# **MANUFACTURING & TECHNOLOGY NEWS**

#### **COVERING INNOVATION, GLOBALIZATION AND INDUSTRIAL COMPETITIVENESS**

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## Trade Imbalances Could Cause Financial Upheaval; MAPI Analyst Implores U.S., IMF To Act Now

China's surging trade surplus this year, driven by continued increases in high-tech exports, "constitutes a major challenge to U.S. global competitiveness," declares the Manufacturers Alliance/MAPI. If the issue is not addressed and the trade imbalance continues to grow — "like the gallows" — then "sooner rather than later the markets will trigger the inevitable adjustment, with what will almost certainly be more grim financial reaping," says the analysis prepared by Ernest Preeg, MAPI's senior fellow in trade and productivity.

During the first six months of this year, China surpassed the United States as being the world's largest exporter. Only five years ago, the United States exported more than double the amount of China. During the first half of 2006, Chinese exports of manufactured goods reached \$404 billion compared to \$367 billion in exports by the United States.

"This dramatic reversal, together with the increasingly high-tech orientation of Chinese exports, poses a serious challenge to U.S. export competitiveness and long-standing leadership in technological innovation," writes Preeg.

The composition of Chinese exports is undergoing a "structural shift" away from

#### BY RICHARD McCORMACK

labor-intensive products to high tech and value-added goods. Chinese exports of textiles and apparel declined to 14.6 percent of total exports during the first half of 2006.

China's trade surplus in manufactured goods increased to \$128 billion during the first half of 2006, an increase of \$43 billion over the same period of 2005. China's trade surplus in information technology products has more than doubled from the first half of 2004 to the first half of 2006, from \$18.8 billion to \$44.8 billion.

China's large and growing external trade imbalance "foreshadows what will be a

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#### Panel Proposes Changes To Government Purchases Of Commercial Services

The Acquisition Advisory Panel, created in the Services Acquisition Reform Act of 2003, has proposed sweeping changes in the way federal agencies purchase commercial services. The panel says many commercial services are not, in fact, commercial, because they are not "sold in substantial quantities in the commercial marketplace." As such, the government should be buying these services "under traditional contracting methods" rather than through the "improper use of task and delivery order contracts, multiple award IDIQ contracts and other government-wide contracts."

The panel recommends a broad range of new requirements. It says agencies should clearly communicate their intentions to potential contractors of a "fair opportunity" for bidding. They need to provide statements of their intentions, response periods and disclosure of "significant factors and subfactors" they will use to evaluate proposals, including cost and price, written documents outlining how the award will be made and the "trade-off of quality versus cost and price."

But many of the proposed changes "run contrary to 10 years of procurement reform that have considerably improved the federal government's ability to serve its citizens," says a coalition of industry trade associations. "The net result of the panel's recommendations is to impose a

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## Asia Faces A Massive Task Of Creating Hundreds Of Millions Of New Jobs

An estimated 250 million more workers will be looking for jobs in Asia over the next decade, according to the United Nation's International Labour Organization. While Asia has made big gains in reducing poverty, there are still more than 1 billion people there making less than \$2 per day and more than 330 million people living in extreme poverty, making less than \$1 a day. "What's more, unemployment rates have increased over those prevailing five to seven years ago in much of the region," according to the ILO.

Juan Somavia, director general of ILO, says the gap between growth and job creation "is producing a deficit in decent work and putting the brakes on efforts to reduce poverty. The jobs challenge is enormous. At approximately 1.9 billion working women and men, Asia's labor force is huge and growing."

Employing young people is proving to be a challenge. In 2005, Asia had 41.6 million young people out of work, or 48 percent of the world total. "The 21st Century cannot belong to Asia's youth if they do not have decent jobs," says the ILO.

Wages are not increasing at a fast enough rate to help many workers, according to ILO statistics. Wage growth in China increased by 80 percent between 1990 and 1999, but productivity increased by 170 percent. Both Pakistan and India experienced a decline in real manufacturing wages since 1990 — a drop of 8.5 percent in Pakistan and 22 percent in India, notes the ILO.

"India's wage decline occurred despite an increase in manufacturing labor productivity of over 84 percent over the same period, indicating deterioration in workers' livelihoods despite the increasing efficiency of their labor," according to ILO.

Widespread sexism in the workplace still persists in most of Asia. In Singapore, female manufacturing workers earn 61 percent of their male counterparts. There are still 122.3 million children aged five to 14 working in Asia. One million Asian workers die on the job every year.

For a copy of the 119-page ILO Assessment entitled "Labour and Social Trends in Asia and the Pacific 2006: Progress Towards Decent Work," go to http://www.ilo.org/ public/english/region/asro/bangkok/1 4arm/download/labour.pdf.

### Record Pace For Global M&As

Worldwide mergers and acquisitions are on pace to break the record set in 2000, according to the Association for Corporate Growth and Thomson Financial. During the first half of 2006, mergers and acquisitions worldwide increased by 41 percent over the same period in 2005, to \$1.613 trillion.

"What you are seeing is the perfect M&A storm," says Dan Varroney, president and CEO of the Association for Corporate Growth based in Chicago, Ill. "Everyone has cash they want to put to work — the private equity firms, the corporations and even the hedge funds. Time is a competitive advantage, as companies see they can gain geographic reach and new complementary products, and increase revenues and profitability by buying versus building, they seek acquisitions."

Bankers are presenting parties with compelling investment opportunities "and owners are getting good valuations for their businesses," says Varroney.

Adds Patrick Hurley, managing director of MidMarket Capital Advisors: "Dealmakers are working at full throttle to take advantage of this market before inevitable volatility cuts into momentum. Buyers are well aware that there is little margin for error at today's prices and sellers know this is a great time to get out."

The association polled 1,201 investment bankers, private equity professionals, corporate executives and lawyers, accountants and other executives involved in acquisitions. They found that 46 percent are engaged in M&As to increase corporate revenues and profitability; 33 percent want to grow marketshare; and 5 percent hope to gain technology.

Twenty-seven percent of the mergers and acquisitions are taking place in the technology sector, followed by healthcare and life sciences (18 percent) and manufacturing and distribution (17 percent).

Nearly half of the deals this year are crossing borders. Geographically, the areas with the greatest potential for private equity investment are the United States (44 percent), China (18 percent), India (9 percent), Western Europe (7 percent), Eastern Europe (7 percent), Latin America (5 percent), Canada (3 percent), Japan (2 percent), Russia (2 percent) and the Middle East and Africa (1 percent).

