

China

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Dolls

Clad in the latest Giorgio Armani designs, the models sweep down the runway. They are the new faces of Communist China: alluring, radiant, focused and confident.

And yet, their glamour masks a grittier reality. For the vast majority of the 337 million women working in China, there are no runways, just



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Chinese workers sew textiles at a garment factory in Jiaxin, China. With the lowering of worldwide import quotas, China will dominate the world's textile manufacturing industry.



There are more than 337 million working women in China, more than twice the total female population of Canada and the United States combined.

farm fields and assembly lines.

The real china dolls are not porcelain, not dressed to kill. They are sisters, daughters and mothers who work in factories ten to fourteen hours a day, and live in company dormitories away from their families. And they work at a killing pace.

To make toys and high-tech products, these working women endure a life few of us would want for our own sisters or daughters. And yet, consumers everywhere are buying up their exported products at a dizzying speed.

Touch N' Crawl Minnie

One of those exports is Mattel's Touch N' Crawl Minnie. Geared to infants, this Disney-branded toy sells for \$20.00 in the United States. And its economics are shamefully exploitive.

A Mattel vendor runs a



major production facility dedicated to "Minnie" in China's Guangdong Province. The assembly line is staffed entirely by women. With constant repetition, their movements become as fluid as a machine.

In twenty-one seconds, a woman glues the pink bottom, screws it into place, gets the rest of the casing to adhere, tamps it down with a special hammer, pulls the battery cover through its slats, solders where she glued, tests to make sure the leg joints on the other side still work, then sends another

Touch N' Crawl Minnie down the line.

The speed with which she manufactures the toys takes a toll: three toys per minute, 180 toys per hour and, over the course of her eleven-hour day, a total of almost 2,000 toys. Her hands ache and she is always exhausted. Each month, she makes over 51,000 toys.

For one month's work she is paid \$58.00 ... gets one lunch break from the company cafeteria during her eleven-hour shift ... and retires to a dorm room filled wall-to-wall with beds for the other girls from rural China.

After just a few short hours of sleep, she starts all over again, six days a week, fifty-one weeks a year.

Her name is Li Xiao Hong. As a twenty year-old, Li is realistic. "People at my age should expect some hardship. I should taste bitterness while I'm young," she told the *Los Angeles Times*. And she is not alone.

Women represent 48.5 percent of the total Chinese population, and 45 percent of the nation's workforce. All told, there are about 337 million working women in China — about 209 million working in the countryside and nearly 128 million in

non-rural enterprises. By contrast, the combined female population of the U.S. and Canada — all age cohorts — is only 159 million.

In Guangdong Province, with a population of 110 million, migrants from the countryside total some 31 million people. Women between the ages of 18 and 22 make up a majority of the labor force.

So Li Xiao Hong, like so many other real china dolls, is expendable ... and exploitable.

Cutting Costs to Satisfy Wal-Mart

A sign on the wall of the Baoan Fenda Industrial Co. reads, "If you don't work hard today, tomorrow you'll have to try hard to look for a job." The factory, also located in Guangdong

Province, makes stereo speakers for Wal-Mart.

And Baoan is an equal opportunity exploiter. Here, women put circuit boards in stereo speakers while men make the cabinets.

Clouds of sawdust fill the air as the men feed wood into a shrieking electric saw working without goggles or earplugs. Hunched over worktables, women with bandaged fingers and hands press transistors into circuit boards. It's how Wal-Mart squeezes savings from its supply chain: one factory at a time.

At the bottom of that chain are millions of Chinese workers. In a *Washington Post* interview, Surely Huang, a factory engineer admitted, "We have to constantly cut costs to satisfy Wal-Mart."



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Wal-Mart uses aggressive cost-cutting tactics with suppliers that results in low wages and poor working conditions for thousands of Chinese workers.

Cutting costs in these factories often means reducing food portions, increasing the number of beds in dorm rooms, failing to accurately pay overtime, failing to accurately determine wages, and even withholding wages.

