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The Economic State Of The Union — 2008

BY CHARLES McMILLION

In just the past seven years, U.S. household debt almost doubled and federal debt soared by near two-thirds, rocketing by a combined \$10.5 trillion. The total combined debt of households (\$14.4 trillion) and the federal government (\$9.2 trillion) is now 168 percent of CDP far higher even than in the brief spike during World War II. All other levels and ratios of debt also have soared far beyond any past precedent.

Yet, this record-shattering explosion of debt stimulus created the weakest seven-year job growth (4.4 percent) and one of the weakest periods of real GDP growth (18.1 percent) since the Depression: less than 6 million new jobs (\$1.8 million of debt per job) and a mere \$4 trillion increase in GDP.

This period began with the collapse of Wall Street's stock market bubble from the late 1990s and ends now with the collapse of Wall Street's housing and other debt bubbles. That such massive mortgage and consumer borrowing, tax cuts and war spending produced such remarkably weak real economic results suggests the months and years ahead could be quite difficult.

Yet, along with the Fed rate cuts for cheaper debt, the only policies seriously considered by this year's crop of Wall Street-funded political candidates is more short-term household and federal debt "stimulus." Locked into a failed, 30-year-old ideology of deregulation and debt, there is still no option to compete with the remarkably effective industrial and trade policies pursued by China and others.

2008 will be the ninth consecutive year the U.S. economy grows slower than the world's growth while China grows more than three times faster. In the past seven years of sluggish growth, the United States accumulated manufacturing trade deficits (production shortfalls) of over \$3 trillion with full current account (Continued on page six) Volume 15, No. 2

FAREWELL TO SUPPLY-SIDE ECONOMICS

A Stimulus To What? Delusions Prevail In Washington

BY PAUL CRAIG ROBERTS

With his tax rebate policy, President Bush has put economic policy back on a Keynesian basis. Will it work? During the two decades it was in effect, supply-side economics had restorative effects on the American economy. Its predecessor, Keynesian demand management, stimulated demand more than supply. Consequently, over time the trade-offs between employment and inflation worsened, and for a while it appeared that inflation and unemployment would rise together. The breakdown of the Keynesian policy opened the door for the Reagan administration's supply-side approach.

By following Nobel economist Robert Mundell's advice to "reverse the policy mix," the supply-side policy allowed the U.S. economy to grow without paying for the growth with rising rates of inflation. However, the new macroeconomic policy was not a cure-all, and its success in banishing worsening "Philips curve" trade-offs between inflation and employment masked the appearance of new problems, such as the loss of jobs and GDP growth to offshoring, problems from deregulation, and the growing concentration of income in fewer hands.

The Bush administration is turning to tax rebates, because problems in the financial system and the amount of consumer debt hinder the Federal Reserve's ability to pump money to consumers through the banking system. Like an easy credit, low interest rate policy, the purpose of a tax rebate is to

Letter To The Editor: Reflections On GE's Strategy

The lead line in the Nov. 30, 2007, Manufacturing & Technology News article about General Electric CEO Jeffrey Immelt — "A downturn in the U.S. economy shouldn't hurt General Electric" — raises questions about the destruction of the United States economy and the dark side of globalization. It suggests that the decades-old concept of what is good for the country's leading companies is good for the nation is dead. The mutually beneficial relationship between companies and the American society is gone.

If one accepts the notion that the sole criteria for success of a corporation is to increase shareholder value, then all of the perspectives presented by Mr. Immelt are consistent. But over the past decade, an increasing number of Americans are contesting this premise and believe that a co-equal objective of corporations is to return benefits to the nation that makes their existence possible. Of all the issues raised by Mr. Immelt's remarks, his failure to recognize a responsibility to the nation and its citizens is the most disturbing.

Mr. Immelt says the U.S. economy is still important, "but not like it was five, 10, or 15 years ago." In the global context, he is correct. But the U.S. economy is the economy in which I live, work and save. It is the economy I hope to pass to my children in healthy condition. Mr. Immelt implies that the welfare of GE is more important than the welfare of the nation.

Mr. Immelt's predecessor's goal was to make GE the highest valued corporation in the world. The strategy required GE to sell off divisions that were experiencing aggressive price competition and move into high-margin businesses. GE has thus morphed from one of the world's great manufacturing companies into a hybrid banking, entertainment, leasing and specialty high-margin products company. It moved out of television, automation and engineered plastics, where I once worked. It is remarkable how Asian companies have successfully moved into those product categories and achieved unprecedented growth.

BY NELSON HOFFMAN

The second conclusion from the article is that GE and all other companies are penalized by Wall Street if they elect to compete in fast growing, highly price-competitive product sectors. The strategies adopted by many multinational corporations to manufacture abroad, pay low wages and accept subsidies from foreign governments are the consequence of this system, which, along with illegal immigration, keeps a constant, powerful pressure on the wages and salaries of every U.S. worker from Ph.D. to field laborer. It also makes every CEO subject to the allure of foreign nations providing them with capital. Most significantly, these companies are led to abandon the enduring cost advantage of high-volume production.

The statistics say the financial sector is now equal in size to the manufacturing sector. It is hard to believe that the manipulation of money has replaced the creation of old-fashioned profits through hard work and investment in plants and equipment. In previous decades, high consumption combined with high-volume production provided a perfect match for the world's exemplary democracy — a match that distributed the benefits of industry to all "stakeholders." False trade and economic theories of recent times have destroyed that

balance. I would ask Mr. Immelt if that same balance — the same wealth distribution — exists today.

It is incontrovertible that no U.S. corporation can compete against Asian governments whose basic purpose is to create industries and jobs in their nations. It is beyond rational thought that a country with wages and salaries that are two orders of magnitude higher can compete.

It is incongruous for a leader of a major American company to work with a totalitarian regime that has an organized industrial strategy aimed at achieving industrial dominance over that company's home nation, which has no industrial plan whatsoever. Where is the State Department in this equation? Who rules the stage? The Commerce Department is the lackey, while it negotiates with nations that have well organized industrial policies, such as Japan, Korea and China.

Why are Mr. Immelt and the Walton family, the owners of Wal-Mart, involved in foreign negotiations that are detrimental to the interests of America and Americans? The nation rises in anger when Jesse Jackson negotiates with the Palestinians. Why does it not do so when unelected corporate leaders negotiate with foreign nations for parochial interests at the expense of American workers? Mr. Immelt is doing a great job working

(Continued on page five)

NAM HIRES WORKFORCE CHIEF

Emily DeRocco, the Assistant Secretary of Labor for Employment and Training, is jumping ship and has taken a job with the National Association of Manufacturers. DeRocco, the Bush administration's leading advocate for the creation of a skilled manufacturing workforce, will become president of the Manufacturing Institute's National Center for the American Workforce and a senior vice president of the NAM. Prior to her appointment in the Bush administration in 2001, DeRocco was the chief executive officer of the National Association of State Workforce Agencies. During the Reagan administration she served as director of external affairs both at the Department of Interior and the Department of Energy. DeRocco is a graduate of Pennsylvania State University and received her law degree from Georgetown Law School in 1982. "The government's loss is our gain," says NAM president John Engler. "The NAM has made substantial progress through our Dream It! Do It! campaign encouraging bright young people to pursue careers in modern manufacturing. Emily will take this excellent program to a higher level as we create an enticing career path into the future that millions of our best and brightest young people will want to pursue."

Manufacturers Implored To Look Overseas For Sales

"Manufacturers adhering to old supply-chain rules are putting their businesses in jeopardy by not adapting to new rules" that have come about due to the "pressure of a globalizing economy," according to a report from the National Association of Manufacturers' Manufacturing Institute. Small- and medium-sized manufacturers have a unique opportunity to start growing their companies, but only if they begin to expand sales overseas and transform their internal processes to take advantage of lean management systems, product innovation and green manufacturing trends. Supply chains are being replaced by "value chains," says the NAM report.