#### DOE Funds Hydrogen Generation From Nukes

Teams headed by Electric Transportation Applications (ETA) and GE Global Research have won contracts from the Department of Energy to study the production of hydrogen from nuclear power plants. ETA will partner with DOE's Idaho National Laboratory and Arizona Public Service to study the economics of producing hydrogen using commercially available technologies. GE will study hydrogen production using GE's alkaline electrolysis technology. Partners for this project include DOE's National Renewable Energy Lab and Entergy Corporation. Total DOE funding for the two projects is \$1.4 million.

#### Bush's Economic Team Is Puzzled By America's Sour Mood; Says A Better PR Campaign Is Needed

There is little rationale for America's gloominess about the economy, according to President Bush's top economic advisors. "Americans are clearly better off as a result of strong economic growth and job creation," the newly appointed Secretary of Treasury Henry Paulson said in a conference call with reporters after a weekend of meetings in Camp David, Md. "They're much better off than they would be if the economy were growing slower or weren't growing."

Part of the gloom relates to rising energy and health care costs, stagnant wage growth and the war in Iraq, said Paulson. Globalization is also having a negative impact on America's psyche. "The greatest rewards are going to those who have the skills to really adapt to the opportunities in the economy," Paulson added.

Americans' sour economic mood doesn't make sense, Edward Lazear, chairman of the President's Council of Economic Advisors, told reporters. "If we look at the behavior rather than the responses to polls, the behavior is consistent with a strong economy. We see consumption being high. In fact, the saving rate is negative right now. We see people entering the labor market at very high levels." There are plenty of positive economic indicators that are not being appreciated, Lazear pointed out. Wages are growing. Business investment is strong. Investment in non-commercial real estate is strong. "So all of the indicators are that the behavior does not reflect the kind of language that we're seeing in the polls," Lazear said.

Americans' perceptions of their personal situation also run counter to their macroeconomic moodiness. "If you look at the recent ABC/Washington Post poll, it shows that about 60 percent of people think that their situation is good or very good," said OMB director Rob Portman. "And yet there is less confidence in the economy. That's a disconnect."

The cause of that disconnect can be linked to the Bush Administration's poor job of "communicating the strength of the economy [and its] pro growth economic policies" to the American public, Portman added.

The Iraq war is also having an impact. When al Zarqawi was killed in Iraq, "the general view of the economy at that time jumped 13 percentage points," Lazear told reporters. "That had almost no impact on the economy to speak of. There is some relation between the way people see the economy and the general situation in the global war on terror."

### NAM Ends Sponsorship Of National Mfg. Week

The National Association of Manufacturers will no longer be the lead sponsor of National Manufacturing Week. The show was recently sold by Reed Elsevier to Canon Communications. NAM, which sponsored the event for 15 years, was not included in the transaction. Reed says it sold the convention along with seven other industrial trade shows and one magazine to concentrate on growth areas related to home and hearth; safety; luxury, lifestyle and indulgence; and healthcare and life sciences.

Attendance at Manufacturing Week reflected the weakness of the U.S. manufacturing sector, says Beth Blake of Reed Exhibitions. The show moved from its longstanding venue at McCormick Place near downtown Chicago to the suburbs in Rosemont, Ill., a smaller venue aimed at encouraging closer interaction among fewer participants.

"Nobody is doing well in manufacturing — they've had their challenges and the show really reflected that," says Blake. There was still good participation in recent years and last year's event was considered a success. "But it concerned us in the sense that there weren't as many people in manufacturing as there once were," says Blake. "Buying teams weren't consisting of eight or 10 people: they were halved. So we had to shift our focus in a lot of different directions. As show producers, we say the show is a reflection of the market conditions of that sector at that point in time. So as U.S. manufacturing was trying to regain its foothold, the show reflected that."

Other shows that were sold by Reed to Canon were Quality Expo in both Detroit and Chicago; Assembly Technology Expo in Chicago; NEPCON East/Assembly East in Boston; and Bulk Powder & Bulk Solids in Atlanta. Reed also sold its Powder/Bulk Solids magazine to Canon.

#### National Academy Of Engineering Addresses Offshore Outsourcing

The National Academy of Engineering is holding a twoday meeting to discuss the extent and implications of offshore outsourcing of engineering. "During the past few years, engineers and policymakers have raised concerns that offshoring may be weakening the U.S. economy and eroding the nation's leadership in engineering and technology," says the academy. Even if the trend is benefiting companies by reducing their costs, it nevertheless "represents a significant challenge to U.S. engineers," says the academy.

The Oct. 24 - 25 workshop aims to develop new data on the phenomenon. Original research papers exploring offshoring in key industries will be presented and discussed. "The overall goal of the workshop is to bring together cutting-edge analysis of offshoring, explore a wide range of opinions and perspectives, and engage national leaders and the broad engineering profession in a discussion of the outlook for, and implications of, offshoring," says the academy. Among the speakers are Charles Vest, President Emeritus, Massachusetts Institute of Technology; Robert Galvin, Chairman Emeritus, Motorola Inc., and Ralph Wyndrum, President, IEEE-USA. Information is located at http://www.nae.edu/nae/engecocom.nsf/ weblinks/PGIS-6SKKDZ?OpenDocument.

## Acquisition Reform...(From page one)

procurement process that is less efficient, less effective and less fair for all stakeholders involved," says the group that includes the Information Technology Association of America, the Professional Services Council, the Contract Services Association, the Aerospace Industries Association, the National Defense Industrial Association and the Government Electronics and Information Technology Association.

The Acquisition Advisory Panel also found that many federal agencies have lost sight of their "core functional capabilities," and in some cases have haphazardly contracted out services that were previously done by in-house staff. Contractors are now working side-by side with federal managers and staff, "blurring the lines between functions that were considered governmental and those that were considered commercial," says the panel in its findings.

As contractors are increasingly performing functions that were previously done by civil servants, there has been an increased potential for "organizational conflicts of interest," says the panel. "There is a need to assure that the increase in contractor involvement in agency activities does not undermine the integrity of the government's decision-making process."

As such, the Office of Federal Procurement Policy needs to develop guidelines that define "to what extent, under which circumstances and how agencies may procure personal services," states the panel's recommendations. The FAR Council needs to review existing rules and regulations "and to the extent necessary, create new, uniform, government-wide policy and clauses dealing with organizational conflicts of interest, personal conflicts of interest and protection of contractor confidential/proprietary data."

