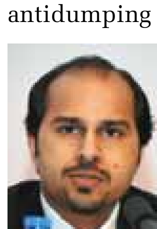
Rolf Willeke (above, second from left) received BIR's certificate of merit from (left to right) BIR President Dominique Maguin, longtime friend Tony Bird of the Bird Group of Cos. (Stratford-Upon-Avon, England), and Ferrous Division President Christian Rubach. Maguin also presented the certificate of merit to Robert J. Garino, recognizing his 25 years of service to the scrap industry and its associations.

Barry Hunter of Hunter Alloys (Boonton, N.J.). Since then, however, the market momentum has slowed from a "run to a trot" due to the recent international financial problems and sudden price reversal in the nickel market. "The picture is one of uncertainty, especially as we head into the summer months," Hunter said, noting that U.S. mills likely will become more cautious about their future scrap purchases and that "spot buying will once again become the norm." If scrap supplies remain tight and the strike at Vale Inco's mine in Sudbury, Ontario, continues, competition in the U.S. wholesale scrap buying market will remain keen, albeit at lower values as buyers seek to establish margins and reduce the average value of their scrap inventories, he said.

In Russia, the stainless scrap market is "more promising," with scrap supplies up 20 percent compared with 2009, said **Ildar Neverov** of Scrap Market (Moscow). The warmer springtime weather is bringing out scrap from outlying regions such as Siberia, northern Russia, and the Far East, he said. Notably, Russia, Kazakhstan, and Belarus will introduce a Customs Union beginning July 1. This new "economical area" will allow goods to move among the countries with no duties, except on some strategic items, Neverov explained. "This could create a new market for scrap in these three countries, and scrap tonnages can be sold to the most attractive customer in terms of payment and prices," he said, calling the effort "an interesting experiment" that is closed to international players. On the export side, Russia continues to charge a 15-percent customs duty on scrap leaving the country. Not surprisingly, Neverov said, "export tonnages are decreasing and the domestic market is becoming more and more powerful, especially the state-owned mills that can give a good price and prompt payment."

Ildar Neverov

Indian stainless producers went from operating at around 80 percent capacity earlier this year to a "standstill" due to the financial turmoil in Greece, the devaluation of the rupee against the euro and U.S. dollar, and the European Union's imposition of antidumping and antisubsidy cases against all Indian stainless steel long products, reported **Anand Gupta** of Ambica Steels (Delhi). India's previously strong stainless production increased its need for stainless scrap imports to about 110,000 mt in the first four months of 2010—up about 22 percent year-on-year—but the recent market downturn reduced its scrap imports and increased domestic scrap availability, primarily from the shipbreaking sector in western India, Gupta said. In response to the deteriorating market, the Indian government trimmed the import customs duty on stainless scrap from 5 percent to 2.5 percent, he said.



Anand Gupta

Asian stainless mills continue to operate at almost full production capacity and likely will continue that way through the summer, especially given the decline in raw material prices of late, said **Mark Sellier** of OneSteel Recycling (Hong Kong). The challenges for Asian mills are that raw material stocks remain "extremely low," and their "competitiveness remains questionable" for buying material on the world market. China remains out of the stainless scrap import market because its mills are well-supplied by local scrap and domestically produced nickel pig iron, he noted.

Turning to primary nickel, Wright asserted that the metal's volatile price performance in 2010 continues to be "influenced mainly by hedge-fund trading rather than supply and

"HUGE" GLOBAL SHIFTS AHEAD

Hamish McRae

By 2030, China could surpass the United States as the country with the world's largest economy and India could have the third-largest economy, according to **Hamish McRae,** associate editor and principal economic commentator for *The Independent*, a daily UK newspaper. That change represents a "huge" shift of power from the developed world to up-and-coming nations, especially the BRIC countries—Brazil, Russia, India, and China, he said.

That was one of five megatrends McRae addressed in his talk at BIR's general assembly meeting in Istanbul. Global demographics also point to a major shift, with the population in the developed world aging ahead of the populations in developing countries, which are one or two generations behind the developed nations, he said.

