

Cover Story

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The Dragon Still Roars

The global economic crisis has hurt Chinese exporters, but business is still humming in a wide range of sectors

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A GLOBAL economic crisis is under way, but someone forgot to inform the researchers and business managers operating out of [BioBay](#), a technology park in Suzhou, China, that caters to the health care and pharmaceutical sectors. Executives in the park still talk about expanding their businesses at double-digit rates this year and bringing loads of new staff on board, as if nothing had gone awry with the world economy.



BioBay

What Crisis? Research-based companies operating out of Suzhou's BioBay research park say they are not feeling the impact of the world economic crisis.

of generally rising profits. Japan's Chemical Exporters Association reports that exports of plastics to China in December were down 38% from a year earlier. As exports of finished goods from China to developed countries drop, the petrochemical industry across Asia is suffering in turn ([C&EN, Dec. 8, 2008, page 24](#)).

But seemingly insulated from the crisis faced by China's exporters, businesses in a wide range of sectors remain buoyant. This is particularly true for companies offering products, technologies, and services that can help China become a safer, healthier, cleaner, and more scientifically advanced country. Firms involved in health care, food and drug safety, water purification, laboratory outfitting, environmental protection, and infrastructure development are looking at particularly bright prospects.

Tony Pan, chief operating officer in China for [Brunswick Laboratories](#), in Suzhou's BioBay, says the company's business in China will grow by 100% in 2009, after leaping by 110% in 2008. This contrasts with global growth for the firm of only about 10%. Pan says Chinese consumers are increasingly focused on the safety and the nutritional value of the food they eat. This is good news for Brunswick, which bills itself as a world leader in analytical solutions and contract research services related to antioxidants and oxidative stress, mostly for food and cosmetics. Brunswick specializes in measuring the amount of antioxidants food, drinks, and cosmetics contain and advises companies looking to add or measure antioxidants in their products.

Much of Brunswick's business growth is related to China's push for national antioxidant standards. The company has secured two projects with the Chinese Center for Disease Control & Prevention assisting regulators in their efforts to adopt new standards. "This is all related to the health aspect of manufactured food, to how nutritious food actually is," Pan says.

MEANWHILE, Japan's [Toray Industries](#) hopes China will make up for the sharp drop in demand that its carbon fiber business is suffering. Toray, the world's largest producer of carbon fiber, has been building capacity in Europe, the U.S., and Japan in recent years, largely for the purpose of supplying material to build Boeing 787 and Airbus 380 airliners ([C&EN, Feb. 19, 2007, page 8](#)). The airline industry, however, has emerged as one of the victims of the global downturn, leaving Toray's carbon fiber business in the lurch.

But a Toray manager in Shanghai tells C&EN that China's desire to control its air pollution offers an opportunity for the company to return its carbon fiber business to a state of health. Carbon fiber can be used to line gas tanks for city buses running on environmentally friendly compressed natural gas. China's market for such gas tanks is potentially huge, the manager says, and Toray stands ready to jump on the opportunity.

"We've not been affected at all by the financial crisis," says Peter Zhang, chief executive officer of Shanghai [GenePharma](#), a producer of RNA-based molecules primarily for use in pharmaceutical R&D. He says demand for his products, two-thirds of which are sold to researchers in China, remains robust. The company will boost its workforce from 70 to 120 people this year and will start operations at a new large-scale monomer production facility. "Science budgets are increasing in China," Zhang observes. "There are many new, well-equipped labs."

As in the rest of the world, most of the business news coming out of China is grim. In late February, the financial services provider [Morgan Stanley](#) predicted that economic growth in China this year would be 5.5%, a sharp slowdown from the country's almost 10% growth rate in 2008. In southern China, dozens of manufacturers of clothing, toys, shoes, electronics, and other goods destined for overseas have closed their doors, laying off hundreds of thousands of workers. At a news conference in early February, Chen Xiwen, head of the Chinese Communist Party's office on rural policy, said that about 20 million migrant workers already had lost their jobs throughout China as a result of the economic crisis.