Got Used to It Eventually

Not all companies doing business in China are as exploitive as Wal-Mart. But, then, it is all a matter of degree.

Just north of Hong Kong is the home of Yue Yuen, the world's largest shoe maker. Four of the six Yue

Yuen factories are in Dongguan. There they manufacture shoes for Nike, Adidas, Reebok, New Balance, Puma, Asics, Converse, and Timberland.

Of the 70,000 workers at one Yue Yuen factory, more than 59,000 are young women. Their tasks are repetitive, tedious and timed.

Adidas, a Yue Yuen vendor, once installed plastic signs in front of workers advising them how many seconds it took to complete a task. Supervisors stood behind workers timing them with stopwatches. Productivity went up ten

percent over three years.

Adidas admitted that the women initially felt more stress, but claimed that they got used to it eventually.

Yue Yuen factories made 18.7 million pairs of athletic shoes and 11.1 million pairs of casual shoes in 2003. They cut production time to ten hours per pair of shoes.

Even as Adidas and other foreign corporations ratcheted up the pressure on Yue Yuen and its workers, their customers demanded an end to sweatshop conditions. So, to appease guilt-ridden shoppers, the companies wrote minimal



Photo by Joe Berk Photography

Millions of workers in China, such as these women in a bearing factory, endure brutal working conditions and meager pay because there are no free trade unions to represent them.



A shopper inspects a shoe at a store in Beijing, China. Yue Yuen Factories manufacture 18.7 million pairs of athletic shoes a year.

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labor standards into their purchase contracts including “surprise” inspections.

As a result, the young women working in the Yue Yuen factories fare better than in other factories throughout Guangdong Province. They are guaranteed three months of maternity leave, required to work a maximum of 60 hours a week, receive five days of vacation a year and are paid on time once a month.

Conditions at Yue Yuen plants, while far from ideal, offer the faintest stirring of change. “When a monitor comes in, the workers are prepped on what to say, advising the company that the factory is up to legal standards. Now the workers know, there is supposed to be something better,” said Anita Chan, Senior Research Associate at the Contemporary China Centre at the Australian

National University.

But the “something better” may come too late, if at all, for literally millions of real china dolls whose fingers are gnarled and faces disfigured in an incessant drive to meet the unprecedented global demand for their products.

Not Just Playthings

China is the world’s fastest growing economy. Its gross national product exploded by nearly 10 percent in 2004, and has averaged more than nine percent for the last decade. And Chinese growth is

Shanghai, once known for producing textiles, handbags and bicycles, is now a leading high-tech manufacturer. This worker checks mobile phone circuit boards made for Austria Technology and Systems.

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not tied to demand for shoes or toys.

The Economic Policy Institute (EPI) estimates that imports from China displaced 1.6 million jobs between 1989 and 2003. These American jobs were not the traditional labor-intensive jobs but high-tech jobs in the computer, electronic, and semi-conductor sectors.

According to China’s National Bureau of Statistics, their output of micro-electronic computers in 2004 was 45.1 million sets, including 22.2 million notebook computers. Those numbers were up 38.7 and 54.8 percent respectively over just a year ago.



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A worker assembles TV sets at a Haier production line in Qingdao, China. Haier is China's leading appliance maker and first among refrigerator manufacturers.

But China also produced 70.5 million sets of air conditioners, 30.3 million refrigerators and 23.5 million washing machines and saw production grow by 42.6, 30 and 19.2 percent respectively last year.

Metal-cutting machine manufacturing grew by 36 percent to 389,000 tools, including 4,354 high-precision machine tools, 51,861 digital-controlled machine tools and 7,151 large machine tools.

Cement equipment and metal rolling equipment grew 62.3 and 60.2 percent respectively. Large and medium sized tractors production was 98,000, up 83.9 percent from a year ago.

