

MANUFACTURING & TECHNOLOGY NEWS

COVERING INNOVATION, GLOBALIZATION AND INDUSTRIAL COMPETITIVENESS

PUBLISHERS & PRODUCERS, P.O. BOX 36, ANNANDALE, VA 22003

PHONE: 703-750-2664 FAX: 703-750-0064 URL: WWW.MANUFACTURINGNEWS.COM

Friday, November 16, 2007

Volume 14, No. 20

Another U.S. Industry Gone

The industry that makes luggage with surfaces made out of textile products has disappeared from the United States, reports the International Trade Commission (ITC). The nine companies left in the United States that make suitcases, briefcases, computer cases and sports bags out of manmade fiber textile materials say that at least 70 percent of their business now goes into military applications. Military applications constitute only 5 percent of the total market for such goods, according to the ITC.

Another nine American companies make textiles that are used in such products, which have grown in popularity because they are lighter and are made out of high-tech fibers that are more durable.

The nine firms the ITC identified as being producers of the textile

travel goods reported total revenues of \$37 million in 2006. "The total U.S. market for travel goods with an outer surface of textile materials is estimated at approximately \$3 billion wholesale in 2006," says the ITC. Thus, U.S. producers command a 1 percent share of the U.S. market. "Both the quantity of

domestic production and the value of domestic shipments of the subject goods declined from 2005 to 2006," says the ITC. "This primarily reflected a decline in shipments to commercial markets. While domestic production for the U.S. military and government nearly doubled between 2005 and 2006, it represented less than 5 percent of domestic production of such goods."

Because labor costs can range from between 20 percent to 40 percent of the finished good "the majority of U.S. travel goods firms now source their commercial lines from Asian suppliers, mostly China, where labor costs are much lower

(Continued on page four)

Currency Reform Legislation Is Still Alive

Nearing the end of another year, there is little in Congress to show for concern over China's manipulation of its currency. Bills that were long ago introduced have gone nowhere. Companies and industries adversely impacted by China's currency have realized that Washington doesn't care about domestic manufacturing and workers and has turned a deaf ear to their plight.

But that might change in coming weeks and months.

"We're hoping to get something together this session," says Rep. Tim Ryan (D-Ohio), co-sponsor of the Ryan-Hunter bill that would impose countervailing duties on imports from countries that are found to manipulate their currencies. "There is

going to be a more comprehensive [legislative] approach to China, not just the currency, and that complicates things and makes it a little harder to integrate all these pieces into a comprehensive bill."

The approach now is to include currency provisions into a more wide-ranging China trade bill that addresses unfair subsidies, improves trade remedies and enforcement and provides product safety oversight. Such a bill is being crafted in the House Ways and Means Committee.

"My hope is that we see a comprehensive bill dropped so people in industry, consumer protection groups, the China Currency Coalition and labor can

(Continued on page six)

Competitiveness Bill Creates Summits And Study Groups And Approves More Money For Mfg. & Tech Programs

There are a lot of new programs and policies thrown into the America COMPETES Act, passed by Congress and signed into law by President Bush. The “American Creating Opportunities to Meaningfully Promote Excellence in Technology, Education and Sciences Act” (HR-2272) is an authorization bill, meaning it only “authorizes” money for programs. It does not appropriate money, which will come in various bills that are slowly making their way through Congress and are being roundly vetoed — or threatened to be vetoed — by President Bush because they allocate more money than he proposed in his budget submission.

Nevertheless, here are some of the items the President agreed to when he signed the COMPETES Act:

- A National Science and Technology Summit to be convened by the White House Office of Science and Technology Policy no later than 180 days after the signing of the bill. The summit will examine the health and direction of science, technology, engineering and mathematics enterprises and will be followed by a report 90 days after the event.

- A study on the “barriers to innovation” to be conducted by the National Academy of Sciences to “identify and to review methods to mitigate new forms of risk for businesses beyond conventional operational and financial risk that affect the ability to innovate.”

- A study on “service science” to be conducted by the Academy of Sciences to help strengthen the competitiveness of U.S. companies through the understanding of this “emerging management and learning discipline.” The legislation defines service science as “curricula, training and research programs that are designed to teach individuals to apply scientific, engineering and management disciplines that integrate elements of computer science, operations research, industrial engineering, business strategy, management sciences and social and legal sciences in order to encourage

innovation in how organizations create value for customers and shareholders that could not be achieved through such disciplines working in isolation.”

- A new Presidential Council on Innovation and Competitiveness to monitor laws and their impacts on innovation, and provide advice to the president “with respect to global trends in competitiveness and innovation and allocation of federal resources in education, job training and technology research.” The Secretary of Commerce will chair the panel.

- A yearly report from the Office of Science and Technology Policy identifying and prioritizing “deficiencies in federal research facilities.”

- No more changing or withholding scientific research results. The OSTP and Office of Management and Budget will develop and issue “an over-arching set of principles to ensure the communication and open exchange of data” within 90 days of passage of the act.

- The National Institute of Standards and Technology’s laboratory’s activities would be authorized at \$502 million for 2008, \$542 million for 2009 and \$585 million for 2010. NIST’s Advanced Technology Program

(ATP) is repealed after a controversial 20-year run, and is replaced by the Technology Innovation Program, which is authorized to receive \$100 million in 2008, \$131.5 million in 2009 and \$140.5 million in 2010.

- The Manufacturing Extension Partnership (MEP) would receive \$110 million in 2008, \$122 million in 2009, and \$132 million in 2010. The authorization directs the MEP program to create an advisory board that would help administer a new competitive grant program aimed at solving “new or emerging manufacturing problems.” It also directs the director of NIST to establish a collaborative manufacturing research pilot grant program “to foster cost-shared collaborations among firms, educational institutions, research institutions, state agencies and nonprofit organizations to encourage the development of innovative multidisciplinary manufacturing technologies.” A program would be created at NIST for post doctorate research fellows in research activities related to manufacturing sciences. Another senior research fellowship program would involve researchers in industry and at universities “who wish to pursue studies related to the manufacturing sciences at the Institute.”

- The national laboratories are directed to take a more active role in educating the next generation of scientists and researchers and to create summer institutes with \$15 million in funding for 2008, \$20 million in 2009 and \$25 million in 2010.

