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Covering Innovation, Globalization and Industrial Competitiveness

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Commentary & Analysis:

Economists In Denial: Blind To Offshoring's Adverse Impact

BY PAUL CRAIG ROBERTS

At a Washington, D.C., press conference last November, Harvard University economics professor Michael Porter claimed that globalism was bringing benefits to Americans (*Manufacturing & Technology News*, Nov. 30, 2006). Porter was introducing the latest report, "Competitiveness Index: Where America Stands" of which he is a principal author, from the Council on Competitiveness.

I recognized a number of Porter's claims to be inconsistent with empirical data. After examining the report, I can confidently state that the report provides scant evidence that America is benefiting from globalism.

This is not to say that the statements in the report and the information in the numerous charts are untrue. It is to say that the data do not support the claim that America is benefiting from globalism.

The competitiveness report boasts that the United States "leads all major economies in GDP per capita"; that "household wealth grew strongly, supported by gains in real estate and stocks"; and that "poverty rates improved for all groups over the past two decades."

All of this is true over the time periods that the report measures.

But it is also true that all of this was happening prior to globalism. Moreover, in

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The Alliance For American Manufacturing

New Mfg. Advocacy Group Is Up And Running In Washington, D.C.

The United States steel industry and its labor union have created a new organization in Washington, D.C., to fight on behalf of all U.S. manufacturing, *Manufacturing & Technology News* has learned.

The Alliance for American Manufacturing is expected to be officially launched in March, but it has a secure and healthy level of funding, new offices on K Street, an executive director, a board of directors, a staff and a well-defined mission.

BY RICHARD McCORMACK

The new group is more than a lobbying organization, according to those involved. It will be a think tank on American manufacturing, conducting its own research, contracting with the academic and economics community to do original research on the impact of trade on companies, workers and communities, and highlighting the importance of manufacturing in the economy. The Alliance for American Manufacturing (AAM) will communicate the results of its research and advocate on behalf of manufacturing by building grass-roots efforts to impact policy and policymakers.

"Two organizations are at work here," explains Terry Straub, senior vice president of public policy and government affairs for U.S. Steel Corp. in Washington, D.C., and a member of the AAM's board. "We have merged management and the [United Steelworkers] union on public policy. This might be unique in the United States. I don't see any other industry doing this. In the last several years, you have seen two parties that have historically been at odds with each other unite over public policy, legislation and politics."

Management and labor realize that "we're all in this together," Straub explains. "This has become an article of

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Defense Sector Must Prepare For Downturn In Business

The military budget is going to be under intense pressure in coming years and it is likely that major weapons systems will be delayed or cancelled, according to Dan Heinemeier, president of the Government Electronics and Information Technology Association. DOD's budget in 2006, which included $116 billion in two supplemental appropriations, was $547 billion, the largest in inflation-adjusted dollars since the Korean War.

But the biggest share of the DOD budget is being spent on military personnel and operations and maintenance. The 2005 budget for operations and maintenance "exceeded the entire fiscal year 1998 DOD budget," says Heinemeier. There does not seem to be any slowdown in the escalation of costs associated with these expenses, including burgeoning health care costs and aging equipment and facilities maintenance. Higher fuel costs are also taking their toll on DOD's budget. For every 20-cent-per-gallon increase in the price of gasoline, DOD spends an additional $1 billion a year on fuel.

"Operations and support costs are like entitlements," Heinemeier notes. "These bills have to be paid before making investments and they exceed inflation by more than 2 percent annually." The rising pressure from these expenses will squeeze procurement "and especially RDT&E," he says.

There are other pressures outside of defense that are going to squeeze DOD's budget including the need for deficit reduction, tax cuts, increases in domestic spending, Social Security and Medicare costs, disaster recovery costs and nation-building costs.

Within DOD, "as major development programs move into procurement the 'bow wave' is unsustainable," Heinemeier notes. New systems going into production will require between 18 percent and 34 percent more funding than the 2006 level. It is "unclear [if] war-driven supplementals can continue to relieve" future-year defense program pressures. At some point there will be changes made in investment strategies that include program stretch-outs and/or quantity cuts, and a re-prioritization of available funding with a shift towards nearer-term needs and capabilities. "At some point, terminations may be necessary," Heinemeier says. However, the coming down-cycle will not be nearly as drastic as the last one experienced in the mid-1990s.

DOD and the defense industry will have to work hard on ways to assure the affordability and continued production of weapons systems. DOD and industry must embrace lean and Six Sigma quality systems; rely more on the Manufacturing Technology Program; adopt manpower reduction technologies; use advanced modeling and simulation tools; and promote a collaborative and transparent environment for risk management, says Heinemeier. "Program managers must be chosen for leadership and be empowered to make hard choices, and be assigned for longer periods," he says. DOD and industry need to expand the use of automated life-cycle cost estimating tools "to promote early cost/performance tradeoffs; encourage Congress to support multi-year procurement; and ensure mature technologies are used on programs."

Another Year, Another Shot Taken At China's Currency

The small- and medium-sized U.S. manufacturing community is gearing up for another year of battle to pass legislation to force China to stop manipulating its currency. The "Hunter-Ryan" bill, which last year gathered the support of 178 co-sponsors in the House of Representatives, has been tweaked a little bit and reintroduced by the two representatives for whom it is named: Duncan Hunter (R-Calif.) and Tim Ryan (D-Ohio). The new bill (HR-782) has attracted 32 co-sponsors evenly divided between Republicans and Democrats. The bill, called the "Fair Currency Act," provides U.S. industries with "effective remedies in the form of countervailing duties on imports that benefit from currency manipulation," says Ryan.

The bill has a much better chance of passing Congress this year, say supporters. New leaders of important committees have expressed interest in the legislation, which went nowhere during the last session of Congress, despite widespread support.

"In the course of discussions with several [congressional] offices, we learned that the Financial Services Committee staff has a deep interest in this legislation (title II)," including Rep. Luis Gutierrez of Chicago, the new chairman of the Subcommittee on International Monetary Policy, according to a memo from one member of the China Currency Coalition, a Washington, D.C.-based advocacy group. "Perhaps most important is the early support we have from members of the House Rules Committee."

The bill didn't make it through this committee in 2005, when it was defeated on a party-line vote nine to four. "The prospects of a reversal are very good this year if this goes to Rules," says the memo. "By and large, the Rules Committee in the 110th looks extremely good for 'fair trade' legislation."

The China Currency Coalition expects about half a dozen fair currency bills to be introduced in Congress this year. "There is no question that the effort is going to continue to be focused on Congress because the [Bush] administration has been pretty much of a lost cause on this and we don't see any prospect for any short-term gain," says Skip Hartquist, executive director of the coalition.

Treasury Secretary Henry Paulson testified before the Senate Banking Committee Jan. 31 on the Chinese currency issue and got pummeled by various members of the committee over the lack of progress on the issue.

3D Systems Moves One Step Closer To Rapid (Additive) Manufacturing

3D Systems Corp., the pioneer in rapid prototyping of parts, is on the threshold of sustained growth, according to independent institutional financial analyst Cliff Ransom. The company's newly introduced "V-Flash" desktop 3-D printer should be a market success, and promises to generate substantial revenue for the firm through the sale of materials used in the printer, says Ransom. As such, the company presents a long-term opportunity for investors, though the ride might be bumpy.