Small- and medium-sized businesses must now think "well beyond traditional supply-chain arrangements and begin close collaborations with other suppliers and customers," says the report authored by RSM McGladrey, an accounting firm specializing in smalland medium-sized enterprises. "Companies harnessing this new value chain are thriving and laying productive foundations for their futures."

Small- and medium-sized companies "may believe that their firms' growth potential is limited," but if managers and owners take the time to "look up" from their daily grind, they will see "how their companies might profit from this shift," says the report. "Companies must navigate cultural barriers, language difficulties, financing challenges and unknown regulatory, tax and compliance issues. Savings from process improvements such as lean become more important than ever before. Large companies are handing off much of their innovation to SMMs who in the past merely built to specifications. It might seem like a safe approach to focus solely on the sourcing side through strategies such as outsourcing or procuring imported components, but safe is not sound. It is imperative the SMMs also look at the sell side, and the tremendous opportunity for growth this might offer. Going global is not without

risk, but competing in the United States against increasingly global competition is no picnic either."

Small- and medium-sized manufacturing companies wanting to be part of the new global valuechain must "cultivate an innovation culture by offering unique incentives and rewards to employees who bring forth innovative ideas," says the report. They must create new partnerships that enable them to sell to overseas customers. They can find help through the resources offered by the Manufacturing Extension Partnership (MEP) run by the National Institute of Standards and Technology, the U.S. Foreign Commercial Service and numerous

other government programs that are underutilized.

"Too many SMMs have shied away from finding overseas markets for their products," says the study. "There is no magical potion that will transform your business into a valuechain success overnight, but to succeed in today's value chain, one thing is clear: Managers need to line up new partners....By connecting with outside resources - partners within your industry and overseas suppliers, customers, your customer's customers, government, academia - SMMs can swiftly expand their core competencies and gain economies of scale.'

For a copy of the 65-page report, "Forging New Partnerships: How To Thrive in Today's Global Value Chain," set your browser to http://www.nam.org/s_nam/bin.asp? CID=216&DID=239787&DOC=FI LE.PDF

China Deals With Higher Labor Costs

A new labor contract law that went into effect in China on January 1 could increase costs of manufacturing, according to a report from the AHN news service in Beijing, China. The 98-article law approved last June allows Chinese workers with more than 10 years of service to sign contracts that protect them from dismissal without cause, employer contributions to social security accounts, wage standards and overtime pay.

"Higher operating costs may drive manufacturers out of China and dampen investment in manufacturing facilities," AHN quotes Auret van Heerden, head of the Fair Labor Association. "Because of the new labor law, Olympus and Yue Yuen Industrial Limited have started to shift some of their operations to Vietnam to reduce costs. Olympus is the world's fourth largest maker of digital cameras, while Yue Yuen manufactures foreign rubber shoes for companies like Nike.

Stanley Lau, vice chairman of the Federation of Hong Kong Industries, predicted factory closures in 2008 because the new law makes it hard for foreign firms to employ temporary workers, a cost-cutting measure adapted by production facilities to cope with fluctuations in orders. To go around the law, some companies terminated contracts and asked workers to resign ahead of its New Year's Day implementation. Huawei Technologies Company, China's largest producer of telecommunications equipment, offered 7,000 employees new contracts with new benefits on the condition that they will terminate their old agreements, company spokesman Ross Gan told Bloomberg in an e-mail.

MFG.com Taps Into Venture Wealth

MFG.com, the Atlanta-based global online market for manufactured parts, has received \$26 million in venture funding from Fidelity Ventures, Fidelity Asia Ventures and European Founders Fund. The money will be used by MFG.com to expand globally, invest in new technology, create new online services and buy other companies. The company says it has become the largest online manufacturing marketplace in the world. It supports 10 languages and 12 currencies "allowing its members to connect instantly without geographical or technologic barriers," says the company. It has 100,000 registered buyers and suppliers able to work together by exchanging engineering drawings and CAD files.

Stimulus...(Continued from page one)

put money in consumers' hands in order to boost consumer demand.

Will consumers spend the rebate, or will they use it to pay down their debts? If they spend the rebate on consumer goods, will it provide much boost to the economy? Many Americans are overloaded with debt and will have to use the rebate to pay down credit card debt. The gift of \$800 per means-tested taxpayer is really just a partial bailout of heavily indebted consumers and credit card companies.

The percentage of the rebate that survives debt reduction will be further drained of effect by Americans' dependency on imports. According to reports, 70 percent of the goods on Wal-Mart shelves are made to China: During 2006, Americans spent \$1.86 trillion on imported goods, that is, 23 percent of total personal consumption expenditures were spent on imports (including offshored goods). This means that between one-fifth and one-fourth of new consumption expenditures will stimulate foreign econømies.

Americans worry about their dependency on imported energy, but the \$143 billion paid to OPEC in 2006 is a small part of the total import bill. Americans imported \$603 billion in industrial supplies and materials; \$418 billion in capital goods; \$257 billion in automotive vehicles, parts and engines; \$424 billion in manufactured consumer goods; and \$75 billion in foods, feeds and beverages.

The Keynesian policy of driving the economy through consumer demand was applied to a different economy than the one we have today. In those days the goods Americans purchased, such as cars and appliances, were mainly made in America. Construction workers were not illegals sending their wages back to Mexico. The U.S. had a robust manufacturing workforce. When consumer demand weakened, companies would reduce their output and lay off workers. Government policymakers would respond to the decline in employment and output with monetary and fiscal policies that boosted consumer demand. As consumer spending picked up, companies would call back the laid off workers in order to increase output to meet the rising demand.

Today Americans are losing jobs for reasons that have nothing to do with recession. They are losing their jobs to offshoring and to foreigners brought in on work visas. Today many American brands are produced offshore in whole or part with foreign labor and imported to the United States for sale in the American market. In 2007, prior to the onset of the 2008 recession, 217,000 manufacturing jobs were lost. The United States now has fewer manufacturing jobs than it had in 1950 when the population was half the current size.

U.S. job growth in the 21st century has been confined to low-pay domestic services. During 2007, waitresses and bartenders, health care and social assistance, and wholesale and retail trade, transportation and utilities accounted for 91 percent of new private sector jobs.

When a population drowning in debt is hit with unemployment from recession on top of unemployment from offshoring, will the people spend their rebates in eating places and bars, thus boosting employment among waitresses and bartenders? Will they spend their rebates in shopping malls, thus boosting employment for retail clerks? If they become ill, the lack of medical insurance will direct their rebates to doctors' bills.

Economists and other shills for globalism told Americans not to worry about the loss of manufacturing jobs. Good riddance, they said, to these "old economy" jobs. The "new economy" would bring better and higher paying jobs in technical and professional services that would free Americans from the drudgery of factory work. So far, these jobs haven't shown up, and if they do, most will be susceptible to offshoring, just like the manufacturing jobs.

The Bush administration has in mind a total rebate of \$150 billion. As the government's budget is already in deficit, the money will have to be borrowed. As the U.S. saving rate is about zero, the money will have to be borrowed abroad. Foreigners are already concerned about the U.S. government's indebtedness, and foreigners are bailing out some of our most important banks and Wall Street firms that foolishly invested in subprime derivatives.

Under pressure from budget and trade deficits, the U.S. dollar has been losing value against other traded currencies. Having to borrow another \$150 billion abroad will further erode the dollar's value.

Meanwhile, Congress passed a \$700 billion "defense" bill so that the Bush administration can continue its wars in the Middle East.

Our leaders in Washington are out to lunch. They have no idea of the real challenges our country faces and America's dependence on foreign creditors.

The rebate will help Americans reduce their credit card debt. However, adding \$150 billion to an existing federal budget deficit that will be worsened by recession could further alarm America's foreign creditors, traders in currency markets, and OPEC oil producers. If the rebate loses its punch to consumer debt reduction, imports, and pressure on the dollar, what will the government do next?

