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China Displaces United States In Georgia Tech's Technology Index

China has surpassed the United States in a key measure of high tech competitiveness. The Georgia Institute of Technology's bi-annual "High-Tech Indicators" finds that China improved its "technological standing" by 9 points over the period of 2005 to 2007, with the United States and Japan suffering declines of 6.8 and 7.1 respectively. In Georgia Tech's scale of one to 100, China's technological standing now rests at 82.8, compared to the U.S. at 76.1. The United States peaked at 95.4 in 1999. China has increased from 22.5 in 1996 to 82.8 in 2007.

"The message speaks out pretty loudly," says Alan Porter, co-director of Georgia Tech's Technology Policy and Assessment Center, which produces the benchmark. "I think the prospects are pretty scary."

The Georgia Tech center has been measuring high-tech competitiveness of 33 nations for the past 20 years. It has watched as China has zoomed up to the leading global position in technology. But other nations are showing gains as well including South Korea, Singapore, Taiwan, Brazil, India and Chile. "If the increasingly integrated European Union were considered one entity instead of 27 separate countries, it would surpass the United States," says the Georgia Tech indicator report.

Researchers and technologists in developing countries all have access to the latest computing and networking technologies. They are engaged in leading-edge

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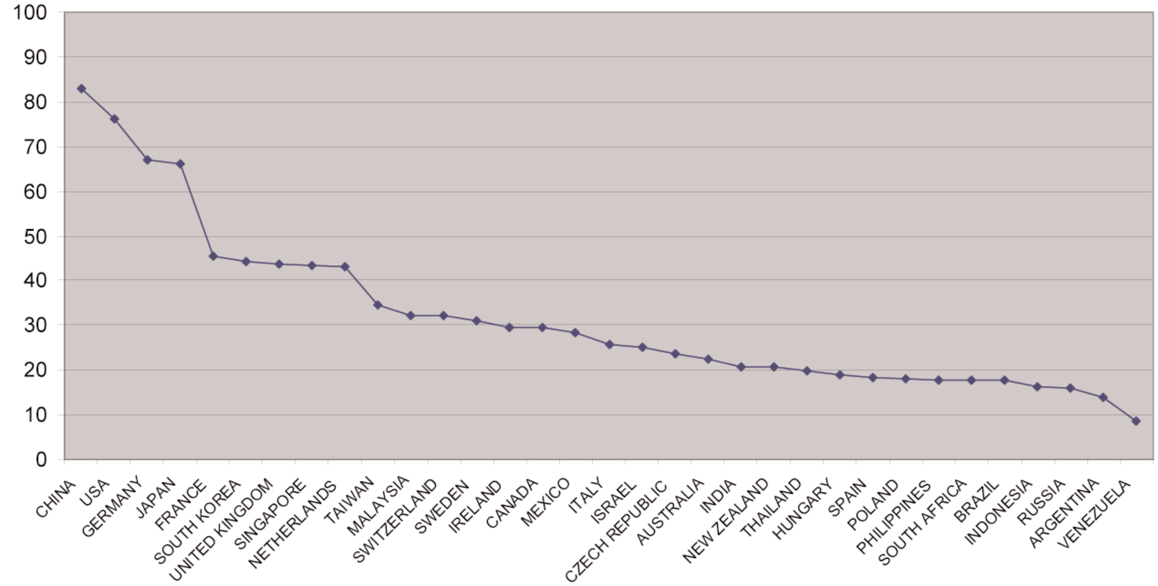
Technology-Based Competitiveness Of 33 Nations



(Source: George Institute of Technology's Technology Policy and Assessment Center's " High-Tech Indicators")

Vast Requirement For Defense Operations & Maintenance Is Depleting Funding For Future Weapons

Modernizing defense weapons used by the U.S. military is going to be a major challenge for the next presidential administration, says the Aerospace Industries Association.

The U.S. defense industrial base "is in serious danger" of being impacted by the inability to pay for the growing need to modernize rapidly aging equipment, says the trade group. "Given the likelihood of a growing competition for national security resources, it is critical that defense decision makers understand the nature of the crisis and accept the implications that future resource decisions will have on the totality of the U.S. defense establishment and the defense industrial base that supports it."

The "inexorable growth" of DOD's operations and maintenance budget to pay for the deployment of hundreds of thousands of war fighters, rising personnel expenditures and the "simultaneous need for reset and recapitalization" will lead to intense pressure within the Pentagon to reduce investments in new weapons systems. "Federal deficits, growing entitlement programs, pent-up demand for other domestic spending and the cost of the Global War on Terrorism will place increased pressure on future defense spending," the AIA worries.

Procurement accounts for only 20 percent of the Defense Department's budget. Over the past 25 years, the procurement account has increased by 50 percent, compared to a more than doubling of the operations support budget. "These growth trends translate into a structural shift to which investment [which includes R&D] will decline to only 35 percent of the defense budget by 2013, well below the 41 percent level of fiscal 1988," says AIA. "This isn't a mere percentage shift. It translates into tens of billions of dollars migrating from the investment portfolio into operations and support costs."

The trend is turning into a permanent shift of resources away from modernizing military equipment. "Continuing this trend beyond current projections will make it even more difficult for defense planners to adequately resource the investment spending upon which our military superiority and technological edge depends," says the AIA. "The next administration should address this serious future resource challenge in developing long-range defense plans and in budget guidance to the next Quadrennial Defense Review."

Total spending in 2008 on operations and maintenance will reach 59 percent of DOD's budget, or $284 billion. The "investment" account, which includes procurement ($102 billion) and research, development, test and evaluation ($75 billion) will account for 36.6 percent of DOD's 2008 budget of $483 billion.

