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Who Benefits Most From The iPod Being Produced Mostly Overseas? Apple And Its Knowledge Workers

Not much of Apple's iPod is manufactured in the United States, but the majority of value added is captured by Apple, according to the Personal Computing Industry Center in Irvine, Calif. In hiring a company to dismantle an actual iPod and identify suppliers of the components, the center found that Apple made $80 in gross profit on a 30-gigabyte video iPod that retails for $299. Its profit is 36 percent of the estimated wholesale price of $224. The total cost of parts was $144.

Apple's gross profit "is greater than the price of any single input, so it is definitely greater than the value added for any of its partners," says the Personal Computing Industry Center in preliminary findings for a study sponsored by the Alfred P. Sloan Foundation. "[F]or sales made through Apple's own Web or store outlets, it retains an even larger share of the value."

The most expensive part in the iPod dissected by Portelligent Inc. was the hard drive supplied by Toshiba, at a cost of $73. Toshiba's drive represents more than 50 percent of the total cost of all components. Toshiba's estimated profit on the drive, based on its stated corporate gross margin of 26.5 percent, is about $19.45.

(Continued on page six)

India Is Experiencing A Surge Of Foreign Investment

Foreign direct investment into India is skyrocketing, due in large part to the country's recent liberalization of foreign investment regulations. "Global investors have responded with enthusiasm," says the U.S. International Trade Commission in a lengthy report.

Net foreign investment into India increased by 184 percent from 2005 to 2006, from $4.7 billion to $15.7 billion, according to the ITC. The Indian government is predicting $25 billion in foreign investment this year.

"FDI inflows to India surpassed inflows to South Korea in 2006, making India the fourth largest destination for FDI in Asia behind China, Hong Kong and Singapore," says the ITC. "Foreign firms are setting up joint ventures and wholly owned enterprises in services such as computer software, telecommunications, financial services, tourism and manufactured goods including transportation equipment, chemicals, pharmaceuticals and food processing," according to the study entitled "Competitive Conditions for Foreign Direct Investment in India."

Investment in India's information technology and business process outsourcing market is booming. By next year, the IT offshoring market is expected to be valued at more than $200 billion, representing one-fourth of the total world IT offshoring market and 7 percent of India's GDP. IBM increased its staff in India by 36 percent in 2006 to 53,000 workers and plans to invest another $6 billion in India over the next three years. By 2008, IBM expects to have a workforce of 120,000 employees in India.

(Continued on page two)

Money Pours Into India...

(Continued from front page)

When India relaxes caps on foreign-owned equity shares of companies in certain industrial sectors, money pours in. For instance, equity limits for foreign investment into telecommunications companies were raised from 49 percent to 74 percent in November 2005. Inflows jumped from $588 million in 2005 to $3 billion in 2006. The value of mergers and acquisitions in the telecom sector increased from $1.2 billion in 2004 to $4.1 billion in 2005 and to $11.4 billion in just the first three months of 2007.

Greenfield projects are also increasing at a surging rate. In 2002, there were 247 greenfield FDI projects, worth a total of $4.2 billion. Last year, that number surged to 980, worth a total of $55.5 billion. Between 2002 and 2006, 300 greenfield projects were worth more than $1 billion.

"The bulk of greenfield FDI in India is destined for new facilities rather than expansions of existing ones," says the ITC. "The share of expansion projects has been declining steadily over the period from 22 percent of reported projects in 2002 to 11 percent in 2006.

"U.S. greenfield investment has averaged 44 percent of the total number of projects and 18 percent of the total reported value for projects," the ITC found. U.S. investments in greenfields have been smaller because they are more concentrated in the areas of research and development, especially software development. "Over half of all listed R&D projects were funded by U.S. companies, and research facilities tend to require considerably less capital than manufacturing facilities," says the ITC report. "Since 2002, many of the major U.S. software and computer brands, such as Microsoft, Honeywell, Cisco Systems, Adobe Systems, McAfee and Intel have established R&D operations in India, primarily in Hyderabad or Bangalore."

The majority of U.S. electronics companies that have announced greenfield facilities in India have been concentrated in the semiconductor sector. The largest project belongs to AMD, a $3-billion chip manufacturing facility in Hyderabad. Intel plans to invest close to $1 billion in India, primarily expanding the company's R&D center in Bangalore, over a multi-year period, says the study. Google is going to open a $1 billion server farm in Andhra Pradesh.

In 2004, the latest available information, there were 577 affiliates of U.S. firms operating in

(Continued on page four)

Largest 15 Greenfield FDI Projects In India, 2002 - 2006

Source country	Investing Company	Destination state	Capital (million dollars)	Technology/Product	Key business function
Canada	Royal Indian Rag International	Karnataka	9,000	Residential development	Construction
Luxembourg	Arcelor-Mittal	Bihar	8,940	Steel Products	Manufacturing
Netherlands	Ispat Industries	Maharashtra	4,458	Steel Cold Rolling/Forming	Manufacturing
Singapore	Flextronics	Andhra Pradesh	3,000	Wafers	Manufacturing
USA	Advanced Micro Devices (AMD)	Andhra Pradesh	3,000	Microprocessor	Manufacturing
South Korea	Pohang Iron & Steel (POSCO)	Orissa	3,000	Steel products	Manufacturing
Netherlands	European Aeronautic Defence and Space	Karnataka	2,600	Aircraft	R & D
UK	Vedanta Resources	Orissa	2,100	Aluminum Products	Manufacturing
Netherlands	Ispat Industries	Karnataka	2,000	Steel products	Manufacturing
Canada	Niko Resources	Andhra Pradesh	2,000	Natural gas exploration	Extraction
Venezuela	Petroleos de Venezuela	Rajasthan	2,000	Petroleum exploration	Extraction
Japan	Nissan	Orissa	1,500	Passenger Cars	Manufacturing
UAE	Emaar Properties	Haryana	1,500	Property developer/ management	Construction
USA	AES India	Chattisgarh	1,200	Electricity/gas utilities	Electricity
Germany	SAP	Haryana	1,000	Enterprise application software	R&D

Source: *LocoMonitor FDI database*, and *The Financial Express*, "EADS to Open Technology Centre in Bangalore."