As long as offshoring continues, the U.S. cannot close its trade deficit. Offshoring increases imports and reduces the supply of potential exports. With Washington's Middle East wars, with private companies ceasing to provide health coverage and pensions, with political spending promises in an election year, and with recession, the outlook for the federal budget deficit is dismal as well.

The U.S. is moving into a situation in which the government could find it impossible to close the twin deficits without massive tariffs to curtail imports and offshoring and without pursuing peace instead of war. The outlook for the United States will continue to worsen as long as hegemonic superpower and free trade delusions prevail in Washington.

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. www.MANUFACTURINGNEWS.COM

Invest Now In Transportation Network

The United States faces a transportation investment crisis that must be reversed, otherwise the competitiveness of the nation is at stake, according to the final report from the National Surface Transportation Policy and Revenue Study Commission. The United States has outgrown its current transportation network that is fraught with congestion and is in disrepair, and it is not investing enough to handle a population that will grow by 150 million people over the next 50 years. Moreover, 43,000 Americans are dying every year in traffic deaths — the "consequence of inaction," says the panel. There is one high-speed rail line in the entire United States.

"We need to invest at least \$225 billion annually from all sources for the next 50 years to upgrade our existing system to a state of good repair and create a more advanced surface transportation system to sustain and ensure strong economic growth for our families," says the report issued on Jan. 17. The country is spending less than 40 percent of this amount today. It recommends the federal fuel tax increase by between 25 cents and 40 cents per gallon. "We cannot sit back and wait for the next generation to address these ever-increasing needs. We need to create and sustain the pre-eminent surface transportation system in the world. Now." The report is located at http://www.transportationfortomorrow.org.

Letter To Editor...(From page two)

the system. In going to China, he is filling a void created by our inept trade representatives.

When it comes to national strategy, I have observed the 30-year, continuous success of Japan's Ministry of International Trade and Industry. Mr. Immelt says we have learned all that we can from the Japanese, but he is mistaken. Japan holds \$1.1 trillion of our national debt. I think we have a helluva lot more to learn!

After 25 years of intense involvement in globalization I have concluded that if the United States continues to offer 100 percent open markets to all comers, then the wages and salaries in America must be lowered to those of Asia. When the labor content of a semiconductor was significant, it was understandable to put foundries in Asia. Intel's acceptance of a \$1-billion subsidy to locate a new foundry in China clearly illustrates the new competitive landscape: other nations are willing to buy industries and companies pirated from the United States. The result: The benefits offered by companies to their American workers in the form of health care costs and retirement are being dumped.

Past efforts to improve the competitiveness of the United States have been, at best, a partial success, bordering on failure. The notion that the government and our corporate entities are enemies is sad. Their lack of cooperation, compared to the intimate relationships that exist between the private and public sectors of export-based nations, is one of the principle causes of America's \$15-trillion debt "hole."

Mr. Immelt mentions that there is a "backlash" to globalization. "Backlash" is a sound bite intended to demean the 30 million Americans who have lost their livelihood — to speak nothing of the towns, cities and counties devastated to rust belt status. This is a very legitimate constituency. Its voice has as much right in the marketplace as his. These millions of Americans haven't

Europe Gives Auto Firms CO₂ Break

The European Parliament has voted in favor of a European automobile industry request to lengthen the time it is being provided to reduce carbon emissions from new automobiles. The so-called Competitive Automotive Regulatory System for the 21st Century (CARS 21) asked that the average target for carmakers should be 125 g/km of CO₂ emissions by 2015, rather than the EC proposal of 120 g/km by 2012.

To view the report, "A Competitive Automotive Regulatory Framework for the 21st Century — Commission's Response to the CARS 21 High Level Group Final Report: Impact Assessment Report," go to http://ec.europa.eu/ enterprise/automotive/pagesbackground/ competitiveness/cars21.htm.

bought into the theory of "creative destruction" that underpins the globalists' philosophy. They don't accept "Create in China / Destroy in the United States."

Let us also discard other empty sound bites like, "The nation that governs least governs best," and replace it with, "A nation that governs best wins." Or "it is not the job of government to pick winners and losers." Rather, the lack of a coordinated industrial policy has made for many losers and a few winners. Without an industrial policy, economic development has been dumped on state governments that are ill-equipped to compete on a global stage.

When Jack Welch decided GE couldn't be competitive in TV sets; when the president of Ampex decided it didn't want to make VCRs; and when IBM ceded laptops to Lenovo, we created the self-fulfilling prophesy: that the United States would not make things electronic — the hardware of the information age. That decision is typical of the decisions that underlie the evergrowing trade deficit.

Having abandoned these lucrative fields the United States MUST get back into the ball game and return to the common sense notion that a nation must make what it consumes. Hopefully, our country will realize this before economic disaster — that we must initiate an era of re-industrialization centered on the creation of a new generation of energy efficient, environmentally compatible products. If not, then the United States will continue its slide into the status of a Third World country; a colony of the Asian powers.

Nelson Hoffman is the retired chairman of Brice Manufacturing Co.; chairman of "Summit 1992 — Making it in America"; author of "Virtue and Values for the Twenty First Century — Renewing America's Character and Spirit" and a board member of the recently created Coalition for a Prosperous America. He can be reached at nhoffman1@dc.rr.com.

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Economic State Of The Union...

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trade losses of \$4.3 trillion; more than the entire nominal growth of GDP.

At the same time, now in the third year of their remarkable eleventh Five-Year Development Plan, China's accumulated Current Account surplus soared by nearly \$1 trillion since 2001, near 13 percent of GDP in 2007. These surpluses are funding China's now \$1.5trillion war chest of foreign currency reserves.

Record trade losses have accelerated the hollowing-out of the once dynamic U.S. economy. For the first time on record, in 2002 the United States lost its historic global trade surplus in advanced technology products (ATP). Worsening sharply, since 2004 the ATP deficit became larger than the U.S. trade surplus for intellectual property services, royalties and fees. That is, for the past four years the United States has a worsening combined deficit in technology goods and services. Technology no longer pays any part of the U.S. Import bills for oil, cars, electronics and clothing, etc. China now accounts for half the U.S. manufacturing trade deficit and more than the entire deficit in technology.

Reflecting the production shortfall from the trade deficits, BLS data show output growth since 2001 is among the weakest since the Depression and the gain in total hours worked (just 0.5 percent) is, by far, the weakest. This is why productivity growth has appeared misleadingly healthy; productivity is a measure of output per hour of labor.

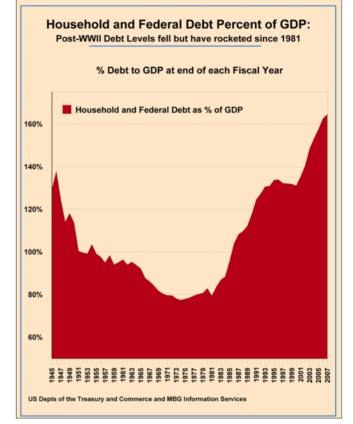
Another powerful measure of the hollowing out in the economy is the radical shift in the job market. Of the 5.92 million total new jobs in the last seven years, only 4.32 million were in the private sector while 1.66 million were in state/local governments, mostly for public education, health and prisons. The federal government cut jobs in the Postal Service.

More than all of the new jobs added by the private sector since 2001 are in private education and health care bureaucracies (3.34 million new jobs) and in bars and restaurants (1.53 million new jobs.) Uniquely, all net new jobs added fall in the non-supervisory/ production category — half a million supervisory jobs were lost. Manufacturing lost 3.28 million jobs (19.1 percent) and now provides fewer jobs than in July 1942 — seven months after the attack on Pearl Harbor.