The wars in Iraq and Afghanistan cost $170 billion to $190 billion per year. And the need to replace weapons and equipment that are destroyed or worn out in Iraq and Afghanistan is between $50 billion and $70 billion.

"Absent a significant top-line increase, any attempt to fund reset requirements out of the baseline budget (i.e. without supplemental) would place tremendous stress on other service investment needs by forcing absorption of wartime reset and recapitalization within the normal budgeting process," says AIA. "Such an approach could ultimately break essential modernization programs."

AIA says the next president and his or her top management team at the Pentagon will have to "acknowledge that defense modernization is already long overdue," says AIA. It recommends that DOD increase its budget for procurement to between $120 billion and $150 billion in constant dollars "simply to modernize an aging, increasingly obsolete and potentially vulnerable force."

To read AIA's analysis, "U.S. Defense Modernization; Readiness Now and for the Future," go to http://www.aia-aerospace.org.

Operations & Support Versus Investment As Percent Of Defense Department Budget

Budget Category	FY1988	FY2008 Request	FY2013 Projection
DoD Budget Total	$283.8B	$483.2B	$548.5B
Military Personnel	76.6	118.9	145.2
Operations & Maintenance	81.6	165.3	196.0
Operations & Support (O&S) Total	158.2	284.2	341.2
O&S Percent of DoD Total	55.7%	58.8%	62.2%
Procurement	80.0	101.7	125.2
RDT&E	36.5	75.1	68.1
Investment Total	116.5	176.8	193.3
Investment Percent of DoD Total	41.1%	36.6%	35.2%

(Source: Aerospace Industries Association report "U.S. Defense Modernization, Readiness Now and for the Future")

D.C. Trade Lobby Declares Tentative Victory Over Customs' Proposal To Change Duty System

The powerful trade lobbying community in Washington seems to have been successful in blocking the Customs and Border Protection (CBP) from moving forward with a plan to change the so-called "first sale" rule on collecting duties on imported products. The latest Farm Bill that will provide $289-billion in subsidies to the agricultural industry contains provisions that will block the CBP's intention to change the rule.

Currently, duties are assessed on the "first sale" of a product as it exits a manufacturing plant in a foreign country, rather than on the final sale price of the product as it leaves that country. U.S. importers and foreign exporters end up paying far less in duties than they otherwise would under the proposed "last sale" rule. The "first sale" calculation is undervaluing U.S. imports by billions of dollars, and it is proving difficult for Customs and Border Protection to determine if companies are lying about the price of products as they leave overseas factories. Levying duties on the final price would make CBP's job much easier.

The trade community doesn't like it one bit.

U.S. importers, retailers, trade lawyers representing them, and foreign companies selling products into the U.S. market went crazy when Customs proposed the change. U.S. companies that produce mainly in the United States were unaware of the proposed changes, which would benefit them by making imports more expensive, and didn't or couldn't mount a lobbying campaign to fight on behalf of the Customs' proposal.

The recently created "Save First-Sale Coalition" says that it "cheered" when provisions were inserted into the Farm Bill that "stymie [the] unpopular first sale rule." The group was able to convince members of Congress that the rule would hurt American consumers, and they were able to "impose a number of roadblocks to any such action" by Customs in the future, says the coalition.

"We consider this a major victory — a preliminary victory — but a victory nonetheless," says trade attorney David Cohen, who heads the Save First-Sale Coalition on behalf of the international law firm of Sandler, Travis & Rosenberg. "Congress has stated loudly and clearly: 'Customs, we don't like what happened here. We don't like the way it happened. And we're putting a lot of hurdles in place to ensure that you're not successful and that you don't try anything like it again.' "

The group says the proposed changes, if implemented, would raise duties on imports by 15 percent and "devastate" the U.S. economy, which is driven by consumer spending. They do not mention that the U.S. economy may already have been devastated by an over reliance on cheap and illegally made imports that are killing Americans and their pets, and the loss of productive capacity that is bankrupting America.

"The most important section of the bill is a 'sense of Congress' provision indicating that the two committees that authorize CBP's budget will not support a revocation of the First-Sale Rule on their watch," says the Save First-Sale Coalition. "Specifically, the provision advises CBP to drop the issue until at least January 1, 2011, giving the agency time to review its proposal and its potential effects. If CBP still wants to proceed after that date it must first clear a number of hurdles, as the provision urges the agency to consult with Congress and the trade community and receive explicit approval by the Treasury Secretary."

Cohen says that "this is strong and clear direction from Congress, and while it is non-binding, CBP would ignore it at its peril."

The group has set up a Web site (www.savefirstsale.com) to continue to press Congress to force Customs to stop potential efforts to change the rule.

Offshore Outsourcing Topic Of Science Committee Hearing

The House Science Committee is revisiting the debate about the benefits of offshore outsourcing of U.S. industry and research and development. The committee has scheduled a hearing for May 22 to question economists, legal experts and U.S. manufacturers on the legal obligations corporations have to their shareholders, and the impacts the current structure of international trade are having on the national economy. Many of those testifying reject offshoring on principle and point to the loss of goods production as being a main culprit in locking the U.S. economy in a downward spiral of foreign and household debt. "Meaningful measures to stem or reverse this trend have been blocked by the persistence of the same free-trade vision that set it in motion," according to one hearing organizer.

The hearing, billed as "American Decline or Renewal? — Globalizing Jobs and Technology," will be led by Rep. Brad Miller (D-N.C.), chairman of the Science and Technology Committee's subcommittee on investigation and oversight. Ralph Gomery, president emeritus of the Alfred P. Sloan Foundation and one of the first prominent critics of the belief that free trade offers an inevitable win-win to national economies will testify. Other speakers at the 10:00 a.m. hearing include Margaret Blair of Vanderbilt Law School, an expert on corporate governance and shareholder rights, Bruce Scott of the Harvard Business School, James Copland of Copland Fabrics of Burlington, N.C., and Joseph Fehsenfeld of Midwest Printed Circuit Services in Round Lake Beach, Ill.