Former Treasury Sec. John Snow Comes To Chrysler's Rescue

John Snow, former Secretary of Treasury, is going to save Chrysler Corp., or so he says, so long as he gets the money, which suddenly became increasingly difficult in the past two weeks.

Snow, chairman of Cerberus Capital Management, LTD, a New York private equity firm, has agreed to buy an 80 percent stake in Chrysler from DaimlerChrysler of Stuttgart, Germany. Cerberus's investment of $7.4 billion is the second "bailout" of Chrysler in the last 30 years, the first one funded by taxpayers, says Snow. This one represents "a milestone event for private equity, private investment. Private investment wasn't around 30 years ago when Chrysler was first in trouble and they turned to the government for the rescue. In that intervening 30 years, one of the most important developments in financial markets has been the growth of private investment, private equity."

Investment funds like Cerberus Capital are helping restore companies like Chrysler back to health by infusing them with a new set of managers and allowing them to focus on long-term prosperity rather than demands from 26-year-old financial analysts pressuring them quarterly to meet "a target by a penny a share," says Snow. "We invest in under-performing companies and make money for our investors by turning them around. Our motto really is to buy and to fix and to hold."

Since it started in business 16 years, ago, Cerberus has sold very few of the companies it's purchased. "Carpenters take old homes and rebuild them" says the former Treasury Secretary. "What we do is take under-performing companies and return them to competitive success."

Fixing Chrysler requires a "new set of glasses," says Snow. "It takes a fresh look. And what we try and do is provide a fresh look. We ask a lot of questions. We're an attentive parent. We pay close attention. But we tell the management teams, look, you're now free from those quarterly reports. You're now free from those analyst meetings. You can focus all of your effort and energy on running the business. And what a sense of relief that is to people to whom management is a calling, to people who really want to make a business a success."

Snow expects Chrysler's turnaround to generate "a lot of free cash flow" and become a "source of a lot of profitability" for the private equity holders. "Chrysler was in an environment before that didn't allow it to achieve its potential," says Snow. "It was a merger with Daimler that looked good — that had promise — but didn't realize the full promise, and now Chrysler is returning to the United States and has a chance to fulfill its promise."

When asked about recent questions concerning the growth of private equity funds and hedge funds and the massive profits they're generating for a select few, Snow urged caution. "Governments need to monitor hedge funds, private equity," he said. "They need to understand it. We studied it when I was at Treasury, spent a lot of time on it and concluded that, in the case of hedge funds, a lighter regulatory approach was better. Anything that has such far-reaching, far-flung and important effects on the economy needs to be the subject of government attention."

When asked about whether the profits from private equity funds should be taxed as ordinary income rather than as capital gains, Snow said that such a proposal "carries a lot of risks...Keep in mind, you always get less of anything you tax. If you raise the taxes on an activity, you'll find that you get less of it. That is why — when I was in the Bush administration, we wanted to lower the taxes on investment — reduce dividends and capital gains taxes because if you reduce taxes on capital, you get more capital."

The success of this policy is now being seen in the form of a "virtual gusher of revenues" to the government since the tax cuts took effect, he said. "It's important that we keep the categories of income straight. If what's being earned is ordinary income, then it should be taxed as ordinary income. But under the code of the United States, what is risk return gets taxed at the capital gains rates. That's an awfully important analytical concept. It's also a very important practical concept because millions of Americans have organized their business affairs around the principle of partnerships that bear risks that are taxed as capital gain. And that's virtually every business that gets organized in America. It's the oil and gas joint ventures and it's the real estate partnerships and it's the small businesses."

American Farmers Plant A Lot More Corn

Farmers in the United States this year planted the largest corn crop since 1944, in hopes of capitalizing on the growing demand for ethanol, foreign consumption and higher prices. In 2007, 93 million acres of farmland were devoted to corn, up 19 percent from 2006, according to the U.S. Department of Agriculture. In 1944, American farmers planted 95.5 million acres of corn.

Corn acreage set records this year in Illinois, Indiana, Minnesota and North Dakota. Farmers in nearly every state increased their corn acreage. Other crops were displaced. Soybean acreage is down 15 percent from last year's record high, to 64 million acres. Cotton acreage declined 28 percent to 11 million acres, the lowest level since 1989.

Farmers are embracing biotechnology. Corn growers planted 73 percent of their acres with biotech seed varieties, an increase of 12 percent from 2006. Cotton farmers planted 87 percent of their acres with biotech varieties, up 4 percent from last year. Soybean producers planted 91 percent of their acres with biotech seeds, up 2 percent from 2006.

FDI Flows Into India...

(Continued from page two)

India, with 198 being majority owned by U.S. firms. These affiliates employed 165,000 workers, the largest share of which were in the manufacturing sector — "most prominently in the machinery, chemicals and transportation equipment manufacturing segments," according to the ITC.

India is busy creating special economic zones (SEZs) that provide financial inducements to attract investment. As of November 2006, 41 zones were operational and another 237 had been approved. "Indian exports from SEZs increased by 114 percent between 2000 and 2004 and are expected to grow at an even faster rate in coming years," writes the ITC. "Exports from SEZs were valued at $5.1 billion for 2005 and are projected to reach $15 billion in 2007, a 195 percent increase."

These zones provide tax, tariff and financial incentives; they reduce a company's burden of having to deal with the Indian bureaucracy; and they provide companies with a reliable infrastructure. For the first five years of operation, firms in the zones pay no income tax. For the next two years they receive a tax reduction of 50 percent; during years eight through 10, companies can debit up to 50 percent of their profits from the previous year to a "Special Economic Zone Reinvestment Allowance Reserve Account." This can be used for further investment in capital equipment and plant improvements.

