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CHINA VS THE WORLD

Whose Technology Is It?

Beijing has been quietly implementing policies to enable China to overtake the West as the globe's technology powerhouse. They just might be working. *by Thomas M. Hout and Pankaj Ghemawat*

In the city of Shanghai, a few churches conduct daily services for the faithful, just as churches all over the world do. However, China's Patriotic Catholic Association doesn't operate under the auspices of the Roman Catholic Church, which the Chinese government has banned. It is controlled by a state agency, the Religious Affairs Bureau. That's how the Chinese government deals with foreign organizations, be they churches or companies. They are tolerated in China but can operate only under the state's supervision. They can bring in their ideas if they deliver value to the country, but their operations will be circumscribed by China's goals. If the value—or danger—from them is high, the government will create hybrid organizations that it can better control. This approach, which never ceases to shock foreigners, guides those who are boldly fashioning a new China.

At 61, the People's Republic of China displays all the confidence of a nation that has overcome a midlife economic crisis. Nearly unscathed by the worst global recession in recent history, it is poised to reclaim its place as one of the world's preeminent economies. The days of double-digit growth may be over, but the Chinese economy still expanded by 9% a year from 2008 to 2010. In August 2010 China passed Japan to become the second-largest economy in the world, and next year it is projected to become its biggest manufacturer, pushing the U.S. into second place. That will mark the return to the top spot for a nation that, according to economic historians, was the world's leading manufacturer for 1,500 years, until around 1850, when Britain overtook it during the second industrial revolution.

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Even as China moves up the ranks of economic superpowers, many discount these recent milestones. They don't believe that China will become richer than the U.S.—in 2010 America's GDP was three times China's, and its per capita GDP was about 10 times greater, at the official exchange rate—or replace the U.S. as the wellspring of new technologies and other innovations any time soon. But almost unnoticed by the outside world, over the past four years China has been moving toward a new stage of development. It is quietly and deliberately shifting from a successful low- and middle-tech manufacturing economy to a sophisticated high-tech one, by cajoling, co-opting, and often coercing Western and Japanese businesses.

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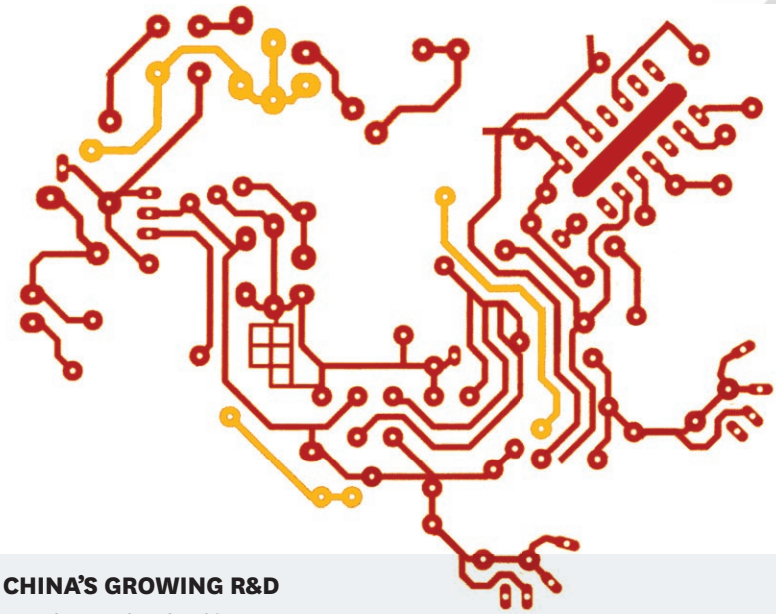
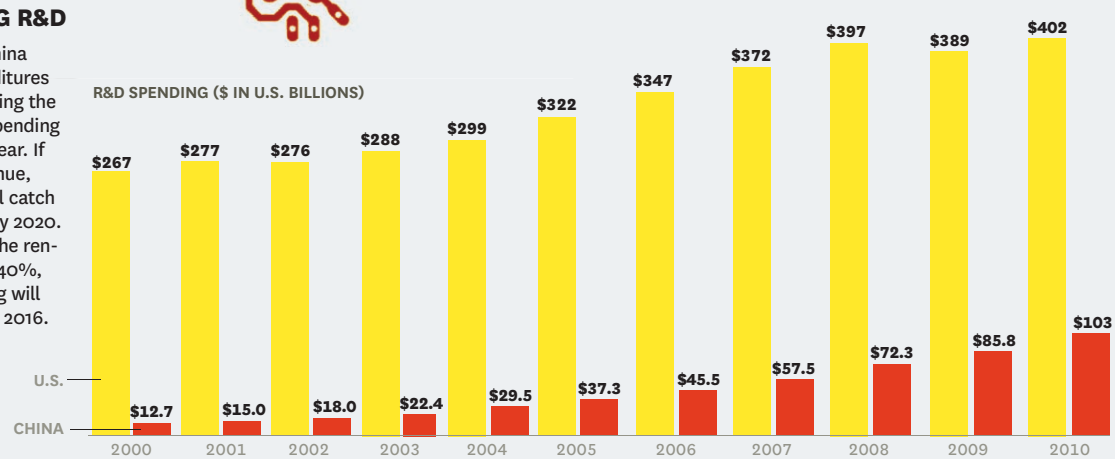