China's Chery Automobile Company just announced an agreement to export up to 250,000 reduced-price autos in 2007. Chery plans to sell one million cars in the United States by the year 2010.

Soaking Up Global Resources

China's manufacturing



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successes has it rushing to build new factories and office buildings. But its domestic sources of steel and cement cannot meet demand. Nor can China's reserves of crude oil and coal support its consumption of gasoline and electricity.

According to the International Energy Agency, China generated one-third of the global incremental demand for oil between 2002 and 2004.

By 2020, China's oil requirements will nearly

A Bank of China employee counts Chinese 100 yuan notes. For almost a decade, Beijing has tied their currency to the U.S. dollar. As exports surge, China faces growing demand to raise the yuan's value.

A Chinese autoworker welds the door of a car at the Shanghai General Motors plant in Shanghai. China plans to export a million cars to the U.S. by 2010.

double to 11 million barrels a day, its natural gas consumption will more than triple, to 3.6 trillion cubic feet annually, and coal use will grow to 2.4 billion tons a year — a 76 percent increase — predicts the U.S. Department of Energy.

Morgan-Stanley, an investment firm, says that China now absorbs half of the world's cement production, a fourth of its copper and a fifth of its aluminum.

Pushing Global Prices Higher and Higher

The incessant demand by Chinese manufacturers for more oil, more electricity, more cement, more steel, more wood, more aluminum, more of everything is playing



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havoc with global prices.

Eight months ago a 20-foot piece of steel rebar cost \$2.50, now it costs \$8.00. Even the most basic products — steel power nails, for example — have doubled in price over the last six months.

China's expansion ultimately affects the cost of housing in the U.S. by driving up prices for construc-

tion materials. And it is partially responsible for higher gasoline prices at the pump and the crippling prices airlines must pay for jet fuel.

And yet, the momentum of this irrationally exuberant growth spurt — the accumulation of Chinese financial, construction, transportation, manufacturing and military assets — keeps expanding.

A Man-Made Haixiao

Haixiao is the Chinese word for the massive waves caused by an undersea earthquake. It conveys the power of nature to devastate entire communities.

But the haixiao headed towards our shores is not a natural phenomenon. It is

A Chinese worker stands on rolled steel bound for auto manufacturers in Guangdong. China's growing demand for raw materials has boosted commodity prices worldwide.



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man-made. Its power comes from thousands of decisions made by governments and businesses on both sides of the Pacific Ocean, some made over a quarter century ago.

Those decisions shifted

While China can boast some modern facilities like the CSX shipping center in the Pearl River Delta (below), its transportation and logistics are at a primitive stage compared to the U.S.

the tectonic plates of global manufacturing. Slowly but surely, they transferred entire industries to Communist China. And they produced the waves of goods exported from China that are breaking upon the shores of the United States.

Measured solely by the size of the trade deficit between the two countries, this man-made haixiao started as a mere ripple of \$6 billion in 1989 and grew in intensity to over \$161 billion in 2004. Conceivably, it could surpass in size even the half-trillion dollar federal

deficit by 2007.

While targeting specific U.S. industries, this haixiao left no doubt what its final toll would be: the utter destruction of the North American industrial base.

What began by China exporting low-wage, low-capital, labor-intensive goods has now shifted to a product mix requiring more capital, skills and technology. The Economic Policy Institute (EPI) reports that China's industries "are gaining increased market shares in the motor vehicle and aerospace sectors which



have provided the most durable foundations for the United States' industrial base for generations."

What can stem this unnatural tidal wave? For now, only the infrastructure limitations of both nations, some relatively minor trade restrictions and a lack of cargo ships can, but not for long. This man-made haixiao will grow to gargantuan size before it recedes.

China's Primitive Transportation and Logistics System

When it comes to the transportation and logistics for moving cargo (or T&L), China and the U.S. share many similarities: each country covers roughly the same surface area; their cargo shipments must travel long distances; and transportation accounts for much of their final product costs.