BY RICHARD McCORMACK

"The time has come for small-cap and micro-cap institutional investors to get off their duffs and revisit 3D Systems Corp.," writes Ransom, who is well known for following industrial companies that have adopted lean management systems.

3D Systems is one of the few remaining companies in the rapid prototyping/rapid manufacturing space, with half a dozen companies having recently folded tent. Even Sony Corp. is said to be no longer pursuing the technology commercially.

"3D Systems is moving from a flawed business model to a well-advised one; from a flawed management team to a perfected one; and from small end markets to huge ones," writes Ransom in a research report following his attendance of 3D Systems' annual meeting with shareholders. Ransom, who owns shares in the company, believes 3D Systems is on the verge of sustained annual growth of between 10 and 15 percent, due in large part to its decision to aggressively pursue the sale of its own proprietary resins, powders, filaments, sheet materials and "other chemical and physical formulations on an ever-expanding list," writes Ransom. Margins on materials are higher than on hardware and should provide the company with a steady stream of recurring revenues. "This reality will be especially important as rapid manufacturing proliferates, since, generally speaking, manufacturing applications consume more material than prototyping applications," Ransom writes.

The company has had a spotty record of profitability, and has been confronted with management challenges and writeoffs. Its stock price has not performed well over the past year, but has been rising steadily in recent weeks to about $19 a share.

3D Systems is at a key moment in its history, with most measures looking better than ever, writes Ransom. "The rub comes with valuation....[W]e are faced with a nose-bleed multiple, at least for those of us used to working in the industrial world, where 20 times earnings is awarded only to the very best enterprises. In fairness, lest I let my industrial antecedents outweigh my instincts as an investor, the terminal business model of 3D Systems Corp. should exhibit much higher growth rates, margins, returns on capital and cash flow generation than most purely industrial enterprises. Given the past record of highly inconsistent earnings and the fact that 3D has lost money in more years in the last decade than it has made a profit, no one is going to be motivated by a P/E of 31 times the 2007 consensus forecast of $0.47 per share. Fortunately, with the likelihood that 2008 earnings per share will recover by a factor of probably two, I sense that long-term investors will quickly put a premium multiple on a company that can grow revenues between 15 and 20 percent and demonstrate steadily increasing profitability. 3D Systems is, indeed,

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Another Tough Year For Unions

Union membership took a hit in 2006, according to the Bureau of Labor Statistics. The number of people belonging to a union fell by 326,000 in 2006 to 15.4 million. Union members constitute 12 percent of employed wage and salary workers, down from 12.5 percent in 2005. "The union membership rate has steadily declined from 20.1 percent in 1983, the first year for which comparable union data are available," says BLS.

Only 12.5 percent of manufacturing workers are members of unions, down from 13.7 percent in 2005. Union membership rates for government workers stood at 36 percent last year, "nearly five times that of private sector employees" at 7.4 percent, says BLS. Education, training and library occupations had the highest unionization rates among all occupations at 37 percent. Sales (3.1 percent) and farming, fishing and forestry occupations (3.5 percent) had the lowest unionization rates.

Full-time wage and salary workers who were union members had median weekly earnings of $833, compared to $642 for comparable workers not represented by unions. "All states in the East, North Central, Middle Atlantic and Pacific reported union membership rates at above the national average, and all states in the East South Central and West South Central had rates blow it," says BLS.

North Carolina and South Carolina reported the lowest union membership rates of 3.3 percent each, followed by Virginia at 4 percent, Georgia at 4.4 percent and Texas at 4.9 percent. Four states with the highest union membership rates were Hawaii at 24.7 percent, New York at 24.4 percent, Alaska at 22.2 percent and New Jersey at 20.1 percent. The largest number of union members live in California (2.3 million) and New York (2.0 million).

The full report is located at ftp://ftp.bls.gov/pub/news.release/union2.txt.

Britain Creates A National Skills Training Infrastructure

The British government has created a new National Skills Academy aimed at training up to 40,000 students a year by 2012 in advanced manufacturing technologies. The new $28-million academy in West Midlands intends to improve manufacturing skills to keep Britain competitive with India and China, says Alistair Darling, Britain's secretary of Trade and Industry. The academy will deliver courses designed by industry and includes the backing of some of Britain's largest manufacturing companies including Rolls Royce, Caterpillar, Ford, GKN, BAE Systems, Airbus, Corus, VT Group and Nissan.

"Raising skills has to be a national mission," said Darling during the announcement of the Academy at Warwickshire College in Leamington. "That is why some of the best-known manufacturers in this country are on board. They know 'good enough' doesn't work. That is why it is vital the training is designed by these winners for the winners of tomorrow."

The manufacturing skills center will be one of 12 different industrial academies Britain will establish by 2008. The government will invest $180 million in the program, which will be delivered through Britains' "Learning and Skills Council" and various employers.

"The aim is an employer-led, world-class National Skills Academy network to provide vocational education and training for school leavers and adults, tailor-made to meet the specific needs of industry sectors and those who work in them," says the Department of Trade and Industry.

The first three are financial services, construction and manufacturing. A fourth — food and drink — is in the process of being approved. Other industries that have submitted bids for skills training academies include the nuclear and chemical industries, the hospitality sector and the creative and cultural industries.

PTO Favors Quality Over Quantity

The U.S. Patent and Trademark Office has decided to stop releasing its annual list of the top 10 organizations receiving the most U.S. patents. "In ceasing publication of the top 10 list, the USPTO is emphasizing quality over quantity by discouraging any perception that we believe more is better," says Patent Office deputy director of public affairs Brigid Quinn. "For the past four years, USPTO has focused on the quality of the patents it issues. We are now seeing the results of those efforts. Last year, patent quality was the best in over 20 years, and the agency also had the lowest rate of patents approved in more than 30 years. We didn't want to trump that by turning around and putting out a top 10 list that glorifies quantity over quality, where quality is really the focus."

The Patent Office is implementing numerous programs aimed at improving patent quality. It has created a "rigorous in-process and end-process reviews of examiners' work and written certification and recertification examinations to ensure examiners remain up-to-date on patent law, practice and procedure," says Quinn. It is hiring quality experts to provide a "second set of eyes" on the work examiners have done to make sure they have found the right prior art and applied it correctly. Examiners are spending more time determining if a patent application represents a truly new and useful invention that has utility. "It has to be enabled with a written description so that someone skilled in that technology is able to make and use the invention," says Quinn. It is providing examiners with new university coursework for working in a collaborative environment. And it has created a new division of patent examiners "solely devoted to reexamining patents for which evidence raising a substantial new question of patentability is found after the patent is granted."

3D Systems... (From three)

redefining itself and, ultimately, defining the industry."

The new "V-Flash" product will be able to create a prototype two- to three-times faster than the company's current products. The printer, at about 100 pounds and measuring about two-feet square, will be formally introduced this summer, presumably for around $10,000.

"At its core, the V-Flash machine is the culmination of a long search to find a way to move 3D printing from its current base of 5,500 systems among five million CAD-enabled engineers using 1.6 million plotters and large format printers to a 2008 goal of roughly 100,000 desktop modelers out of a likely 2008 population of 2.6 million traditional plotters and printers," writes Ransom. "In addition, V-Flash, which we should think of as a new technology, not just a new product, offers 3D its first real opportunity to move into wholesale and retail markets for individuals."