U.S. Economic Slowdown Hits Los Angeles Ports

Container traffic in and out of the Los Angeles and Long Beach ports has slowed down, declining by 0.6 percent last year due mainly to the housing slump, according to the Los Angeles County Economic Development Corporation (LAEDC). But exports are growing at a healthy clip, increasing by 17.2 percent at the two Southern California ports to 3,180,000 containers. Imports were down by 0.2 percent, to 8,110,000 containers. The ports shipped 4,370,000 empty containers last year.

"The boom in export activity should remain in place in 2008 as the U.S. dollar continues to weaken," says LAEDC chief economist Jack Kyser. "However, import volumes will continue to be lackluster." Without the surge of imports that the Los Angeles and Long Beach ports experienced over the past two decades, "the days of 10 percent growth in container volumes at the local ports could be gone," adds Kyser.

The decline in imports is attributed to less demand for imported wood products and furniture, automobiles and parts and fewer items required for last year's Christmas rush. Rising costs of truck and rail travel throughout the United States also made it attractive for importers to ship their goods through the Panama and Suez Canals directly to ports on the East and Gulf coasts.

Other problems loom for the Los Angeles and Long Beach ports, the largest in the country in total value of two-way trade and the fifth largest in the world. Continued high energy prices, economic contraction and the federal government's transportation worker identification credential (TWIC) will impact port growth this year. The TWIC that will be required of all truck drivers "could crimp driver supply, since a significant number of port truck drivers are thought to be undocumented and thus unable to obtain a TWIC," says the LAEDC.

Diesel prices are forcing ships to slow down on the high seas to reduce fuel consumption, but that lengthens travel times and means fewer goods will be docking.

"While most of the focus in international trade is on ocean shipping, the international air freight business also is in turmoil," says the LAEDC in its annual assessment of the industry. Rising costs for air freight are putting more goods onto steam ships and making more cargo less time sensitive. "Air cargo is also looking at 100 percent screening of cargo," says the LAEDC.

Last year, a total of $349 billion worth of goods moved through the two ports, up 6.5 percent from 2006. The second largest port in the country by value of shipments was New York, which processed $324 billion worth of products, up 9.8 percent from 2006. New York benefited from increased trade with Europe and Asia shipping cargo through the Suez Canal. In third place was New Orleans. Its cargo value was up 15 percent to $175 billion, due to the boom in exports of commodities. Houston ranked fourth with a gain of 14 percent to $185 billion, due to rising prices of oil and chemicals. In all, the four major ports in California — LA, Long Beach, San Diego and San Francisco — handled $516 billion in

(Continued on next page)

International Container Traffic at Nation's Largest Ports

Rank	Port	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006r	2007
1	Los Angeles, CA	2.093	2.292	2.557	3.233	3.408	4.043	4.709	4.897	4.867	5.743	5.740
2	Long Beach, CA	2.667	2.879	3.051	3.271	3.213	3.208	3.114	3.715	4.396	4.799	4.995
3	New York, NY	1.742	1.884	2.027	2.242	2.323	2.633	2.819	3.146	3.390	3.678	3.935
4	Savannah, GA	0.530	0.558	0.624	0.721	0.811	1.019	1.131	1.287	1.483	1.609	2.042
5	Norfolk, VA	0.769	0.794	0.828	0.884	0.884	0.989	1.096	1.200	1.319	1.425	1.573
6	Oakland, CA	0.841	0.904	0.922	0.991	0.960	0.981	1.070	1.192	1.372	1.415	1.451
7	Houston, TX	0.609	0.658	0.716	0.778	0.763	0.849	0.943	1.090	1.231	1.295	1.416
8	Charleston, SC	0.955	1.036	1.167	1.259	1.151	1.206	1.253	1.414	1.512	1.517	1.408
9	Seattle, WA	0.953	0.978	0.965	0.960	0.824	0.853	0.819	1.044	1.340	1.223	1.289
10	Tacoma, WA	0.551	0.496	0.586	0.659	0.609	0.769	0.937	0.937	1.154	1.096	1.151

		Percent Change			Numerical Change		
Rank	Port	'07/'06	'06/'05	'07/'97	'07/'06	'06/'05	'07/'97
1	Los Angeles, CA	-0.1%	18.0%	174.3%	-3,139	876,328	3,647,459
2	Long Beach, CA	4.1%	9.2%	87.3%	196,332	402,675	2,327,810
3	New York, NY	7.0%	8.5%	125.9%	257,015	287,939	2,193,530
4	Savannah, GA	26.9%	8.5%	285.4%	432,390	126,403	1,511,769
5	Norfolk, VA	10.4%	8.0%	104.6%	148,281	106,162	804,455
6	Oakland, CA	2.6%	3.1%	72.5%	36,544	42,551	609,966
7	Houston, TX	9.3%	5.2%	132.5%	120,291	64,180	806,773
8	Charleston, SC	-7.2%	0.4%	47.5%	-108,877	5,376	453,489
9	Seattle, WA	5.5%	-8.7%	35.4%	66,768	-117,046	336,776
10	Tacoma, WA	5.0%	-5.1%	108.9%	54,694	-58,455	599,690

(Source: Los Angeles County Economic Development Corporation's May, 2008 report "International Trade Trends & Impacts. The Southern California Region")

SoCal Trade...

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value of two-way trade, up 5 percent over the previous year.

The Los Angeles port handled 5,740,000 loaded containers (down 0.1 percent), while Long Beach's container shipments increased 4.1 percent to 4,990,000. New York increased 7 percent to 3,930,000 containers.