The differences are stark.

China's transportation and communication network is under-developed, while its U.S. counterpart is nearly state-of-the-art.

T&L costs average nearly 20 percent of the Chinese economy compared to only seven percent in the U. S.

According to the international consulting firm, A.T. Kearney, the Chinese government is making a concerted effort to upgrade its



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T&L industry from its "primitive stage." The needs are obvious. China's seaports now are operating at 113 percent of total designed capacity and sea-borne trade accounts for more than 90 percent of its global trade by volume.

A Pulsating Pearl River Delta

A handful of ports in southeastern China, located mostly in the Pearl River Delta across from Hong Kong, are as busy as all of the U.S. ports combined.

This region of China, already known as the "world's workshop," generates almost half of all Chinese exports.

Freight companies in the delta typically perform all of the jobs necessary to ready products for sale at their final destination, including

Increased exports from China have caused builders to increase the size of ships. Those built since 1995 hold 5,000 containers. Future ships will hold 12,000 containers.

sorting and inspecting and pricing merchandise.

CSX is one of the dominant freight companies in the region, a railroad company once led by U.S. Treasury Secretary John Snow. The company operates the world's largest freight facility — a 14-story complex, with 16 miles of three-lane roads inside — and handles approximately

10,000 trucks each day.

Wal-Mart, the world's largest retailer, opened a T&L facility in the region two years ago and originated about \$10 billion dollars worth of Chinese products for U.S. consumers.

According to *China Business Weekly*, Wal-Mart's inventory of stock produced in China will reach \$18 billion this year.

And it doesn't stop there. With its planned infrastructure improvements — new highways, new port facilities, new bridges and new business development parks, the Pearl River Delta could double in capacity before 2025.

A Bottleneck to Imports

While the railroads and highways in the U.S. far outstrip those of China, our seaports serve as temporary bottlenecks to imports. The summer and fall of 2004 proved so hectic in Los Angeles and Long Beach, California, 100 ships were diverted to other ports. Other ships waited up to 10 days before being unloaded, costing shippers up to \$40,000 a day.

Today's massive cargo ships cannot fit through



Although our transportation logistics are far superior to those in China, our seaports have become a bottleneck as the Chinese haixiao continues to grow.

the Panama Canal. So, seaport expansion projects are underway at ports from Anchorage, Alaska to Manzanillo, Mexico.

Still some experts ask if we are underestimating the coming tidal wave. One index — the cargo carrying capacity of ships on the drawing boards — offers a clue. Ships built since 1995 hold 5,000 containers and require about five days to unload. Future ships, however, will hold 12,000 containers, and will take even longer to unload.

Clearly, the Los Angeles seaports remain the preferred destinations. Long Beach and Los Angeles traffic is up 44 percent since 1999 mostly due to Chinese

exports. And while almost half the cargo imported from China stays in southern California, the LA ports can move massive volumes of cargo eastward using existing rail and highway networks.

And yet, as the long lines of parked trucks along Interstate-710 attested last summer, the LA ports strained to handle the influx. Truck drivers, seldom paid by the hour, waited 10 to 16 hours to have a shipping container loaded on their flatbeds.

Sitting, Collecting Rust

A lack of cargo carriers and equipment is one more reason why this man-made haixiao has yet to crest. There simply aren't enough ships and cargo containers to keep up with production of goods in China.

The *Financial Times* reports that shipyards in Northeast Asia have hundreds of orders for ships.

Korea's Hyundai Heavy Industry, the world's largest shipbuilder, has 180 ships on its order books — enough to keep the shipbuilder busy for three years.

Hyundai and other manufacturers must produce another scarce commodity: shipping containers.

Not exactly made for recycling, these twenty-foot

long steel boxes sit and collect rust on docks and empty lots across North America. They stand, often piled ten and twenty high, as silent reminders of our current trade imbalance.