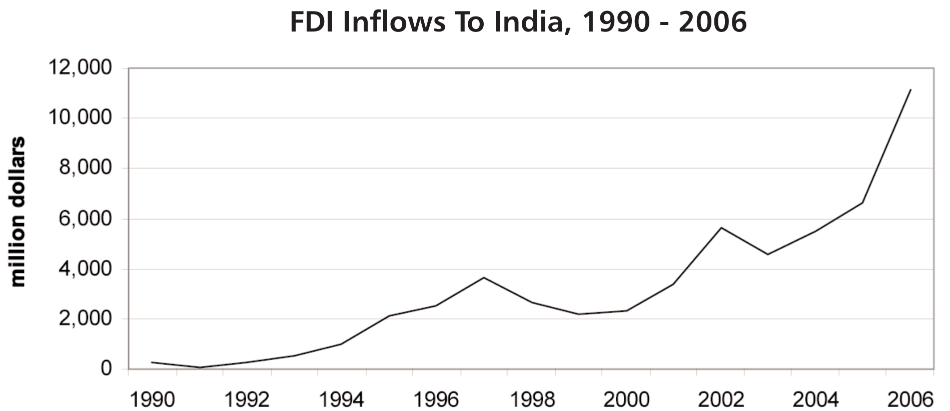
Companies operating in the economic zones are exempt from all customs duties on imported goods so long as they are re-exported in the finished product. This creates "a beneficial environment for export-oriented firms who need inexpensive and easy access to manufacturing inputs," says ITC. Companies do not have to pay sales taxes on domestic purchases, and profits are allowed to be freely repatriated.

FDI inflows into India are growing rapidly, but they still don't compare to the amount of foreign investment taking place in China, which, over the past four years, "has been 10 times that of investment into India," says the ITC. In 2005, China attracted $72.4 billion. FDI into Brazil totaled $15 billion in 2005 and $18 billion was invested in Mexico.

Within its assessment, the ITC provides a case study of India's automotive industry. It says production of passenger cars is growing at an average annual rate of 18 percent to 1.3 million vehicles in 2006, up from 670,000 vehicles in 2002. Exports of passenger vehicles are growing at 35 percent per year. The automotive parts industry is booming, more that doubling its output from 2001 to 2006 to $10 billion.

With a boom in outsourcing from automakers and their suppliers, the Indian automobile industry output is expected to reach $18.7 billion in 2006 and an estimated $40 billion by 2014. Exports of automotive components tripled between 2002 and 2006 to $1.8 billion, with projections of $20 billion to $25 billion by 2015.

The report (ITC publication 3931) is located at http://hotdocs.us itc.gov/docs/pubs/332/pub3931.pdf.



(Source of Chart: U.S. International Trade Commission Report "Competitive Conditions for Foreign Direct Investment in India," July 2007)

Business Bankruptcies Surge This Year

Business bankruptcies in the United States are projected to increase by 51 percent this year, due to an economic slowdown, lower profits, high gas prices and an adjustment on behalf of business to the changes in the bankruptcy law enacted in 2006, according to Euler Hermes, the world's largest insurer of trade accounts receivables. "We anticipate a return to some 30,000 insolvencies this year," says Daniel North, chief economist of the firm. The slowdown in the housing market is beginning to have a ripple effect in the business sector. "Median prices on existing homes have fallen for several months on a year-over-year basis, which is an unprecedented event since house prices almost always never fall," says North. "They have never fallen for more than two months in a row in the 38 years that records have been kept." To view the company's forecast, go to http://www.eulerhermes.com/usa/en/news_publications/index.html.

Manufacturers Need To Re-Stock Their Human Resource Toolbox For Gen Y

Manufacturing companies have not done a very good job of trying to figure out how to work with Generation Y, the group of people born between 1982 and 1993 that will constitute almost 60 percent of the workforce in 2025, according to Deloitte Services.

"Now that Generation Y has stepped into the talent management pool, manufacturing firms need to consider how effectively they are providing what their employees value most: long-term career development and multiple experiences within a single organization; sense of purpose and meaning in their work; the availability and access to mentors across the company; work-life flexibility; a tech-savvy work environment; and open social networks that embrace open and honest communication," according to Deloitte.

If companies start addressing these issues across their global enterprise then older generations of workers will benefit because "they may not always have articulated them or expected them to be met by their employer," says Deloitte. "Thus by learning from Generation Y, a company may be able to rethink how it can develop talent across an entire workforce. This provides a unique opportunity to transform their human resource management function and truly engage employees to build a high performance workplace."

Manufacturers have to do a much better job of marketing themselves to the Y Generation. Manufacturing is no longer viewed by this important group of workers as a leading source of stable, high-reward career opportunities. "What Generation Y doesn't know is that, contrary to common perception, the job of modern manufacturing work requires strong technology, flexibility, multitasking and team problem-solving skills," says Deloitte in a report entitled "Managing the Talent Crisis in Global Manufacturing: Strategies to Attract and Engage Generation Y." "The environment in most plants is a far cry from the old images of dark, dirty and dangerous."

The new generation of workers will be needed in a variety of jobs within the manufacturing sector, including those removed from the factory floor, including marketing, research and development, finance, legal services and sales. In order for companies to improve productivity, grow and increase their service orientation, "they should not overlook the new talent pool to fill the demand for higher skills," says the Deloitte study. "Managing the talent paradox is a global issue for manufacturers. Shifting operations to emerging markets will not solve the paradox; rather it will make it more complex as manufacturers face similar problems in both mature and emerging markets."

The talent shortage exists worldwide. "Attracting qualified workers in countries such as China, India, Latin America and Eastern Europe is becoming increasingly more difficult," notes Deloitte. "Although skill requirements vary by location, the skills that were most often cited as insufficient were in the areas of leadership, team work, English language proficiency and managerial capability."

Manufacturers moving operations overseas must be aware of the growing difficulty of finding talented employees. In Southeast Asia "growing skill requirements indicate that in the long run firms that fail to connect to the younger generation will not be able to take complete advantage of migrating to high-value-added industries."

In India, manufacturing is facing stiff challenges from the services and IT sectors, and the most skilled technicians are leaving for higher paying jobs in the Middle East. In Eastern Europe, skills shortages are driving up the cost of wages. In the Czech Republic, wages increased by 10 percent in the second quarter of 2007, compared to the same period last year.

"For most manufacturing companies, the focus on talent management has centered on its end points, acquisition and retention," the study concludes. "By doing so, companies have misdirected their attention from what truly matters to key employees — developing people in ways that foster growth, deploying them into roles that tap their strengths and interests, and connecting them in ways that enhance their performance."

ABB Growth Is Fueled By Growing Markets

The rising global demand for energy is leading to surging growth and profits at Asea Brown Boveri, based in Zurich. The company's net income doubled from $367 million in the second quarter of 2006 to $729 million for the same quarter in 2007. Sales increased by 27 percent, from $6.9 billion in the second quarter 2006 to $8.7 billion. Earnings before interest and taxes jumped 14.4 percent to $1 billion. The company's order backlog also surged by 39 percent, from $14.7 billion in the second quarter 2006 to $20.4 billion in its latest quarter.