The company has some negatives hanging over its head, however. Earnings for 2006 may be restated, and class action lawsuit-happy "creeps" might be in hiding, writes Ransom. The company is just emerging from a difficult ERP implementation. Holders of fixed-income obligations of 3D "could extract a pound of equity investor flesh if debt covenants get breached, but there is a palliative of a pending first-quarter sale of a surplus manufacturing site in Colorado for $7 million, an action that will also free up roughly $1.2 million in additional 'restricted cash.' "

3D's management team under Abe Reichental, who arrived in 2003, "has far more successes on its ledger than black marks on its record," Ransom counters. "In my opinion, today, no company can boast of as broad a portfolio of additive technologies, materials and end markets as 3D Systems and no company has the head start of 3D Systems into rapid manufacturing, still my principal 'Holy Grail' of this nascent industry. If the new V-Flash desktop modeler does become a winner, and I see no reason that it should not succeed, 3D will have added what is essentially a fourth technology to its portfolio of stereolithography, selected laser sintering and ink jet desktop printing."

Ransom can be reached at cliff@ransomresearch.com.

Science & Tech. Get Rare Increase In 2007 Budget

The federal budget for 2007 is getting closer to being finished, and those who were actively lobbying for increases in research and development have had some success. Most programs outside of defense will receive the same amount of funding as in 2006. But research budgets at the National Institutes of Health, Department of Energy, National Science Foundation and National Institute of Standards and Technology should receive increases. The House passed the 2007 Continuing Appropriations Resolution (H.J. Res.-20) by a vote of 286 to 140. The Senate must address the issue before Feb. 15.

All earmarks are gone. This decision "does not come without pain," said Rep. Dave Obey (D-Wisc.), chairman of the House Appropriations Committee and Sen. Robert Byrd, chairman of the Senate Appropriations Committee in a joint statement. "Many worthwhile earmarks were cut.... Hopefully, whatever short-term pain this causes will be more than made up for in the long run." The joint resolution states that "any language specifying an earmark in a committee report or statement of managers accompanying an appropriations act for fiscal year 2006 shall have no legal effect with respect to funds appropriated by this division."

Under the House-approved bill that now heads to the Senate, NIST will receive $433 million for scientific and technical research, up from $395 million in 2006. The amount includes $50 million in new funding "for physical science research and lab support for nanotechnology and neutron research," says the resolution. NIST's budget for the Manufacturing Extension Partnership will remain at last year's level ($104.6 million). The Advanced Technology Program receives a reprieve. It will receive the same amount of money this year as it did last year ($79 million), despite the fact that both the House and the Senate zeroed out the program last year while working on the 2007 budget.

National Science Foundation will receive $4.7 billion, an increase of $335 million in its research account to fund "Innovation Programs," says the Joint Resolution. "This increase is a down-payment towards enhancing U.S. global competitiveness by investing in basic science research."

NIH will receive $28.9 billion, an increase of $619.5 million "to reverse a projected decline in new NIH project awards and support an additional 500 research project grants, 1,500 first-time investigators and expand funding for high risk and high impact research," says the resolution.

Pell Grants will get a $615-million boost to $13.6 billion. The maximum Pell grant will increase by $260 to $4,310, the first increase in four years.

In the area of energy research, DOE's Office of Science would receive $200 million more than last year, to $3.8 billion "to support research including new energy technologies such as improved conversion of cellulosic biomass to biofuels," says the resolution. DOE's Energy Efficiency and Renewable Energy Resources group would receive $1.5 billion, $300 million more than last year.

To view the joint funding resolution, go to http://www.rules.house.gov/110/text/110th_hjres20.pdf. The summary, with little detail but written in English, is located at http://appropriations.house.gov/pdf/CRSummary.pdf.

2008 Budget Request: Lots More For DOD; Some More For R&D; Disappointment For MEP

President Bush is proposing massive increases in budgets next year for defense, veterans affairs and homeland security, while some domestic programs get the ax. In its annual budget submission to Congress on Feb. 5, the Bush team proposes a 17 percent increase in the budget for the Department of Defense, a 20 percent increase in Veterans Affairs and a 12 percent increase for the Department of Homeland Security.

Bush is also seeking additional funding for his American Competitiveness Initiative. But the government's only program aimed at improving the competitiveness of small- and medium-sized manufacturers isn't part of the largess. The Manufacturing Extension Partnership program, which has limped along for the past six years, will again be in a fight for survival, given that the Bush administration requested the program be cut by more than half, from $104.6 million to $46 million in 2008. It means another tough year of lobbying Congress by the small manufacturing community and the nationwide network of extension centers.

The National Institute of Standards And Technology's other "extramural" research program, the Advanced Technology Program, also falls prey to budget cutters, with a request of $6 million, down from the $73 million it is expected to receive for 2007. NIST's lab work will fare well, however, receiving a request of $501 million, up from the $433 million the program is expected to receive for 2007.

Other agencies are not considered to be priorities. The Department of Transportation's budget request is down by 17 percent. Labor is down 16 percent. The Environmental Protection Agency would be cut by 5 percent. The Department of Agriculture is down 4 percent.

The National Science Foundation's budget request is for $6.43 billion, an increase of 6.8 percent or $409 million over the Bush administration's 2007 request.

The Department of Energy request is for $24.3 billion, including a 26 percent increase for the Advanced Energy Initiative to $2.1 billion. DOE's Office of Science request is for $4.4 billion; the National Nuclear Security Administration request is $9.4 billion. The Office of Energy Efficiency and Renewable Energy would receive $1.4 billion, although the Industrial Technologies Program takes a hit, falling from $59 million to $46 million.

Council On Competitiveness: Patents Are Not A Good Measure Of A Company's Ability To Innovate

Receiving a lot of patents does not translate into being an innovative company, according to the Council on Competitiveness. Many of the companies that receive the most U.S. patents are not even considered to be among the world's most innovative firms.

IBM, which has for years been the top recipient of U.S. patents, is ranked only in 10th place among the world's most innovative companies, according rankings compiled by Business Week and promoted by the Competitiveness Council in its recently released "Competitiveness Index." The second largest recipient of U.S. patents, Canon, doesn't even make the list of top 25 global innovators. Hewlett Packard, in third place among patent recipients, isn't considered to be a top global innovator, either. The same is true of Matsushita, Hitachi, Toshiba and Fujitsu, all of which are on the top 10 list of U.S. patents but don't make the top 25 list of global innovators.

Apple is considered to be the world's most innovative company, but it ranked 187th in receipt of U.S. patents in 2005, with 84. "Apple actually spends less on R&D as a percentage of sales than the average for its industry," says the council.

Google, which was in second place in the global innovation rankings, did not even muster 40 patents in 2005, ranking it below the top 400 companies receiving U.S. patents. Yet Google is ranked as the second most innovative company in the world.

American companies occupy 16 of the top 25 spots on the world's most innovative company list. Only three Japanese companies made the list, (Toyota, Sony and Honda) and one German company (BMW).

"American companies lead the world in innovation," states the Council on Competitiveness. American firms hold eight of the top 10 positions in the global innovation ranking. "It is worth noting that many of the companies recognized for innovation are not only high technology-producing or R&D intensive companies."

While many of the companies on the list of the world's most innovative do little in the way of patenting, it's their business models that are considered to be innovative. Among the companies in this category are Google, Starbucks, eBay, Wal-Mart, Amazon, Target and Southwest.