The chemical industry has been hit hard by China's economic slowdown. Japan's leading chemical firms, which have been exporting a substantial portion of their output to China in recent years, expect disappointing financial results in the current fiscal year after years

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The Japanese firm has moved further into water treatment business. Last November, Toray formed a joint venture with China National Chemical subsidiary China BlueStar, which by April 2010 plans to be producing polyamide composite membranes for use in reverse-osmosis water-purification systems. Toray is aiming for a 30% share of the Chinese market for such membranes, which it expects will grow to \$500 million annually within five years.

China's growing investment in water treatment is also providing opportunities for makers of laboratory instruments. Guang-Hui Cheng, marketing director for the China region at [PerkinElmer](#), says analysis equipment represents a small portion of the overall budget for a new water treatment plant. But China's vast investments in infrastructure, including water treatment and environmental remediation projects, are "good for us," he says. China has built a large number of water treatment plants in recent years, but the pace of construction is set to increase as the country implements a \$585 billion stimulus package it adopted in January.

According to Cheng, it's not clear what impact the economic crisis will have on PerkinElmer's business in China this year. On the one hand, the company still enjoys strong sales to the R&D centers that are mushrooming throughout the country. Multinational drug companies, for instance, have not noticeably slowed down the pace at which they are setting up new research facilities in China. In addition, the Chinese government has increased the research budgets of universities and institutes. "Our sales to the government sector have actually increased," Cheng says.

ON THE OTHER HAND, many of PerkinElmer's customers in China are going through hard times. The U.S. company supplies quality-control instruments to Chinese exporters that use them, for example, to measure the lead content of toys destined for the West. "Orders from export-oriented companies have not stopped entirely, but they have slowed," says Daniel R. Marshak, president of PerkinElmer for the China region, as well as the company's chief scientific officer. "Those customers are cautious now; they're waiting for the Western market to recover."

At [Beckman Coulter](#), another instrument maker, 2009 could be another great year in China. Jackey Ho, president of the company's operations in China, Hong Kong, and Taiwan, says his sales in China grew 23% in 2008 and could rise more than 20% this year. Roughly two-thirds of the company's sales in China consist of diagnostic instruments used by hospitals, and prospects for continued strong sales are positive because the country is investing in health care. One year ago, China's former vice premier Wu Yi announced that the government would sharply raise its health care expenditures in rural China to provide public coverage to all parts of the country.

"There is no economic crisis in China as far as Beckman is concerned," Ho says. Whereas Beckman has initiated a spending freeze in other parts of the world, he notes, it is still investing in China to expand the business. In December, Ho oversaw the opening of three new representative offices in the second-tier cities of Chengdu, Harbin, and Wuhan; two others will open in Xian and Qingdao before the summer. "We're looking at capturing the market throughout China," he says.

GEOGRAPHICAL EXPANSION throughout China is also an objective of [Eli Lilly & Co.](#), says David Ricks, the head of the pharmaceutical company's operations in China. This year, Lilly plans to double its headcount in China to 2,000 people. Most of those hired will be salespeople charged with helping Lilly penetrate further into the country. At the moment, Ricks says, Lilly gets most of its sales "from the largest hospitals in the largest cities."

According to Ricks, Lilly sees expanding business in China as "one of its biggest opportunities" at present. He expects that the Indianapolis-based firm will build its R&D, sales, distribution, product launch, and manufacturing activities in China in the near future.

China represents a small percentage of the company's global sales, but the market is attractive, Ricks says, because it has been expanding by more than 20% annually for the past seven years. Lilly has not fully participated in China's growth until now, he acknowledges, because the company's sales network did not extend to smaller cities and the countryside. "What is a peripheral hospital now could be a major hospital within five years," he says.

Another source of opportunity in China is that sales of drugs by major companies are low by international standards. Only about 10% of the drugs sold in China are made by innovative drug companies such as Lilly; the remaining 90% are sold by generic drug firms. In Europe and the U.S., Ricks says, between 30 and 40% of drugs are supplied by innovator companies. "I believe that over time, people will seek newer, more advanced medicines, and they'll want more quality, globally available medicines supported by robust clinical testing and safety monitoring," he contends.