And, while container shipping rates *from* the U.S. to China cost one quarter what it costs to ship the opposite direction, there are few takers. Oversupply and very little demand drive prices down.

Since there's nothing that the Chinese want to buy in quantity from us, many of those shipping containers will never be used except for scrap metal.

The Number One Exporter to China

Who is the biggest U.S. exporter to China?

In 2001, the largest shipper of exported products via ocean-going containers was



Truckers at Los Angeles seaports sometimes wait as long as 16 hours before being loaded. These drivers are typically paid by the load, not by the hour.

America Chung Nam.

This California-based firm, with only 100 employees, shipped 150,000 steel containers to China and other destinations that year.

What exactly did America Chung Nam, Inc. ship to China? Recycled

paper and cardboard.

Those 150,000 containers went to a Chinese paper mill that makes the brown corrugated containers and liner-board boxes that so many products are packaged in for shipment to North America, particularly clothing and textile goods.

New Trade Rules Broaden Haixiao

January 1, 2005 marked the end of the Multi-Fiber Agreement that set quotas for textile and clothing imports from developing countries.

Now, corporations are trying to save 15 percent —

Most Chinese goods typically come to Los Angeles ports rather than others on the West coast because of the region's existing highway and rail networks.





Because China ships so much to the U.S. and imports so little, shipping containers are at a premium there. So great is the need, shippers will often return a vessel filled with nothing but empty containers.

or more — on their textile purchases by shifting production to China. Some experts estimate three-quarters of the world's textile jobs will end up in there.

China, which already exports 11 percent of its textiles and 16 percent of its clothing production to the United States, is expected to grab an even larger share. Conceivably, China could gain a 50 percent share of the clothing imports and 18 percent of our textile market.

China's gains will mean total devastation for North American, Southeast Asian and South American textile

China's massive exports are fueling a boom in ship construction throughout Asia, including large vessel construction at China's Dalian Shipbuilding Heavy Industry Co. shipyard, which employs more than 4,600 workers.

manufacturers. In the U.S., over 600,000 workers will be impacted.

After the Haixiao, A Hegemon

Behind the waves of trade is an equally deadly, yet even less understood, threat.

China's man-made haixiao is backed by one of the fastest growing fleets of military aircraft in the world. The People's Liberation Army and its air force has, over the past

quarter century, quietly positioned itself to become a dominant regional military power — what diplomats call a hegemon.

While China's military technology cannot match the sophistication of the United States, its manufacturing capabilities and military surge capacity are growing. And neighboring nations are taking notice.

China's air force, alone, has more than 6,000 mili-



tary airplanes. While its current inventory lacks the most advanced military technology, its sheer volume is vexing. And there is no telling how large or how sophisticated its production runs could be over the next ten or twenty years.

China's defense firms have seen rapid improvements in research and development techniques, thanks, in large measure, to manufacturing and technological processes gained, both legally and illegally, from the United States and other countries.

The Third Line

Although some analysts focus on aerospace production near the coastal city of Shanghai, the more advanced military production is found in remote areas of China behind what is known as the Third Line — most notably the cities of Xi'an and Chengdu.

The Xi'an Aircraft Company developed the Jian-7 or Flying Leopard — a “multi-mission all-weather supersonic fighter bomber” — that can reach Mach 1.7 or speeds up to 1,200 miles per hour.

Xi'an is also the home of the China Flight Test Establishment, a sprawling facility where radical air-

craft designs are built and tested. According to Jane's Information Group, this testing center is the equivalent of Area 51 in the United States.

Moving westward into the very heart of China's

built so far, this fighter is being reversed engineered from a single F-16 Fighting Falcon provided by Pakistan, using the radar and fire-control systems licensed from Israel and jet engines developed by the Russians for



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China's aerospace industry is rapidly developing because of manufacturing capabilities obtained in offset agreements. China produced parts of the tail assembly being fitted on a Boeing 737 in Seattle, WA.