Productivity measures also may not be a good indicator of a company's ability to innovate. Such measures "typically revolve around a more efficient use of resources for generating the same level of output," says the Council. "They imply that cost and efficiency advantages in labor and capital automatically translate into more market share. Real growth depends on innovation, on creating new markets and new value. This is reflected in the fact that almost 50 percent of current corporate sales are accounted for by products that are less than three years old. The drivers of value creation are increasingly intangible — ideas, relationships, design, branding and the ability to connect with customers in deep and meaningful ways."

Top 25 Most Innovative Global Companies

1. Apple
2. Google
3. 3M
4. Toyota (Japan)
5. Microsoft
6. General Electric
7. Procter & Gamble
8. Nokia (Finland)
9. Starbucks
10. IBM
11. Virgin (UK)
12. Samsung (Korea)
13. Sony (Japan)
14. Dell
15. IDEO
16. BMW (Germany)
17. Intel
18. eBay
19. IKEA (Sweden)
20. Wal-Mart
21. Amazon
22. Target
23. Honda (Japan)
24. Research in Motion (Canada)
25. Southwest Airlines

Top 10 Organizations Receiving The Most U.S. Patents: 2005

1. IBM (2,941)
2. Canon (1,828)
3. Hewlett Packard (1,797)
4. Matsushita (1,688)
5. Samsung (1,641)
6. Micron Technology (1,561)
7. Intel (1,549)
8. Hitachi (1,271
9. Toshiba (1,258)
10. Fujitsu (1,154)

New Washington, D.C., Advocacy Group...

(Continued from page one)

faith to engage these issues with the union at our side and us by their side because it dramatically expands our political reach and our political power."

Funding for the effort is coming from a unique agreement made between the management of the large integrated steel mills and United Steelworkers. The latest collective bargaining agreement sets aside 10 cents per ton of steel produced to fund the "Stand Up For Steel" campaign, but it allots 2.5 cents of this amount to the new Alliance for American Manufacturing.

The steel industry relies on the health of all steel consuming sectors of the economy and believes there is not an adequate advocacy effort in the country addressing their concerns. With three million manufacturing jobs lost in the past five years and continued hemorrhaging, the group feels there is a crisis in need of attention.

"We're trying to do something about it and to speak with a louder, more organized voice than American manufacturers have to date," says Straub. So far, that advocacy effort "has been scattered at best and organizations that you would think you would typically rely on to carry the American manufacturers' message — we cite NAM as an example of this — are so conflicted that they are doing one of two things: they are representing a very select set of interests in the manufacturing community, i.e. the manufacturers who have figured out how to game the system by moving their production overseas and sending their products back over here, or they are not advocating at all."

The Alliance for American Manufacturing has hired Scott Paul from the AFL-CIO to be its executive director. But Straub points out that Paul's appointment does not mean the group will be articulating a liberal agenda. AAM is hiring personnel with strong credentials in Republican and Democratic organizations and intends to be non-partisan. "We don't want to be dismissed on the Hill as another labor-left organization," says Straub.

The group will promote policies to strengthen manufacturing in the United States and focus on issues where there is common agreement among Republicans and Democrats. It hopes to capitalize on the undercurrent of economic insecurity that expressed itself in the last election and of the strong desire for the two parties to work together to get things done for the benefit of the country.

It is also looking to possibly broaden its funding sources to include other industries that are unionized. Future collective bargaining agreements that include a funding mechanism for the alliance are being pursued in the rubber, tire, oil and chemical industries. The intention is "to expand this to other companies going forward," says Straub. "The purpose of the AAM is to review the dire straits of American manufacturing, the pressures we're under from foreign competitors who trade unfairly and to focus the intellectual piece of the advocacy on this problem."

It is funding work at the Economic Policy Institute to research how Chinese trade practices are impacting the country on a state-by-state basis with regards to job loss and the diminishment of economic activity.

"American manufacturing built the middle class and American manufacturing is in crisis," Straub says. "A number of us don't believe in this notion that the next generation of the economy will be built on services, pushing paper around on Wall Street or selling computer services around town. It's the manufacturers who hire all of these other services — banking, finance, computer. It's the American manufacturing base that puts value added in the world marketplace and gets a return."

LETTER TO THE EDITOR

The article in the December 15, 2006, issue of *Mfg. & Tech. News*, "Manufacturing Czar Takes Leave Before Facing A Congressional Storm," correctly stated that I am resigning my position as Assistant Secretary of Manufacturing and Services on January 31, 2007. As I step down from this position, I am proud of the accomplishments my team has made on behalf of the manufacturing and service sectors. We've laid a solid foundation for both sectors to remain competitive and prosper in the global marketplace.

The creation of my position shows the obligation this administration has for both the manufacturing and service sectors. Before, there was no entity or official within the federal government that solely focused on the competitiveness of these two very vital sectors of the American economy.

I do, however, take issue with the suggestion of your article that I resigned because of the leadership change in Congress. I tendered my resignation well in advance of the 2006 elections, but was asked to stay until the end of January.

During my service, I always welcomed an open, bipartisan dialogue with members of Congress, both Republicans and Democrats. It is productive for the American economy when our leaders engage in a civil, open debate on economic competitiveness. However, to imply that I resigned because of the leadership change is something that I would like to clear with your readers.

Before I agreed to serve the public, I made a commitment to myself as well as my family and felt obligated to honor that commitment. In addition, I do intend to remain active and engaged in helping the manufacturing and service sectors after my departure.

Thank you for the valuable insight and updates on America's manufacturers.

— Albert Frink
Former Assistant Secretary, Manufacturing and Services
United States Department of Commerce

Bush Administration Pulls Trigger On China

The federal government is getting tough with China over export subsidies that "unfairly impact U.S. manufacturers and their workers," says the Office of the United States Trade Representative. On Feb. 2, the USTR filed a "dispute settlement consultation" with the World Trade Organization over China's use of "market distorting subsidies" offered to Chinese and foreign companies manufacturing in China.

These subsidies are "creating an unfair advantage for China," says the USTR. They are forcing small- and medium-sized American manufacturers to "face particularly acute pressure from subsidized products as they compete against imports in the U.S. market and for export sales in other markets." Adds USTR Susan Schwab: "At its core, this case is about standing up for America's workers and manufacturers."

Various income and value-added tax breaks are providing Chinese exporters with an unfair advantage in a "wide range" of product categories including steel, wood, paper and information technologies, says the USTR. There are other incentives that reward Chinese firms for purchasing "domestic products instead of those from the United States," says the USTR.

"The United States has repeatedly raised its concerns about these subsidies in discussions with relevant Chinese officials," says the USTR. "Nevertheless, China has taken no steps to withdraw" measures that directly subsidize Chinese industry. "Several of the subsidy programs at issue appear to grant export subsidies, which provide incentives for foreign investors in China and their Chinese partners to export to the United States and other markets. These subsidies offer significant benefits and are available for all products made in China. The companies targeted for many of these subsidies, i.e., companies with some foreign participation, accounted for nearly 60 percent of China's exports of manufactured goods in 2005."

USTR says the case is "important" because "we are seeking to level the laying field to allow U.S. manufacturers to compete fairly with Chinese firms." The case is also a "fairly simple one," it says.

Commenting on the case, National Association of Manufacturers president John Engler said the United States "has shown five years of patience but time has run out. These WTO-illegal subsidies have no legitimate role in world trade." Engler said he was disappointed that Europe and Japan did not join with the United States in the case: "We hope that other countries will reconsider joining the case, recognizing that it is not fair to have the United States do all the heavy lifting."