Leon Chen, principal of the private investment firm [Fidelity Asia Ventures](#), confirms that "the future looks positive in this sector for the next few years." Chen, who specializes in investing in China's health care sector, says investor interest in China is growing despite economic constraints. The medical sector anywhere is recession-resistant, and in China it "will grow faster than anywhere else," he says.

The robustness of China's health sector is evident at BioBay, where companies are conducting business as usual despite the harsh economic environment in the rest of the world.

Jim Zhou, CEO of [Stainwei Biotech](#), in Suzhou, says his firm has not suffered from the



China Photos/Getty Images

Room For Improvement China is investing heavily to raise the quality of health care throughout the country. The only doctor in Chepan Township, near Chongqing, is shown here treating a wound in the local hospital.



Mark Ralston/AFP/Getty Images

Food Quality After a series of scandals, including the sale of milk contaminated by melamine, Chinese consumers are increasingly concerned about the safety of the food they consume. Here, a woman promotes organic milk at a food trade show in Shanghai.

crisis even though the company is mostly funded by venture capital. Zhou points out that because costs are far lower in China than in the U.S., it's easier to keep a biotech concern going. The main disadvantage of being in China is being a bit out of the loop of the new ideas and trends that are being generated in the major biotech hubs in the U.S.

Zhou says Stainwei has a few drug candidates undergoing preclinical trials at present. Stainwei, which conducts gene cloning research, has gathered enough capital to operate for at least two years. If the research projects haven't succeeded commercially by then, he says, the firm may receive government funding. The funding source could be a local Suzhou organization, or it could be the national government, which last year announced a \$1 billion program to encourage drug discovery and development in China ([C&EN, Dec. 1, 2008, page 28](#)).

Pegbio, another BioBay company, is also eligible to receive funding for some of its research projects, CEO Michael Xu says. Pegbio is developing a new diabetes drug featuring pegylation—the binding of polyethylene glycol to a molecule for the purpose of extending the molecule's half-life in the body. Pegbio's pegylated insulin, now under development for use in China, would lower the need for injections to only once per week, Xu says.

Other than drug research, Pegbio has a business in supplying methyl polyethylene glycol worldwide to labs that are trying to develop pegylated drugs. Xu says business is flourishing, so much so that Pegbio will double its staff this year to about 30 to accommodate the company's bulging order books. He sees high interest worldwide in pegylation technology, partly because it offers the potential of making new patented drugs from molecules that otherwise would just go generic.

GenePharma is another company that is experiencing surprisingly buoyant business conditions. CEO Zhang says a large reason for his firm's rapid growth is China's ongoing investment in basic research. His company's RNA-based products, he says, are used to manipulate genes in various research projects. GenePharma, he claims, controls at least 50% of the Chinese market for these molecular tools.

The global economic crisis, Zhang maintains, has had the unlikely effect of actually boosting his company's business. GenePharma's competitors in China are all foreign companies with limited infrastructure for customer support. Whereas Chinese research labs might once have preferred to purchase from better-known foreign suppliers, Zhang says they are now trying to stretch their research budgets by buying from in-country firms like GenePharma.

If GenePharma is any indication, the global economic crisis could be a blessing in disguise for some Chinese firms. Thanks to the country's lower costs, many companies are attracting new customers who are trying to save money. Moreover, the slower economic pace is contributing to reduced staff turnover and freeing time to train formerly harried employees. At PerkinElmer, Marketing Director Cheng says internal training programs have been stepped up in the expectation of a quick rebound in economic conditions. Having better trained staff will better enable PerkinElmer to take advantage of the rebound, he argues.

Despite the world's weaker economic conditions, China still offers plenty of opportunities. It's all a matter of being in a business that can help China be a more technologically developed nation where the food is safe, the water is clean, and people enjoy quality health care.



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Cleaner China For companies in the water-purification business, China remains a land of opportunities. This effluent treatment plant is located at a facility owned by the pharmaceutical ingredients manufacturer Zhongdan.