Service contractors working in a "blended" environment with federal employees should also be required to enroll in the agencies' annual ethics training courses.

The Acquisition Advisory Panel's recommendations, adopted in late July and early August, are available at http://www.acquisition.gov/comp/aap/index.html.

#### Members of the Acquisition Advisory Panel

- Louis Addeo, President, AT&T Government Solutions
- Frank Anderson, President, Defense Acquisition University
- Allan Burman, President, Jefferson Consulting Group
- Carl DeMaio, President, The Performance Institute
- Marshall Doke, Partner, Gardere Wynne Sewell
- David Drabkin, Sr. Procurement Exec., General Services Administration
- Jonathan Etherton, VP Legislative Affairs, Aerospace Industries Association
- James Hughes, Deputy General Counsel for Acquisition Policy, U.S. Air Force
- David Javdan, Managing Director, Alvarez & Marsal
- **Deidra Lee**, Assistant Commissioner for Integrated Technology Services, GSA
- Tom Luedtke, Deputy Chief Acquisition Officer, NASA
- Marcia Madsen, Partner, Mayer, Brown, Rowe & Maw
- Joshua Schwartz, Co-Director of the Government Procurement Law Program, George Washington University Law School
- Robert Waldron, Director, Acquisition Management Center, General Services Administration

#### Executives, Economists Tell Chicago Fed That U.S. Auto Supply Industry Is In Trouble

The U.S. auto supplier industry is in "shambles," said industrialist Wilbur Ross, speaking before a recent conference held by the Federal Reserve Bank of Chicago. Almost half of the 50 largest North American companies in the sector lost money last year, even though demand for cars and light trucks was near its all-time record. Asian producers will continue to gain market share in the United States, "which will affect domestic suppliers even more severely as their business tends to be more strongly affiliated with domestic producers," said Ross.

Others agreed with Ross's gloomy assessment. Neil De Koker, president of the Original Equipment Suppliers Association, said that 35 percent of U.S. suppliers need to be restructured, while another 35 percent are candidates for consolidation.

Martin Bailey, senior advisory at McKinsey, said auto suppliers are in a state of "upheaval" and that a dozen of the largest suppliers are either in bankruptcy or carry below-investment grade debt. European and Japanese companies now dominate the list of large suppliers growing in the U.S. market.

Bo Anderson, vice president of global purchasing and supply chain at General Motors, said GM intends to further consolidate suppliers and reduce its cost base by \$7 billion this year. As an example, GM reduced the number of suppliers of a rubber mount from two to one, moving production from Indiana to Mexico. It saved 13 percent on the cost of the part.

Dennis DesRosiers, president of DesRosiers Automotive Consultants, told the Fed conference that the share of parts sourced from U.S.-owned suppliers within the U.S. market fell from 68 percent in 1997 to 41 percent in 2005. During that period, the share of parts sourced from overseasowned but U.S.-located parts suppliers rose from 12 percent to 30 percent.

Tom Klier, senior economist at the Federal Reserve Bank of Chicago, said suppliers must be located within a day's drive of their customer. Since most of the new assembly plants are located in the South, suppliers located in Michigan are losing market share. www.MANUFACTURINGNEWS.COM

# **India Creates A 'Mission For Manufacturing Innovation'**

India wants to reposition itself from being a low-cost provider of contract manufacturing to engaging in innovative product development. Surinder Kapur, who chairs the Mission for Manufacturing Innovation of the Confederation of Indian Industry (CII), says India's push to increase manufacturing's contribution to its GDP — from 17 percent today to 23 percent by 2015 — requires a shift from "people cost arbitrage" to innovation.

Wooing additional foreign direct investment (FDI) is also critical. India's Finance Ministry estimates FDI for 2005 at more than \$4 billion, far less than the \$60 billion headed into China — where manufacturing's share of GDP is 35 percent.

"Today the pie is small, with a fair amount of contract manufacturing, very little FDI and virtually no innovation," Kapur told *MTN*. "We need to enlarge that pie, where innovation becomes huge, FDI becomes huge and contract manufacturing becomes huge. It needs to be a combination if we want to become competitive globally."

The Mission for Manufacturing Innovation, which CII formed earlier this year to pursue that goal, is in the process of selecting 100 firms to become "leader companies" from among 500 Indian firms in five sectors: machine tools, automobiles and components, electrical equipment, chemicals and leather. These target firms will become examples of innovation and product development over three years in the hopes of creating a ripple effect throughout industry.

"We need to teach and train our companies in the tools and techniques of innovation, because innovation doesn't just happen," Kapur told those attending "India's Changing Innovation System," a conference held in Washington, D.C., recently under the joint sponsorship of CII and the Board on Science, Technology and Economic Policy of the National

#### BY KEN JACOBSON

Academies.

The effort will involve partnering with India's National Manufacturing Competitiveness Council — a high-level, autonomous body that has drafted a 10-year National Manufacturing Initiative for the country — to promote innovation through the use of such techniques as smallbusiness incubators.

CII is also mounting an awareness campaign that will feature the participation of "global process leaders and innovators" such as Harvard's Clayton Christensen, Deming Prize winner Shoji Shiba and Patrick Whitney, director of the Institute of Design at Chicago's Illinois Institute of Technology. "The real mission is to change attitudes so that we can catalyze this transformation," says Kapur.

Ône tool already in place is CII's network of industrial clusters, in which 270 firms are grouped at 32 locations throughout the country under a program begun in 1998. Industries involved include engineering manufacturing, leather and tea growing, and participating firms receive assistance with energy, cost and quality management from consultants trained in such fields as statistical process control, lean and total productive maintenance. The clusters were initially formed "for economic reasons, because the companies are small and unable to afford the high-cost consultants that are necessary," says Kapur.

He credits their "give-and-take" attitude — "I learn from you and you learn from me, so we don't have to relearn the same things over and over" — for a "unique" contribution to the country's quality improvement. "We are going to put together high-tech clusters of companies" as a way of fostering innovation growth, he says.

One other building block is what CII calls the "visible onset of R&D culture in India," which has come about through the establishment of R&D centers by U.S. companies. Newly created centers from companies like Bell Labs, Exxon, GE, IBM, Intel, Microsoft, Motorola, Oracle and Texas Instruments represent "a lot of culture that Indian manufacturing companies really need to take advantage of," says Kapur.