Driving growth is the need to improve grid interconnections in Europe and power infrastructure projects in the Middle East.

Within the company's automation division, steady growth in industrial demand in the metals and minerals sectors is leading to a surge of capital investment and new capacity. High oil prices are fueling additional investment in more energy efficient industrial processes across most industrial sectors. "In addition, ABB is well-positioned to benefit from increasing investments by customers to mitigate climate change with energy-efficient products and systems," says the company. Since the second quarter 2006, ABB has added 2,000 workers for a total workforce of 111,000.

Apple's iPod...

(Continued from page one)

The next most valuable part is the display supplied by a joint venture of Toshiba and Matsushita. The cost: $20.39, with an average gross margin for the two companies of 28.7 percent, or $5.85.

The value captured by Japanese companies for supplying the two most expensive parts was $25.30.

"The biggest winner is Apple, an American company with predominantly American employees and stockholders who reap the benefits," says the study. "If the iPod had been made by Sony or Samsung, the value to the U.S. would be considerably less."

Portelligent provided the Personal Computing Industry Center, based in Irvine, Calif., with "teardown" reports from dismantling the iPod and identifying suppliers. It found that there are more than 400 parts worth from pennies apiece to $2. After the display and hard drive, the next two most expensive parts were the video playback chip supplied by U.S.-based Broadcom, and the chip that manages the iPod's functions supplied by U.S.-based PortalPlayer. Given that their respective margins were 52.5 percent and 44.8 percent respectively, the chips created value for the two companies worth $6.60.

The center intends to do a more in-depth analysis of the supply chain involved in the higher-value components, and determine where the manufacturing is done for such parts as PortalPlayer's controller chip. It will look at the companies doing design, and determine which firms are receiving royalties from Apple on technology incorporated into the iPod.

"Because Apple is particularly sensitive about its supply base, field research and other inquiries will be needed even to make educated guesses," says the study.

The center also looked at the back-end of the supply chain — the distribution and retail aspect of the iPod. It found that with the wholesale cost of $225 (minus the $80 for Apple's profit) the remaining $75 is for distribution ($30) and retail ($45). "In the case of retail units sold in other countries, a significant portion of the U.S. share [of value captured] would shift elsewhere," says the study. "For a unit sold in Japan, the total value captured by Japanese companies might even be larger than the U.S. share, depending on the identity of the company that handles distribution."

The first phase of the study has not determined the direct labor costs involved in making all the parts that go into the iPod, "most of which will be outside the United States," due the lack of data. Even the Japanese companies have moved their production to China.

"Trade statistics can mislead as much as inform," the study concludes. "For every $300 iPod sold in the U.S., the politically volatile U.S. trade deficit with China increased by about $150 (the factory cost). Yet, the value added to the product through assembly in China is probably a few dollars at most. While Apple's share of value capture is high for the industry, the iPod's overall pattern of value capture is fairly representative.

(Continued on page seven)

The Most Expensive Inputs In the 30 Gigabyte 5th-Generation iPod, 2005

Component	Supplier	Company HQ Location	Manu-facturing Location	Estimated Factory Price	Cost as % of all iPod Parts	Gross Profit Rate	Est'd Value Capture
Hard Drive	Toshiba	Japan	China	$73.39	51%	26.5%	$19.45
Display Module	Toshiba-Matsushita	Japan	Japan	$20.39	14%	28.7%	$5.85
Video/Multimedia Processor	Broadcom	US	Taiwan or Singapore	$8.36	6%	52.5%	$4.39
Portal Player CPU	PortalPlayer	US	US or Taiwan	$4.94	3%	44.8%	$2.21
Insertion, test, and assembly	Inventec	Taiwan	China	$3.70	3%	3.0%	$0.11
Battery Pack	Unknown			$2.89	2%		$0.00
Display Driver	Renesas	Japan	Japan	$2.88	2%	24.0%	$0.69
Mobile SDRAM Memory - 32 MB	Samsung	Korea	Korea	$2.37	2%	28.2%	$0.67
Back Enclosure	Unknown			$2.30	2%	26.5%	
Mainboard PCB	Unknown			$1.90	1%	28.7%	
Subtotal for 10 most expensive inputs				**$123.12**	**85%**		**$33.37**
All other inputs				$21.28	15%		
Total all iPod inputs				$144.40	100%		

(Source: Portelligent Inc., 2006, and PCIC authors' calculations)

UK Groups Fret Over Future Of Manufacturing

Manufacturing in the United Kingdom will end by the year 2030 if jobs continue to be lost at the present rate, according to an analysis from the British Transport and General Workers' Union. Although there are still 3.41 million people employed in the British manufacturing sector, these jobs are disappearing at a rate of 126,363 a year.

"An industrial base that took nearly 200 years to build up, has been nearly destroyed in 20 years," says TGWU general secretary Tony Woodley. "Government action must be immediate," he said. "Millions of jobs and a balanced economy still depend on the success of UK manufacturing. As a start, the government should speed up the review of public procurement policies."

Meanwhile, the UK's Engineering Employers Federation (EEF) says manufacturing growth is stuck at just 0.5 percent per year, and that the UK trade deficit is projected to reach 80 billion pounds by 2010, up from 29 billion pounds last year.

"A persistent deficit of this size would leave the UK dangerously exposed to fluctuations in investment income and dependent on its ability to attract capital inflows," says the EEF. "As manufacturing capacity has moved abroad, the import of components has risen by an annual average of 20 percent since 1997." Adds EEF director general Marin Temple: "Manufacturing now stands at a crossroads and is being subjected to massive change. By the end of this decade, it will look significantly different than it does today. We cannot allow it to decline at its current rate or the UK economy overall will suffer the consequences."

GAO Issues Fiscal Warning To State, Local and Fed. Govts.

Federal, state and local governments face a potential fiscal meltdown if they don't immediately start addressing the growth of public spending on health care, according to the Government Accountability Office (GAO).

There are 87,575 state and local governments located in the United States and their spending on health care is projected to increase to more than 8 percent of GDP by 2050. In order to fund health care, state and local tax levels either need to rise "immediately and permanently" by 16.8 percent or state and local spending financed by their own revenues "would have to decrease immediately and permanently by 14.1 percent," says the GAO.