Energy, technology, and government rounded out McRae's list of the top-five major trends that will shape the world in the coming decades. Though fossil fuel-based energy sources will remain dominant in the near term, supplies "will be uncertain for the rest of our days," he said. That situation "plays to the strengths of the recycling industry," allowing processors to promote the energy savings of recycling scrap. Regarding technology, McRae maintained that it "levels the playing field," giving developing countries the same access to and opportunities in the international market as developed nations. On the government front, he asserted that governments around the world "will have to downsize" and learn how to "do more with less," in part due to the high government debt levels around the world, especially in developed countries.

The European debt issue and other concerns created a "significant reversal of risk appetite" among investors, who went "rushing out of anything they saw as risky," David Wilson said. They moved out of commodities and into "safe havens" such as the U.S. dollar and gold.

demand for stainless steel production." Guest speaker **David Wilson** of Société Générale (London) agreed, explaining that the European debt issue and other concerns created a "significant reversal of risk appetite" among investors, who went "rushing out of anything they saw as risky." They moved out of commodities, he said, and into "safe havens" such as the U.S. dollar and gold. Despite the recent investor-driven price declines, the fundamentals of the base metal markets are "far more positive than the prices reflect," Wilson said, noting that consumption for most metals has been growing for the past two to three quarters.


David Wilson

For nickel, "supply is the main story," he continued, pointing out that nickel production simply has "failed to meet demand growth." From 1997 to 2006, refined nickel production grew an average of 3 percent a year while demand grew 3.5 percent annually, creating "a significantly tightening market," he said. In addition to suffering an "investment lag," the nickel industry faces major delays in high-pressure, acid-leach laterite projects and steadily declining mine supplies. Though the nickel industry expects production to grow 6.7 percent a year through 2014, Wilson called that prediction "massively optimistic," maintaining that "nickel supply has a history of failure." This year, he said, the nickel market will end with a 50,000-mt deficit.

On the demand side, global stainless steel production could reach 38 million mt by 2014, Wilson said. As in other base metal markets, China will be the principal driver behind nickel demand and stainless production, buoyed by its ongoing spending of stimulus funds. This steady demand and tight supply conditions will make nickel prices "very well supported," Wilson said.

The high-temperature alloy and titanium markets have fared well in 2010, buoyed by both rising prices and volume, said **Phil Rosenberg** of Keywell (Chicago). A "nice rebound" in the aerospace sector and the ongoing Vale Inco strike have supported those markets, and those factors—combined with demand linked to energy and other infrastructure projects—likely will keep recycled material "priced competitively with primary metals," he noted.

Recycled cobalt alloy material is "reasonably discounted" compared with primary metal, though the discounts could shrink due to dwindling inventories of cobalt alloys "at all levels of the food chain," Rosenberg said. Demand in this sector could change, he added, if major engine manufacturers move away from Waspaloy to the new 718 Plus alloy.


Phil Rosenberg

In the titanium sector, the spike in pricing and activity for ferrotitanium "appears to have run its course," though "the jury is still out as to whether this is a break in the action or a true turn," Rosenberg said. Still, solid aerospace demand will help keep prices for recycled titanium positive for the balance of 2010. There are similar "signs of life" in the high-speed steel and tungsten carbide sectors, he observed.

Offering a review of the ferrochrome market, guest speaker **Cengiz Önal** of Eti Krom (Istanbul) said world production will total 8.59 million mt this year, up 49 percent from 2009, and 9.43 million mt in 2011. Global ferrochrome consumption, meanwhile, will be 9.32 million mt this year, up 41 percent from 2009, and 10.18 million mt in 2011, he said. The market's "slightly undersupplied" condition this year and next is subject to the availability of secondary chrome units and China's ferrochrome production, Önal said.


Cengiz Önal

Looking closer at ferrochrome consumption, he noted that Asia (including China) will account for 64 percent of demand in 2010, continuing to gain market share from Western countries. In terms of production, China will generate 1.9 million mt of ferrochrome this year, its highest level ever, Önal said.