#### EADS Will Hire 2,000 In India

India has scored big in its effort to attract new foreign direct investment — and the infrastructure, know-how, and jobs that go with it.

The European aerospace giant EADS last week announced it will open a technology center in India that is to generate 2 billion euros in "investment and high-tech activities" in the 15 years following its opening in 2007.

CEO Tom Enders called India "a priority country for EADS as it offers market potential and solid aerospace and defense competencies." Daniel Baubil, head of EADS Global Industrial Development, added: "We highly estimate their technological skills and it is our goal to jointly develop, manufacture and market products together with Indian companies."

India's reward will be up to 2,000 new jobs, plus commitments from EADS to facilitate not only "the development of both its aerospace infrastructure and its industrial capabilities in aviation, space and defense technology," but also the creation of training centers for pilots and mechanics.

Meanwhile, the country's capacity in contract manufacturing didn't hurt it with EADS, either. "Since the Indian aeronautic and defense platform manufacturers are increasingly outsourcing the manufacture of parts to the private sector and thus broadening the range of potential subcontractors," the company said it would "launch an Indian sourcing office" by the end of this year.

## More Players Seek National System For Electronics Recycling

The haphazard national and international system of requirements for recycling electronic products could be impacting the competitiveness of the U.S. technology industry, according to a report from the Commerce Department's Technology Administration. Hundreds of bills have been introduced in state legislatures in recent years to deal with waste management and recycling issues, and four states — California, Maine, Maryland and Washington — have passed electronics recycling laws. California is now imposing a fee on consumer purchases of electronic products to finance recycling. Many European countries have adopted even more stringent requirements.

"[I]ndustry is now facing a patchwork of international and state laws that can dramatically affect the manufacture, marketing and business models of the U.S. electronics sector and the transaction costs and business models of our retail sector," states the Technology Administration report entitled "Recycling Technology Products, an Overview of E-Waste Policy Issues." "Disparate requirements can lead to uncertainties, inefficiencies and high compliance costs that could impede U.S. industry's ability to compete and innovate."

The Énvironmental Protection Agency started a program in 2001 to address the issue on a national scale, but it fizzled out "when participants could not reach consensus on a financing system," says the report. In 2004, the so-called National Electronics Product Stewardship Initiative (NEPSI) "issued a compromise resolution and agreed to reconvene after industry reached agreement on the financing method. As of the writing of this report, consensus has not yet been reached. State and local government officials participated in NEPSI, and an early consensus among stakeholders might have forestalled the prospect of differing laws and regulations across the country."

In 2003, 62 bills were introduced in 26 states related to electronics disposal. In 2004, there were more than 35 electronic scrap bills introduced in legislatures in 17 states. And last year, there were 30 electronic recycling bills proposed in 23 states. "Most state and local governments want to see manufacturer-financed recycling programs for electronics because they feel they are unable to add additional fees to their solid waste programs to provide government-supported programs," says the report.

The federal executive branch "has not taken a position on a particular financing system, on federal legislation for a national system for electronics

recycling or on the need for federal legislation," states the report.

In doing its outreach to the large group of organizations and companies involved in the electronics industry and disposal, the Technology Administration found that there was agreement on the need for a national recycling system, yet "there is not yet consensus among stakeholders over how to achieve a national system of electronics recycling: whether it should be voluntary, pursued through state legislation or through federal legislation....The stakeholders are polarized."

Since there is little agreement on how to proceed, some companies have concluded that a national system is necessary. The Electronic Industries Alliance (EIA) "stated that it...believes federal legislation is necessary to implement a national program in order to provide industry and other stakeholders with a level playing field," notes the TA report.

The retail industry said it doesn't want to deal with e-waste, but prefers a national system that pre-empts any state and local regulations. The Retail Industry Leaders Association said retailers "that operate via Internet, catalog and all other non walk-in retailers must not be treated any differently than traditional 'brick and mortar' retailers and must be required to collect the same advance recovery fee."

The TA report includes descriptions of recycling laws and programs throughout the country and the world, and provides all of the comments it received on the issue from 44 companies (such as IBM, HP, Radio Shack and Panasonic), associations, state and local agencies and others engaged in waste disposal and recycling. The report is located at http://www.technology.gov.

#### EPA Creates Mfg. Plant Energy Efficiency Standards

The Environmental Protection Agency has released a series of energy standards aimed at improving the efficiency of manufacturing plants. The new energy performance indicators (EPIs) are aimed at specific industrial sectors. The latest are aimed at corn refineries and cement plants. The agency published EPIs for automobile manufacturing plants last year. The EPIs benchmark a manufacturing plant's total energy use and enable companies to determine a facility's efficiency relative to the rest of the industry. Individual plants are scored from a scale of one through 100, with an "efficient" plant receiving a score of 75 or higher. The program is part of the agency's Energy Star Industrial Focus program, which offers energy management tools and resources for the pharmaceutical, petroleum refining, motor vehicle, food processing and glass manufacturing industries. For more information, go to http://www.energystar.gov/epis.

#### GUEST EDITORIAL: Firms That Outsource Manufacturing Must Be Creative In Obtaining Loans

"There's nothing like distance to disinfect dividends," goes a saying that dates back to the era of the Robber Barons. Today, American companies that outsource manufacturing to other countries might rephrase that to read, "There's nothing like distance to devalue assets" — at least, for collateral purposes.

As more and more U.S. companies outsource their manufacturing, they're finding that assets located in other countries have little or no value as collateral in their lenders' eyes because the lenders are unable to perfect their liens on those assets. As a result, companies that have traditionally used their accounts receivable, inventory and fixed assets as security for loans are facing a financial famine.

Large, multinational companies were the first to learn this unpleasant fact of life; now, regional, middle-market U.S. companies are also encountering the problem as they join in the rush to outsource.

U.S. lenders are balking at lending against offshore assets because bankruptcy laws in other countries are either nonexistent or don't conform to the U.S. understanding of who has rights to assets in a bankruptcy. In France, for example, the bankruptcy laws are so complicated that U.S banks are reluctant to accept French accounts receivable into the borrowing base — despite France's first-world status as an economic portal.