The fiscal gap for state and local governments in trillions of 2007 dollars would be $11.5 trillion, or 1.6 percent of the present value of GDP.

Calculating it in a similar fashion, the federal fiscal gap is $54.5 trillion in 2007 dollars or 7.4 percent of the present value of GDP. The combined fiscal gap is $66 trillion in 2007 dollars or 9 percent of the present value GDP.

"It does not appear that state and local governments can look to the federal government for increased assistance and the federal government cannot look to the state and local sector for assistance," says the GAO. "It would take very substantive cuts in sector expenditures on basic services to avert the potential fiscal problems. All levels of government will need to engage in serious and substantive transformation efforts to address their respective fiscal challenges. The time to start is Now."

For a copy of the GAO report "Our Nation's Long-Term Fiscal Challenge: State and Local Governments Will Likely Face Persistent Fiscal Challenges in the Next Decade" (GAO-07-1113CG), go to http://www.gao.gov.

iPod's Value Added...

(From six)

"Today, no single country is the source of all innovation and therefore U.S. companies need to work with international partners to bring new products to market. These companies will capture profits commensurate with the extra value they bring to the table. This is simply a fact of business in the 21st century and the good news is that many American companies are winning this game and continuing to bring significant benefits to the U.S. economy.

"As long as the U.S. market remains dynamic, with innovative firms and risk-taking entrepreneurs, global innovation should continue to create value for American investors and well-paid jobs for knowledge workers. But if those companies get complacent or lose focus, there are plenty of foreign competitors ready to take their places. If this happens, the benefits from the global innovation system could quickly shift away from the U.S."

The report, entitled "Who Captures Value in a Global Innovation System? The Case of Apple's iPod," is located at http://pcic.merage.uci.edu/papers/2007/AppleiPod.pdf.

The Geography Of $190 Of The Captured Value In A Single $299 Video iPod (very preliminary)

	U.S.	Japan	Korea	Total
Distribution and Retail	$75			$75
Apple	$80			$80
Seven Identified Inputs in Table 1	$7	$26	$1	$34
PortalPlayer suppliers	$1*			$1
TOTAL	**$163**	**$26**	**$1**	**$190**

Note: For this table it is assumed that the unit is sold in the United States.
**PortalPlayer suppliers could also be located in Taiwan.*
Source: Personal Computing Industry Center report's authors' calculations.

Trade Shows Are Impacted By Loss Of Manufacturing

The shift of production offshore is impacting manufacturing trade shows and exhibitions, according to the publication TradeShow Week and Skyline Exhibits. "About three out of five exhibitors indicate their market has been impacted by the manufacturing business moving out of North America," says the report "Manufacturing & Industrial Exhibition & Event Marketing Trends & Outlook." "Low production costs enjoyed by many foreign manufacturers is causing increased competition as well as shrinking demand for U.S. exports. Exhibit marketers are trying to find their footing in this shifting landscape."

Companies are changing their approach to trade shows by adding international components to their booths and exhibiting at shows overseas. Companies are also scaling down their booths, placing fewer people in the booths and focusing on value added. They are also making their booths more high tech, upscale and showier than in the past. They are exhibiting at fewer events in North America and are headed to China to participate in trade shows for the first time.

"Two out of three exhibitors believe that demographics are impacting their industry and shows and about half of this group indicates that attendance levels are lower as waves of executives and managers retire in the industry," says the survey. "Two years ago, 46 percent of exhibitors said there are no 'demographic changes of note,' while today "just 17 percent said there are no 'demographic changes of note,' " says the survey. "This is a significant shift and may be a sign to marketers that attendees today are going to evaluate products with a different agenda than in the past." Exhibitors are being forced to adjust to the changing dynamic of attendees, as Baby Boomers retire and tech-savvy employees from Generation Y replace them.

"About half of event marketers in the manufacturing and industrial industry have seen some portion of their event marketing budget shifted to alternative marketing mediums," says the survey. "One quarter of the event exhibitors said 'Web sites' received the shifted funds. Shifting funds to company Web sites does not necessarily have a negative impact on exhibit marketers....In many cases the Internet is used as a tool to enhance event marketing campaigns."

Ways & Means Chairman Explains His Trade Philosophy

Rep. Charles Rangel (D-N.Y.), chairman of the House Ways and Means Committee, is determined to work in a bi-partisan way on trade legislation impacting manufacturers. Rangel was contemplating not running again for Congress last November if Democrats didn't get the majority, "not because I wanted to have the power of the chairman, but because I couldn't tolerate the whole idea that going to work meant which fight were you going to participate in and not which bill were you going to try to get passed," he told a recent meeting of the National Press Club.

Rangel spent years complaining about the inability of the two parties to work together on legislation, amendments and hearings. "So I had a friend in the White House (Treasury Secretary) Hank Paulson, and I knew that he was leaving in two years and also knew that he had the jurisdiction in the executive branch that I would enjoy in the Ways and Means Committee. I told him that there was a time when the Ways and Means Committee had camaraderie because the complexity of the legislation that came to our committee partisanship had no [bearing on] any problem that we faced. Then, as now, I cannot conceive of having a trade bill that would be partisan or thinking that there was a Democratic or Republican way to solve tax complexities or the Social Security problems that we have."

When he became chairman earlier this year, Rangel said he wanted to start working with Republican Rep. Jim McCrery (La.), the new ranking minority member of the committee. "I didn't even know who the hell McCrery was," he told the Press Club luncheon. "I mean, I knew the name, and the only time I ever heard from him was when I took a shot or two at [former Ways and Means Committee chairman Bill] Thomas [(R-Calif.)], and McCrery would defend him. But I hardly listened to his response."

Rangel met with McCrery and told him that the "Republicans had nowhere to go — they had no coattails for the next election, and we Democrats had not proven or had the opportunity to prove that we earned the right to be in the majority." The two decided that problems could not be solved in a partisan way. The two men became fast friends.

"We go to meetings together," said Rangel. "As a matter of fact, I invited him to come here. Since this is a prestigious newsmakers [event], I thought since my dull speech wouldn't make news that if I showed up with the Republican minority member, that would make news. I told him that and he said I should feel free to tell you that he would have enjoyed being here with me this afternoon, but since he heard on some TV show called 'Power Lunch' that I had been kind to him, that he was going to be on that show saying nice things about me."