In the stainless steel market, Önal echoed Wright in pegging 2010 global production around 30 million mt and 2011 output reaching 32.5 million mt, with China, India, and Taiwan together producing 50 percent of the total. India will become the third-largest stainless steel producer by 2011, he added, behind China and Japan, with 3.3 million mt of production, and it will claim the second spot from Japan by 2012 or 2013. China, meanwhile, will produce half of the world's stainless by 2015, Önal said. European and American stainless mills can only survive against Asian producers by focusing more on specialized steel products, such as duplex steel, he said. On a related note, Önal predicted that ferritic stainless grades will continue to grow—at the expense of higher nickel-containing austenitic grades—until 2011, when the decreasing nickel/chrome price ratio will make austenitic grades more attractive again.

SLOWER CHINESE DEMAND WEIGHS DOWN PAPER

China—the heavyweight player in the global scrap paper market—is on track to import about 26 million mt of recovered fiber this year, which would be down slightly from its 2009 imports of 27.5 million mt, said Paper Division President **Ranjit Baxi** of J&H Sales International (London). In the first quarter, the United States was the top supplier of scrap paper to China, shipping roughly 2.9 million mt, followed by Europe at 2.1 million mt, Asia at 1.2 million mt, and Oceania at about 218,400 mt, he reported. Among European suppliers to China, the United Kingdom claimed the top spot in the first quarter at about 698,000 mt, with the remaining top-five countries being the Netherlands (429,000 mt), Italy (172,00 mt), Belgium (171,000 mt), and Germany (171,000 mt), he said. Beyond China, Baxi noted steady-to-growing demand for recovered fiber from other Asian countries, including India, Indonesia, Vietnam, South Korea, Taiwan, and Thailand.


Ranjit Baxi

The U.S. market enjoyed strong scrap paper exports in the first quarter, thanks largely to revived demand from China, noted **Om Bhatia** of Macquarie Bank (New York). At the same time, bad winter weather in the Southeast hindered collection efforts, reducing scrap supplies. The market softened in April and May, however, as Chinese demand decreased and scrap supplies increased as the weather improved in the Southeast, Bhatia said. Despite this recent weakening, China is poised to ratchet up its demand, as large packaging manufacturers and major mills such as Nine Dragons and Lee & Man implement expansion plans, he said.


Om Bhatia

Turning to trends in the EU countries, **Reinhold Schmidt** of Recycling Karla Schmidt (Haren, Germany) pointed out that Germany's production of paper and paperboard totaled roughly 21 million mt in 2009, down about 8 percent from the previous year, mainly due to lower production of graphic paper. Germany's consumption of scrap paper likewise declined last year, slipping 4.5 percent, to 14.8 million mt, as did its pulp consumption, which decreased almost 11 percent, to 4.3 million mt, he said. The 2010 German market has seen solid demand and higher prices from mills in Europe and Asia, though supplies of scrap paper have been tight due to the lingering effects of winter weather and the previous economic downturn, Schmidt said. Though orders from Asian consumers cooled in May, "there are signs of stabilization of recovered paper demand on a high level," thanks to "significant" new paper production capacity in Poland, Hungary, and Germany, he noted.

The French market in April and May confirmed Asian buyers' lack of interest in European recovered fiber, which redirected tonnage to the European market, said **Jean-Luc Petithuguenin** of Paprec Recyclage (La Courneuve, France). Demand from European mills will be "normal" as the market enters the summer months, he said. On the export side, he added, freight prices should stabilize, or even decline, and containers should become more available in the coming months.