- A new Advanced Research Projects Agency - Energy (ARPA-E) would be created at the Department of Energy and will include an “Energy Transformation Acceleration Fund.” The 2008 authorization for ARPA-E is \$300 million and “such sums as are necessary for each of the fiscal years 2009 and 2010.”

- The National Science Foundation’s budget is authorized to increase to \$6.6 billion next year, rising to \$7.326 billion in 2009 and \$8.132 billion in 2010.

Why Korea And Not Japan Negotiated A Free Trade Agreement With The U.S.

Korea and Japan are a lot alike with regards to trade with the United States, but Korea is the country that initiated a Free Trade Agreement with the United States. Why? Because such a deal “would play a critical role in Korea’s efforts to open and reform its economy and thereby to achieve its long-term economic goals,” Wendy Cutler, assistant U.S. Trade Representative for Japan, Korea and APEC Affairs, told the Japan National Press Club in late October.

Two-way trade between Korea and the United States totaled \$78 billion last year; between Japan and the United States it was \$208 billion.

Korea has signed free trade agreements with other small countries and “realized just how much it had to gain economically from a larger, more commercially significant deal with the United States,” said Cutler. Korea recognized how a trade deal with the United States could transform its service sector. And it “understood that if it was going to remain competitive in the global economy going forward, it couldn’t let its agricultural sector hold it back,” she added.

The United States views a Korea deal as a “natural fit given its large and dynamic economy,” Cutler told the Japanese. “While the United States has concluded FTAs with 16 trading partners since 2001, before Korea few of these FTAs had been with large trading partners — something for which the Administration has been criticized.” The USTR also wanted to conclude a deal with Korea because of “our shared values of democracy and freedom.”

The two countries engaged in a sustained political discussion “at the highest levels, which enabled negotiators to take risks,” said Cutler. “Without a clear recognition of our top leaders of just how much was at stake in these negotiations, I firmly believe our efforts would have failed.”

Korea also knew that it would have to address its non-tariff barriers in order for the trade agreement to be successful. “This recognition meant that we were able to work together to tackle barriers in a way that made sense for both countries,” Cutler told the Japan Press Club. “The final agreement, I am happy to

report, contains provisions that address non-tariff barriers across a wide-range of sectors, notably in the areas of autos, pharmaceuticals, financial services and telecommunications. In addition, the deal provides commitments related to transparency and regulatory due process that are more far-reaching than any previous U.S. free trade agreement.”

Finally, the United States and Korea “brought the right mindset to the table,” said Cutler. “Gone were the days when the United States and Korea faced each other as trade policy adversaries. Both parties set aside the ‘trade friction’ mentality of the past and approached the negotiations as partners with a goal of concluding a win-win agreement.”

Cutler isn’t sure a similar mindset exists with Japan. Some Japanese are receptive to the idea of negotiating a free trade agreement with the United States, “but I’m also hearing a frank recognition among my Japanese friends that the time is not ripe and more work needs to be done in Japan to create the

conditions necessary for a bilateral FTA down the road,” she said.

Negotiating a free trade agreement with Japan “would be the most ambitious undertaking in the history of our long economic relationship,” Cutler pointed out. As the world’s two largest economies with a “vast range of interested stakeholders [trade talks] would put our trade and economic relationship under great scrutiny,” said Cutler. More work needs to be done to study and define the “tangible benefits that an FTA between our two countries could bring.”

In the meantime, the United States will continue to work with the Regulatory Reform Initiative to reduce non-tariff barriers for U.S. exporters. It will continue trying to negotiate with Japan over U.S. beef exports.

“The question is when — or some say whether — Japan will be ready to move forward with the same kind of bold steps that led Korea to embark on FTA negotiations with the United States,” Cutler concluded. “There are major, important question for Japan to face. What’s critical is that it will be up to Japan on its own to decide whether it is prepared for the next step. That’s the only way an FTA can succeed.”

UT San Antonio Creates Mfg. Center

The federal government has awarded almost \$1 million in grants to the University of Texas at San Antonio’s recently created Center for Advanced Manufacturing and Lean Systems to develop new research laboratories. One \$500,000 grant, from the U.S. Army Research Office and Air Force Office of Scientific Research, will develop a manufacturing systems lab and a lean enterprise systems lab to support education and research programs “needed for the rapidly growing defense and civilian industry base in the greater San Antonio area,” says the center. Toyota recently opened a new truck assembly plant in San Antonio that employs 5,000. The grant will make it possible for the university to develop a new manufacturing and enterprise engineering curricula at both the undergraduate and graduate levels.

A second grant from the National Science Foundation for \$375,000 will be used to buy an automated assembly system utilizing RFID tags and equipment. “We feel the new Center for Advanced Manufacturing and Lean Systems will attract more federal funding as well as help local communities to build up their manufacturing business and assist our manufacturing industries around San Antonio and South Texas,” says center director Frank Chen.

Another Industry Gone...

(Continued from page one)

than those in the United States," says ITC in its report produced at the request of the House of Representatives' Committee on Ways and Means. "Industry sources note that China is the preferred source for offshore production owing to the removal of U.S. import quotas on textile travel goods in 2002, the available low-cost workforce and necessary inputs such as fabric and accessories in China and nearby Asian countries and lower cost, more frequent and shorter shipping times to the United States compared with other Asian countries."

In 2006, China accounted for between 80 percent and 90 percent of imports of soft-sided travel goods to the United States.

The remaining U.S. manufacturers either produce products for niche commercial markets or for the U.S. military and government. "In written statements to the Commission, associations representing the travel goods industry contend that there is no commercially viable domestic production of travel goods," the ITC notes. The remaining U.S. producers are protected by the "Barry Amendment" which requires the Department of Defense to purchase only U.S.-produced clothing or textile articles and that the fibers, yarns and fabrics used in those articles are produced in the United States.

The Travel Goods Association told the ITC that more than two billion pieces of all types of luggage were sold in the United States in 2006, worth about \$20 billion. Imports supply more than 95 percent of the U.S. market. The TGA "estimated that the United States government collected \$600 million in duties on U.S. imports of textile travel goods in 2006, which, after mark-ups, cost U.S. consumers \$1.5 billion," writes the ITC. "The TGA contended that the U.S. textile industry is not interested in protecting travel goods fabric manufacturing. It stated that the U.S. textile industry did not request quotas for travel goods of textile materials in the 2003 U.S.-Vietnam Bilateral Textile Agreement, nor did it request quotas for the U.S.-China 2005 textile agreement. In addition, it pointed out that the United States-Korea Free Trade Agreement

would allow all textile travel goods to enter duty-free immediately under a liberal cut and sew rule of origin, unlike other textile provisions of the agreement."