That strong sense of bi-partisanship hasn't earned Rangel many friends in the "fair" trade community. They label his trade policy issued on May 10 as being a "Death Star" deal.

"Not one union, small business, environmental or faith group supports it," says a flier that was circulated throughout Capitol Hill. "Big business loves it."

The secretly negotiated deal to facilitate passage of trade

(Continued on page 12)

NEW PLANTS, AND OLD

PLANTS OPENING IN THE UNITED STATES

General Motors has announced plans to invest $63 million in its Saginaw, Mich., metal casting plant to produce cylinder heads for 3.6 liter V-6 engines. The investment includes plant renovation and installation of new tooling and machinery to support a new semi-permanent mold process. The Saginaw plant first opened in 1918 and employs 924 hourly and 167 salaried workers. Construction is slated to begin in the spring of 2009 with completion in January 2011.

"The project will retain about 130 hourly employees," says GM. The $63 million investment brings GM Powertrain's total Michigan investments in the past year to more than $500 million, says Arvin Jones, GM Powertrain manufacturing manager for castings and components. The semi-permanent mold process is considered to be the most reliable process for casting cylinder heads. It utilizes a water cooling process to produce a high integrity microstructure thereby increasing material strength. The 3.6-liter V-6 engine will be used in the GMC Acadia, Saturn Outlook and Buick Enclave.

Palram America has completed a 92,000-square-foot, $10.6-million expansion at its plant in Kutztown, Penn. The facility will employ an additional 80 workers and manufacture PVC corrugated foam products. The Pennsylvania Department of Community and Economic Development provided the company with more than $2 million in funding. The company is also eligible to apply for a loan of up to $1.68 million through the Pennsylvania Industrial Development Authority; a $160,000 Opportunity Grant; $36,000 in Customized Job Training funds; and $160,000 in Job Creation Tax Credits. Pennsylvania also offered Palram eligibility to apply for its Research and Development Tax Credit.

General Electric has announced plans to build a new $135-million plant in the Rensselaer, N.Y., Technology Park to produce digital X-ray mammography machines. The 150,000-square-foot-plant will employ 150 workers making an average of $65,000 per year. The New York State Senate is providing GE with an incentive of $10 million to build the plant in the state. GE said it wanted to locate the plant near its research division. The digital X-ray industry generates $1 billion and is growing by 25 percent per year.

Keihin Indiana Precision Technology (KIPT), a subsidiary of Japanese auto parts supplier Keihin Corp., has broken ground on a $22-million factory in Michigan. The 120,000-square-foot facility in Capac will employ 260 people and supply Honda of America Manufacturing and its suppliers. The Michigan Economic Development Corporation is providing the company with a state employment credit valued at more than $3 million over 11 years and up to $350,000 through the federal Community Development Block Grant program for public infrastructure improvements. The village of Capac is providing a 12-year tax abatement worth an estimated $2.3 million. The plant will produce 680,000 intake manifold assemblies and 200,000 HVAC systems annually. It will be Keihin's fourth U.S. plant. The state of Michigan says the facility will generate another 310 direct jobs in Michigan and generate as much as $410 million in personal income for Michigan workers over the life of the tax credit.

Honda Aero has announced plans to build a new jet engine manufacturing plant in Burlington, Vt. The facility will employ 70 people and will house the company's headquarters, which will move from Reston, Va. The jet engines will be made in a joint venture between Honda and General Electric and will be installed on the HondaJet as well as other small aircraft. Total investment in the facility will be $27 million. The new jobs will pay an average of more than $62,000 per year plus benefits, more than twice the average in the Burlington area. The plant will start production in May 2010, with the ability to make 200 engines per year.

Cybex International has opened a new, $15-million, 340,000-square-foot manufacturing facility in Owatonna, Minn. The plant will produce premium exercise equipment for the commercial and consumer markets.

BD Biosciences, the pharmaceutical and medical manufacturing firm formerly known as Becton Dickinson, is expanding its 190,000-square-foot manufacturing plant in Durham, N.C., by 50,000 square feet. The facility currently employs 285 people making laboratory equipment.

General Tobacco has announced plans to build a new manufacturing plant in Mayodan, N.C., to replace its current facility in Colombia, N.C. The company expects to invest $50 million in the plant that should be operational within a year. General Tobacco, the sixth largest tobacco company in the nation with sales of about $300 million, tapped into the "One North Carolina Fund" for assistance.

Solaicx has announced plans to build its first high-volume solar manufacturing facility in Portland, Ore. The 136,000-square-foot, $52-million mono-crystalline ingot and wafer manufacturing plant will employ 100 workers by the end of 2007.

Solaicx is the second solar energy firm in the past six months to announce a major manufacturing facility in Oregon. In March, Germany-based SolarWorld Group selected Hillsboro, Ore., for its newest plant, expected to be the largest solar production facility in the United States.

"Because the Portland metropolitan area is home to Intel's largest chip manufacturing facility in the world as well as a large cluster of other high-tech companies, the city attracts the necessary talent pool for the solar energy industry," said the state of Oregon's economic development office. The state provided its Business Energy Tax Credit as a means to attract the two companies.

(Continued on page 10)

New Plants...

(Continued from page nine)

Visteon Corp. has announced plans to build an automotive assembly plant in Eureka, Missouri, that will employ about 200 people. The plant will produce door panels, consoles and cockpits for the Chrysler plant in Fenton. "Our significant business growth requires us to add strategic manufacturing capacity, and we're pleased to be creating new jobs in Missouri," said Donald Stebbins, Visteon president and chief operating officer. The company received property tax abatements, payroll tax incentives and training grants from state, regional and local governments.

NEW PLANTS OPENING OVERSEAS

The European Commission has approved a 262 million euro aid package from the German government to **Advanced Micro Devices Inc.** for construction of a 2.2-billion euro upgrade to its plant in Dresden. The new microprocessor wafer facility will create an additional 565 jobs.

Rieter, the Switzerland-based industrial firm, has announced plans to open a large manufacturing facility in India to produce textile machinery for use in the automotive industry. The company will invest between $100 million and $120 million in the new plant.