Lots Of Power Behind Wind Power

The wind power generating industry is growing gangbusters in the United States. Wind power capacity in the United States increased by 2,454 megawatts of capacity in 2006, a 27 percent increase over 2005, and is forecast to increase by another 26 percent this year, according to the American Wind Energy Association. The exponential growth of the industry "reflects the nation's increasing demand for clean, safe domestic energy and continues to attract both private and public sources of capital," says the trade group. Investment in wind capacity totaled $4 billion last year.

Wind was one of the largest sources of new power generation in the country in 2006, second only to natural gas for the second year in a row. New wind farms boosted total U.S. installed wind energy capacity to 11,603 megawatts, enough to produce 31 billion kilowatt-hours of electricity and serve 2.9 million homes.

Texas accounted for nearly one-third of new wind power installed in 2006, taking over the lead from California in cumulative installed capacity. Texas hosts the world's single largest operating wind farm, the 735-megawatt Horse Hollow Wind Energy Center.

The top five states in new installations were Texas (774 megawatts), Washington (428 megawatts), California (212 megawatts) New York (185 megawatts) and Minnesota (150 megawatts). New wind turbine manufacturing plants opened in Iowa, Minnesota and Pennsylvania. Additional manufacturing plants are expected to open this year. A state-by-state listing of existing and proposed wind energy projects is available at http://www.awea.org/projects.

Aerospace Industry Is Flying High

The U.S. aerospace industry had a very good year in 2006. Revenues for the sector increased by $14 billion — or 8.4 percent — to $184.4 billion, a record level for the third year in a row, according to the Aerospace Industries Association. The industry added 23,000 new jobs, reaching a total of 635,000. The sector's trade surplus surged to $52 billion. Sales of military aircraft increased by $2.8 billion to $52.8 billion; space increased $1.3 billion to $38.6 billion; civil aircraft increased $8.3 billion to $47.5 billion. AIA projects total sales this year to increase 6 percent to $195 billion.

Mining Industry Digs Deeper Holes

The U.S. mining industry should continue to grow robustly, according to the National Mining Association. For the third consecutive year, coal production should set a new record in 2007. Global demand for copper and gold from U.S. mines should also remain strong, with copper production set to increase sharply this year. Gold is enjoying its longest bull market in decades.

U.S. coal mines are expected to produce 1.17 billion tons of coal in 2007, up from the 1.16 billion-ton-record set in 2006. Coal will maintain its 50.5 percent share of electricity generation.

Global copper production is expected to jump 6.8 percent in 2007 to 16.2 million metric tons, due primarily to strong demand from China. In the United States, 1.22 million

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Mining Industry...

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metric tons of copper were mined last year, the highest level since 2001. A 1 percent increase in U.S. production is expected in 2007, due to slower home building activity.

As for gold, "deteriorating political conditions and unrest, a relatively weak dollar and concerns over stubborn and growing U.S. trade and budget deficits are all expected to prolong the longest bull market for gold since the metal was first traded on the world market in 1977," says the mining association. "At the same time, demand continues to outstrip global gold production, a situation expected to continue with China's recent decision to legalize gold sales."

U.S. gold production ranked second in the world with Australia and behind South Africa. Demand in 2006 increased by 40 percent for investment gold; by 15 percent for gold used in jewelry; and by 46 percent for industrial use. Gold production in 2007 should be equal to or better than the 2006 level of 260 tons. "This output, while only 1.6 percent above the 2005 level, was the first annual increase in several years," says NMA in its forecast located at www.nma.org/pdf/012907_forecast.pdf.

Steel Imports Reach Record High

Steel imports set an all-time record in 2006, even though the U.S. industry was operating at an average capacity utilization rate of only 75 percent, says the American Iron and Steel Institute. Imports reached 45.3 million net tons in 2006, up 41 percent from 2005. During the month of December, imports of heavy structural steel shapes increased by 72 percent; imports of galvanized electrolytic sheet and strip were up by 71 percent.

"Finished steel imports from Asia, a region where inappropriate government market intervention and market-distorting trade practices remain a chronic problem, nearly doubled in 2006, up 95 percent versus 2005," says AISI. Imports from Taiwan increased by 208 percent; from Malaysia, 158 percent; from China, 133 percent; from Thailand, 111 percent; from India, 74 percent; South Korea, 55 percent; and Japan, 23 percent. Total steel imports from China reached 5.4 million net tons.

"When we look at surging imports from China and other countries with a history of market-distorting trade practices, it is clear our trade laws are in urgent need of strengthening," says AISI president and CEO Andrew Sharkey.

Huge Growth In Finance Ind.

The investment banking and securities industry is booming, according to the Census Bureau. Revenue for the sector increased from $127 billion in 2004 to $159 billion in 2005, a 25 percent increase in one year. Securities brokerage revenue rose from $116 billion in 2004 to $131 billion in 2005; revenue for portfolio management firms increased from $81 billion to $91 billion; the investment advice industry's revenues increased from $12 billion to $22 billion, and commodity contract brokerage revenue rose from $3.3 billion to $3.9 billion. To view the Census Bureau report entitled "2005 Service Annual: Securities, Commodity Contracts and Other Financial Investment Activities and Related Activities," go to http://www.census.gov/econ/www/servmenu.html.

Contraction In Textile Industry

The U.S. textile industry had a down year in 2006. Shipments fell 2 percent due to increasing competition that ensued after removal of global quotas in 2005, according to the National Council of Textile Organizations. Some sectors of the industry fared worse than others. Yarn, thread and fabric mills saw shipments fall by 7 percent. Employment in the textile sector fell sharply as well, declining by almost 7 percent with the loss of 35,000 jobs to 365,600. Total revenues declined by 2.3 percent, from $70.2 billion in 2005 to $68.6 billion in 2006. Imports, meanwhile, made hefty gains. Total imports increased by 9.2 percent, from 50.7 billion to 52.1 billion square meter equivalents. Textile and apparel imports from China increased by 11 percent. The trade balance in textiles further deteriorated by 4.4 percent from a negative $73.5 billion in 2005 to $76.7 billion in 2006. The negative textile and apparel trade balance with China increased by 14 percent from $23.8 billion in 2005 to $27.1 billion in 2006.

Telecom Industry Back On Track

The U.S. telecommunications industry grew by a healthy 9.3 percent during 2006, to total $923 billion in revenue, the fastest growth rate since 2000, according to the Telecommunications Industry Association. The worldwide telecommunications market grew by 11.2 percent in 2006 to total $3 trillion and is projected to reach $4.3 trillion by 2010.

"Demand for broadband and high-speed services is fueling this growth, as carriers invest in new fiber, new IP technology and new wireless infrastructure to provide state-of-the-art voice, video and data services," says TIA. Voice over Internet protocol, broadband video and new mobile data services are sparking new growth in the telecommunications industry. Cable modems and digital subscriber lines captured 96 percent of the broadband market in the United States last year. By 2010, 87 percent of Internet connections will be over broadband technology, which surpassed dial-up access in 2005.

U.S. network and enterprise equipment markets experienced a double-digit increase in revenue for the third straight year in 2006. "Accelerated fiber deployment is a principal catalyst for the market expansion," says TIA. More than 12 million miles of fiber were deployed in 2006, up 9.1 percent from 2005, when 10 million miles were deployed.