The Outdoor Industry Association could not identify any outdoor recreation companies that produced travel goods of textile materials in commercially viable volumes. "It further noted that for the two-year period of 2005 to 2006, sales of travel goods of textile materials sold through outdoor-specific retailers totaled nearly 10 million pieces worth \$625 million."

The report, "Certain Textile Articles: Travel Goods of Textile Materials" (Investigation No. 332-480, USITC Publication 3957, Oct. 2007, 26 pages), is located at <http://hotdocs.usitc.gov/docs/pubs/332/pub3957.pdf>.

Downturn In Truck Industry Forces Stoneridge To Move Production To China

A sudden and severe drop in the demand for commercial trucks has led component supplier Stoneridge Inc. of Warren, Ohio, to announce plans to shut down two of its factories, one in Sarasota, Fla., and another in Mitcheldean, England.

"The outlook for improvements in the North American commercial vehicle production continues to move further out," Stoneridge president and CEO John Corey told financial analysts on a November 2 conference call. The company's revenues generated from North American commercial vehicle production dropped by 43 percent in the third quarter, he said. "The current outlook is for depressed production levels to continue in the fourth quarter. We are concerned about the forecast because not only is [there] impact from the [new] emissions [standards], which we expected to be ended by now, but we are also seeing a weakness in truck traffic. As truck traffic downturns, people aren't purchasing trucks at the same rate."

Having to close factories is "always [a] difficult decision, but is a necessary step to reduce our manufacturing overhead and SG&A costs" Corey told the analysts. "The future volume commitment to these two locations was insufficient to support the cost space." The company will lay off 300 workers at its Florida factory and shift production to China.

Closing factories in Florida and England will enable the company to be "more aligned with the market environment by establishing a global footprint," said Corey.

Added Stoneridge chief financial officer George Strickler: "Sales from low-cost manufacturing locations accounted for 38 percent of total sales in the third quarter compared to 37 percent in the prior year. With our China operation ramping up and our restructuring initiatives, we expect our sales from low-cost locations to grow as we relocate labor intensive manufacturing over time and as we expand our presence in low-cost manufacturing locations in Mexico, Estonia and China, and build on our growth potential in Brazil and India through joint ventures."

The company, which makes high temperature sensors, speed sensors and a variety of electronic instrumentation, set up a China operation in 2006 and is beginning to quote business there. "We still have some added investments to make in that operation in terms of engineering and development efforts and then to select which products that we will put over there," said Corey.

The company has five manufacturing lines in China making a broad range of its products. "We would expect to see that accelerate over the next several years as we win business in the local market," said Corey. "We're actually quite pleased with the performance of that business."

The company reported sales of \$173 million and net income of \$2.6 million (\$0.11 per share) for the quarter ending Sept. 30, up slightly from \$172.4 million and net income of \$4.4 million (\$0.19 per share) for the same quarter last year. Closing the two factories should save the company between \$8 million and \$12 million by 2009.

U.S. Industry Holds 1.3 Percent Share Of The High-Tech Outerwear Market

The United States has completely lost the capacity to make high-tech warm and water-resistant clothing for its 303 million citizens, according to the International Trade Commission. The U.S. government is about the only market left in the United States for U.S.-made "performance" outerwear jackets and pants, says the ITC.

"There is relatively little production of performance outerwear jackets and pants in the United States, as most firms have reportedly moved production offshore primarily to Asia," concludes an ITC report on the industry.

ITC identified 13 companies making high-tech jackets and pants. They produced a total of 904,000 pieces in 2005 worth \$83 million. In 2006, production dropped to 650,000 pieces, worth \$52 million.

"The decline in total U.S. shipments during 2005 to 2006 (40 percent) was primarily attributable to a decline in shipments to the U.S. military and government," according to the report entitled "Certain Textile Articles: Performance Outerwear," produced for the House Committee on Ways and Means. The U.S. military and government accounts for 70 percent of the market for U.S.-made performance outerwear.

U.S. sales of outerwear jackets and pants for the commercial sector were \$19.7 million in 2006, out of a total market estimated by the ITC at \$450 million. U.S.

producers hold less than 5 percent of the market. But that number might be far lower. The Outdoor Industry Association told ITC that the performance outerwear market is one of the fastest-growing retail segments, accounting for \$3 billion in sales and more than 30 million units sold in 2005 and 2006. If that's the case, then U.S. producers hold only 1.3 percent of the U.S. commercial market.

In the military market for jackets, U.S. sales totaled \$32.5 million in 2006, almost three times the commercial market of \$13.4 million.

Performance outerwear is used by skiers, hikers, mountain climbers, bikers, firemen, policemen, military personnel, and those needing protection against chemicals and from cuts and punctures. The high-tech fabrics have unique properties. They are breathable, repel water, provide temperature control and have antimicrobial and odor adsorption properties. They provide a high level of comfort to the wearer and have adjustable closures, reinforcements, articulated elbows and knees and venting. They are high tech in every way, but they are not made in the United States.

"In written statements to the Commission, associations representing the outdoor industry and the outerwear

apparel manufacturers contend that there is no commercially viable domestic production of performance outerwear jackets or pants," says the study. "Industry representatives note that the technology used to produce such garments, such as seam sealing and laser cutting, is prevalent in Asia, namely China and Vietnam. Industry sources note that brand-name competitors in the performance outerwear market primarily source their finished garments from lower-cost Asian suppliers. Further, production of performance outerwear fabrics has primarily moved offshore and all trimmings and components are available in Asia. As a result, industry sources note that it is practical and cost effective for most companies to manufacture their performance outerwear garments overseas as well."

The ITC found only 13 producers of outerwear jackets and pants in the United States. Of these, six said they produce strictly for the U.S. government and military. Only two said they produce only for the commercial market.

Total exports in 2006: \$1.4 million.

The SnowSports Industries America association told ITC that "there is no commercially viable U.S. production of performance outerwear at this time."

The report is located at <http://www.usitc.gov/publications/pub3937.pdf>.

Council On Competitiveness Receives Govt. Grant To Research Leadership

The Council on Competitiveness has won a \$265,075 grant from the Commerce Department's Economic Development Administration (EDA) to plan the creation of a new National Center for Regional Leadership.