"China remained firmly in first place as the Los Angeles Customs District's top trading partner in 2007, with a two-way trade value of $183.3 billion," says the LAEDC. In 2003, the value of Chinese imports and exports going through the two ports was just $103 billion.

The two LA ports unloaded $159 billion worth of imports from China and sent $24 billion worth of exports back, an import-to-export ratio of 6.4. "Japan was a distant number two with a [two-way trade] value of $60.5 billion, followed by South Korea at $24.6 billion." The value of German imports and exports was valued at $8 billion. Imports from Japan totaled $47 billion, while exports to that nation through LA totaled $14 billion, an import-export ratio of 3.4.

"It's no surprise that China continued to run a huge trade deficit with the Los Angeles Customs District, -$133.8 billion in 2007," says the LAEDC. "Japan was second on this measure with a deficit of -$33 billion." the LA port district runs positive trade balances with Australia ($4 billion in 2007), Singapore ($3 billion), the Netherlands ($1 billion), and France ($400 million).

The top imports into Los Angeles in 2007 were electrical equipment, televisions and electronic parts, with a value of $58.3 billion. In second place was the category of computers and peripherals, machinery, appliances and parts at $58 billion. Apparel and related items were valued at $37 billion. Motor vehicles and parts were fourth at $31 billion, followed by furniture at $13 billion. The two ports handled $15.3 billion worth of toys, games and sports equipment and $3.7 billion in precious stones and metals.

The top exports out of the Los Angeles District in 2007 were electrical equipment, televisions and electronic parts, with a value of $17.4 billion, followed by computers, peripherals, machinery, appliances and parts with a value of $17.2 billion. "This contradicts the common knowledge that all Los Angeles exports are low-valued commodities," says Kyser.

Imports from China of electrical equipment and parts and electronic components through the LA ports increased by a whopping 26 percent in 2007 to $35 billion. Exports to China of products in the same category were $4.8 billion, almost an order of magnitude less. Imports of Chinese apparel through LA skyrocketed by 24 percent to $6.7 billion. Vehicles and parts imports from China were up by 19 percent to $4 billion. Chinese imports of rubber and items made of rubber rose by 27 percent to $1.9 billion.

Some exports of U.S.-made products to China through the LA ports are also growing fast. Organic chemical exports to China soared by 46 percent to $563 million; paper, pulp and wastepaper exports were up by 45 percent to $674 million; followed by iron & steel products and scrap, up 41 percent to $1.1 billion; and copper products and scrap, up 29 percent to $1.2 billion.

A total of 501,600 people in the five-county Los Angeles area worked in the international trade field in 2007, down from 504,400 in 2006. Employment is projected to grow to 503,500 this year.

The two Los Angeles ports are far smaller than the world's largest, in terms of 20-foot container equivalents (TEUs). Singapore is the world's largest port, shipping 28 million TEUs in 2007, up 12.5 percent over 2006. Next is Shanghai, at 26 million TEUs, up 20.5 percent last year. Hong Kong was in third place at 23.8 million TEUs, and Shenzhen was in fourth at 21.1 million, up 14 percent. Los Angeles-Long Beach was fifth at 15.7 million TEUs.

For a copy of the "2008 International Trade Report," set your browser to http://www.laedc.org/reports/Trade-2008.pdf.

Economic Downturn Hurts Countries Dependent On U.S

The economic downturn in the United States will have a big impact on Central and South American countries that are heavily dependent on exports to the United States, according to the Center for Economic and Policy Research based in Washington, D.C. If the United States starts to reduce its trade deficit from its current level of 5.3 percent of GDP to 3.0 percent in 2010, then Mexico, which sends 77 percent of its exports to the United States, would be hard hit. The country would experience a 10.4 percent decline in exports, accounting for almost 3 percent of its economy. Currently, Mexican exports to the U.S. account for 21 percent of that country's GDP.

Other countries that would be adversely impacted include Canada (a 9.5 percent decline in exports, representing a 2.8 percent decline in GDP); Dominican Republic (10.7 percent decline in its exports or 2 percent of GDP) and Honduras (11 percent decline representing 6 percent of GDP). Some countries, such as Argentina and Brazil, rely less on the United States as an export market and would not be as heavily impacted.

In a "large adjustment scenario" in which the United States' trade deficit drops to 1 percent of GDP, which could occur given the declining dollar and the corresponding requirement for higher interest rates on U.S. debt, then the decline in Mexico's exports "would be equal to 14.6 percent of total exports or about 4.1 percent of its GDP," says the study. "For Canada, exports would shrink by 13.5 percent for a 4.0 percent decline in overall GDP." Honduras would experience a 15.5 percent decline in exports.

"The countries that will likely suffer most as a result of a reduction in U.S. imports are the same countries with which the United States has implemented free trade agreements in recent decades" including NAFTA and CAFTA, says the study. "The United States is currently running a trade deficit that virtually all economists recognize to be unsustainable."

China Surpasses U.S....(From one)

research and know where that research is taking place globally. "So what is our big advantage?' Porter asks.

The Georgia Tech "High-Tech Indicator" does not measure how active countries are in research, "but in areas like nanotechnology, China now leads the United States in published articles, but what scares me is China is getting better at marrying that research to their low-cost productive processes," says Porter. "When you put those together with our buzzword of innovation, China is big, they're tough and cheap. Again, where is our edge?"

Adds Nils Newman, a Georgia Tech co-author of the indicator study: "We have a situation in which technology products are going to be appearing in the marketplace that were not developed or commercialized here. We won't have had any involvement in them and may not even know they are coming."