In the wireless market, voice traffic accounted for 90 percent of revenue last year, but wireless data and multimedia services are projected to make up 24 percent

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recent years as globalism becomes more pronounced, the U.S. economy is performing less well.

The report provides no information that would suggest that the gains measured over 20 years or more occurred because of globalism or that the economy is performing better today than in past periods.

Indeed, the report acknowledges under-performance in critical areas.

U.S. job creation in the 21st century is below past performance. Debt payments of Americans as a percent of their disposable incomes are rising while the savings rate has collapsed into dis-saving. Poverty rates have turned back up in the 21st century when the impact of globalism on Americans has been most pronounced.

A total critique of the competitiveness report would be as long, or longer, than the report's 100 pages. As this is beyond the capacity of the *Manufacturing & Technology News'* newsletter and readers' patience, I will limit my remarks to the most critical issues.

The report mentions many times that the United States is the driver of global growth without emphasizing that U.S. growth is debt-driven. Both the U.S. government and U.S. consumers are accumulating debt at a rapid pace. Debt-driven consumption is exceeding U.S. output by a sum in excess of $800 billion annually.

The trade and current account deficits are rapidly increasing the burden of debt service on Americans and threatening the dollar's role as reserve currency. The competitiveness report makes these negatives sound like America is leading the world by driving economic growth.

In the middle of the report there is a misleading chart that shows that "U.S.A. attracts most foreign direct investment" — in terms of dollars. The report asserts that "the United States remains a magnet for global investment" because of "America's high levels of productivity, strong growth and unparalleled consumer market."

This is one of the instances in which the report becomes totally propagandistic.

The report suggests, as do many careless economists, that foreign direct investment in the U.S. consists of new plant and equipment, which, in turn, is creating jobs for Americans. However, foreign direct investment in the United States consists almost entirely of foreign acquisitions of existing U.S. assets. Foreign direct investment is merely the counterpart of the huge American trade and current account deficits. America pays for its over-consumption in dollars which foreigners use to buy up existing U.S. assets. One result is that the income streams associated with the change of ownership now accrue to foreigners and, thereby, worsen the current account deficit.

The charts below and on the following page cannot be found in the competitiveness report. They are provided by Charles McMillion of MBG Information Services in Washington, D.C. The charts make it completely clear that foreign direct investment in the United States consists of foreign acquisition of existing

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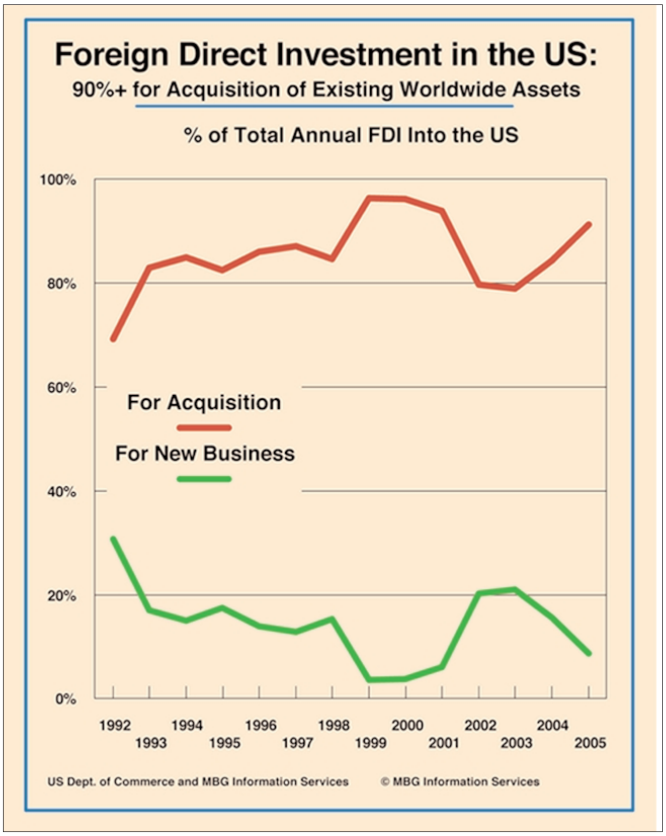

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Economists In Denial...

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U.S. assets. Foreign acquisition of existing U.S. assets hurts America by diverting income streams to foreigners.

Another fantastic error in Porter's report is the misleading claims about U.S. productivity growth. There is no chart in the report, such as the one provided by McMillion on page 12, that shows the extraordinary and widening divergence of U.S. productivity from real compensation.

Economists maintain that labor is paid according to its productivity, and historically this has been the case in the United States. The correlation began to break down with the advent of offshoring to the Asian Tigers and deteriorated further with the advent of offshoring of manufacturing and service jobs to China and India made possible by the collapse of world socialism and the advent of the high-speed Internet. The historical correlation between productivity and wages has been further eroded by the importation into the United States of cheap foreign skilled labor on work visas. Many Americans have been forced to train their foreign replacements who work for one-third less pay.

The greatest failure in the competitiveness report is the absence of mention of the labor arbitrage and its consequences when U.S. firms offshore their production for U.S. markets. This practice translates into direct job loss and direct tax base loss, and it transforms domestic output into imports. This is capital and technology chasing absolute advantage abroad. This cannot be considered trade based on resources finding their comparative advantage in the domestic economy.

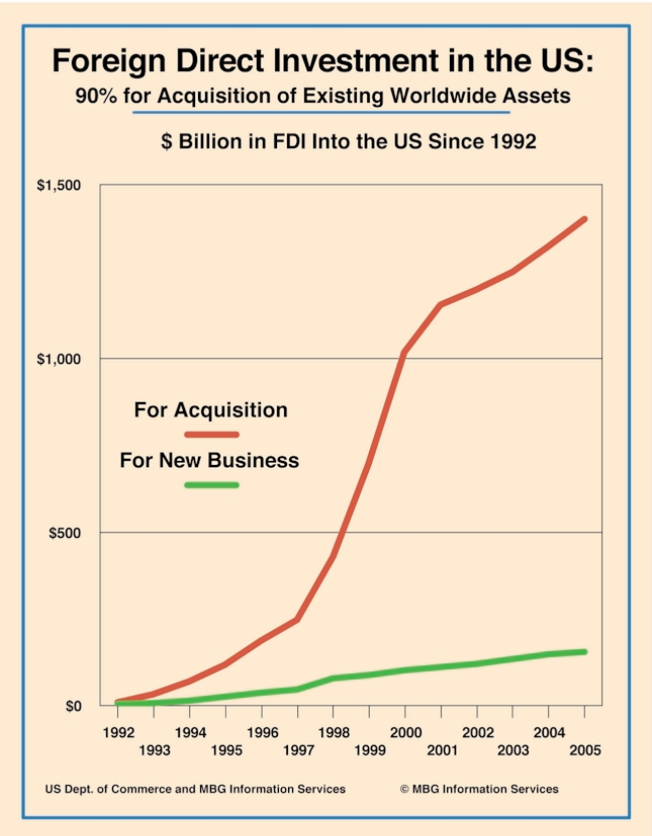
It is this replacement of U.S. workforces by foreign workers that explains the extraordinary rise in CEO compensation and the flow of most of the income and wealth gains to the few people at the top. By offshoring their workforces, CEOs cut their costs and make or exceed their earnings forecasts, thus receiving bonuses that are many multiples of their salaries. Shareholders also benefit. When plants are closed and jobs are offshored, American employees lose their livelihoods, but managements and shareholders prosper. Offshoring is causing an extraordinary increase in American income inequality.