The government plans to increase China's R&D expenditures from the current level, 1.7% of GDP, to 2.5% of GDP by 2020; the U.S. figure today is 2.7%. Like Western governments, it is funding megaprojects in sunrise areas such as new-generation nuclear reactors, nanotechnology, quantum physics, clean energy, and water purification. At the same time, the government is forcing multinational companies in several sectors to share their technologies with Chinese state-owned enterprises as a condition of operating in the country. This is fueling tensions between Beijing and foreign governments and companies, and it raises the critical issue of whether the Chinese brand of socialism can coexist with Western capitalism.

Our studies show that since 2006 the Chinese government has been implementing new policies that seek to appropriate technology from foreign multinationals in several technology-based industries, such as air transportation, power generation, high-speed rail, information technology, and now possibly electric automobiles. These rules limit investment by foreign companies as well as their access to China's markets, stipulate a high degree of local content in equipment produced in the country, and force the transfer of proprietary technologies from foreign companies to their joint ventures with China's state-owned enterprises. The new regulations are complex and ever changing. They reverse decades of granting

CHINA'S GROWING R&D

Over the past decade, China has hiked its R&D expenditures by about 21% a year. During the same period, U.S. R&D spending grew by less than 4% a year. If these growth rates continue, China's R&D spending will catch up with that of the U.S. by 2020. Factor in the belief that the renminbi is undervalued by 40%, and China's R&D spending will match that of the U.S. by 2016.



SOURCES NATIONAL SCIENCE FOUNDATION (U.S.), MINISTRY OF SCIENCE AND TECHNOLOGY (CHINA)

Idea in Brief

The Chinese government, determined that China regain its position as one of the world's leading economies, is enforcing new policies that require foreign companies wanting to do business there to part with the latest technologies in high-tech sectors such as semiconductors, nuclear reactors, avionics, satellites, water purification, and protein science.

These rules, first announced in 2006 and constantly modified to keep multinational companies and governments off balance, mean that CEOs must weigh the benefits of entering the world's fastest-growing market against the possibility that Chinese corporations will soon become their competitors worldwide.

The regulations, which also limit investments by foreign companies and mandate a high degree of local content in all equipment, may be making multinational companies unhappy, but they haven't gotten China into trouble with the WTO, whose technology transfer provisions are more easily subverted than are the provisions covering trade in products.

In addition to forcing multinational companies to revisit their China strategies, these regulations undercut the assumption that integrating the Chinese economy with the rest of the world's would bring about a quick convergence of capitalism and socialism, and reduce global political tensions.

foreign companies increasing access to Chinese markets and put CEOs in a terrible bind: They can either comply with the rules and share their technologies with Chinese competitors—or refuse and miss out on the world's fastest-growing market.

Just as securing natural resources often drives China's foreign policy, shifting the origination of leading technologies to China is driving the country's industrial policy. In late 2009 China's Ministry of Science and Technology demanded that all the technologies used in products sold to the government be developed in China, which would have forced multinational companies to locate many more of their R&D activities in a country where intellectual property is notoriously unsafe. After howls of protest from foreign governments and companies, the ministry backed down. However, the government still appears intent on creating a tipping point at which multinational companies will have to locate their most-sophisticated R&D projects and facilities in China, enabling it to eventually catch up with or supplant the U.S. as the world's most-advanced economy.

This strategy, which we will describe in the following pages, has provoked several disputes between the Chinese government and foreign companies and caused some companies to review their strategies, along one of two lines. The first seeks to tackle the issue of how a multinational company can minimize competitive and security risks to its technologies. The second approaches the issue from the opposite direction, asking which innovations a foreign company must develop in China in order to gain advantage in the fast-changing global marketplace.

Above all, China's strategy casts into doubt the optimistic premise that engagement and interdependence with the West would cause capitalism and socialism to converge quickly, reducing international tensions. Unsurprisingly, during the recession storm clouds have gathered over U.S.–Chinese relations. The U.S. considers China a currency manipulator and believes it has failed to meet all its commitments to the World Trade Organization, prompting worries about a coming trade war between the two great economic powers of the 21st century. This isn't just a fight over the rules of globalization; it's a larger issue about the inherent difficulties of connecting two big, very different economic systems. Textbook theory suggests that imbalances trigger adjustments, but when economies are very different structurally and follow rigid policies, yoking them together will generate more imbalances—not equilibrium—and heighten tensions. CEOs eager to add another chapter to their lucrative China stories would do well to remember that the relationship between China and the West is historically unstable and to be prepared for unexpected twists and turns.