Despite concerns about illegal immigration, since 2001 the labor force has grown more slowly (7.4 percent) than during any seven-year period since 1955 and participation rate of those in the labor force — those working or looking for work — also fell sharply — from 67 percent to 66 percent. This is the reason that the unemployment rate, now 5.0 percent, is not much higher.

The average weekly wage for non-supervisory jobs buys 2.0 percent more now than seven years ago and the average real salary and benefits for all workers is up by 9.0 percent. These real increases are down from the bubble period of the late 1990s but they are far better than the declines of the previous 20 years. Unfortunately, these recent increases in "average" wages appear to be a product of the latest financial bubbles: the widening use of stock options and very large bonuses in compensation, particularly on Wall Street.

Median real wages have continued to decline,



including by 1.4 percent over the past year. Median household real incomes fell 2.0 percent from 2000 to 2006 (latest data available) and even the average income fell 0.5 percent with inequality now the worst on records back to the 1960s. The total current savings of ALL households over the past three years is virtually nothing; by far the worst since 1933.

The foolishness of powerful, self-interested claims of a "new paradigm" is again exposed. The fantasy is that soaring debt and the loss of production through trade deficits are good things and the lack of current savings irrelevant. As a long forgotten advertisement once proclaimed: "If you don't have yourself an oil well, get one!" We can all live well from royalties and asset appreciation.

Soaring debt and debt schemes did drive up many asset prices, creating a borrowed illusion of general prosperity along with enormous actual wealth and power for a few. But now, unprecedented debt and soaring inventories of unsold homes are driving down the inflated prices for homes and other assets. For at least the next several years, most households will now be forced to cut spending and earn, not borrow, their living standard.

Another short-term debt stimulus may take the edge off the difficult economic conditions of the next few months. But trading away our once unique economic strengths while borrowing against the future has failed. Making even minimum interest payments on these massive, soaring debts will be increasingly difficult as the success of thoughtful industrial and trade policies in China and elsewhere continues.

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Freelance TV Reporter Turns Up The Heat On Multinationals

A freelance investigative television reporter from Detroit has finished the first part of a series documenting the shift of U.S. industrial capability to China and Chinese infiltration of American universities. Vince Wade, who worked as a reporter for the ABC and CBS affiliates in Detroit until last year, said he became obsessed with the story, and pursued it despite not having any financial backers. He has posted the first eight parts of the series on YouTube.

"My goal right now is to try to force this to become a major political issue," says Wade. "I want to see this issue debated. I don't have the answers, but we need to have a vigorous debate on what we should do. We need very smart minds to come up with various ways of dealing with China so we don't give away the store. We're in a vicious cycle here."

Wade documents China's growing appetite for U.S. military and industrial technologies, and the willingness of American companies and universities to sell out the country in the name of greed and profits. "Treason and traitor or no longer popular terms," says Wade. "They are out of favor. They are terms we don't use. But the big money behind globalization is eroding our quality of life and standard of living for profits from China."

Under the name of academic freedom and the free flow of ideas, universities are setting up shop in China

and allowing Chinese students to steal military relevant technologies that are being developed with federal research funds. "This is so blatant that you don't have to be a rocket scientist to see that we're spending millions of dollars on defense research" that is finding its way to the Chinese military, he says. "We're showing Communist Chinese how to build advanced everything. Academia is doing it for greed. I can't find anyone in Washington who is paying attention to this. Nobody is asking: 'What are we doing?' "

Wade documents the University of Michigan's thrust into China, even providing \$90 million for a Chinese venture capital fund, this at a time when Michigan's economy is reeling from the effects of globalization.

Wade says that every claim in the series is solidly reported and backed up. "There are no anonymous sources," he says. The series is "like a paint by numbers: Here is where you find the stuff. You can find it here."

Wade funded the series on his

own. "I'm tapped out," he says. "I depleted my savings. This isn't cheap to do, even with the miniaturization of TV gear." He had initially planned a 16-part series, but has not found funding, so he started uploading the series to YouTube. He hopes what he has done will generate interest among potential backers. "I'd like to chase this story for a long, long time because it's important," he says. "But I haven't found anyone who is interested" in financing the effort.

Here are the links to the documentary series: • China Milks Our Sacred Cows:

- http://www.youtube.com/watch?v=AS-_i0e0Mlw • Gee! How Were We To Know?:
- http://www.youtube.com/watch?v=OfRpaMsuFE0Shaft Our State:
- http://www.youtube.com/watch?v=quaD6RLuAio • Shaft Our Nation:
- http://www.youtube.com/watch?v=27QOTZy_VQMOur Human Rights Hypocrites:
- http://www.youtube.com/watch?v=S2qibkHa58 • Taiwan May Determine America's Fate:
- http://www.youtube.com/watch?v=OWEJubUhYOU
- Spies On Campus: The FBI's Mission Impossible: http://www.youtube.com/watch?v=11R5Pgrivko
 Let's Give China Everything:
- http://www.youtube.com/watch?v=2tHq82qupNs

Japanese Auto Makers Export More Vehicles Into U.S. Market

Japanese auto companies' purchases of parts from U.S. suppliers stagnated in 2006, according to the Japan Automobile Manufacturers Association (JAMA). After 21 years of steady growth, Japanese auto companies purchased \$48.8 billion in parts from U.S. firms, up slightly from \$48.4 billion in 2005. The amount has been growing steadily since 1986, when Japanese auto companies purchased only \$2.5-billion worth of parts from U.S. suppliers.

Japanese automobile company exports into the United States market have also started growing again, reaching 2,262,000 in 2006, up from 1,663,000 in 2005. Imports of Japanese automobiles steadily decreased during the 1980s until the mid-1990s, from 3,343,000 in 1986 and dropping to a low of 1,098,000 in 1996. But imports have been rising steadily since then, despite the growth in Japanese automobile production in the United States. In 2006, Japanese auto companies reduced production in the U.S. to 3,358,000 vehicles, down from an all-time high of 3,489,000 in 2005.

Japanese vehicle makers employed 63,575 Americans in production in 2006, up from 60,963 in 2005 and 58,860 in 2004. The number of Americans working for Japanese car dealers increased to 339,986 in 2006, up from 331,098 in 2004.

Japanese auto manufacturers are winning in the race to provide hybrid vehicles to American consumers. Japanese hybrid sales reached 229,318 in 2006, ten-times more than U.S. company hybrid sales of only 22,549. "JAMA member companies know the American consumer because of our longstanding commitment to investing in America, building cars in America and employing U.S. workers," says JAMA.

Factories Opening & Closing In The U.S & World

NEW PLANTS IN THE UNITED STATES

SCHOTT AG of Mainz, Germany, has announced plans to build a new solar energy factory south of Albuquerque, N.M. The \$100-million, 200,000-squarefoot plant will employ 350 people and produce photovoltaic modules and solar receiver lines. The plan calls for a total investment of \$500 million to expand the facility to 800,000 square feet and employ 1,500.

"According to both industry analysts and our projections, the market for solar energy will double over the next five years," said Udo Ungeheuer, chairman of SCHOTT's board. "With this new plant, SCHOTT Solar, the State of New Mexico, the City of Albuquerque and Bernalillo County are taking a lead in answering the growing demand for renewable energy in the United States." The location provides geographical proximity to the big solar markets of the Southwestern United States, "as well as close contact to one of the leading research centers for solar energy in the world, Sandia National Laboratories," says the German company.

New Mexico currently mandates that by the year 2020, 20 percent of energy consumed in the state must be generated by renewable energy sources, of which 4 percent must be from solar power. The state also has adopted a feed-in tariff for energy producers, "a globally proven model" of encouraging the purchase of electricity from alternative-energy systems, says SCHOTT. "The long-term economic impact of the site is expected to exceed \$1 billion for the state of New Mexico."