The Council on Competitiveness "will outline a strategy to develop a world-class situation that will support cutting-edge research and offer a variety of training programs to aspiring regional leaders," says EDA. It will use the money to develop a "practitioner-accessible research report and a feasibility plan for the development" of the new center, says EDA.

The effort is part of the so-called 21st Century Leadership Initiative, which is aimed at boosting economic development through innovation in an effort to "expand trade opportunities and capture market share for American companies and workers," EDA explains. "Regional leaders will learn how to leverage assets to boost regional platforms for innovation, creating innovation 'hot spots' across the country."

The Council on Competitiveness's research will offer "clear guidance to practitioners on how to support and develop regional leaders and regional leadership organizations," says EDA. "The research will include a strong focus on under-standing regional system dynamics that require multiple organizations with distinct missions to collaborate to achieve economic development success. The work will also identify the skill sets required of individual leaders and the tools and organizational structures that can be utilized by regional leadership groups."

Currency Reform...*(From page five)*

point to something and say, 'That's something we're going to push,' " says Ryan. "That could be the optimal position to be in."

On the House side, the Ways and Means Committee has not gotten to currency because it has been busy trying to fix the Alternative Minimum Tax and pass the Peru Free Trade Agreement. Both of those issues have now cleared the House. Other issues have been occupying the House chamber: funding the Iraq War; the annual appropriations bills that have gotten bogged down with Presidential vetoes and threats of vetoes and congressional overrides; and the controversy over the State Children's Health Insurance Program (S-CHIP).

"Those are gargantuan issues that have come up and made it more difficult for us to do all this stuff with China," Ryan told *Manufacturing & Technology News*. "So hopefully next year we can come out of the gate strong, get it dropped this year and build support."

There is broad support in the Ways and Means Committee and within Congress, Ryan notes. "We have been able to do a lot of this in a bipartisan way and this can be a beautiful exercise in bipartisanship where we send a strong bill out of the House saying we're going to deal with China."

The issue of unfair trade is not going away. The trade deficit with China continues to mount. There are new concerns about China's "sovereign wealth fund." American parents are shopping for toys this Christmas. The economy is on shaky grounds. "The American people understand the manufacturing loss. They understand the unfair competition. They understand the human rights violations," says Ryan. "All of these things fit into a narrative that the American people understand. So it's a good political issue as well as a good economic issue."

If a comprehensive China trade bill can be produced in December, which is possible given that the House is expected to remain in session for three weeks during that month, "then next year we can work this issue because it's ripe and ready to go," says Ryan.

Things are not looking quite so rosy on the Senate side. According to several aides, the long-standing jurisdictional dispute over applying countervailing duties due to currency manipulation remains a sticking point for both the Senate Finance Committee and Banking Committee. Leaders on both committees "are talking, but remain deadlocked," said one Senate aide involved in China trade discussions over the past three years. "There are too many senators trying to do too many different things," he said.

Senators Schumer, Graham, Dodd, Rockefeller, Baucus, Grassley, Bunning, Bayh and Stabenow are all engaged in one way or another and "we haven't seen leadership step in and direct," says the Senate

staff member. "It could take the House to pass a bill to provide" the impetus needed for the Senate to take action.

Washington lobbyists working the issue remain hopeful, despite the disappointment that another year has passed. "The issue is going to continue to be at the forefront and the China Currency Coalition (CCC) is going to continue to press very hard for action," says CCC director Skip Hartquist of the D.C. law office of Kelley Drye Collier Shannon. "As we move into an election year in 2008, there will be great impetus for this legislation to be acted on."

The three-year-old China Currency Coalition "has been able to work together to continue to make a push to move this thing," says coalition member Robert Baugh, executive director of the AFL-CIO's Industrial Union Council. "Here's the deal: People would like a China vote. We want to make sure it's the right China vote. If you can get to the vote it's going to make a lot of people take action and there are a lot of people that want to say they've done something."

There has been talk of a schism in the CCC between the U.S. steel industry wanting to move on a trade remedy bill at the exclusion of a currency bill, which doesn't seem to have any momentum. As a result of stories in the press, the CCC executive committee discussed whether there was any credibility to those rumors. "The steel community responded very vigorously that they want to press ahead on China currency legislation as well as some trade reform legislation," says Hartquist. "There is no diminution in their enthusiasm for China currency legislation as a part of the overall trade remedy legislation."

Baugh says he's heard those rumors, "but all I can say is I'm seeing [steel industry representatives] who are part of the CCC working on getting [members of Congress] to sign on the dotted lines. That's what counts."

For some lobbyists representing domestic manufacturing industries, the Democratic Congress has been a failure on trade issues, especially with the passage of the Peru Free Trade Agreement. "Now that a year has passed, it's time to assess the progress" of Democrats who rode into office on issues related to fair trade, said one long-time trade lawyer in Washington. "We can see that they haven't done anything; their honeymoon is over and it's been an embarrassment."

Sens. Sherrod Brown (D-Ohio) and Jim Webb (D-Va.) along with other Senate newcomers all made economic security a key issue in their campaigns, and have little to show for their efforts. "Congress needs to feel some heat. There are some consequences" for inaction, said the trade lobbyist reflecting views expressed by others in the domestic manufacturing community. "If Congress isn't going to be responsive to workers and domestic manufacturers and if the government doesn't work for them, then there is going to be a backlash against" Democrats, he said.

The Green Business Revolution Moves Into The Supply Chain

The manufacturing world is on the cusp of a major new trend toward sustainable supply chains that could have a profound impact on how companies source parts, components and products. The trend is being driven by consumers worried about environmental degradation, by high costs of far-flung supply chains and distribution networks impacted by rising energy prices and by a growing legion of investors interested in companies that embrace sustainable business practices.

The sustainability movement has moved into its third phase, explains Daniel Mahler, a partner in the sustainability practice with A.T. Kearney in New York. The first phase was corporate acknowledgement of the green movement and the creation of objective assessments of their activities coupled with reports and press releases. The second phase enlisted consumers, and companies like Whole Foods that did so flourished. Now the third phase has begun, driven in part by retailers. This phase entails the realization that sustainability involves an entire supply chain.