The surge of China past the United States as the global technology powerhouse should be a "Sputnik" moment, but it isn't proving to be. For the most part, federal officials and politicians have been silent. As the economy heads into a downturn, both political parties "are jumping all over each other for the instant fix — the tax rebate," Porter observes. " 'Problem is all solved. Congratulations!' Wow. I think long term there are things that are not amenable to that solution."

The High-Tech Indicator tells a consistent story over the past 15 years of China's authoritarian government setting its mind on achieving global technology and industrial dominance. "China's entire orientation is toward competing," says Porter. "We frown on planning and don't do much, but they have set their mind on it."

China's gains have been dramatic. The country has not stumbled once in 15 years. "There is no real sense that any kind of leveling off is occurring," says Newman. "Most industrialized countries reach a kind of equilibrium, but the study shows no interruptions in China's advance."

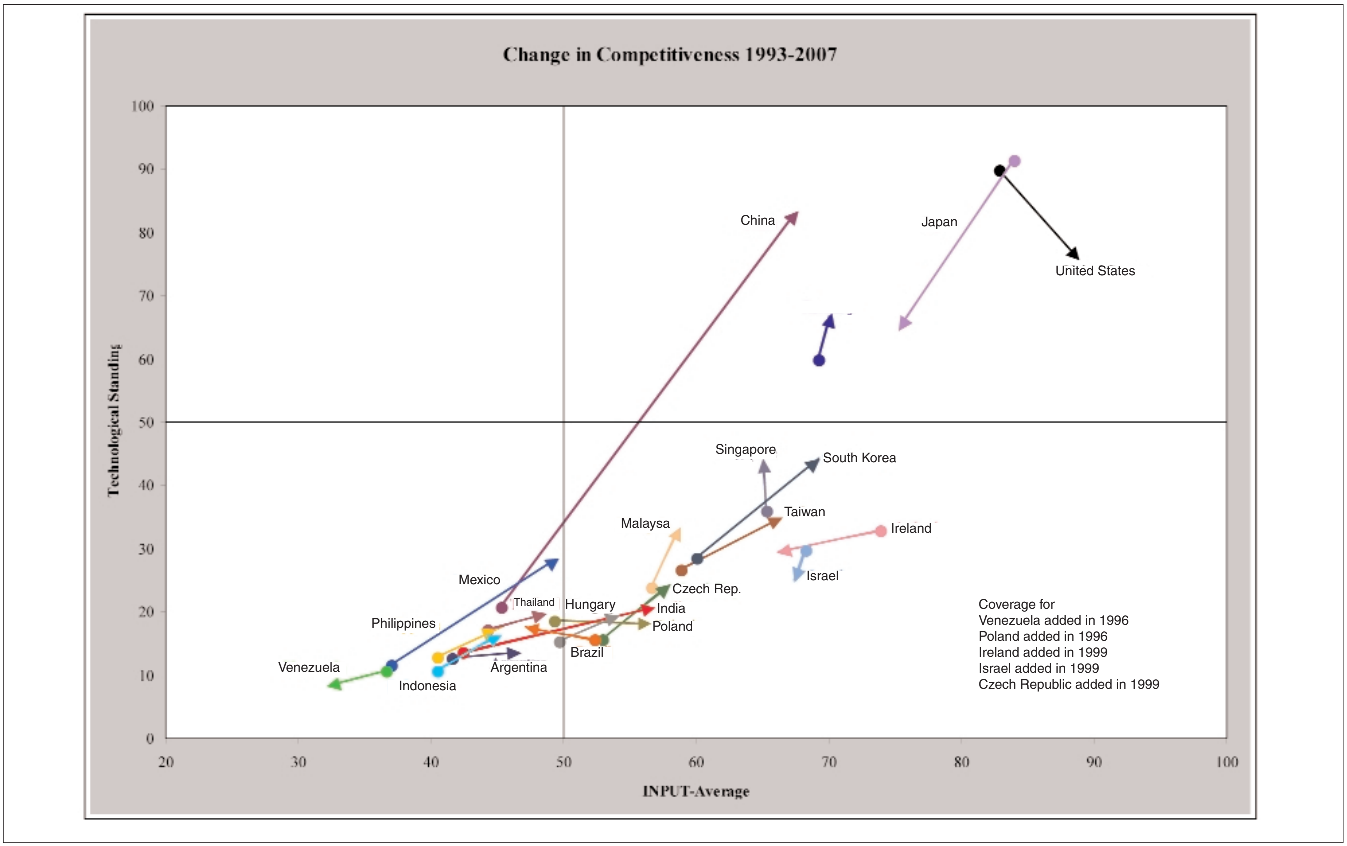
China is training more scientists and engineers and is generously funding their research endeavors. The United States is headed in the opposite direction. "The training of scientists and engineers has lagged, and post 9-11 immigration barriers have kept out international scholars who could help fill the gap," says the Georgia Tech indicator study.

The Georgia Tech "technology standing" measure of 33 countries is based upon four factors: national orientation toward technological competitiveness, socioeconomic infrastructure, technological infrastructure and productive capacity. Each of the indicators is based on a combination of statistical data and expert opinions.

China's ascendancy over 33 nations has "changed the world economic landscape in technology," says Porter. Its continued growth and dominance "won't leave much room for other countries."

Adds Newman: "It's like being 40 years old and playing basketball against a competitor who's only 12 years old — but is already at your height. You are a little better right now and have more experience, but you're not going to squeeze much more performance out. The future clearly doesn't look good for the United States."

The study is located at http://tpac.gatech.edu/.



Manufacturing Plants Opening And Closing

New Plants In The United States

Canon has announced plans to spend $600 million to expand its U.S. production facility in Virginia, thanks in large part to the falling dollar. Japan's largest producer of office equipment says it will add more than 1,000 jobs to its current U.S. workforce of nearly 1,500. Canon will build a 700,000-square-foot factory in Hampton Roads, Va., to produce cartridges for laser printers using high-speed, automated production technology, and expand its repair and refurbishing facilities for digital consumer products. It will open a new center to develop automated and robotic manufacturing technologies. Canon will also expand a facility in Gloucester County, Va., that recycles toner cartridges.