Lenovo Group Ltd. plans to ramp up its PC production by spending $30 million on two new manufacturing and fulfillment plants in Mexico and India. The world's third-largest PC manufacturer is also looking for new plant locations in central and eastern Europe. The Monterrey, Mexico, facility will open in mid-2008 and represents Lenovo's largest manufacturing investment outside of China. The plant will be capable of producing five million PCs annually. It will employ 750 people and supply computers to the Americas.

The smaller plant at Baddi, in Himachal Pradesh, India, could start production in September and will eventually have a capacity of two million computers annually. That plant will have 350 employees and supply the growing market in India.

Sanmina SCI, one of the world's largest electronics manufacturing services (EMS) companies, has announced plans to build its first major manufacturing facility in India. The $50-million plant in Tamil Nadu will be on a 100-acre site to be developed in the new Special Economic Zone (SEZ) in Oragadam on the outskirts of Chennai. Sanmina-SCI expects to hire 1,300 people and be operational by July 2008. After five years employment at the plant should reach 10,000 workers and provide indirect employment to an additional 20,000 people. The company will manufacture low-volume, high-end electronic equipment for the medical industry including CT scanners, electronic communications tools for the defense industry and control systems for the automotive and aerospace industries.

The **Klockner Pentaplast** group, the German producer of packaging products, is opening a new manufacturing plant in India to make films for pharmaceutical and food packaging. The facility will supply the Indian market as well as China, Pakistan, Bangladesh and other South Asian nations. The plant will be located in Aurangabad in Maharashtra and cost Rs.83.35 crore in its first phase of construction. "The greenfield facility will have a capacity of 15,000 tonnes annually and we hope to earn $30 million in the first year of our operations," said company president Joachim Kreuzburg. "India is all set to become a major player in the pharmaceutical sector and we want India to be a hub for pharmaceutical packaging solutions in Asia." The company says the pharmaceutical packaging business in Asia is worth between $4 billion and $5 billion annually.

Genentech has started construction of a $140-million microbial manufacturing plant in Singapore. The plant represents "another shot in the arm for Singapore's biologics industry," says S. Iswaran, Singapore's Minister for Trade and Industry. The facility will hire 100 employees and produce cancer drugs Avastin and Herceptin, and Lucentis, a treatment for macular degeneration.

Singapore has identified biomedical sciences as a key manufacturing industry and is putting in place policies and resources to make the country an attractive location for pharmaceutical manufacturing. Two other major biologics manufacturers have recently announced plans to open plants in Singapore. Swiss contract manufacturer Lonza is building two commercial-scale mammalian cell-based contract manufacturing facilities — a $250 million plant that will produce Genentech's Avastin cancer drug, and another facility that will cost $350-million to

(Continued on next page)

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New Plants...(From previous page)

construct. GlaxoSmithKline is building a $200-million E-coli-based commercial-scale manufacturing facility to produce pediatric vaccines against meningitis and typhoid.

Singapore is investing heavily in creating an infrastructure that will attract overseas biologics manufacturing firms. It has created a set of university and industry biologics manufacturing courses and is graduating 3,500 students and 3,000 technicians trained in life sciences each year. It is also underwriting the cost of sending 250 recent graduates to biologics manufacturing facilities worldwide for up to 24 months. It has created the Tuas Biomedical Park (TBP) at the westernmost tip of Singapore designed for biologics and pharmaceutical manufacturing. The facility, located on 370 hectares of land, has attracted Abbott, Ciba Vision, Genentech, GSK Biologicals, Lonza, Merck Sharp & Dohme, Novartis, Pfizer, Wyeth Nutritionals and Wyeth Pharmaceuticals.

The investment has paid off. Output by drug factories in Singapore jumped by more than 30 percent in 2006 to a record $14.8 billion, almost four times the production in 2000.

Denso Manufacturing, based in Guelph, Ontario, plans to expand its 112,442-square-foot plant that makes radiators, condensers and electric fans by approximately 215,200 square feet. The cost: $63.7 million. The company expects to create 300 jobs by 2010. The products from the plant will be used in engine cooling modules and air-conditioning units.

"With increasing demand and sales expansion in North America for engine-cooling products, we decided to enhance our production capability in Canada," said Hikaru Sugi, managing officer of Denso's Thermal Systems Business Group. "We anticipate the company's sales to increase to approximately $240 million by fiscal year 2010, from $128 million for fiscal year 2006."

PLANTS CLOSING

Springs Global, a producer of bed fabrics and sheets, has announced that it will close two major manufacturing plants in South Carolina in the towns of Lancaster and Fort Lawn. The company will lay off 750 employees. "This marks the end of 120 years during which Springs has manufactured bedding in South Carolina," said company co-chairman and CEO Crandall Bowles. "The closing of these plants reflects the global nature of the textile industry, which has made U.S. textile manufacturing uncompetitive. This move is a sad and difficult one for my family and the people and communities involved. We would like to express our deepest appreciation to all the associates for their years of commitment and productive efforts for this company." Springs is offering employees severance pay and is helping them qualify for trade adjustment benefits.

HellermannTyton of Milwaukee has announced plans to close its 110,000-square-foot manufacturing plant in Naples, Fla., by the end of the year, and lay off 120 employees. "We have been extremely pleased with the high performance of the people and the plant in Naples," said Jim Campion, president of HellermannTyton North America. "However, this consolidation was necessary to enable our future growth." The company makes cable ties, heavy equipment fasteners and wiring duct for the telecommunications and transportation sectors.

STMicroelectronics has announced plans to shut down its six-inch wafer fab in Carrollton, Texas, its eight-inch fab in Phoenix, Ariz., and a packaging and testing facility in Morocco. It will move production to plants in Singapore and other lower-cost facilities elsewhere in the world. About 4,000 employees will be impacted by the changes that should save the company about $150 million. The cost of restructuring its operations will be between $270 million and $300 million. The affected plants manufacture analog, digital and mixed-signal chips used in mobile phones and other electronics.