"The former tension between efficiency and sustainability has vanished as being sustainable is now a source of competitive advantage and a matter of corporate survival rather than a costly inconvenience," says a report on the subject from A.T. Kearney. "Sustainability is a growth issue."

Mahler spoke with *Manufacturing & Technology News* editor Richard McCormack about the issue. Here's what he had to say:

Question: Are companies that have embraced the green theme seeing a benefit of doing so?

Mahler: That is why it is such a hot topic. It has reached mainstream and it is beneficial to reposition your company. It is something you can do to improve your corporate reputation. The other reason why everyone is so excited is because it is a platform for growth. They are embracing it as a top-line opportunity: What are the markets we can go after to sell more? Coca-Cola is developing natural drinks. GE's "Ecomagination" is the center of its growth plan spurred around being green. The third aspect of going green is cost. Companies are looking at this as a means to drive efficiencies and the supply chain is where the efficiencies are.

Q: A company like BP can issue press releases, pay for ads and produce a yearly green report, but BP is not selling a green product.

Mahler: BP is a good metaphor for "green-washing," which takes place when operational reality doesn't follow the brand promise. They say it's Beyond Petroleum, but 90 percent of their business is oil and we know that BP has major environmental issues in the U.S. and other places. So yes, it can backfire if it's not carefully followed through.

If companies develop this farther then the supply chain has to live up to the promise. There are several examples of companies realizing that. Wal-Mart says it wants to be the greenest retailer, but they have realized that 90 percent of their carbon footprint is not within the four walls of Wal-Mart but in their supply base. That is why they are putting a lot of pressure on manufacturers right now.

Q: What are the attributes of the best-in-class companies?

Mahler: They take a much more future-looking view. They don't think about what is good right now but what is good five years from now. One of our clients, a beverage company that is the largest buyer of sugar, tea, coffee and water in the world, is building a strategy

of trying to predict what the geopolitical and environmental landscape will be five and 10 years from now. They are developing a commodity strategy for their input materials. In the past, they had a one- or two-year horizon and looked primarily at how they could get their commodities cheaply and without any business risks.

Q: Is there a sense right now that companies' business models could be upended by consumer outrage over ecological issues that might become paramount?

Mahler: For some industries the green topic is a question of survival. In other industries, it isn't. If you are in the bottled water industry you might be fundamentally questioning your business model. Do you want to offer bottled water and in what form? Or do you want to invest in filtration technology for the kitchen? Those are questions some of our clients are asking themselves.

There are companies where fundamental change is happening. There are others where it becomes a point of differentiation — a platform for incremental growth — but it won't fundamentally challenge what they're doing. For example, with cleaning products, people will always have to wash their laundry. So differentiation comes in who offers the greenest cleaning products. It becomes more a question of tweaking, positioning and investing in innovation, as opposed to questioning fundamentally what you're offering.

Q: There is an educated elite among consumers who've gone to see Al Gore's movie. But most people don't really care and are going to keep buying bottled water. Are mainline consumers driving this now?

Mahler: It's gone beyond the Al Gore cronies. If you look at a recent survey of what Americans feel is the biggest issue facing the future, the environment figures as high as terrorism. That in itself is unprecedented and very surprising. Does it translate into a decision? Do I buy Pellegrino from the Alps versus drinking

(Continued on next page)

Sustainability... (Continued from page seven)

water from the tap? For the first time in five years the bottled water industry is experiencing their lowest growth rates. So, yes, they are getting scared and it does have an impact.

But does it have a universal impact where everything is at stake immediately? No. However, it figures even more highly with the upcoming generation, the 18- to 30-year olds. That is an important target group and their buying behavior is changing and companies must position themselves for that group. Right now they might not have the biggest buying power but they will shortly. So from a future looking perspective, it will be a very prominent issue.

Q: I have three kids in that 18- to 30-year-old category and I can assure you that when they're home, every single light and every single appliance and electronic gadget is on and running. I'm not sure that age group has figured it out.

Mahler: Regardless of consciousness that would or would not develop, there are issues associated with resource scarcity that will drive a different behavior. If you think about water becoming a scarce resource and Coca-Cola already having difficulties in getting access to one of the most important input materials and if you think about oil approaching \$100 a barrel, then it is simply impossible to continue like this.

Q: I don't see a change in consumer behavior unless there is a real economic driver to do so.

Mahler: Absolutely, there has to be a business case for going green, or at least a perceived business case and even one that is future looking. That is what is driving all the action. If it was just to do something good, it's a costly inconvenience and nobody would do it.

Q: I'm in Washington where you have Sens. Lieberman and McCain putting together their cap-and-trade legislation and you've got an incredible mobilization of the Washington corporate lobbying community to work against it. It's one thing to put the press release out, but it's another when it's going to impact your business and that's when companies start hiring very expensive lawyers and lobbyists to work against anything associated with forcing them to go green. So in a way, what you're saying doesn't jive. I don't know if you get that in your consultancy, but I see it at work here in Washington.

Mahler: I agree that there is a healthy dose of skepticism still around and that is partly rightly so. I think there is hype and we will see that some of this will be not as material as many people believe, but I also believe there are some undeniable facts that make it just too big to be ignored. A company like Wal-Mart, which has not been known very much for doing good things because they're good to do, is preparing for the future and is betting a large portion of its positioning on it. That shows how fundamental the topic is. The other thing to look at is the capital market guys. To what degree does Wall Street reward this or not? Goldman

Sachs has 30 people doing nothing but evaluating companies' sustainability practices and includes a set of criteria to invest money. There is a group of stakeholders beyond consumers, customers, media, NGOs and Al Gore that takes this very seriously.

Q: What should companies be doing in terms of their supply chain management with regards to sustainability?

Mahler: If your corporation has made a bet on this and it wants to be green from a corporate or a product perspective, you have to make sure that the supply chain actually lives up to that promise. Where do you source from? How do you manufacture? What are your vulnerabilities along each step of the value chain and how can you make sure you understand where your biggest issues and biggest opportunities are? Mapping opportunities along each step is a very healthy exercise.

That then tees up areas of priority on which to focus. If you run an apparel company and you want to position yourself as green and you're sourcing everything from China, then are there other options? Do you need to re-think that when you're looking at the issues associated with long transportation? Do you have an opportunity to go elsewhere, and what would that look like?

You have to look at your carbon footprint per value-chain step and how much of that is in-house and how much of that is external. This might trigger very fundamental questions around how your current value chain is set up and what you need to change.