NAFTA — while good for crossborder cooperation — has made it more complicated to borrow on assets located across the border. Even our next-door neighbors present problems for lenders in "perfecting" — making sure collateralized assets can be seized in the event of a default or a bankruptcy. Mexico's bankruptcy laws are complicated, and even in Canada, perfecting on inventory or accounts receivable can be problematic.

What, then, can a U.S. company without deep pockets do to broaden its borrowing base? It can supplement current assets with other assets that have been either overlooked or ignored by lenders. These assets tend to fall into four

#### BY NEHAMA JACOBS

categories: brands, enterprise value, customer lists and intellectual property such as trademarks. Against these, a company often can borrow significant amounts of term debt. Here are some thoughts on each of these types of assets.

**Brands.** A product can be branded even though it's not made by the company that imports it and sells it in the U.S. Consider the example of a company that has a Chinese source make tools for home, garden and garage. The company sells its products through Big Box retailers rather than directly to the public, so the corporate parent's name doesn't have any brand visibility in the U.S.

Yet when an asset-based lender looked at this company, it saw substantial value in the catchy brand name and unique logo the company had developed for its hammers and other tools. As a result, the company was able to obtain a loan against the trademark to supplement the assetbased collateral.

**Enterprise Value.** If a company is profitable and has been in business for a while, it has enterprise value. All it needs to do is have an independent valuation specialist determine what it is worth and attest to that value.

**Customer Lists.** Extensive lists of customers to whom a company has sold its products over a period of time can be just as valuable as inventory or accounts receivable. A lender may want to check on the authenticity of such a list. But once it has, the list will become part of the company's intangible asset base and help it qualify for a loan. The same is true for service companies' lists of subscribers and for pharmacy chains' file of customer's prescriptions.

Intellectual Property. If a U.S. company has used a trademark on products made abroad, the mark will have value in the eyes of broadminded asset-based lenders. How much value will depend on how long the mark has been used and on the number of products on which it has been displayed, but it will always have some worth — as long as that worth can be verified by an independent, third-party appraiser.

All of these are intangible assets, as opposed to current assets, which consist principally of accounts receivable and inventory. Assetbased lenders will make revolving loans against current assets, but rarely if ever will they allow intangible assets into the collateral base for revolvers.

But some asset-based lenders will make term loans against intangibles; term debt can provide expansion capital to supplement a working capital line.

A lender will want assurance that the intangible assets pledged for a term loan are lienable assets that can be perfected. Consider the flatscreen televisions that have become so popular in this country. Nearly all are manufactured in China and bear an American brand name or trademark; but that brand name or trademark isn't owned by the American company that imports the TVs. The importer is just a licensee and distributor of the products.

If the American importer seeks a term loan against the brand name of the TVs, a lender will want to know two things: how long the licensee has use of the brand name, and whether the trademark or brand name can be assigned to the lender. In many instances, that assignment can't be obtained because the owner of the license understandably won't want to surrender control of it to a bank in the event of liquidation.

A lender will also want to have some idea of how long it would take to liquidate an intangible asset. A widely recognized brand name can usually be auctioned immediately, but it can take months or even years to find a buyer for a lesser-known name. Similarly, customer lists rarely are readily marketable; someone must go through the names line by line to determine which are no longer current customers and to

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difficult and potentially disruptive adjustment for the Chinese economy, again concentrated in the manufacturing sector," warns Preeg. "It will certainly be a central subject for discussion at the IMF and World Bank annual meetings in September and will trigger congressional action to impose tariffs on imports from China unless the yuan is promptly revalued."

Exports of mechanical and electrical products during the first half of 2006 reached \$244 billion, "more than two and one-half times larger than the \$91.5 billion of labor-intensive exports," according to Preeg. The "hitech products" category recorded exports of \$123.5 billion, also higher than the labor-intensive category. "The highest growth sectors during the first half of 2006 were other transport equipment (68 percent), telecommunications equipment (40 percent), auto parts (37 percent), scientific instruments (36 percent), electrical machinery and parts (34 percent), and machinery, except electronics (31 percent)."

The data also reflect another fundamental change in Chinese manufacturing. For years, China imported large quantities of parts and components and its cheap labor shops were used as a platform for final assembly. But the share of imported content "is not nearly as large as sometimes reported, and the share of Chinese value added is rising steadily," writes Preeg.

Foreign firms manufacturing in China are buying more of their parts from local suppliers. Large companies are providing suppliers with training, technical support and systems for improving quality. "One Japanese automotive company is in the process of increasing Chinese value added from 75 percent to 95 surplus, linked to other large surpluses throughout East Asia and the counterpart U.S. deficit, have created the greatest and most threatening imbalance in the global economy since the Second World War. If steps are not taken to restore greater balance, a market-induced adjustment could have serious impact on the global economy."

China's projected current account surplus this year of \$230 billion represents 9 percent of China's GDP. Combined with other East Asian countries, Asia's current account surplus will run about \$500 billion this year, while the U.S. current account deficit will top \$800 billion — or more than 7 percent of U.S. GDP. Yet despite repeated warnings, U.S. and Chinese policymakers have done nothing to address the growing imbalance.

A major revaluation of the yuan of between 25 percent and 50 percent will be painful but necessary. The IMF can no longer ignore the issue, particularly since Article IV of its charter states that "members should avoid manipulating exchange rates...in order...to gain an unfair competitive advantage." The IMF charter defines currency manipulation as "protracted large scale" purchases of foreign exchange by central banks.

"Can there be any question that the Chinese purchases of \$200 billion a year are not protracted and large scale?" Preeg asks in the paper entitled "China's Surging Trade Surplus Being Driven By High-Tech Manufactured Exports; Policy Consequences of the Growing Imbalance," available for purchase by calling 703-841-9000.

percent, as a result of almost all of its Japanese parts suppliers shifting production to China," says Preeg. "The Chinese export platform issue...has been largely a myth."

If Chinese exports continue growing at their current pace, then Chinese manufactured exports will be more than double those of the United States in five years, Preeg points out. "This dramatic reversal defines the bottom line challenge to U.S. export competitiveness."