The investment in the United States represents a turnaround for Canon. The company has laid off U.S. production workers for years and shifted manufacturing overseas. It closed its Costa Mesa, Calif., ink-jet printing plant in 2002 and shifted production to Thailand and Vietnam.

The investment in Virginia "symbolizes a significant investment in manufacturing in the U.S.," says Tsuneji Uchida, Canon's president and chief operating officer. "The combination of producing, selling, collecting and recycling cartridges locally, and eliminating the need to transport products around the world will allow us to have a positive environmental impact by helping to reduce CO_2 emissions worldwide." He said Canon will benefit from local cost competitiveness, better management of labor costs and timely delivery of products.

BMW Manufacturing Co. has announced plans to increase production at its Spartanburg, S.C., plant from 160,000 to 240,000 vehicles by 2012 with an investment of $750 million. "The car plant in the U.S. helps us on the natural hedging side — it can reduce your total exposure" to the sagging dollar, says company CEO Norbert Reithofer. The company, which sold a record1.5 million vehicles worldwide last year, has a goal of producing 1.8 million cars by 2012. It will add 1.5 million square feet of new capacity at Spartanburg, and will hire an additional 500 workers by 2012.

Nordic Windpower, a company headquartered in Sweden, has selected the city of Pocatello, Idaho, to be the site of a new turbine manufacturing plant. The 43,000-square-foot facility will create 160 jobs and produce 20 turbines per month by 2009. The company's two-bladed turbines "are based on a 30-year, $75 million investment in research and development by the Swedish government," says Nordic Windpower in a description of itself. The state of Idaho is providing the company with location incentives. "Pocatello has a favorable cost of operations, an excellent workforce and location central to potential customers and transportation," says company CEO Steve Tabor. "With the invaluable assistance at the state and local level, Nordic is ramping up rapidly to meet demand that is outpacing production across the industry."

I/N Kote, a 50-50 joint venture between ArcelorMittal and Nippon Steel, has announced plans to double its galvanized steel production operation in New Carlisle, Ind., and create 100 new jobs by 2010. The companies will invest more than $240 million to build and equip a 240,000-square-foot facility at the existing I/N Kote center with a new line that will have an annual capacity of 480,000 tons. I/N Kote currently produces around 450,000 tons of galvanized and galvannealed steel annually at the site. The Indiana Economic Development Corporation offered I/N Kote up to $4.8 million in tax credits and up to $100,000 in training grants based on the company's job creation plans. St. Joseph County will provide property tax abatements.

TRW has announced plans to invest $27 million in new production operations in Lafayette, Ind., to make steering gears for heavy-duty trucks. The company will equip a new 300,000-square-foot plant and will start hiring 200 new workers later this year.

IKEA's Swedwood industrial division has opened a new plant in Danville, Va., its first furniture production facility in the United States. The plant will produce a variety of wood-based IKEA products such as bookshelves, coffee and side tables, modular entertainment systems and wardrobe frames. The 810,000-square-foot factory is built on 209 acres and employs 740 workers. Swedwood has 36 production facilities in nine countries and employs 13,000. The facility will supply 28 IKEA stores in the United States. IKEA plans to open three to five stores per year in the United States. The company owns 235 stores in 34 countries.

Smak Plastics has opened a new rotational molding manufacturing plant near Vancouver, Wash. The company, which makes playground equipment, sports equipment and aftermarket parts for recreational vehicles, chose the location because it is on the Interstate-5 corridor near Interstate 84, and is served by marine, rail and air cargo transportation connections. The company expects to hire 25 new workers in the 30,000-square-foot facility.

OptiSolar, Inc., based in Hayward, Calif., has announced plans to build a new 600,000-square-foot solar panel manufacturing plant in Sacramento, Calif. The plant is expected to create 500 new jobs over three years. The company received economic incentives of up to $20 million over a 25-year period from the Sacramento Area Commerce and Trade Organization. OptiSolar makes photovoltaic panels used in solar farms, and has signed long-term power sales agreements for more than 200 megawatts of projects in Ontario, Canada.

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New Plants...*(Continued from page seven)*

MED Institute, the product development subsidiary of Cook Medical based in Bloomington, Ind., has expanded its research and development center in West Lafayette, Ind., and plans to hire 250 employees at the site by 2011. The 92,000-square-foot development center is located in the former Great Lakes Corporation headquarters. The Indiana Economic Development Corporation offered the company up to $1.9 million in tax credits in 2007 based on the company's expansion plans.

Aluminum auto parts manufacturer **Casting Technologies Co.** has announced plans to expand its manufacturing and headquarters operations in Franklin, Ind., creating 40 new jobs. The aluminum auto parts manufacturer will invest $3 million to increase its casting operations and renovate its headquarters facility. The company currently has a workforce of 85 employees and will begin hiring later this year. The company, owned by Compass Automotive Group, was purchased in November by New York-based private equity firm Monomy Capital Partners. Monomy also purchased Alcoa Automotive Castings and Magnesium Aluminium Corp. and is merging them all into Casting Technologies Co. The company hopes the expansion will enable it to sell lightweight parts to automobile companies looking for ways to reduce weight and improve fuel efficiency.

Plants Closing In the United States

Honeywell Aerospace has announced plans to cut 420 manufacturing jobs at its north Phoenix, Ariz., facility and outsource those positions to Indonesia and Malaysia starting in the fall. The company employs 2,500 workers at the Phoenix site.