Lennox International has announced plans to shift production from two U.S. plants to a new 300,000-square-foot manufacturing operation in Saltillo, Mexico. Production of Lennox's "Merit" air conditioners will shift to Mexico from Marshalltown, Iowa; while production of the its CB26 air handler will move to Mexico from Grenada, Miss. Lennox says it will save $13 million in 2009 by shifting production to the $45-million plant in Mexico. Savings should increase to $20 million by 2010. "We must produce quality products at the lowest costs to compete in [the U.S. sunbelt region] and grow our business," said Lennox CEO Todd Bluedorn. "The Saltillo location offers significant manufacturing and logistics cost advantages to help us expand our capacity and flexibility to meet long-term demand and carry out our sunbelt growth strategies."

3M has announced plans to close its New Zealand production facility next year and lay off 50 people. The plant makes foil adhesive tape for export, with sales last year of about $20 million. 3M wants to place its manufacturing production closer to its end markets in North America, Asia and Europe.

New President For NCMS

The National Center for Manufacturing Sciences (NCMS) has a new president: Rick Jarman, who joins the Ann-Arbor, Mich.-based consortium from his post at Eastman Kodak Co. He will succeed Richard Pearson on Sept. 4, 2007. At Kodak, Jarman was director of technology partnerships and was one of Washington, D.C.'s leading advocates for the importance of industry/government ventures aimed at developing and commercializing new technologies. Jarman is author of a book on the subject entitled "Collaborative R&D: Manufacturing's New Tool" published in April 1999. "Rick Jarman has the vision and drive to make NCMS the premier resource for the North American manufacturing community. His career is a testament to the power of collaboration," says NCMS Board Chairman Richard Morley. Pearson is credited with putting NCMS on firm financial footing after years of controversy over government earmarks and stagnation in membership and funding.

Wal-Mart Comes Under Shareholder Wrath

The National Legal and Policy Center (NCPC) isn't very happy with Wal-Mart's management, which it says is catering to environmental and left-wing zealots. The group is sponsoring a shareholder petition asking management to disclose its charitable giving to controversial groups.

"In the year 2000, Wal-Mart stock was at $60. Today it is $47," says NLPC president Peter Flaherty. "In 2000, Target stock was at $34. Today it is at $60. Instead of focusing on share price, Wal-Mart management is too busy trying to appease critics funded by corrupt unions. Go outside and look at the price of gas. It is over $3 per gallon. Thank environmental extremists who have prevented refineries from being built. They openly say that gas should be much more expensive, say $5 or $6 a gallon. Yet Wal-Mart's CEO has embraced environmental extremism. If Wal-Mart customers spend all of their money on gas, how will they have any left to spend inside the store? Our CEO invited Al Gore to Bentonville to talk about global warming. If Al Gore gets his way on carbon emissions, there is no way our economy will grow. How is this good for Wal-Mart? Jesse Jackson slanders this company. The company's response? Put Jesse Jackson's crony on the board of directors. Did that shut up Jackson? No, not at all. People shop at Wal-Mart because of low prices, not because the company is politically correct."

TAA Program Certifies Fewer Workers

The number of petitions for Trade Adjustment Assistance certified by the Department of Labor for companies and workers being displaced by foreign imports has declined substantially in the past three years, from 1,700 in 2004 to 1,400 in 2006, according to an audit of the program by the Government Accountability Office. The Department of Labor is approving two-thirds of the petitions it's receiving, turning a large number of people away from benefits because they are not involved in making a manufactured product. Last year, the Labor Department denied 800 petitions.

"Most of the denied petitions were for two service industries recently affected by offshoring to other countries — business services, particularly computer related services, and airport related services such as aircraft maintenance," says the GAO audit.

With coverage of about 400,000 workers over the past three years "few TAA participants take advantage of the wage insurance and the health benefits," says GAO. Only 3,200 people took advantage of wage insurance in 2006.

The TAA program must be reauthorized this year, and the report is providing Congress with a rational for adding service sector workers to TAA coverage. The TAA program for workers received $655 million for income support and $220 million for training in 2007. House Ways and Means Committee chairman Charles Rangel (D-N.Y.) and Rep. Adam Smith (D-Wash.) plan on introducing legislation aimed at expanding coverage and changing formulas for state disbursement of funds.

For a copy of GAO's 76-page report entitled "Trade Adjustment Assistance: Changes To Funding Allocation and Eligibility Requirements Could Enhance States' Ability to Provide Benefits And Services" (76 pages), go to www.gao.gov.

*Rangel...**(Continued from page eight)*

agreements with Peru and Panama was put together with Rangel and "big corporate lobbies working to restore a GOP majority such as the Chamber of Commerce, National Association of Manufacturers and National Retail Federation, which praise the bill," says the flier. "Like the Death Star of Star Wars lore, this 'deal' to revive Bush's stalled middle class-crushing trade agenda could wreak unimaginable damage in one blast."

Rangel said the Democratic leadership in the House has given him the independence to pursue his trade agenda and the same holds true of the Republican leadership with McCrery. "We haven't had any problem with our leadership," said Rangel. "But we don't have any reason to believe that if we are able through our leadership on this committee to bring our committee members [to agreement], which has been absolutely remarkable, that it would put our leaders in the position that they would realize that what we are doing would be good for the Congress and would be good for the country. We don't know how much we have in our savings accounts of comity, but we're prepared to use it if we think that we can win."

Bush's Top Economic Team Says No To Currency Bills

The secretaries of Commerce and Treasury, along with the United States Trade Representative, have urged the Senate not to adopt legislation that could force China to stop manipulating its currency. Bills in the Senate Finance and Banking Committees (S-1607 and S-1677) are gathering strong and deep bipartisan support from powerful members of the Senate that have had enough of the talk, and want action. The issue has been sitting on the back burner since early 2003.

But these bills "would substantially weaken the position of the United States in our ongoing efforts to achieve essential economic reforms in China and around the world, while jeopardizing our rapidly growing exports that have benefited American workers and farmers," wrote Treasury Sec. Henry Paulson, Commerce Sec. Carlos Gutierrez and USTR Susan Schwab on July 30 to Senate Majority Leader Harry Reid. Reid's staff has been involved in crafting a bill, the first time in the Senate there has been strong party leadership on the long-simmering issue, according to those following the action.

The Senate Banking Committee is addressing the matter on Aug. 1, and a bill is expected to be reported out of Committee that could have enough support (two-thirds of the Senate) to withstand a presidential veto.

"The best way to achieve results on goals that we share with Members of Congress is not through the legislation currently being considered but through continued direct, robust engagement with China's senior leaders," write the three cabinet members to Reid.