Preeg implores policymakers to be alert to the major economic consequences of such a development. "The very large and growing Chinese current account

#### Exports Imports **Trade Balance** Percent Percent 2005 2006 2005 2006 2005 2006 Change Change 342.3 428.6 302.7 367.1 +39.6 Total 25 21 +61.56.9 6.9 Agriculture 11.2 12.4 11 0 +4.3+5.5Raw materials, except fuels 3.8 3.7 -3 33.1 39.3 19 -29.3 -35.6 Mineral fuels 8.6 8.2 -5 28.9 44.5 54 -20.3 -36.3 404.3 27 Manufactures 318 7 233.8 2764 18 +84.9 +127.9Manufactures, by sector 50.4 8.2 8.7 +42.2 Textiles and apparel 62.7 24 6 +54.0 16 0 Footwear 8.8 10.2 0.3 0.3 +8.5+9.9 Chemicals 20.4 19 37.8 40.0 6 -20.7 -19.6 17.1 Pharmaceuticals 1.8 2.1 17 1.1 1.3 18 +0.7 +0 11.7 3 13.8 10.1 -2.4 +1.6 114 -27 Iron and steel Machinery, except electronics 21.8 28.6 31 32.5 36.4 12 -10.7 -7.8 48 7 59 0 21 164 18.3 12 +32.3+407Office machines, equipment Telecommunications equipment 38.4 53.7 40 12.3 16.4 33 +26.1 +37.3 30 Electrical machinery and parts 33.1 44.5 34 59.8 77.7 -26.7-33.2 Road vehicles 10.2 12.3 21 5.0 7.9 58 +5.2 +4.4 Auto parts 3.0 4.1 37 2.9 4.3 48 +0.1 -0 2.5 4.2 3.0 5.7 -0.5 Other transport equipment 68 90 -1.5 7.0 9.5 36 17.2 -10.2 -13.1 Scientific instruments 22.6 31 Photo and optical apparatus 33 6 28 -0.1 -0.8 3.1 32 41 All other manufactures 63.2 80.1 27 24.3 28.2 16 +38.9+51.9

(Source: Manufacturers Alliance/MAPI & China's Customs Statistics: Monthly Export and Imports, Series No. 190 & 202, Tables 3, 13 and 14)

Chinese Trade By Sector (\$ billions, January 2006 - June 2006)

## Some Industries Are Hot; Some Are Not

The **railroad industry** set a new record for shipments of containers during the week ending Aug. 26. Intermodal container shipments increased by 7 percent from the same week last year to 253,981, according to the Association of American Railroads.

The number broke the previous record of 250,966 containers set during the week of July 30. Rail carload freight totaled 341,285 cars during the week ending Aug. 26, up by 1 percent from last year. Total volume was estimated at 34.3 billion ton-miles, up almost 2 percent from 2005.

Coal loadings were up 6 percent from last year; metals were up 14.4 percent; coke was down 18.3 percent; forest products were down 17.8 percent and motor vehicles and equipment declined 12.6 percent.

The **central air conditioning and heat pump industry** has gone into a slump. Factory shipments of central air conditioners and air-source heat pumps for July totaled 644,300, down 28 percent compared with shipments from the same month last year, according to the Air Conditioning and Refrigeration Institute (ARI). Heat pump shipments for July totaled 180,411 units, down 11 percent compared with the same month last year. Distributor shipments were down 53 percent in July 2006 compared to the same month in July 2005.

#### Intangible Asset Loans...(From page seven)

what extent privacy considerations may hamper the sale of the list.

A third factor to consider in determining whether there is a viable exit strategy for a lender is enterprise valuation. A public company's worth has obviously been determined by the market. But it's a different story with private companies. Because they're illiquid, an enterprise valuation must take into account several factors.

How broadly is the company's product marketed? How many buyers for the company would there likely be? How generic or specific is the manufacturing process? Is the product distinctive or are there many others on the market like it? Are there brand names associated with it? Is it in a growing or declining niche of the market?

As previously noted, a lender will want an enterprise valuation done by an objective third party. And that third party may arrive at a much different value than the owner may have used in valuing stock options for employee stock purchase plans, and in determining enterprise value for succession planning and estate planning purposes.

In calculating a company's enterprise value, the third party will determine what it will be worth — not at present but rather, what that value will be when the term debt has been repaid. Thus, if a company takes The U.S. **sports products industry** had a good year in 2005, according to the Sporting Goods Manufacturers Association. Wholesale sales of equipment, apparel and athletic footwear rose 10 percent to \$57.6 billion. Sporting goods equipment rose from \$18.4 billion to \$19 billion. Sports apparel sales rose 11.3 percent in 2005 to \$26.6 billion. Athletic footwear sales rose 19.3 percent to \$11.96 billion. Meanwhile, the Canadian market for sporting equipment and activewear is inching up every year, from \$6.6 billion in 2002, to \$6.8 billion in 2003 and \$6.9 billion in 2004, according to SGMA.

U.S. production of **plastics resins** increased by 7.2 percent during the month of June over the same month in 2005, to 7.1 billion pounds, reports the American Plastics Council. Year-to-date production through June was up 1.4 percent.

The **book publishing industry** had a good year in 2005. Total sales increased 9.9 percent to \$25.1 billion, according to the Association of American Publishers. Sales of trade books increased 9.1 percent to \$7.8 billion in 2005. Sales of scholarly books increased 1.5 percent to \$3.3 billion. Mass-market paperbacks were down 3.5 percent to \$1.08 billion. Sales of religious books increased 14.2 percent to \$876 million.

on three years of term debt, the valuation opinion will be based on what the company is expected to be worth at the end of the third year. Usually, this calculation is made using a multiple of the company's earnings before interest and taxes, minus a discount for the time value of money.

Here's an example: American Outsourcing Inc. is a privately-owned company that has its products manufactured in China. Those products, while not unique, still are distinctive enough to command good prices when brought into this country. Turned down for a loan against current assets that are located abroad, American Outsourcing applies for a three-year term loan based on its intangible assets. Its earnings before interest and taxes were \$3 million in its most recent fiscal year. A third party appraiser, after looking at industry comparables, uses a multiple of five times those earnings to arrive at a figure of \$15 million, then discounts that to \$12 million in today's dollars.

Obviously, obtaining a loan against intangible assets is somewhat more involved than borrowing against current assets. But there are lenders that are ready and willing to advance funds to aggressive outsourcing companies that understand the lenders' requirements and provide the information they want.

— Nehama Jacobs is senior vice president in the Pasadena, Calif., office of PNC Business Credit which, as the asset-based lending arm of PNC Bank N.A., provides working capital and term loans for growing businesses.