The plant will be situated in the 12,900-acre Mesa del Sol economic development zone owned by the City of Albuquerque. SCHOTT has a PV plant located in Billerica, Mass., which has a capacity of 15 megawatts. The company produced 130 megawatts of PV last year and expects to produce 450 megawatts by 2010.

"According to independent analysis, resource calculations show that just seven states in the U.S. Southwest could provide more than 7-million megawatts of solar generating capacity — roughly 10 times the total U.S. generating capacity from all sources today," said Ungeheuer. "New Mexico is well positioned to take a leadership position in leading the renewable energy revolution."

Ausra Inc. has announced plans to build a 130,000square-foot manufacturing plant outside of Las Vegas, Nev., to build solar thermal power systems. The facility will produce reflectors, towers and absorber tubes needed to run solar thermal plants. The factory will be capable of making 700 megawatts of solar collectors per year and is expected to employ up to 50 manufacturing workers.

"Ausra can fill four square miles with solar collectors every year from this one factory, enough to provide market-priced zero-pollution power to 500,000 homes," said Bob Fishman, president and CEO of Ausra. The solar thermal plants use mirrors to reflect sunlight into receivers that are filled with water brought to a boil by the concentrated energy of the sun's heat. The steam then turns a turbine, which generates electricity. Ausra says its innovations in mirror systems for solar power generation have brought the price of solar power down to the level of natural gas-fired power, and will soon reach prices associated with coal-fired generation. In November 2007, Ausra and Pacific Gas & Electric Co. announced a power purchase agreement for a onesquare-mile, 177-megawatt power plant, enough to power more than 120,000 homes. It will be built in central California. The new manufacturing facility will make the solar equipment for the project and for other power projects throughout the American Southwest.

Spire Corp. has announced plans to add 53,000 square feet of manufacturing space to its solar equipment plant in Bedford, Mass. The additional space increases the company's manufacturing plant to 144,000 square feet. The company has almost doubled its staff at the Bedford plant to more than 205 employees and has tripled its sales of turnkey photovoltaic systems in the past year.

Solaicx, a maker of silicon wafers used for photovoltaics, has opened a new 136,000-square-foot plant in Portland, Ore. The facility will be able to produce more than 32 megawatts of PV cells per year and have 100 employees. At full capacity the plant is expected to produce 180 megawatts of PV silicon ingots and wafers per year and have 180 skilled workers.

Spartan Chassis, Inc. has purchased two manufacturing facilities near its headquarters in Charlotte, Mich. The facilities, which total 200,000 square feet, will help Spartan meet increased demand from the Department of Defense to supply the chassis components used in the Mine Resistant Ambush Protected (MRAP) vehicle. The new factories "will allow us to again expand our overall capacity to meet the increased order demand we are experiencing from our military customers," said Richard Schalter, president of Spartan Chassis. The company has been awarded several sub-contracts for chassis integration for MRAP vehicles worth more than \$130 million.

Toho Tenax America has announced plans to invest \$23 million in its Rockwood, Tenn., carbon fiber manufacturing facility. It is the second major investment in the Rockwood plant since Toho Tenax bought the Fortafil Fiber plant in 2004 from Netherlands-based Acordis. Toho Tenax's total investment in retooling and upgrading the plant now stands at nearly \$37 million. Toho Tenax, a subsidiary of Japan-based chemical company Teijin, supplies carbon fiber to industrial, automotive, aerospace and sporting goods makers. Toho Tenax is the second largest producer of carbon fiber in the United States. The plant employs 170 workers.

Toyota is quickly ramping up production in North America. The company produced 1,671,009 vehicles at its North American plants last year, up 8 percent from 2006, and an increase of 39 percent over the last five years. Toyota expects to increase capacity to 2.2 million vehicles per year by 2010. It is building new factories and www.MANUFACTURINGNEWS.COM

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production lines throughout the United States and Canada. Its factory in Kentucky will start producing the "Venza" crossover sedan later this year; it's new plant in Woodstock, Ontario, will open in the fall and will have the capacity to build 150,000 RAV4s; and it is building a new factory in Mississippi that will open in 2010 and have the capacity to produce 150,000 Highlanders.

Last year, Toyota's plant in Kentucky produced 514,590 vehicles; its plant in California built 358,519 (not including the 49,371 Pontiac Vibe vehicles built there in its joint venture with GM); its plant in Canada built 302,749; its plant in Indiana built 284,423; its plant in Baja, Calif., built 34,100; Its plant in Texas built 138,619; and its Subaru Indiana plant built 38,009 vehicles. By 2010, Toyota will have 15 manufacturing plants in North America. It currently has 42,000 North American employees and has made investments valued at \$19 billion.

Ag Growth Industries plans to convert a 163,000square-foot facility in Union City, Ind., into a manufacturing plant to build augers, conveyors and grain storage bins and handling equipment. The company will create more than 70 jobs by 2010. The Indiana Economic Development Corp. offered Ag Growth with up to \$475,000 in tax credits and \$70,000 in training grants. Union City and Randolph County will provide property tax abatements, and each have committed up to \$100,000 in grants to the company.

Alexin LLC, a start-up aluminum billet manufacturer, has announced plans to build a \$56-million plant in Bluffton, Ind., and create more than 50 new jobs. The company will recycle scrap aluminum to make billet for extruders at the 300,000-square-foot facility. The facility will produce more than 210 million pounds of aluminum billet annually. The Indiana Economic Development Corp. offered the company up to \$745,000 in tax credits and \$37,500 in training grants based on the company's announced job creation plans.

Siemens has opened a refurbished electric motor manufacturing facility in Norwood, Ohio, after making an investment of \$30 million. The facility was originally built in 1898 and is one of Siemens oldest manufacturing facilities in the world. Siemens spent more than \$10 million to renovate and expand existing buildings and more than \$17 million to purchase new machinery and equipment including \$8.5 million worth of equipment to be used for research and development. Siemens employs more than 400 people at its plant in Norwood.

ABP Induction, a manufacturer of induction heating and melting furnace systems, has opened a 22,000square-foot facility in Massillon, Ohio. The facility manufactures and remanufactures induction coil assemblies, including those made by its competitors. ABP is headquartered in Dortmund, Germany.

Hasbro Inc. has announced plans to invest up to \$40 million in its plant in East Longmeadow, Mass. The company will buy new molding machines, high-speed assembly lines and new printing and dye cutting equipment. It will also lay off 200 of the 1,350

manufacturing workers at the plant. The investment plan "will depend on union agreement to certain work practice changes in order to make the plant competitive going forward," said Hasbro, which is based in Pawtucket, R.I., and has a global workforce of 5,800. Added company vice president David Hargreaves: "While this was a difficult decision, we are optimistic that the union will work with us to make the changes necessary to allow us to become competitive and hopefully secure the substantial majority of manufacturing jobs based in East Longmeadow."

Thermo Fisher Scientific Inc. has announced plans to build an \$11-million, 37,000-square-foot manufacturing plant for the production of single-use bioprocess containers in Logan, Utah. The single-use containers serve cell-culture applications and the production of protein-based drugs and are used in mixing, storage and transportation of bioprocessing fluids and for bioreactors. "The market outlook for the bioprocessing industry continues to be very bright as there are thousands of biotech products under development," said Marc Casper vice president at of the Waltham, Mass.-based company. The investment will result in the creation of 75 new jobs.

HSAC Corp., an automotive supplier based in Gardena, Calif., has announced that it will relocate its manufacturing operations to Fort Wayne, Ind., creating 145 new jobs by 2011. The company, known as Hi-Shear Automotive, will invest \$5 million in a 34,000-square-foot manufacturing plant in Fort Wayne. The company, which makes wheel bearing retainer nuts and brake cable tension limiters, will begin hiring staff in mid 2008.