Distribution networks are set up for oil prices being \$30 a barrel. Now they're moving to \$100, so a lot of companies are completely re-evaluating their entire distribution strategy. There are other examples including sourcing raw materials, lean manufacturing, local country sourcing. Companies have to take a different look at trying to understand where there are risks and opportunities and pick at them one by one to really come to a green supply chain.

We try to recommend that companies never do any step without a business case. If you just do it because you think it is the right the thing to do but it doesn't have any reputation, revenue or cost implication, it won't fly.

Q: I've covered the furniture industry a bit over the past four years and have written stories about how an item shipped from China — the same exact item made in the United States — can be transported across the largest ocean in the world, then trucked over an entire continent and have a landed cost in the same town in which it was being made originally in the United States for 35 percent less. The carbon footprint for that product from China is monumentally higher than for the furniture made in the United States, but the cost is still 35 percent less. The supply chain from China is not ecologically sustainable, but the environmental costs aren't monetized. Given the price differential, is it possible to change that supply chain

(Continued on next page)

Sustainability... (Continued from page eight)

and start producing it in the United States?

Mahler: Once you systematically do your value-chain mapping you will have trade offs. The forward-looking best-in-class companies will do a very careful analysis of a couple of years out. If they rely fully on China will it always have a 35 percent cost implication? Is it something that will hold or is there potentially an opportunity to position the company as the non-ugly furniture manufacturer that produces locally with a shorter supply chain that can maybe command a premium. Have you done the business case? Yes or no?

Q: Twenty years ago, I interviewed a scientist at Harwell Labs in England who was working on electric batteries for automobiles and he said that we all want to do the right thing. We all consider ourselves to be environmentalists until it comes time to buy something and all those concerns get thrown out the window. When we put our consumer hat on it's like a drug: suddenly our brains go dead; all we care about is price. For most people, they might know something is made in China and that it's a totalitarian regime and it's bad for the environment and bad for American jobs, but it's cheaper. So I'm going to buy it. Their brain goes on the let's-save-money mode. We're all guilty of that. Maybe there is a niche for products that appeal to eco-friendly consumers, but there aren't many consumers who have money to pay a premium when there is a cheaper alternative.

Mahler: There is quite a bit of research now where consumers are not necessarily looking at price as their primary factor. They'll often look at the shopping experience, access and how quickly they can get the product. Over the last 10 years, there has been a turn. Even a woman with three children working at a gas station making \$250 a week said in consumer research that price was not necessarily the most important factor. There were other issues around which she made her purchasing decision.

Will we go completely to local sourcing across mainstream America? Absolutely not. Will low-cost country sourcing from China fit prominently for many companies? Yes it will. Maybe 80 percent of the low-cost country sourcing decisions will not be affected, but 20 percent will be and 20 percent is quite a lot. We have to recognize that there is a shift; there is a new variable that we have to take account of.

Q: Are green companies working on a system of transparency within their supply chain so consumers know the environmental benefit of one product over another?

Mahler: The world's largest retailers are betting on that because they think it's an important buying decision criteria. There is a very interesting push by the retailers to do this. UK-based retailer Tesco is going to put a carbon footprint label on the regular products that you buy in the supermarket. It will be like a nutrition information label. So if you're buying

furniture, the carbon footprint label would say, for instance, that a product made in China produces 10 kilograms of carbon versus one kilogram for a product made in the local market. The label will have color coding like a traffic signal with green, yellow and red that will be determined relative to other comparable products. That will provide consumers supply-chain transparency at the point of purchase, which is unheard of. It would go beyond the four walls of the manufacturer who put it on the shelf and include P&G's, Unilever's or Nestle's supply chain behind it. It's very difficult to measure and very difficult to find standards, but that is their aspiration and they are working on that very hard right now.

Q: We've seen a shift over the past decade to where retailers are wagging the tail of manufacturers and hold all power over them. If the retailers require something like this,

then the manufacturers are going to have to respond.

Mahler: There is an opportunity for manufactures and suppliers to reposition themselves. There is an overall trend for a shorter supply chain. But the devil is in the detail. Which markets? Which segments? Where can you command a premium? Where is the willingness to make a decision not only on price? Where are labor differences not figuring as high in the end-product price? So it depends.

But what is clear is that the food safety issue, the toothpaste issue, the Mattel toy issue in China are not isolated incidents. There is a structural issue that will not go away and I think we are just at the beginning of a wave of scandals the impact of which we are beginning to feel. Therefore, I do believe there is a strong opportunity for the American supply base that has suffered under low-cost country sourcing to get back, not fully, but if it's only 20 percent, that's huge in the overall scheme of things.

Q: Are there companies that are good at all of this with regards to the supply chain?

Mahler: If you look at the Dow Jones Sustainability World Index, companies that are ranking high like Unilever are known as being pretty smart about thinking about the impact of the supply chain. There are numerous other indexes, some more elaborate than others, that look not just at sustainability but other social aspects as well. Goldman Sachs' new SUSTAIN ranking of companies [http://www.unglobalcompact.org/docs/summit2007/g_s_esg_embargoed_until_030707.pdf] is a bit more elaborate than the Dow Jones Index.

“There has to be a business case for going green.... That is what is driving all the action.”

Dollar's Fall Collapses The American Empire

BY PAUL CRAIG ROBERTS

The U.S. dollar is still officially the world's reserve currency, but, according to the UK's First Post, it cannot purchase the services of Brazilian super model Gisele Bundchen. Gisele required the \$30 million she earned during the first half of this year to be paid in euros.

Gisele is not alone in her forecast of the dollar's fate. The First Post in Britain reports that Jim Rogers, a former partner of billionaire George Soros, is selling his home and all possessions in order to convert all his wealth into Chinese yuan.

Meanwhile, American economists continue to preach that offshoring is good for the U.S. economy and that Bush's war spending is keeping the economy going. The practitioners of supply and demand have yet to figure out that the dollar's supply is sinking the dollar's price, and along with it American power.

The macho super patriots who support the Bush regime still haven't caught on that U.S. superpower status rests on the dollar being the reserve currency, not on a military unable to occupy Baghdad. If the dollar were not the world currency, the U.S. would have to earn enough foreign currencies to pay for its 737 overseas bases, an impossibility considering America's \$800-billion trade deficit.