In Finland, paper and paperboard production decreased 2.5 million mt in 2009 compared with 2008, settling at 10.6 million mt for the year, reported **Merja Helander** of Paperinkeräys (Helsinki). One Finnish newsprint mill is expected to close

BECK RECEIVES PAPYRUS HONOR

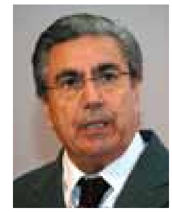
Manfred Beck, publisher and editor of *Recycling International*, received the BIR Paper Division's Papyrus Award for his "many years" of promoting the recycling industry. After beginning his career in teaching and public relations, in 1988 Beck went to work for *Recycling Magazine Benelux*, a Dutch-language publication on the recycling industries in Belgium, the Netherlands, and Luxembourg. In 1998, Beck founded *Recycling International* with his wife, Helga Fresen, and friend, Jan Willem Ypma. The magazine, an English-language publication covering the global recycling industry, is "an effective international outlet" for promoting the industry's environmental and commercial contributions, said Paper Division President Ranjit Baxi at the award ceremony. In his 12 years publishing *Recycling International*, Beck "has really made us proud of his contributions," Baxi said.


Manfred Beck (center) receives the Papyrus Award from BIR President Dominique Maguin of La Compagnie des Matières Premières (Paris) (left) and Paper Division President Ranjit Baxi. Beck said publishing *Recycling International* is a "team effort," acknowledging his partners, Helga Fresen and Jan Willem Ypma, as well as the magazine's editorial consultant, Ian Martin.

this fall, taking 290,000 mt of production out of the market and leaving Finland with two remaining newsprint mills. "It is very difficult to foresee that new capacity will be built in Finland in the coming years, so we must be prepared for more machine closures," Helander said. On the scrap side, the volume of collected paper declined almost 7 percent in the first four months of 2010, pushing stocks far below normal levels, she noted. On the brighter side, order books at Finnish paper and paperboard mills have improved this year, Helander said.

Italy also faces a shortage of recovered paper supplies due to lower paper production, said **Giuseppe Masotina** of Masotina (Corsico, Italy). Though the market isn't threatened by big decreases at the moment, it holds out little promise for increases, he said. A larger, more worrisome trend is the ongoing decline of magazine and newspaper production in Italy, which have decreased 30 percent and 7 percent, respectively, said Masotina, who pointed to electronic technologies as "a strong competitor of printed paper."

On the Turkish market, **Ekrem Demircioğlu** of Dönkasan (Istanbul) noted that Turkey consumed 4.3 million mt of paper in 2009, while it produced 2.3 million mt. On the recycling side, the country recovered 1.75 million mt of scrap paper—down 90,000 mt from 2008—yielding a 2009 recovery rate of 41 percent, he said. By 2015, Turkey's recovery rate could hit about 50 percent, noted guest speaker **Erdal Sükan** of the Turkish Pulp & Paper Industry Foundation (Istanbul), and the country plans to reach 60 percent "as early as possible." Meanwhile, its paper consumption is projected to reach 5.5 million mt by 2015, while its production by then could total 3.4 million mt, Sükan said.


Erdal Sükan

Bhatia wrapped up the Paper Division meeting with a look at how recyclers can "mitigate unpredictables" in the market to manage their price risk. After showing charts of U.S. and European OCC prices in recent years, he observed that "there's tremendous volatility and unpredictability in the prices" of virtually any scrap commodity. To manage that, recyclers can use hedging tools to fix their price on a forward basis, he explained. One tool is a fixed-price swap, in which the recycler swaps a floating price in the market for a fixed price. Another tool is a "put" option, which provides a guaranteed floor on the future price of the commodity. Other financial hedging tools—such as a forward swap, call option, and zero-cost collar—address currency risks and can be adapted to meet a company's particular needs, Bhatia said.

The plastic recycling industry should get credit—both publicly and financially—for saving 1 mt to 4 mt of carbon dioxide emissions for each metric ton of plastic it recycles, Surendra Borad said.

PLASTIC RECYCLERS "OVERRELIANT" ON ASIAN DEMAND

The growing "green" economy bodes well for plastic recycling, **Surendra Borad** said, noting that "the trade in and market for reprocessed plastics is growing sharply." He asserted that the plastic recycling industry should get credit—both publicly and financially—for saving 1 mt to 4 mt of carbon dioxide emissions for each metric ton of plastic it recycles.