A slowdown in orders for **Harley-Davidson** motorcycles is impacting the company's production schedule for the year, leading to layoffs of 700 workers. Sales were down 13 percent during the first quarter of this year, and the company expects total sales for 2008 to decline by up to 27,000 motorcycles. The company expects shipments this year to be between 303,500 and 307,500 units.

"We will achieve the shipment reduction through temporary plant shutdowns and adjustments to daily production rates," says company CEO Jim Ziemer. This will result in a decrease of about 370 unionized employees over the next several months. "The company will also be reducing the non-production workforce by about 360 jobs," says Ziemer. "We believe these actions will better position the company for a business environment that we expect to continue to be challenging."

Superior Essex, an Atlanta, Ga.-based maker of wire and cable, has announced plans to close its 250-worker plant in southern Indiana by the end of the year. Production at the company's plant 50 miles north of Evansville, Ind., will be shifted to factories in Franklin, Tenn., and Torreon, Mexico. "Those are good-paying jobs, $14 to $15 an hour union manufacturing jobs, and it's going to hurt not having them around," said Marc McNeece, executive director of the Knox Country Chamber of Commerce. "This is just more evidence of how we're competing in a global economy." The company expects to save up to $9 million.

Bolton Metal Products has announced plans to close its plant in Centre County, Penn., eliminating 6 percent of that county's remaining manufacturing jobs. "That's a lot of jobs in one area," says Joe Merlina of Pennsylvania's Center for Workforce Information and Analysis. "To get manufacturing back, you need to do something that's unique unless your customer is the federal government." Centre County has lost 47 percent of its manufacturing jobs since 2001.

Champion Enterprises, a manufacturer of modular homes, has announced plans to close manufacturing plants in Silverton, Ore., and LaGrange Ind., due to the slumping housing market. The Troy, Mich.-based company will move production to its facilities in Topeka, Ind. "As a result of lagging sales, we made the difficult decision to further consolidate our U.S. operations, bringing the total number of plants idled or closed since mid-2006 to 10," says company chairman William Griffiths. The closures will result in restructuring charges of between $2.1 million and $7.5 million

K.O. Lee's 120-year-old manufacturing plant in Aberdeen, S.D., which produces grinding machines for the machine tool industry, is expected to close. Company officials say they have not been able to sell the firm and slowing demand "has made the business impossible to run," says Krestie Utech, chairwoman of K.O. Lee's board of directors. The company, which was founded in 1888 by Knute Oscar Lee to sell farm equipment, will lay off its 29 employees.

United Industries, a maker of stainless steel tubing used by automakers, has announced plans to close its plant in Beloit, Wisc., and move production to an affiliated company (United Stainless) in Selmer, Tenn. The company has experienced a "dramatic decline" in demand for automotive related products, says company president John Robb.

Whirlpool will close two refrigerator plants: one in LaVergne, Tenn., and the other in Reynosa, Mexico. Production from LaVergne will move to Fort Smith, Ark., and Reynosa's output will move to Ramos Arizpe, Mexico. "The changes will help the company increase efficiencies by leveraging the size and scale of its Fort Smith and Ramos Arizpe facilities, allowing for refreshed product designs that will bring new innovations and features to consumers," says Whirlpool.

The company will lay off 500 workers in LaVergne, and 750 at Reynosa. The Fort Smith plant expects to add approximately 275 jobs by December, and the Ramos Arizpe facility plans to add an estimated 600

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employees by mid-year.

"These decisions, while difficult, are an important part of our overall operating plans, and will help ensure that we remain competitive in North America," said Al Holaday, vice president of Whirlpool North America manufacturing. "The changes are in no way a reflection on our employees at either the LaVergne or Reynosa facilities, whose contributions we greatly appreciate."

Plant Closing Overseas:

Mitsubishi has announced plans to close its Adelaide, Australia, assembly operations, and lay off up to 1,200 employees. "It is with much regret that Mitsubishi has taken the decision to cease production activities in Australia," said company president Osamu Masuko. The company has lost $1.5 billion in Australia over the past 10 years, said Mitsubishi Motors Australia CEO Robert McEniry. The company's production accounted for only 2 percent of Australia's total car market. "As a relatively minor manufacturing player, we believe the cessation of production will have little or no impact on the local industry overall," McEniry said.

New Plants In Mexico:

Fisher & Paykel Appliances has announced plans to close manufacturing plants in California, New Zealand and Australia and move production to Reynosa, Mexico. The company will start manufacturing its appliances at the recently closed Whirlpool refrigerator plant in Reynosa on 60 acres. It will close factories in Dunedin, New Zealand, Brisbane, Australia, and Huntington Beach, Calif., and shift production to Mexico over the next 18 months. The company should save $50 million a year on the move that will cost a total of $100 million. Fischer & Paykel will lay off 430 workers at its Dunedin facility in New Zealand.

"It's an emotional time for all of us, but this move will make us more competitive in the U.S. and strengthen our distribution efforts through making them more efficient," said Mike Goadby, North American president for Fisher & Paykel.

The New Zealand-based company is producing "European" design-style appliances that are more energy efficient. "Growing interest among U.S. consumers for stylish, yet green and energy efficient home appliances will bode well for the company's growth prospects," says the company, which has 4,500 dealers in the United States.

New Plants In India:

Greaves Cotton Ltd. has opened a new manufacturing plant in Gummidipoondi, Tamil Nadu, India, to manufacture road compaction equipment. The plant, the company's fourth in its Infrastructure Equipment Group, will produce up to 1,200 compaction machines per year. Greaves has also signed a technical collaboration agreement with Bomag GmbH of Germany to manufacture 19-ton vibration soil compactors in India. Bomag is the world's largest manufacturer of compaction equipment. "We are aggressively focusing on the booming infrastructure sector in India," says Greaves chief executive P. Sachdev.

