GUANGZHOU, China - Nearly the size of an old station wagon, a bright orange machine here mashes plastic pellets into rows of six-inch-long blue clips for hospitals across the United States. Pan Guotao, a 29-year-old worker from a village in northern China, sits on a plastic stool next to the machine and wields a straight razor to slice apart the clips, which are used to hold ice packs in plastic sleeves.

It looks like a simple operation, but it lies at the heart of the American trade deficit with China.

The Bush administration and many private economists have urged that the authorities in Beijing allow China's currency, the yuan, to rise in value against the dollar. They want the Chinese to stop buying up dollars in large amounts and issuing more and more yuan to hold down the value of the currency.

But many Chinese and foreign executives in China say that a revaluation of the yuan, whose exchange value is linked to the dollar, is unlikely to be a silver bullet for dealing with the American deficit. Costs here are so low, they say, that a revaluation is unlikely to narrow the deficit appreciably, and might even increase it.

China's edge in exports these days goes far beyond the low wages of Ms. Pan, who earns $1 an hour, with free room and board. Her employer, Charles M. Hubbs, who owns the plastics factory, calculates that the rent for his operation here, built by workers earning even less than Ms. Pan, is a quarter of what it would be in a city like Houston. Perhaps more important, China has learned to build factories and many kinds of equipment at a fraction of the cost in Western countries.

The big orange plastic injection molding machine costs $18,000 here, compared with as much as $60,000 for American models; the Chinese-made machine breaks down a little more often, but can be quickly fixed because the assembly plant is less than two miles away. The costliest part, a specially hardened and shaped mold used to form the clips, runs less than $8,000, against $70,000 in the United States.

Such savings leave Mr. Hubbs feeling insulated from even a big shift in the value of the yuan, which trades around 8.28 to the dollar. "With the currency where it is today," he said, "we can save 30 percent over our competition in the Caribbean easily."

Making the yuan more expensive against the dollar would mean that American exporters to China, like Boeing, could sell more goods. Importers like Wal-Mart would have to pay more for the toys, clothes and other goods they buy. That would give Wal-Mart and others an incentive to import from other nations, or even use American suppliers.

Yet executives in many industries say that China's competitive advantages are so great that even the largest increase in the yuan that Beijing might approve this year, perhaps 10 percent, would not significantly cut into the American trade deficit with China. Indeed, revaluation is likely to increase the deficit for months and perhaps
years, by immediately driving up the already considerable cost of what the United States imports from China.

A stronger yuan would give a boost to American companies exporting to China because their goods would become cheaper here. But the United States now buys nearly five times as much from China as China does from the United States. So the gains from a rise in the smaller amount of exports are likely to be overwhelmed by the much higher cost of the larger amount of imports.

Alan G. Hassenfeld, the chairman of Hasbro, said that a revaluation of 3 percent to 5 percent this spring seems most likely. But that degree of change would not prompt toymakers to look seriously at moving production to lower-wage countries like Vietnam or India. Chinese toy factories, he said, had a big advantage over factories elsewhere in the quality and dedication of their workers and managers.

Even a 25 percent increase in the value of the yuan, which few say they expect, would still allow many toymakers to export a wide range of products from China successfully. An increase that big would probably prompt manufacturers to move some of their bulkiest products, like car-racing sets, to countries closer to the United States to save on shipping costs, Mr. Hassenfeld said.

"You wouldn't run," he said, "but you would take some items and move them back to a Mexico" or some other nearby country.

Companies, like toymakers, that use a lot of Chinese labor are the most likely to be affected by a stronger yuan. That is because the workers are paid in yuan, and wages are already rising in China - even without an appreciating yuan.

Daniel Chou, export manager at the Ningbo Keerdeng Toys Company near Shanghai, said its average assembly-line wages had nearly doubled in the last five years, to $181 a month from $97. His factory, unlike Mr. Hubbs's, does not provide free room and board. Space in a shared apartment nearby costs $12 a month and food, $30. Improving conditions in rural areas have left workers more reluctant to move to the cities unless they are paid more.

Ningbo Keerdeng has dealt with rising wages the same way as factories in advanced nations - by automating and investing more in design. The company makes Santa dolls that push themselves across the floor on skis, and machines sew zippers and hems for the dolls' garments.

It would take a much larger revaluation of the yuan to create a serious problem for the business, and few people expect that, Mr. Chou said. If the currency "increases 15 percent, that would be very high, and 20 percent would be a disaster," he said.

The Dandelion Greeting Card Company, in Yiwu, a city in southeastern China, has taken the same approach. The company's cards have delicate, intricate flowers glued to vases on the front and are promoted as handmade. But Zhu Songwei, the general manager, said that computer-controlled machines are now used to design, print and cut the material for the cards, improving quality, and that workers only glue on the flowers in a final step machines cannot affordably do.

Mr. Zhu added that a revaluation of the yuan would "not have much effect because we have better quality and design" than other countries that also had low-wage workers gluing greeting cards.

The notable exception to corporate China's ability to withstand an increase in the yuan may be the industry that requires the most labor of all: apparel, especially low-end garments that involve a lot of very basic sewing that
can be done by unskilled and even illiterate workers.

Peter Peng, a manager at the Xiamen Point Light Industrial Company in southeastern China, which makes inexpensive knapsacks for children, said it would be "a disaster" if Beijing allowed the yuan to increase by 10 percent. A few competitors from Taiwan have already begun setting up operations in Vietnam to take advantage of the lower wages, he said.

A rising yuan would also offer some consolation to a sizable number of Chinese exporters. Factories that are less labor-intensive, like auto parts and computers, tend to rely heavily on imported material, from oil to computer chips, and those imports are priced mostly in dollars. So a rise in the yuan would reduce the cost of their material.

Mr. Hubbs's business, Fortunique Ltd., buys various plastic resins from Saudi Arabia, Thailand and the United States, supplied by Exxon Mobil and Dow Chemical. He calculates that nearly a third of his total costs are incurred in dollars.

Thus, in some ways, a stronger yuan might not only allow the Chinese to continue selling exports to Americans, but have a muted effect on the United States' relatively modest exports to this country. These totaled $25.06 billion in the first 11 months of 2004, compared with $114.19 billion in imports from China.

The United States is strongest in exports of food, notably soybeans, and infrastructure equipment, like the big turbines that General Electric ships and the powerful digging equipment Caterpillar sells.

American equipment makers do not compete directly with Chinese manufacturers in many products. The Chinese companies either do not produce the equipment at all or they produce equipment that is much inferior in quality. That limits the potential for the Americans to take advantage of a higher yuan to sell more products and take market share from the Chinese companies.

At the same time, China's demand for food is growing more slowly than for many other kinds of products. Although the Chinese are eating more meat, which requires more tons of animal feed than importing food for direct consumption, overall increases remain modest.

Merle A. Hinrichs, chief executive of Global Sources, an online intermediary and catalog company for 140,000 overseas suppliers to the American market, the majority in China, said the company's surveys of consumer-goods industries had found no sign that anything short of a very large revaluation would make much difference. "It has more of a perception impact than an actual impact," he said. "It's not going to impact the actual trade a lot."