#### New Plants In The U.S.

Amarr Garage Doors, one of the world's largest makers of residential and commercial garage doors, will open a new 109,000-square-foot manufacturing plant 30 miles west of Winston-Salem, N.C. The facility will supply the company's growing East Coast business and employ 143 workers. It will open for production in January 2007.

**Honda** is building a new \$550-million automobile assembly plant near Greensburg, Ind. The facility will employ about 2,000 people and begin production in late 2008 with an annual capacity of 200,000 vehicles. The plant will be Honda's sixth auto plant and 14th major manufacturing facility in North America. It will help boost Honda's total North American auto production capacity from 1.4 million units to more than 1.6 million units.

**DENSO Corp.**, the Japanese automotive supplier, will more than double the size of its 80,700-square-foot Kentucky automotive fuel pump and fuel filter plant, at a cost of \$27 million. The company hopes to add another 150 jobs at the facility by 2010. The expansion should increase sales from the facility from \$74 million to \$160 million by 2010. The Kentucky plant is a joint venture between Kyosan Denki America and DENSO.

**Wood Stone Corp.**, the world's largest producer of stone hearth cooking equipment, has begun a 52,500-square-foot expansion of its plant in the Port of Bellingham in Washington. The company will hire 30 new manufacturing workers.

**Hercules Inc.** plans to double the capacity of its synthetic refrigeration lubricant manufacturing plant in Louisiana. The expansion is part of a long-standing manufacturing agreement with New Castle, Del.-based Uniqema, a unit of ICI Americas. The expansion is expected to protect the 130 jobs at the facility.

Advanced Micro Devices, the world's second largest maker of microprocessors, will build a new \$3.2-billion foundry in New York. The plant will begin production in 2010 and will double the company's manufacturing capacities. New York State has provided a \$500-million incentive for construction, \$150 million in R&D subsidies over five years and \$250 million in tax rebates.

**Medrad, Inc.**, a medical imaging company and winner of the 2003 Baldrige Quality Award, will build a new manufacturing plant in Pittsburgh, Penn. The 120,000-square-foot facility is expected to create at least 500 jobs over the next five years. The U.S. affiliate of Schering AG of Germany picked Pittsburgh over China, Mexico and other locations in Europe due to the area's strength in the life sciences market, low startup risks, a skilled workforce and tax benefits associated with the Keystone Opportunity Zone.

**Toyota Motor Manufacturing** has purchased 50 acres of land adjacent to the company's Buffalo, W.V., fourand six-cylinder engine plant. The company says it has no immediate plans to increase production at the site.

#### **New Plants Overseas**

**Kraft Foods** has announced plans to build a \$40million cheese and powdered beverage manufacturing plant in Bahrain. The company will begin construction of the 60,000-square-meter facility this month, with initial production planned for late 2007. It is the first major investment Kraft is making in the region. About 250 people will work at the facility.

**Kennametal** has opened a \$31-million manufacturing plant in China. The 160,000-square-foot plant in the Tianjin Economic Development area will employ 200 people, but could grow to 450,000 square feet with 400 employees, according to the company.

Eastman Kodak will outsource its entire digital camera manufacturing capability to Flextronics, the Singapore-based electronic manufacturing services company. Flextronics will also manage digital camera design and development, and operations and logistics service functions for Kodak. Kodak says it will continue to work on design, product look and feel, "user experience" and R&D. Flextronics will acquire a significant portion of the Kodak Digital Product Center in Japan as well as camera design, assembly and warehouse facilities in Shanghai, China. The move is driven by Kodak's "overall strategy to further drive improvements for profitability and efficiency in the operating model of our consumer digital business," says John Blake, general manager of the company's Consumer Digital Imaging Group. "This strategy enables us to sustain our history of innovation and sharpen our focus on advanced development and other areas of the business where we can gain the greatest competitive differentiation and advantage.'

Milpitas, Calif.-based **SanDisk Corp.** and Toshiba have begun construction of a \$2.6-billion, 382,120square-foot flash memory plant in Yokkaichi, Japan. The memory devices will be used in mobile phones, MP3 music players and memory cards. The two companies are working together in a joint venture called Flash Partners Ltd., owned 49.9 percent by SanDisk and 50.1 percent by Toshiba and will split production of 67,500 wafers per month.

**Dow Epoxy,** will invest more than \$200 million over the next five years in manufacturing and research and development facilities in China. The company will build a 100,000-million-tons-per-annum (mtpa) liquid epoxy resin plant at its existing site in Zhangjiagang, Jiangsu Province, and a 150,000-mtpa epichlorohydrin plant in the Yangtze River area in China. Both facilities are expected to start up by 2010. Dow Epoxy also plans to expand the capacity of its epoxy resins plant in Zhangjiagang from its current 41,000 mtpa to 75,000 mtpa. Dow Epoxy will also establish an application development center in China.

**Intel Corp.** has opened a \$2 billion semiconductor fab in Leixlip, Ireland, the company's third factory using 65nm process technology and the industry's first factory

#### Venture Capital Money Is Flowing Freely Into Fledgling Companies

The venture capital industry is getting back on track. The industry invested \$6.3 billion in 856 deals during the second quarter of 2005, according to the Money Tree report by the National Venture Capital Association and PricewaterhouseCoopers. That amount represents a 2 percent increase in dollars and a 5 percent increase in deals from the previous quarter.

"The increase was driven by strength in biotechnology, industrial/energy and networking and equipment sectors, all showing solid gains in the quarter," say the two groups. There was a surge of investment into expansion-stage firms, and first-time financing reached a five-year high.

"It appears as if the venture capital industry is slowly ratcheting up investment levels for the first time in four years, and these increases seem to be directed in a prudent manner," says Mark Heesen, president of the National Venture Capital Association. "We are encouraged by the upswing in the number of seed and early stage deals [because] these companies represent the future of our industry. But equally as important is the diversity of the investment dollars into multiple industry sectors. Rather than pouring money into a lot of 'me-too' deals, venture capitalists are finding unique opportunities in emerging industries that allow the industry to scale up responsibly."

The biotech and medical devices industry received 10 percent more VC funds to \$1.8 billion in 185 deals over the first quarter of 2006. The biotech sector received 34 percent more dollars in the second quarter, and reported the highest number of deals in the report's history at 112. Medical device funding was down 22 percent to \$549 million.

Software deals declined to \$1.3 billion going into 231 companies, but it remains the largest single industry category with 20 percent of total dollars and 27 percent of all deals.