When the dollar ceases to be the reserve currency, foreigners will cease to finance the U.S. trade and budget deficits, and the American Empire along with its wars will disappear overnight. Perhaps Bush will be able to get a World Bank loan, or maybe one from the "Chavez Bank," to bring the troops home from Iraq and Afghanistan.

Foreign leaders, observing that offshoring and war are accelerating America's relative economic decline, no longer treat the United States with the deference to which Washington is accustomed. Ecuador's president, Rafael Correa, recently refused Washington's demand to renew the lease on the Manta air base in Ecuador. He told Washington that the United States could have a base in Ecuador if Ecuador could have a military base in the United States.

When Venezuelan president Hugo Chavez addressed

the United Nations, he crossed himself as he stood at the podium. Referring to President Bush, Chavez said, "Yesterday the devil came here, and it smells of sulfur still today." Bush, said Chavez, was standing "right here, talking as if he owned the world."

In his state of the nation message last year, Russian president Vladimir Putin said that Bush's blathering about democracy was nothing but a cloak for the pursuit of American self-interests at the expense of other peoples. "We are aware what is going on in the world. Comrade wolf knows whom to eat, and he eats without listening, and he's clearly not going to listen to anyone." In May 2007, Putin criticized the neocon regime in Washington for "disrespect for human life" and "claims to global exclusiveness, just as it was in the time of the Third Reich."

Even America's British allies regard President Bush as a threat to world peace and the second most dangerous man alive. Bush is edged out in polls by Osama bin Laden, but is regarded as more dangerous than Iran's demonized president and North Korea's Kim Jong-il.

President Bush has achieved his dismal world standing despite spending \$1.6 billion of hard-pressed Americans' tax money on public relations between 2003 and 2006.

Clearly, America's leader and America's currency are poorly regarded. Is there a solution?

Perhaps the answer lies in those 737 overseas bases. If those bases were brought home and shared among the 50 states, each state would gain 15 new military bases. Imagine what this would mean: The end of the housing slump. A reduction in the trade deficit. And the end of the war on terror.

Who would dare attack a country with 15 new military bases in every state in addition to the existing ones? Wherever a terrorist turned, he would find himself surrounded by soldiers.

All of the dollars currently spent abroad to support 737 overseas bases would be spent at home. Income for foreigners would become income for Americans, and the trade deficit would shrink.

The impact of the 737 military base payrolls on the U.S. economy would end the housing crisis and bring back the 140,000 highly paid financial services jobs, the loss of which this year has cost the U.S. \$42 billion in consumer income. Foreclosures and bankruptcies would plummet.

(Continued on page 12)

MANUFACTURING & TECHNOLOGY NEWS (ISSN No. 1078-2397) is a publication of

Publishers & Producers, P.O. Box 36, Annandale, VA 22003. On the Web at: www.manufacturingnews.com.

PHONE: 703-750-2664. FAX: 703-750-0064. E-MAIL: editor@manufacturingnews.com.

Annual Subscription Price: \$495. Frequency: Twenty-two times per year.

Editor & Publisher: Richard A. McCormack (richard@manufacturingnews.com)

Web Technical Coordinator: Krishna Shah (krishna@manufacturingnews.com)

Business Manager: Anne Anderson (anne@manufacturingnews.com)

Electronic distribution of a PDF version of this publication within an organization is available at a reasonable rate.

Subscribers have access to the Manufacturing & Technology News Web site, which includes a keyword searchable archive of the past eight years of Manufacturing & Technology News. PDF versions of the publication are available for download. Register in the "Subscribers Only" section at www.manufacturingnews.com for electronic delivery.

COPYRIGHT 2007, PUBLISHERS & PRODUCERS: "Newsletters Are The Purest Form Of Journalism."

Feds Pump \$30 Billion Into University R&D

Federal support for research at U.S. universities rose at a rate lower than inflation in 2006, to \$30 billion. "When adjusted for inflation, this represents a 0.1 percent decline from fiscal year 2005," according to the National Science Foundation's Science Resources Statistics division. The total amount universities received from all sources to conduct research rose 4.3 percent in 2006 to \$47.8 billion.

"R&D expenditures financed by state and local government also failed to outpace inflation and grew by only 2.5 percent in 2006, to \$3 billion," notes NSF. "Industry funding continued to rise for the second year in a row after a three-year decline between 2002 and 2004, growing 5.8 percent to \$2.4 billion in 2006."

The most significant increase in R&D funding to universities came from "institutions," which increased 9.7 percent to \$9.1 billion.

The National Institutes of Health provided 57 percent of total federal funding to universities or \$17.1 billion. Medical sciences (\$15.8 billion) and biological sciences (\$9 billion) "once again accounted for more than one-half of all R&D at universities and colleges in 2006," says NSF. Aeronautical and astronautical engineering sciences showed a decrease in funding last year of 13.5 percent.

In second place among federal agencies providing funding to universities was the National Science Foundation at \$3.6 billion.

Of the top 650 universities conducting research, the top 20 accounted for 30 percent of total academic R&D

spending, while the top 100 schools accounted for 80 percent of all R&D dollars. "These proportions have varied little during the past two decades," says NSF.

Columbia University became a newcomer to the top 20, while the University of Florida has risen 10 spots over the past two years from 27th in 2004 with \$447 million to 17th in 2006 with \$565 million.

Here are the top universities conducting research in 2006:

1. Johns Hopkins University, \$1,500,000,000
2. U. of Wisconsin Madison, \$832,000,000
3. U. of Calif., Los Angeles, \$811,000,000
4. U. of Michigan (all campuses), \$811,000,000
5. U. of Calif., San Francisco, \$796,000,000
6. U. of Washington, \$778,000,000
7. U. of Calif., San Diego, \$755,000,000
8. Stanford, \$679,000,000
9. U. of Pennsylvania, \$676,000,000
10. Duke, \$657,000,000
11. Ohio State U. \$652,000,000
12. Cornell, \$649,000,000
13. Penn State, \$644,000,000
14. MIT, \$601,000,000
15. U. of Minnesota, \$595,000,000
16. U. of Calif., Davis, \$573,000,000
17. U. of Florida, \$565,000,000
18. Washington University, \$548,000,000
19. U. of Calif., Berkeley, \$546,000,000
20. U. of Arizona, \$536,000,000

Letters To The Editor

The allowance of business to use low-wage countries is killing American manufacturing corporations. What is needed is high demand in our corporations for our own apprenticeship programs to allow for entry-level employees to learn a skill. Most entry-level employees earn one-third that of skilled employees with 10 or more years of experience in manufacturing. The 66 percent savings of employment far outpaces any foreign trade due to the cost of shipping from overseas to the United States.