> *"When I was Assistant Secretary of the U.S. Treasury in the early 1980s, U.S. foreign assets exceeded foreign-owned assets in the United States. By 2005 this had changed dramatically, with foreigners owning $2.7 trillion more of the U.S. than the U.S. owns abroad."*

The report acknowledges that "for the first time in history, emerging economies, such as China, are loaning enormous amounts of money to the world's richest country." Historically, it was rich countries that lent to underdeveloped countries. The truth of the matter is that China's loans to the United States are a form of forced lending. China is flooded with dollars from America's dependency on imports of Chinese manufactures and advanced technology products. There is nothing that China can do with the dollars except to purchase existing U.S. equity assets or lend the dollars back to the United States by purchasing Treasury debt. With China's currency pegged to the dollar, China cannot dump the dollars into foreign exchange markets without initiating a run on the dollar and complaints that China is increasing its competitive advantage over the rest of the world.

When I was Assistant Secretary of the U.S. Treasury in the early 1980s, U.S. foreign assets exceeded foreign-owned assets in the United States. By 2005 this had changed dramatically, with foreigners owning $2.7 trillion more of the U.S. than the U.S. owns abroad. For the first time since the United States was a developing country 90 years ago, the country is paying more to foreign creditors than it is receiving from its investments abroad.

The report downplays the extraordinary trade and current account deficits on the grounds that "foreign affiliate sales" do not count against the trade deficit and "intra-firm trade" is a significant proportion of the trade



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Economists In Denial...(From page 11)

deficit and "is due to trade within American companies."

This argument shows that the report is written from the standpoint of what is good for global firms, not what is good for America.

It made some sense when General Motors claimed that what is good for General Motors is good for America, because when the claim was made General Motors produced in America with American labor. It makes no sense to make this claim today when what is good for a company is achieved at the expense of the American work force.

"Intra-firm trade" is simply a company's products and inputs produced in its offshore plants, and "foreign affiliate sales" is simply a company's overseas earnings from its production in foreign countries with foreign labor.

Perhaps Porter is arguing that the output of an American subsidiary in Germany, for example, should be considered part of U.S. GDP. Such an accounting would result in a magical increase in U.S. GDP and drop in German GDP. If success is defined in terms of the country in which the ownership of the profits of global firms resides, then a country can be successful with its labor force unemployed.

The competitiveness report owes much of its failure to an abstraction — "the global labor supply." There is no global labor market that equilibrates wages in the different countries. There are only national labor markets in which wages reflect cost of living and labor supply.

For example, in China, the cost of living is low, and excess supplies of labor suppress manufacturing wages below the productivity of labor. In the United States, the cost of living and debt levels are high, and the labor market (except for those parts hardest hit by offshoring) is not confronted with large excess supplies of labor. It is possible for a U.S.-based firm to hire someone living in China or India to deliver services over the Internet at a fraction of the cost of hiring an American employee. Alternatively, foreigners can be brought in on work visas to replace American employees. Manufacturing plants can be moved abroad where excess supplies of labor keep wages far below productivity. These are all examples of capital seeking absolute advantage in lowest factor cost.

The report makes the false claim that the future of U.S. competitiveness depends on education. Although the United States has 17 of the world's top 20 best research universities, Porter sees education as the number-one weakness of the U.S. economic system. The report envisions a high-wage service economy based on imagination and ingenuity. Here the competitiveness report fails big time, because it fails to comprehend that all tradable services can be offshored.

In the 21st century, the U.S. economy has been able to create net new jobs only in non-tradable domestic services — see http://vdare.com/roberts/061009_newface.htm. The vast majority of jobs in the BLS ten-year jobs projections do not require a college education. The problem in 21st century America is not a lack of educated people, but a lack of jobs for educated people.

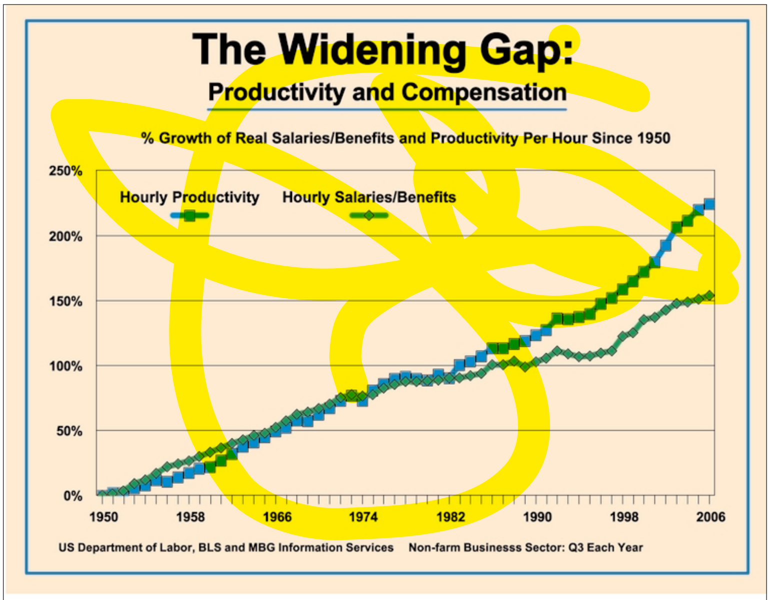
Many American software engineers and IT professionals have been forced by jobs offshoring to abandon their professions. The November 6, 2006, issue of *Chemical & Engineering News* reports that "the percentage of American Chemical Society member chemists in the domestic workforce who did not have full-time jobs as of March of this year was 8.7 percent." There is no reason for Americans to pursue education in science and technology when career opportunities in those fields are declining due to offshoring.

Porter says the future for America cannot be found in manufacturing or tradable goods, but only in what he says are high-wage service skills in "expert thinking" and "complex communication." The report does not identify these jobs, and scant sign of them can be found in the BLS jobs data.

Princeton University economist Alan Blinder, former vice chairman of the Federal Reserve, writes that "we have so far barely seen the tip of the offshoring iceberg, the eventual dimensions of which may be staggering" (*Dallas Morning News*, January 7, 2007). Elsewhere, Blinder has estimated that as many as 50 million jobs in tradable services are at risk of being offshored to lower-paid foreigners.

Like Porter, Blinder says that America's future lies in service jobs. The good service jobs will be those delivering "creativity and imagination." Blinder understands that the education solution might be a pipe dream as such abilities "are notoriously difficult to teach in schools." Blinder also understands that "it is hard to imagine that truly creative positions will ever constitute anything close to the majority of jobs." Blinder asks: "What will everyone else do?"

Blinder acknowledges that considering the



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Economists In Denial...

(From page 12)

wage differentials between the United States and India, Americans will find employment only in services that are not deliverable electronically, such as janitors and crane operators. These hands-on service jobs do "not correspond to traditional distinctions between jobs that require high levels of education and jobs that do not."

Blinder's prediction of the future of American employment is in line with my own and that of the Bureau of Labor Statistics. Where Blinder falls down is in not seeing the implication of these trends on the U.S. trade deficit. A country whose workforce is employed in domestic non-tradable services is a Third World country with nothing to export. How will the United States pay for its heavy dependence on imports of manufactured goods and energy?