ZF Friedrichshafen, a German automotive parts supplier, has announced plans to build a 20-million euro manufacturing plant in Pune, Maharashtra, India. The factory will produce vehicle transmissions for heavy trucks and agriculture and construction components for the Indian market. The company expects the plant to be operational in the middle of 2009. It will sell products in India that are currently exported from Germany to companies such as Telcon, JCB India, BEML, Schwing Stetter, Greaves Cotton, Ashok Leyland, Asia MotorWorks and Force Man.

Shipping Corp. of India (SCI), a state-owned entity, has formed a partnership with government-run Indian ports to enter the business of manufacturing diesel engines for ships. The alliance, which includes Jawaharlal Nehru Port Trust, Mumbai Port Trust, Kolkata Port Trust and Cochin Shipyard Ltd., says there is an acute shortage of ship engines globally. The fast-growing shipbuilding industry in India is being stymied by lack of engine deliveries. MAN Diesel SE, Rolls Royce and Wartsila Corp. are running at full capacity and can't deliver new orders until 2010, says SCI.

"With local shipyards adding capacity and new players entering the shipbuilding business, demand for ship engines within the country is set to increase," says SCI. "In the absence of locally available engines and other gears, Indian shipbuilders import them from factories located in Finland, Norway, Germany, Italy and the UK. But amid a global boom in shipbuilding, dependence on overseas factories creates additional bottlenecks for Indian shipbuilders."

India shipbuilding company ABG is now waiting 24 months to receive shipments of engines. MAN Diesel, Wartsila and Rolls-Royce are also considering setting up facilities in India in an attempt to cash in on India's fast-growing shipbuilding industry, which is expected to expand by up to 30 percent per year.

"Traditional shipbuilding nations such as South Korea and Japan have turned down orders for relatively smaller ships for lack of capacity in their shipbuilding yards," says SCI.

The company hopes to supply engines to Indian yards such as ABG, Bharati Shipyard Ltd., Larsen and Toubro Ltd., Cochin Shipyard, Pipavav Shipyard Ltd., Hindustan Shipyard Ltd., Mazagon Dock Ltd.

New Plants In China:

Mitsubishi Motors Corp. has announced plans to nearly double the manufacturing capacity of its Shenyang, China, plant to 420,000 small engines per year by 2010. Another new facility under construction will have production capacity of 100,000 engines per year. The company intends to boost overall engine

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production in China to 900,000 a year, up from 500,000 per year now, according to Mitsubishi Motors president Osamu Masuko. The company wants to take advantage of the booming Chinese automobile market, which surged by 22 percent in 2007. Mitsubishi Motors is also developing an inexpensive small car for the Chinese market and is investing in a less-polluting diesel engine.

Gleason Corp., one of a half a dozen large remaining U.S. makers of machine tools, has opened a new factory in Suzhou, China. The plant will produce machines that make cylindrical gears. The 22,600-square-foot facility is the company's second manufacturing plant in China. The company's Gleason Yi Gong (Harbin) Cutting Tools Co., is producing precision tools in Harbin, China. "Gleason Gear Technologies (Suzhoe) is a logical extension of our strategic plan to bring Gleason technology to this important market," says company president and CEO John Perrotti. Gleason, founded in 1865, employs approximately 2,800 people worldwide and is headquartered in Rochester, N.Y.

Littelfuse, based in Des Plaines, Iowa, has announced plans to close its semiconductor assembly and test production plant in Matamoros, Mexico, and move production to Wuxi, China. The move will lower production costs by $7.5 million annually. Littelfuse will lay off 950 employees at the Mexican plant. It also plans to open a new wafer fabrication plant in Wuxi early next year.

Chem-Trend, a Howell, Penn.-based maker of specialty lubricants, has announced plans to build a 300,000-square-foot manufacturing facility in China. The facility near Shanghai will have an annual capacity of 13,000 metric tons of release agents and lubricants.

Switzerland-based **Syngenta** has announced plans to build a new biotech research and technology center in Beijing, China, and invest $65 million in its operation over five years. Its focus will be on the genetic modification of corn and soy in the areas of yield improvement, drought resistance, disease control and biomass conversion for biofuels.

"China is increasingly recognized for the scale and caliber of its biotech expertise in agriculture," says Dave Lawrence, head of R&D at Syngenta. "Having our own research base in Beijing will accelerate innovation and offer powerful opportunities to work more closely with Chinese research institutes, which is all the more relevant now in a world that sees higher global demand for crops." The center will be built in Beijing's Zhongguancun Life Science Park and employ 200 people when it is complete in 2010.

China has established a new company to make passenger jumbo jets to rival those produced by Boeing and Airbus, according to a report from the Chinese government. The **Commercial Aircraft Corporation of China** intends to develop, build and sell large aircraft to the booming market in China.

General Motors says it will invest $1 billion a year for the next five years in China in new automobile and engine production facilities in order to keep up with demand. The company expects to sell one million autos in China in 2008. The Chinese are expected to purchase almost 10 million new vehicles in 2009, up from 8.5 million in 2007. GM is also investing $250 million in a new research laboratory at the company's China headquarters in Shanghai.

New Plant In Taiwan:

Taiwan Semiconductor Manufacturing Co., the world's largest contract chip maker, has announced plans to spend $5 billion to expand its manufacturing facility in Hsinchu, Taiwan, and use the new production lines for conducting research and development. The facility will be TSMC's main research center for the next six years aimed at developing 32-nanometer, 22-nanometer and 15-nanometer process technologies. The company is currently producing 45-nanometer chips and expects to introduce the 32-nanometer process in 2009, the 22-nanometer process in 2011 and the 15-nanometer process in 2013. The new production lines are expected to employ up to 3,000 workers.

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