NEW PLANTS IN EUROPE

SES Solar Inc., based in Geneva, Switzerland, has secured \$11.5 million in loans from the Geneva State Department of Energy and the Banque Cantonale de Geneve to finish construction of its first photovoltaics manufacturing plant in Switzerland. The company has installed a roof on the factory equipped with solar cells capable of producing 550,000 kilowatt-hours of electricity. It is the largest solar-powered building in Switzerland.

SCHOTT AG, has opened a new factory in Russia to produce flat glass for manufacturers of refrigerators and ovens in the Baltic states. The factory, located in Bor, near the city of Nizhny Novgorod, was built in a joint partnership with AGC Flat Glass Europe. The factory employs 70 workers producing soda-lime glass. The Eastern European markets for home appliances are the fastest growing markets worldwide, as incomes rise and old appliances are replaced, says SCHOTT. "In Russia alone, over half of all refrigerators and ovens are over 12 years old."

NEW PLANTS IN INDIA

Hyundai Motors has announced plans to start manufacturing its premium 'i20' hatchback in India and export all of the production to overseas markets. Hyundai will start making the new car by the end of this year at its plant in Chennai, which is being expanded to have the production capability of 600,000 vehicles per year.

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Volvo Bus Corp. has announced plans to build a big new bus body manufacturing plant in Hosakote, Bangalore, India. The \$800-million facility is a joint venture with India's Jaico Automobiles and will have the capacity to build 1,000 busses per year for both the Indian and export markets.

Mitsui Chemicals Group has announced plans to open a new manufacturing plant in India to manufacture polypropylene resins to be used by automakers for making bumpers, panels and pillars. The company has contracts with Honda and Suzuki and is in talks to sell products to the Tata Group.

"We are investing Rs 30 crore in the first phase with a focus on Japanese automakers operating in India," said Toshihide Kihara, managing director of Mitsui's advanced composites group in India. "The investment would go up in the future depending on the demand of the product in the country."

The facility has an initial capacity 15,000 tons per year and is located on a 15-acre site at the "Japanese Investment Park" in Neemrana. In a memorandum of understanding signed between the Rajasthan government's investment promotion agency "RIICO" and the Japanese External Trade Organization, "RIICO had committed to reserve industrial lands for Japanese investors in Neemrana for the auto component sector in order to enhance Japanese investments in the state," says RICCO. The economic development agency is providing about 600 acres of land in Bhiwadi to Honda to set up its second manufacturing plant there.

Samsung has opened its second manufacturing facility in Sriperumpudur near Chennai, India. The \$100million facility will produce 1.5-million color television sets per year and has initial employment of 350 workers. "We are also looking at making fully automatic washing machines during the first half of 2008," said R. Zutshi, deputy managing director of Samsung India. The "friendly" industrial policy of the state was the impelling factor building Samsung's second factory in India, said H.B. Lee, president and CEO of Samsung South West Asia.

Tata Motors has entered into a joint venture with Fiat to build a manufacturing plant in India worth more than

650 million euro. The factory will produce Fiat's premium "Grande Punto" and "Linea" automobiles, its 1.3-liter multijet diesel, and 1.2- and 1.4-liter gasoline engines, along with transmissions, and one of Tata's next generation vehicles. The plant will be located in Ranjangaon in the western Indian state of Maharashtra and will produce more than 100,000 cars and 200,000 engines and transmissions for the Indian and overseas markets.

Sterling Jewelers has opened a new manufacturing plant in Vishakhapatnam, India. The Akron, Ohio-based company's new plant will employ 114 workers in the manufacture of rough diamonds. The company is the largest specialty retail jeweler in the United States with 1,307 stores located in 50 states. It owns Kay Jewelers and Jared the Galleria of Jewelry brands.

Omax Autos Ltd. is setting up a new manufacturing factory in India to supply chassis for light, medium and heavy commercial vehicles produced by Tata Motors. The facility, at Lucknow, in the state of Uttar Pradesh, will cost Rs 55 crore.

Gokaldas Exports, a major Indian apparel manufacturer, has announced plans to build new manufacturing facilities in Hubli and Mangalore, India, with a combined production capacity of four million garments per year. The Bangalore-based company is opening production in the two locations because of lower labor and real estate costs, according to Rajendra Hinduja, executive director of finance. "Today, rentals in Bangalore are sky-high," says Hinduja. "It's Rs 15 per square feet for rent per month for industrial sheds. Far too expensive. It should have been Rs 7 to 8 per square foot to sustain costs." The company's current annual total production capacity is 24 million garments.

NEW PLANTS IN ASIA & THE MIDDLE EAST

Goodyear Tire & Rubber Co. has announced plans to spend \$300 million to buy new machines for its tire factory in Taoyuan, Taiwan. The company, which exports 60 percent of its production from the plant mostly to Europe, is also searching for additional factory sites in Asia and Eastern Europe "as it aims to increase production of tires in low-cost countries," says Goodyear CEO Robert Keegan.

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3M will invest hundreds of millions of dollars in China over five years and double or triple its manufacturing capacity there. "China is a big piece of our growth strategy, because China obviously is becoming a real manufacturing powerhouse for the world," said 3M CEO George Buckley. "Companies like us have to have a strong presence. We have a worldwide strategy for any region to supply 80 percent of the raw materials demanded by the manufacturers in the region. Right now, we are only a very small fraction of that (in China), so we have to make many, many more investments here,"

Overseas sales account for 61 percent of 3M's annual revenue. This should grow to 63 percent this year and 70 percent within five years, Buckley predicted. 3M has invested more than \$570 million in China since it started operating there in 1984. It has 4,800 Chinese employees, and its sales in China are growing by 30 percent to 35 percent per year. "I expect that, for many years to come, China is going to have a very, very high growth rate," Buckley said. "I don't see that changing much."

Eastman Kodak has opened a new 226,042-square-foot digital printing plate manufacturing factory in Xiamen, China. The company is also creating a new technical applications group there to provide support to customers in China and the Asia Pacific. "The plant furthers our overall strategy to manufacture regionally so that we have our products as close to the point of use as possible," says Rich Rindo, Kodak's director of global product management for printing plates business. "This also allows us to test new products and move them onto commercial availability faster by freeing up space at the U.S. plants." Kodak has eight plate production plants worldwide, two in the United States (Windsor, Colo., and Columbus, Ga.); four in Europe (Munich and Osterode, Germany, Leeds, U.K., and Sofia, Bulgaria); and two in Asia (Gunma, Japan, and Xiamen.)

Renewable Energy Corporation (REC) of Hovik, Norway, has completed a global site selection of 200 possible locations and decided to build a new solar manufacturing complex in Singapore. The factory will incorporate wafer, cell and module production facilities "and will have the potential of becoming the world's largest complex of its kind," says the company. When it is fully developed, the manufacturing complex could produce up to 1.5 gigawatt of solar cells per year.

The greenfield site for the new manufacturing complex is located in Tuas View, about 30 minutes from the city center in the western part of Singapore. Total investment in the facility may exceed 3 billion euro with a total potential of 2,000 new jobs.

"Singapore had articulated an exciting vision and plan to develop the solar industry as a key growth area for its economy," said Erik Thorsen, president & CEO of REC. The Singapore Economic Development Board provided REC with an incentive package that includes grants, tax rebates on research and development and equipment, human resource recruiting and training.

"This investment will be a tremendous boost to our national drive to develop the solar industry," said Ko

Kheng Hwa, managing director of the Singapore Economic Development Board. "Investors like REC can leverage on Singapore's business-friendly environment, excellent infrastructure, availability of technical talent, strong government support to grow the solar industry and long term political stability."