As long as the dollar retains its reserve currency role, Americans can continue to hand over paper for real goods and services. But how long can the United States retain the reserve currency role when its economy does not make things to export; when its work force is employed in domestic services; and when its foreign creditors own its assets?

Blinder, like Porter and almost every other economist, warns against trying to prevent America's descent into a Third World existence. Blinder says protection would block trade and "probably do a great deal of harm." But both Blinder and the competitiveness report show a great deal of harm being done to Americans by offshoring the production of goods and services for American markets. As more and more high value-added U.S. occupations in tradable services are undercut by offshoring, the ladders of upward mobility that made America a land of opportunity are taken down. As the bulk of domestic service jobs do not require a university education, the United States will find itself over-invested in educational institutions and decline will set in.

For developed economies, offshoring is a reversal of the development process. As offshoring progresses, the domestic economy will become less developed and have less demand for university education.

Economists cannot speak the obvious truth, because they mistake the operation of absolute advantage for comparative advantage. The case for free trade rests on the comparative advantage argument that countries that specialize in what they do best and trade for goods that other countries do best share in the gains from trade and experience higher standards of living.

In 2000, the case for free trade came under powerful attack when MIT Press published "Global Trade and Conflicting National Interests" by Ralph Gomory and William Baumol. This work shows that the case for free trade has been incorrect since the day David Ricardo made it. Economists have not come to terms with this important work, and they will resist doing so for as long as they can as it demolishes their human capital.

The challenging work by Gomory and Baumol aside, I have shown, as has Herman Daly, that the two conditions on which comparative advantage depends no longer hold in the present-day world. One condition is that capital must be immobile internationally and seek its comparative advantage in the domestic economy, not move across international borders in search of lowest factor cost. The other condition is that countries have different relative cost ratios of producing tradable goods.

Today, capital is as mobile internationally as tradable goods, and knowledge-based production functions operate identically regardless of location. Neither of the conditions upon which the case for free trade rests exists in the present-day world.

As the necessary conditions for the free-trade case no longer exist, and if the case for free trade has been wrong from the beginning as Gomory and Baumol maintain, then America's free trade policy rests in fantastic error.

Economists long ago ceased to think objectively about free trade. Free trade has become an unexamined article of faith. As far as I can ascertain, economists no longer are even aware of the necessary conditions specified by Ricardo that are the basis for the free trade case.

Economists have made a number of blunders in their arguments seeking to protect offshoring from criticism. For example, Matthew Slaughter, a member of President Bush's Council of Economic Advisors, penned a study that concluded: "For every one job that U.S. multinationals created abroad in their foreign affiliates,

(Continued on next page)

Council On Competitiveness: "U.S. Research Universities Lead the World and Serve As Centers for Regional Innovation"

U.S. Universities Dominate World Rankings Based On Research Performance

1. Harvard University
2. University of Cambridge (UK)
3. Stanford University
4. University of California, Berkeley
5. Massachusetts Institute of Technology
6. California Institute of Technology
7. Columbia University
8. Princeton University
9. University of Chicago
10. University of Oxford (UK)
11. Yale University
12. Cornell University
13. University of California, San Diego
14. University of California, Los Angeles
15. University of Pennsylvania
16. University of Wisconsin, Madison
17. University of Washington, Seattle
18. University of California, San Francisco
19. Tokyo University (Japan)
20. Johns Hopkins University

(Source: Council On Competitiveness, "Competitiveness Index: Where America Stands," Institute of Higher Education, Shanghai Jiao Tong University Academic Ranking of World Universities 2006.)

Economists In Denial...(From page 13)

they created nearly two U.S. jobs in their parent operations." How did Slaughter arrive at this conclusion — a conclusion that can find no support in the BLS jobs data? Slaughter reached his incorrect conclusion by failing to take into account the two reasons for the increase in multinational employment. One is that multinationals acquired many existing smaller firms, thus raising multinational employment but not overall employment. The other is that many U.S. firms established foreign operations for the first time and thereby became multinationals, thus adding their existing employment to Slaughter's number for multinational employees.

Another problem is that the corruption of the outside world has found its way into universities. Today, universities look upon "name" professors as rainmakers who bring in funds from well-heeled interest groups. Increasingly, research and reports serve the interests that finance them and not the truth. Money rules, and professors who bring money to universities find it increasingly difficult to avoid serving the agendas of donors.

When a country gives up producing tradable goods, it gives up the occupations associated with manufacturing. Engineering and R&D move away with the manufacturing. It is impossible to innovate independently of the manufacturing and R&D base. Innovation is based on state-of-the-art knowledge of what is being done, and if the doing is done elsewhere, the innovator will find himself at a disadvantage.

Offshoring is causing dire problems for the United States. I have suggested that one necessary reform will be to break the connection between CEO pay and short-run profit performance. As long as CEOs can get filthy rich in a few years by dumping their U.S. workforce, the trade deficit will continue to rise, and more college graduates will be employed as waitresses and bartenders.

The short-run time horizon of U.S. management endangers the long-term viability of U.S. firms. This short-run time horizon is the result of a "reform" that sought to give investors the most up-to-date financial information. The reformers did not consider the unintended consequences.

Economists need to inject some realism into their dogmas. The U.S. economy did not develop on the basis of free trade. Whatever the costs of protection, the costs did not prevent America's economic rise.

Much American economic thinking is grounded in the fact of America's past success. Many economists take it for granted that as long as the U.S. has free markets, it will continue to be successful. However, much of America's success is due to World War I and World War II, which bankrupted rivals and destroyed their industrial capacity. It was easy for the United States to dominate world trade after World War II as America was the only country with an intact economy.

Many economists dismiss the problems with which offshoring confronts developed economies with the argument that it is just a question of wage equilibration. As wages rise in China and India, the labor cost differential will disappear and wages will be the same everywhere. This argument overlooks the lengthy period required for the hundreds of millions of workers, who overhang labor markets in India and China to be absorbed into the workforce. During this time, hardships in currently high-wage countries will be severe. Moreover, once the wage adjustment is complete, the new developed countries will have the upper hand. Will they give up their competitive and strategic advantages?

For developed economies, offshoring is a reversal of the development process. As offshoring progresses, the domestic economy will become less developed and have less demand for university education.

In the July 2006 issue of *CounterPunch*, I wrote that jobs offshoring was the new form of class warfare and that it was bringing political instability and social strife to the United States. There is nothing in the Council on Competitiveness' latest report to cause me to alter my view.

— Dr. Roberts held the William E. Simon Chair in Political Economy at the Center for Strategic and International Studies at Georgetown University and was Senior Research Fellow in the Hoover Institution at Stanford University. He served as Assistant Secretary of the U.S. Treasury in the Reagan administration.

Telecommunications...(From page nine)

of all wireless revenue by 2010.

The TIA's "2007 Telecommunications Market Review and Forecast," $1,295 for non members, is available at http://www.tiaonline.org.

Record Year For Semiconductors

Last year as a very good one for the global semiconductor industry. Spurred by the sale of one billion cell phones, the industry increased sales by 9 percent to a new record of $248 billion, up from $227 billion in 2005, according to the Semiconductor Industry Association. Consumer electronics propelled the industry. Thirty-four million MP3 players were sold in the United States. The sale of HDTV sets more than doubled. A total of 235 million personal computers were sold globally. The semiconductor industry spent about 22 percent of revenues on capital additions in 2006. SIA predicts growth this year of 10 percent to $274 billion.