Third Line is Chengdu, home to high-frequency plasma and supersonic and hypersonic wind tunnels. This highly advanced technology tests next-generation aeronautics and missiles.

Chengdu is developing China's next generation fighter, the Jian-10. While only a few dozen have been

their Su-27 Flanker.

The Chengdu Aircraft Industrial Corporation is also manufacturing the F-7M and J-8IIM, two recently modernized fighter designs that remain formidable weapons platforms. And Chengdu is developing the Fighter China 1 or FC-1, a new all-weather, single-seat fighter.

Transferring Technology

Military technology that may one day be used against the United States or its allies is being developed with the help of U.S. corporations who outsource components of their civilian product lines to defense firms in China.

A 1999 report prepared by the Select Committee on National Security states that China has obtained U.S. jet engine technology through “diversions of engines from commercial end uses, by direct purchase, and through joint ventures” that involve the transfer or sale of

machine tools to China that make it difficult to distinguish between civilian and military end-uses of the equipment.

The list of U.S. corporations that have joint ventures with China’s defense firms reads like a Who’s Who in Pentagon procurement circles: Boeing, General Electric, Pratt & Whitney and Raytheon. (The next *IAM Journal* will focus on U.S. taxpayer financed technologies that migrate over time into foreign military arsenals.)

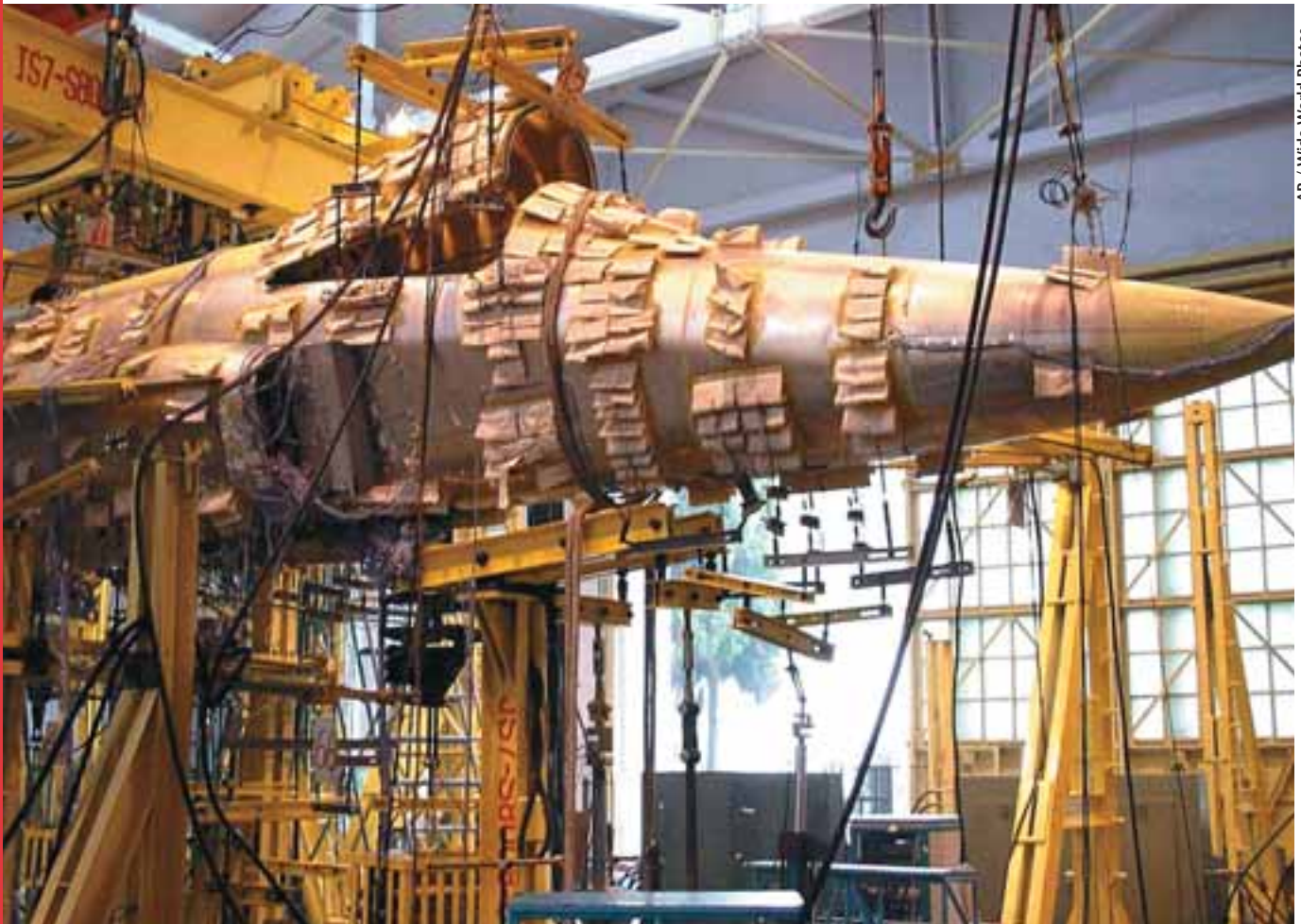
Clearly, American firms

are not alone. The Chinese now can choose from an eclectic global menu of joint ventures with the Russians, French, Israelis, Germans, Pakistanis and Italians. The end result is a witches’ brew of weapon systems.

What remains unknown — and probably unknowable until it is too late — is how these dual-use components and reverse engineered systems will be turned into state-of-the-art killing machines.

What is known, however, is not reassuring:

China’s *official* defense



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Flexing its military muscle: a prototype of China’s newest fighter jet, the Superfighter-7, undergoes testing in a factory in Chengdu. The region hosts China’s testing facilities for its next generation of aeronautics and missile technology.

budget for weapon procurement grew from five billion renminbi to 57.3 billion renminbi from 1990 to 2002. (The renminbi is China's currency.)