Abu Dhabi Basic Industries (ADBIC) has announced plans to invest up to \$23 billion in new manufacturing projects, including aluminum smelters and petrochemical plants. The company will build a 700,000-ton-per-year aluminum smelter at a cost of \$3 billion. "We have done the feasibility study and we now have to negotiate the legal structure," said company COO Jim White. The Middle East is forecast to have the highest growth rate worldwide in primary aluminum production over the next five years, with a doubling of its current production of around two million tons by 2011, says the company. Driving the growth is the low price of electricity in Abu Dhabi: \$20 per megawatthour, compared to \$28 per megawatthour in the United States and \$40 per megawatthour in China, says the company. Smelters have always been located in areas where electricity could be sourced cheaply. "However, the breaking down of trade and investment barriers is resulting in primary aluminum production, which has historically been concentrated in western countries, shifting to developing regions," says ADBIC.

NEW PLANT IN MEXICO

Whitepath Fabtech, a supplier to the heating and cooling equipment industry, will open a Mexican production facility in order to supply its major customer, the Carrier Corporation, with control panels for HVAC systems. Whitepath has contracted with The Offshore Group of Tucson, Ariz., for the construction of a 35,000square-foot factory that will employee about 75 workers.

PLANTS CLOSING IN THE UNITED STATES

Intermet Corp. will shutter its Pulaski, Tenn., facility. The Fort Worth, Texas-based company, one of the world's biggest manufacturers of cast-metal automotive components, will lay off the staff of 105 workers. "The closing of Pulaski is in no way a reflection on the performance of our highly-talented and dedicated workforce at Pulaski," said Jeff Mihalic, president and CEO of Intermet. "Rather it is a case of over capacity, both within Intermet and the industry as a whole in the face of a declining production forecast for vehicles in North America. The suppliers who will survive in this environment are those who, like us, recognize the need to align fixed costs with the new levels of demand and take the appropriate actions." The company has 2,600 employees.

Albany International Corp. will close its fabric manufacturing facility in Montgomery, Ala., and lay off 90 employees. "This planned action is a business necessity, driven by existing and expected market conditions, and in no way reflects on the performance of the affected employees, who will be offered severance

Plants Closing...(From previous page)

and outplacement assistance," says the company. "The plant closing is the result of the continuing consolidation of customers in the U.S. and Canada and the need to balance the company's paper machine clothing manufacturing capacity in North America with anticipated paper mill demand. Similar steps have been taken by the company over the last few years in both Europe and North America as the global paper and paperboard industry continues to shift capacity from traditional paper markets to new emerging markets." Albany International produces advanced textile and materials and has 6,000 employees worldwide. It is the world's leading producer of custom-designed fabrics and belts used in the production of paper and paperboard.

Cavalier Homes, Inc. plans to "idle" its home manufacturing facility in Winfield, Ala. The decision reflects "our ongoing review of Cavalier's overall capacity in light of continuing market challenges in our HUDcode home manufacturing business," says company president and CEO David Roberson.

FreightCar America Inc. has announced plans to close its Johnstown, Penn., manufacturing plant and lay off almost 400 employees. The company said it would take a write off of \$34 million to complete the restructuring. Production will continue at its plants in Danville, Ill., and Roanoke, Va.

Mueller Water Products, Inc. will close its ductile iron pipe manufacturing plant in Burlington, N.J., by February and lay of 180 employees. "To be globally competitive in our ductile iron pipe business, we must constantly strive to be the low-cost producer," said Gregory Hyland, Mueller president and CEO. "We are committed to taking the steps necessary to protect our leadership position in the market and to build the foundation necessary for future growth." The Atlanta, Ga.-based company will take a charge of \$19 million, but the closure will result in annual savings of between \$15 million and \$17 million.

Pfizer Inc. will outsource as much as 30 percent of its manufacturing capacity, mostly to Asia, Martin MacKay, head of the company's R&D group said in a investor briefing in Hong Kong. The New York-based company currently outsources 15 percent of its manufacturing, but needs to cut costs further by closing manufacturing sites in Brooklyn, N.Y., Omaha, Neb., and Feucht, Germany. Pfizer has also sold its 85,000-square-foot manufacturing facility in Arnprior, Ontario, Canada, to PharmEng International. Pfizer is facing slowing growth in its generic drug lines.

Applied Materials plans to reduce its workforce by 7 percent, or by 1,000, mostly in its semiconductor equipment and services businesses. The workforce reduction is expected to result in savings of \$150 million per year, but the company will first take a charge of \$20 million in its first quarter 2008.

Rolls-Royce has announced plans to lay off up to 2,300 managers, professionals and clerical staff in

company facilities in the United States, UK, Germany, the Nordics "and other countries where the relevant functions are located," the company said Jan. 11. Rolls-Royce, which has 29,500 employees working in 50 countries, (including 8,300 in North America), will continue recruiting graduates, apprentices and "those required directly to deliver growth," the company says. It intends to continue to improve sales per employee through productivity growth "and has made significant investments across the business to achieve these gains," it says. "As a result of this investment, there is now scope to achieve further cost reductions through simplifying the organization of management and professional and clerical staff. These actions will also help the group to mitigate external headwinds such as increasing raw materials costs and the weak U.S. dollar."

Clairant has announced plans to stop all manufacturing at its plant in Coventry, R.I., by the end of next year and move the work to Mexico and Germany. The Switzerland-based company says its North American headquarters for pigments and additives will remain in Coventry.

Ralcorp Holdings, Inc. will close its manufacturing facility in Billerica, Mass., and move production to Dotham, Ala. The plant produces oil roasted and dry roasted snack nuts. The closure will impact 90 employees.

Intermatic Inc. has announced plans to close its manufacturing plants in Spring Grove and Richmond, Ill. The family-owned maker of landscape lighting and energy control systems plans to lay off 400 workers due to low-priced competition, rising energy and raw materials costs and new companies selling directly to customers. The company, which has 3,000 employees worldwide and 900 in the United States, is shifting production to Mexico and China.

Ball Corp. will close its aerosol can manufacturing plants in Commerce, Calif., and Tallapoosa, Ga., and exit the custom and decorative tinplate can business. Ball makes custom and decorative tinplate cans in its facility in Baltimore, Md., which it also intends to sell. Closing the plants is the result of a restructuring of the company's metal food and household products packaging unit. The Broomfield, Colo., company said it will record a fourth-quarter charge of about \$26 million related to the plant closures.

Alcatel has announced plans to close its Columbus, Ohio, manufacturing plant and lay off 230 workers. The company purchased the East Broad Street facility in 2006 from Lucent Technologies. When Alcatel completed its purchase of Lucent last year it said it would lay off 8,880 workers. Work done at the Columbus plant will be moved to China and Longview, Texas, or will be outsourced elsewhere.

Texas Instruments Inc. it will consolidate its manufacturing operations in Tucson, Ariz., and eliminate about 300 jobs, half of its workforce in the area. The company will consolidate its Tucson manufacturing operation to Sherman, Texas.

Prestowitz: The Dollar's Continued Fall Could Impoverish Americans

There is going to have to be a massive swing in exports if the United States hopes to get back on track economically, says Clyde Prestowitz, president of the Economic Strategy Institute. "We are going to have to go the other way on trade," he says. "The next big thing has to be 'back sourcing' bringing manufacturing back to the United States." But that's going to be hard to do.

The sinking dollar has helped put exports on a steady growth track, but the United States has a limited capacity to expand exports by the hundreds of billions of dollars needed to reduce the \$800-billion trade deficit.

"We've been living beyond our means — spending 7 percent of GDP more than we earn, so inevitably, the relative standard of living will have to decline, somehow," says Prestowitz. "The fundamental underlying dynamics of the U.S. economy are not sustainable, so something has to make them adjust and the proximate cause of that adjustment is the dollar. Without a change in U.S. policy, it's hard to see anything long term except a weaker dollar."

Prestowitz is amazed by the perceptions in the mass media of the dollar. A recent *International Herald Tribune* editorial said: "A sharp decline in the currency would mean a sharp decline in living standards. A slower decline in the dollar would mean a slower decline in living standards. The first would be a calamity, the second is also unacceptable. True, a weaker dollar boosts American exports and attracts foreign shoppers, but you can't build a strong American economy on that."