The window to improve our corporations here in the USA is closing this year. It is obvious that the corporations in the United States are staffed with management that is "lazy and without vision" and does not want to take the time to teach American apprentices to be good productive employees. Training of productive manufacturing staff such as machinists takes two to five years.

Within five years, half of all manufacturing employees will be up for retirement and then the American corporations will be forced to send their work overseas to avoid a collapse. Think about this...because it is happening now!

— Vincent Marzigliano VM-Manufacturing Corporation

Not only does offshoring hurt the IT industry workers but it also stifles the creative forces of all industries affected by the practice. The real effect of massive offshoring is to limit the knowledge to be obtained from actually doing the work and applying the lessons learned to new generations of product.

In reality, all of our learning, in any field, relies on a form of apprenticeship to advance the knowledge in a particular field. For doctors, it is the internship; for lawyers, it is the clerk positions; for engineers, it is the drafting; for machinists, electricians, plumbers and carpenters, it is the formal apprenticeship. For teachers, it is the practice teaching; for accountants, it is the entry-level positions at large and small accounting firms that provide the necessary experience. Offshoring removes the practical experience required to further innovation and knowledge.

It is now only a matter of time before we lose our ability to innovate, create, invent and improve our products, machines, software, medical knowledge and so many other necessary fields at which we have become so proficient.

Please keep publishing the bad news as well as the good. We need to get this information out to all Americans to preserve our way of life.

— John Conlon
President, Farmington Manufacturing Company

China Puts Canadian Manufacturing In Trough

The Canadian manufacturing sector is going through a difficult period, with the loss of 87,000 jobs per year for the past two years with no end in sight. "The opening of this century has not been good for manufacturing," according to a report from Informetrica LLC commissioned by Canadian labor unions. The 22 percent appreciation of the Canadian dollar since 2002 along with the rapid rise of China selling goods to U.S. manufacturers has led to steep declines in manufacturing employment in Canada. "A substantial permanent loss of manufacturing jobs in Canada could translate into a lower standard of living for all Canadians," says the report. "There could be a loss of real earned income, lower disposable income, difficulties with the current account and some slipping of the exchange rate — the lower dollar usually entails a loss of real income."

Another 100,000 to 150,000 manufacturing jobs could be lost due to the strong Canadian dollar, adds Ted Carmichael, the chief Canadian economist with J.P. Morgan. The manufacturing sector has lost 284,000 jobs, or 12.2 percent from its peak in 2002.

Canada's trade deficit is rising, despite the soaring prices for all of the raw materials it exports. The deficit in manufactured items grew to \$28 billion in 2006. The services deficit increased to \$14 billion. "The scale of service exports indicates that there is no reasonable prospect that these could become a major source of foreign earnings," says Informetrica.

"Looking back to the years since the 1970s, there is a record of volatility in manufacturing, with earlier sharp episodes of downsizing (typically when the U.S. economy was in recession), interrupting periods of growth, including from the mid-1990s until the recent downsizing began," say the report. "What does appear to distinguish recent events is the extent to which Canadian manufacturing has been negatively affected by foreign trade. Trade was a negative influence in each of the 20 manufacturing sectors that we reviewed," says the firm. "Canadian and U.S. firms are closely related and just-in-time inventory and other practices play a strong integrating influence for plants on both sides of the border. Canadian exports of manufactures to the U.S. are both an important source of demand for almost all manufacturing industries and the U.S. dominates as an export market. A review of U.S. imports since 2002 indicates that

China is now the number-one supplier in 10 of the 20 manufacturing industries that we have reviewed, and is placed at tenth or more in only two — pharmaceuticals and beverage and tobacco."

Imports of Chinese goods to U.S. manufacturers "have been equivalent to about 150 percent of the change in manufactured imports from all sources," says the study. "Interesting, the share of U.S. manufactured imports from Mexico also fell, as did that of all other countries except China."

Canadian exports "now appear to be heading for a sharp downturn" due to the strong Canadian dollar and the reduction in U.S. import demand, said Carmichael of J.P. Morgan. Canadian manufacturers are facing a "severe profit squeeze, which got much worse in October," he added.

For a copy of Informetrica's 50-page report, "Economic Effects of Structural Changes in Manufacturing: Retrospective View," which describes what the Canadian government needs to do to turn the situation around, go to www.informetrica.com/IL_MANReport1_Final.pdf.

Paul Craig Roberts... (From page 10)

The American empire is being unwound on the battlefields of Iraq and Afghanistan. The year is two months from being over, but already in 2007, despite the touted "surge," deaths of U.S. soldiers are the highest of any year of the war.

The Taliban are the ones who are surging. They have taken control of a third district in Western Afghanistan. Turkey and the Kurds are on the verge of turning northern Iraq into a new war zone, another demonstration of American impotence.

Bush's wars have endangered America's puppet regimes. Bush's Pakistani puppet, Musharraf, is fighting for his life. By resorting to "emergency rule" and oppressive measures, Musharraf has intensified his opposition. When Musharraf falls, thanks to Bush, the Islamists will have nukes.

American generals used to say that the wars Bush started in the Middle East would take 10 years to win. Speaking at Carnegie Mellon University on Oct. 31, General John Abizaid, former commander of U.S. forces in the Middle East, said it would be 50 years before U.S. troops can leave the Middle East.

There is no possibility of the U.S. remaining the Middle East for a half century. The dollar and U.S. power are already on their last legs, unbeknownst to Democratic leaders Pelosi and Reid who are preparing yet another blank check for Bush's latest request for \$200 billion in supplementary war funding.

There isn't any money with which to fund Bush's lost war. It will have to be borrowed from China.

The Romans brought on their own demise, but it took them centuries. Bush has finished America in a mere seven years.

Even as Gisele throws off the dollar's hegemony, Brazil, Venezuela, Ecuador, Bolivia, Argentina, Uruguay, Paraguay and Columbia are declaring independence of the IMF and World Bank, instruments of U.S. financial hegemony, by creating their own development bank, thus bringing to an end U.S. suzerainty over South America.

An empire that has lost its backyard is finished.