Looking at the European plastic recycling market, Borad noted that the 27 countries in the European Union generated about 25 million mt of plastic scrap in 2008, with about half of that tonnage discarded, 7.5 million mt consumed for energy recovery, and 5.3 million mt recovered for recycling. Of that recycled tonnage, EU member countries consumed about 3 million mt and exported the remaining 2.3 million mt, with the vast majority of it (85 percent) going to China and Hong Kong, he said. In 2009, the EU exported 3.3 million mt of plastic scrap, with 90 percent going to China. What's more, in just the first quarter of 2010, China imported 1.8 million mt of plastic scrap from the EU, Borad stated.


Surendra Borad

"So, effectively, what happens in China and Hong Kong has a tremendous impact on our plastic scrap business," he said. "We are simply too overreliant on them. If the Chinese plastics market sneezes, we here get a cold. If the Chinese get a cold, we

"We are simply too overreliant on [China and Hong Kong]," Surendra Borad said. "If the Chinese plastics market sneezes, [European plastic recyclers] get a cold. If the Chinese get a cold, we develop a fever. If the Chinese get a fever, then we develop pneumonia."

develop a fever. If the Chinese get a fever, then we develop pneumonia." To address this overreliance, Borad encouraged plastic recyclers to develop other markets and work to resolve any import restrictions on scrap plastics in other regions, such as India and the Middle East.

Turning to country reports, Borad said the Indian market was "reasonably good" in the first quarter, but it has weakened due to a glut of material—particularly prime resin—diverted from China. Because the Indian government considers plastic scrap "waste" rather than raw material, it limits the number of companies that can import such scrap to 30, though PET scrap is freely allowed, he noted. Borad called on India to remove its restrictions on plastic scrap imports to help boost the market.

In a talk on PET, guest speaker **Semih Tugay** of Arel Engineering Plastics (Istanbul) noted that recycled PET is a low-cost raw material that can be converted into engineering compounds. "PET's availability and good molecular weight make it an excellent precursor for the production of toughened compounds that can, in many cases, compete directly with toughened and glass-filled nylons at a considerable cost advantage," he said. Recycled PET resin can be modified with additives to become a formulated, engineering-grade thermoplastic for use in highly impact-resistant structural parts, Tugay said.

Semih Tugay

The compounding of toughened PET formulations is generally carried out on a twin-screw extruder with downstream glass-feeding capability, he noted. The modified PET-based compounds are suitable for construction-related products, equipment housings, agricultural applications, and electrical products, among other things.

Another guest speaker, **Edward Kosior** of Nextek (London), examined various technologies for recycling packaging, automotive, and electronics plastics. One approach involves depolymerizing plastics to yield fuels such as diesel and heating oil. "Plastics are made from hydrocarbons and can be decomposed, by exposure to high temperatures in the absence of oxygen, back to hydrocarbons," he said. Though many plastics—including HDPE, PP, PS, LDPE, and EPS, among others—can be processed safely into fuel, plastics containing chlorine, bromine, or sulfur cannot, he noted.


Edward Kosior

UPCOMING BIR EVENTS

Oct. 25-26. Sheraton Brussels.

May 23-25. Shangri-La, Singapore.

Oct. 24-25. Westin Grand Munich Arabellapark, Munich, Germany.

For more information on these upcoming meetings, call 32/2-627-57-70 or visit www.bir.org.

When dealing with automotive and electronic plastics, recyclers can use specific gravity processes to recover PP from the mix, Kosior explained. He then described several advanced sorting technologies that can sort recycled plastics into separate streams for high-value markets, including near-infrared sorters for bottles and flake, visible-light colored flake sorters, laser-based flake sorting systems, mechanical dry cleaning separators, sink/float separation systems for flake, and equipment for removing film.

Today's technologies are sophisticated enough to process a variety of plastics—especially PET and HDPE—into food-grade recycled resin, Kosior said. To reach that stage, the resin must undergo a process that removes any volatile contaminants in the resin to prevent potential health problems when the resin is reused, he noted. ■

Robert J. Garino is director of commodities for ISRI, and Kent Kiser is publisher and editor-in-chief of Scrap.