To which Prestowitz responds: "Where are these guys living? What are they smoking? What are they dreaming of — that you can't build a strong American economy by exporting? There is just a great unreality out there. For some reason people think that Americans are entitled to live beyond their means and to buy without selling indefinitely and they get perturbed if it doesn't work that way."

Speaking from Hong Kong, Prestowitz said the big topic of conversation there was the value of the U.S. currency, and how business people want to get out of the dollar, but can't due to few good alternatives. "Nobody here believes the dollar can hold up under present conditions, so the disconnect between how people see it here and how people see it in the United States can't be any bigger," says Prestowitz. Even if the United States is able to reduce its trade deficit from \$800 billion a year to \$650 billion per year, that amount of growth in international debt (\$650 billion) has to be financed. "We very rapidly get to the point where our gross international debt gets to be enormous," says Prestowitz. "Long term, in order to be able to finance that level of debt, we're not going to be able to have a trade deficit that is more than 1 or 2 percent of GDP. There has to be a big huge adjustment here somewhere."

The dollar is going through a slow collapse. The question is will it become a sudden collapse. "The chances are not insignificant and they get better every day," says Prestowitz.

U.S. Carbon Emissions Decrease

Both carbon and sulfur dioxide emissions are declining in the United States. In 2006, greenhouse gas emissions fell by 1.5 percent, due to more energy being generated by natural gas, the least carbon-intensive fossil fuel, higher energy prices and warm weather in the winter and cooler weather in the summer, according to the Energy Information Administration. U.S. greenhouse gas emissions were 7.075 billion metric tons of carbon dioxide in 2006. It is the third decline in annual emissions since 1990.

Greenhouse gas emissions per unit of GDP fell from 653 metric tons per million dollars, to 625 metric tons in 2006, a decline of 4.2 percent. "Since 1990, the annual average decline in greenhouse gas emissions-intensity has been 2 percent," says EIA.

Meanwhile, sulfur dioxide (SO₂) emissions from the power sector fell below 10 million tons in 2006, according to the Environmental Protection Agency's Acid Rain Program 2006 Progress Report. Sulfur dioxide emissions from electric power plants fell by 830,000 tons from 2005 and are down by 40 percent from 1990. "These reductions have led to a significant decrease in acid deposition, resulting in improved water quality in U.S. lakes and streams," says the EPA. Reduced formation of fine particles, improved air quality and human health related benefits are all results from the reduction of these emissions."

The Energy Information Administration's report, "Emissions of Greenhouse Gases in the United States 2006" is located at http://www.eia.doe.gov/oiaf/1605/ggrpt/index.html.

Wastewater Infrastructure Needs \$202 Billion

The United States needs to invest \$202.5 billion nationwide to control wastewater pollution over the next 20 years, according to the Environmental Protection Agency. The agency's national survey on the needs of publicly owned wastewater treatment works found that \$134 billion is needed for wastewater treatment and collection systems, \$55 billion is needed for sewer overflow corrections and \$9 billion is needed for stormwater management. "The needs in this survey represent a \$16.1 billion (8.6 percent) increase (in constant 2004 dollars) over the 2000 report," says EPA. "The increase in overall national needs is due to a combination of population growth, more protective water quality standards and aging infrastructure." The survey is located at http://www.epa.gov/cwns/.

Boon R&D Alliance Issues 14-Point Plan

The Alliance for Science and Technology Research In America (ASTRA) has issued a "14-Point Innovation Action Agenda" aimed at reinvigorating the United States economy. The United States faces a "transformed competitive landscape" that challenges its historic role of driving global high-tech economic growth, says ASTRA. "A dramatic change in our approach to innovation is required...Doing so will require a transition to an innovation-driven economy capable of routinely developing and commercializing 'new-to-the-world' technologies, products and services."

By most every indicator, U.S. high-tech leadership is eroding. The U.S. share of total global investment in research and development has declined from 46 percent in 1986 to 37 percent in 2003. The U.S. share of new doctorates in science and engineering has plummeted from 52 percent in 1986 to 22 percent in 2003. Similar negative trends are occurring in high-tech exports, scientific publications and patents.

ASTRĂ calls for an increase in federal funding for the physical sciences and engineering; an increase in funding for applied research; directing federal R&D resources to the leading-edge of science; providing additional funding to support research into the services sector; a focus on multi-disciplinary research; creation of incentives to allow the benefits of federal R&D to be captured by U.S. companies; improving the education of scientists and engineers and programs to attract smart foreigners to study and stay in the United States; creating a business environment to support innovation and competitiveness by reviewing laws, regulations and policies that inhibit innovation; developing a meaningful set of innovation indicators to guide U.S innovation policy and strategy; and creating a better government system to analyze foreign innovation systems.

The 50-page report, "Riding the Rising Tide: A 21st Century Strategy for U.S. Competitiveness and Prosperity," is located at http://www.astra.org.

Coalitions aimed at boosting U.S. innovation:

• Alliance for Science and Technology Research In America (ASTRA) http://www.astra.org

- Coalition for National Security Research
- www.cnsronline.org
- Energy Sciences Coalition
- http://aps.org/policy/tools/coalitions/esc
- Science-Engineering-Technology Working Group
- www.setcvd.org/cvd2008/index.html

• Task Force on the Future of American Innovation

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Dept. Of Labor Issues Apprenticeship Rules

The Department of Labor has proposed new rules for a national apprenticeship program that will "set up a more flexible and user-friendly approach for apprentices and employers and make updates and changes affecting state apprenticeship agencies and the Department of Labor," says Emily Stover DeRocco, departing Assistant Secretary of Labor for Employment and Training. "The revisions would expand the ways that individuals can advance through apprenticeships." The types of training would expand to include three types of apprenticeships: one based on competency that does not require a specific number of hours of on-the-job training; another based on the time spent on the job; and a hybrid approach that combines hours spent on the job and technical instruction. "The proposed changes provide for interim credential certificates so that active apprentices can demonstrate their proficiency in particular required skills and competencies to employers," says the Department of Labor. "Provisions also feature reciprocity, which would allow programs to cross state lines, so long as the host state's applicable laws are followed." The proposed standards are located at www.dol.gov/eta/regs/fedreg/ proposed/2007024178.pdf.

NASA Will Soon Depend On Russia For Space Travel

When the Space Shuttle is retired in 2010, it will be at least five years before the United States has a replacement launch vehicle. During that time, the United States will rely on the Russian Soyuz launch vehicle to bring Americans, equipment and supplies to the \$60-billion Space Station.

"I don't like it," says NASA administrator Michael Griffin. "I consider it to be unseemly in the extreme and unwise strategically for the United States to be dependent on any other nation for any other thing. I could not be more clear on that. I did not get us into this position. If you think I like it, you would be wrong."

The discussion about the lack of funding for a new U.S. launch vehicle "is down in the weeds," said Sen. Bill Nelson (D-Fla.) at a hearing in December of the Senate Space, Aeronautics and Related Sciences Subcommittee. Relying on Russia is "an enormously perilous plan," and may result in the layoff of 5,000 employees at the Kennedy Space Center in order to pay the Russians for use of the Soyuz, said Nelson.

"I don't think it's a good back-up plan," replied Griffin. "It's the only one of which we can avail ourselves."

The remaining Space Shuttle flights will be transporting components to the Space Station. As a result, the \$1.5-billion Alpha Magnetic Spectrometer is sitting in storage until NASA can figure out a way to get it aboard a Japanese or European launch vehicle. The cost of doing so will be \$400 million.

"I don't want to leave this hearing or this committee with the impression that we are in a good position [because] we are not," said Griffin.

NASA's budget is growing slowly. The catch-all appropriations bill passed by Congress in late 2007 included \$17.3 billion for NASA for 2008, the same amount President Bush requested, an increase of about 5 percent from last year's budget of \$16.8 billion.