In December 2003, China began manufacturing the ARJ 21 — a mainline jet strikingly similar to the Boeing 737 — in Shanghai, Xi'an, Chengdu and Shenyang.

The *official* announcement claimed the plane could transport a platoon of soldiers and their equipment.

In July 2004, China *officially* protested Israel's failure to return the UAV's or unmanned aerial vehicles that had been sent there for repairs. The U.S. government thought these upgraded UAV's proved too great a threat to naval battle groups that might have to defend Taiwan.

In a 2003 Report to Congress on the military power of China, Secretary of Defense Donald H. Rumsfeld claimed that, "From Beijing's perspective, strategic ambiguity — including strategic denial and deception — is a mechanism to influence the policies of foreign governments and the opinions of the general public and elites in other countries."

But the report notes that China has seen marked improvements in missile

development, air power, naval forces, air defense and detection and C4I, which stands for command, control, communications, computers and intelligence.

It seems that behind the haixiao of exported goods stalks a hegemon that no amount of make-up or Giorgio Armani clothes can disguise.

An Inherent Weakness

The nexus between China's Communist government and its burgeoning class of domestic and international business partners is greed. And greed breeds corruption.

As so many of the real china dolls can attest, the laws governing workers' rights and employer responsibilities are worthless. Only power counts, the coercive power of the state and the exploitive power of state-sanctioned corporations. But that coercive and exploitive power is tenuous. It can shatter like a porcelain doll

in an instant.

Chinese history is filled with examples of the "mantle of Heaven" — an ancient phrase that implies the will of the gods — shifting unexpectedly, shifting when the common people can endure no more.

And that is the inherent weakness of a nation that treats its 337 million working women as expendable and exploitable.

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China's Jiuquan Launch Center in Gansu Province is home to a growing satellite launch business, above, and China's manned space program. China joins the U.S. and Soviet Union as the only countries able to launch a person into space.