In the industrial and energy sector, the amount invested increased 62 percent, with \$417 million going into 46 companies, a five-year high. Most of the increase was in the alternative energy sector, with a 69 percent increase in investment over the prior quarter, and nearly quadruple the number of deals.

Networking and equipment increased 45 percent in terms of dollars and 60 percent in terms of deals. Internet-specific companies received \$916 million going into 143 deals, about level with the previous quarter.

Telecommunications, which includes wireless remained flat. The survey is located at

http://www.pwcmoneytree.com.

# **New Plants...** (Continued from page 10) in Europe producing 65 nanometer chips on 300mm wafers.

**Honda** is considering building its second manufacturing plant in India to produce its Civic sedan. The company wants to increase production in India to one million units by 2007, instead of its planned goal of 2010.

**Gome, a** Chinese home appliance retailer, has purchased a 51 percent stake of Idall Technology, a company that specializes in manufacturing audio and video products. Gome wants Idall to help it design home appliances for sale in international markets. It will set up its first production facility in southern China's Shantou area. Intel Corp. has also signed a cooperation agreement with Gome to push digital home equipment to consumers.

**Neapco LLC**., a Pottstown, Penn.-based maker of drivetrains, has announced plans to open a new manufacturing plant in Saltillo, Mexico. The 35,000-square-foot facility will hire 100 new workers.

#### PLANTS CLOSING DOWN

**Cissell Manufacturing**, the Ripon, Wisc.-based manufacturer of commercial laundry machines, is closing its plant in Louisville, Ky., and laying off 125 workers.

**Best Manufacturing Group**, the country's largest maker of table linens and nappery for the healthcare industry, has filed for Chapter 11 bankruptcy protection in New Jersey. The company says it plans to move most of its production to Cambodia, increase purchases from outside the United States and close its plants in King of Prussa, Penn., and Mahwah, N.J. It will also reduce production at its plant in Cordele, Ga.

Sparta Manufacturing, a foundry with 70 employees based in Sparta, Mich., is closing due to competition from China and India, the company says. The 50-year-old maker of cast iron cylinders for cars and small engines will close in November.

**Owens-Illinois**, the manufacturer of packaging and containers used by hundreds of companies, will close its 300,000-square-foot machine parts plant in Godfrey, Ill. The company expects to save money by outsourcing its manufacturing of parts for glass container manufacturing equipment and lay off 261 people at the plant that has been in production since 1958.

**Belden CDT**, a St. Louis-based manufacturer of cable, has decided to close manufacturing plants in Tompkinsville, Ky., and Fort Mill, S.C. A majority of production will be moved to a new manufacturing plant in Mexico.

www.MANUFACTURINGNEWS.COM

## **Profits Are Tough To Find In Forest Product Industry**

The global forest paper and paper-packaging industry is growing modestly, but profits are not, according to PricewaterhouseCoopers. In its annual survey of the industry, the company says global industry sales increased last year to \$340 billion, up from \$328 billion, but operating profits declined by 11 percent to \$21.6 billion and return on capital employed (ROCE), a key measure of performance in the capital intensive industry, fell to 4.5 percent, down from 5.3 percent in 2004.

The companies that had better than average financial results were those that innovate and "develop methods to do more with less," says Robert Barnden, leader of the PWC's global forest, paper and packaging division. High energy, transportation and raw materials prices along with foreign exchange fluctuations adversely impacted the industry last year.

European producers had a tough year. No European companies are among the top performing global firms in terms of their ROCE, notes Barnden. "This is a clear indication of why most companies in Europe have embarked on or have in mind major restructuring projects." European producers continue to increase investment above depreciation levels, but most European investment in capacity is taking place in emerging markets.

In the United States, home of 27 of the world's top 100 producers, revenues increased by \$12 billion last year to \$135 billion, while ROCE averaged 6.3 percent, up from 5.7 percent in 2007. The housing market driven by low interest rates spurred the industry, but profits were diminished by raw material costs, higher labor prices and increased transportation costs. "Canadian producers had a disappointing year, with average ROCE dropping to 2.5 percent from 4.6 percent in 2004," says Barnden. "Norbord was the most notable exception, ranked top company globally in terms of ROCE at 23.7 percent." Revenues for the Canadian sector increased by \$1 billion to \$25 billion in 2005, but net income dropped from \$1.3 billion to a loss of \$374 million.

The Latin American region held the world's top spot for ROCE at 8.6 percent, down from 9.7 percent in 2004. Three Brazilian companies appeared in the top 12 in terms of ROCE — Aracruz, Votorantim and Klabin. But cash flow for the sector declined by almost 20 percent, from \$36 billion in 2004 to \$29 billion in 2005. "The volatility of the U.S. dollar impacted financial results," says Barnden.

In Asia, China's Nine Dragons Paper Holdings, which went public in 2006, is the first Chinese company to break into the top

100 companies. In Japan, home of 12 of the largest 100 companies in the industry, most "have looked to investing in the nearby Chinese market in search of better growth prospects," says Barden. "This is a result of little change to average sales or ROCE, which stayed around 3 percent."

The full survey is available at http://www.pwc.com/fpp.

#### Europe Hopes To Repatriate Researchers

The European Union wants to keep 100,000 European researchers living in the United States abreast of research funding opportunities in Europe. The socalled "ERA-Link" information service "has been established in recognition of the asset, previously often ignored, that European researchers abroad represent for European research in general," says the European Union. It aims to build and maintain contacts with European researchers "who left the EU, regardless of what prompted their decision to go abroad or whether they intend to return to Europe." The network intends to keep European researchers in touch with each other and with research policy in Europe. It is intended to improve Europe's position "in the competition for talent, help European researchers abroad find new careers in the EU, while at the same time reinforcing transatlantic research cooperation," says the EU. For more information, go to http://cordis.europe.eu/eralink /home en.html.

#### Small Business Gets \$80 Billion in Fed \$s

The federal government awarded \$79.6 billion in prime contracts last year to small companies, an increase of \$10 billion from 2004, according to the Small Business Administration. "The contracts represent 25.4 percent of federal prime contracting dollars in 2005, surpassing the overall government statutory goal of 23 percent for the third consecutive year," says SBA. The Defense Department awarded \$53.8 billion (24.6 percent of its contracts) to small businesses. The small business contracting data is located at http://www.sba.gov/GC/ goals/SmallBusiness GoalingReport\_2005.pdf.

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