The Drivers of China's Discontent

China's determination to become a technologically advanced economy is driven as much by economic disillusionment with serving as the world's factory for low-value products as it is by pragmatism.

Disenchantment has set in because in spite of China's huge trade surpluses with the U.S. and Western Europe, the greatest profits have been reaped by foreign rather than Chinese companies, except for a handful of state-owned behemoths. Foreign companies dominate most of China's high-tech industries, accounting for 85% of the high-tech exports from China in 2008. In value terms the picture is no different: Exports of cellular telephones and laptops, for instance, had less than 10% Chinese content—and foreign-owned factories accounted for most of it. The rest of the hardware and software was imported. Frustrated by the inability of Chinese companies to get a larger share of these markets and forced to pay foreign companies ever-larger royalties as demand grows, Beijing decided four years ago to

China's Plans for Winning the Tech War

Four years ago Beijing announced its desire to make China an innovation-oriented society.

China wants to strengthen innovation, particularly in energy, transportation, the environment, agriculture, information, and health. It aims to boost the development of proprietary intellectual property. It seeks to apply modern technologies to public life and urbanization. And it is looking to modernize its defense capabilities, including its space program.

Accordingly, Beijing plans to increase R&D spending from 1.5% of GDP in 2006 to 2.5% by 2020, introduce unique technical standards that would reduce dependence on imported technologies by 30%, and ensure that China will become one of the world's top five economies according to the number of patents granted and scientific papers published.

dramatically increase the number of created-in-China technologies.

The government also realized that the renminbi's inevitable appreciation would eventually render China's low-tech exports uncompetitive, and that their manufacture would shift to countries such as Indonesia, Malaysia, Thailand, and Vietnam. To keep its economy growing at around 9%, provide jobs for the next generation of better-educated workers, and boost income levels, the state had to ensure that Chinese companies develop, manufacture, and export advanced products. However, Chinese enterprises, such as the aircraft manufacturer Aviation Industry Corporation of China (AVIC), the wind energy companies Sinovel and Goldwind, and the rail-transport-equipment companies CSR and CNR, were unable to compete technologically with Western, Japanese, and South Korean market leaders.

The Chinese government therefore developed a three-pronged plan to contain foreign companies and enable its companies to create advanced technologies. One, the state has ensured that it will be both buyer and seller in certain key industries, by retaining ownership of customers and suppliers alike. For instance, the Chinese government owns CSR and China Railways, AVIC and China Eastern Airlines. This gives the state a great deal of influence over equipment purchases, sales, and technology development. Two, the government has consolidated several manufacturers into a few national champions, to generate economies of scale and concentrate learning. CSR and AVIC both resulted from the mergers of several smaller, loss-making enterprises.

Three, Chinese officials have learned to tackle multinational companies, often forcing them to form joint ventures with its national champions and transfer the latest technology in exchange for current and future business opportunities. Companies that resist are simply excluded from projects. The Chinese government uses the restrictions to drive wedges between foreign rivals vying to land big projects in the country and induce them to transfer the technologies that state-owned enterprises need to catch up. Executives working for multinational companies in China privately acknowledge that making official complaints or filing lawsuits usually does little good.

Timing is critical: The government is convinced that Chinese companies must acquire the latest technologies and invest in R&D immediately if they don't want to miss the local and global infrastructure-building booms now under way. It's also advantageous to act while the renminbi is still undervalued. The government's hope is that the country will soon become a global innovation center matching the U.S. and Western Europe, and that this position will enable Chinese companies to overtake their foreign partners. This logic hinges on the fact that leading-edge technologies usually emerge in countries where the biggest and most-demanding customers are located, and that these customers provide domestic manufacturers with global advantage; think of French manufacturers of nuclear power reactors and American manufacturers of long-haul aircraft. One early indicator supporting this rationale: Applied Materials, a global leader in semiconductor-making equipment, recently transferred many R&D activities to China and relocated its chief technology officer there.

Local-content requirements, mandatory joint ventures, forced technology transfers—these aren't new elements in Asian development strategies. Japan, South Korea, and India, among others, have used them and were less tolerant of foreign investment than China has been. However, the Chinese government is remarkable in how aggressively it applies these policies, how many of its agencies are involved, how quickly and radically it changes the rules, how many unique technology and product standards it tries to impose, and how subtly its regulations violate

The government is using four mechanisms to achieve these goals:

1. It offers tax incentives, including accelerated depreciation of investments in R&D facilities and tax breaks on returns from venture capital investments in technology-based start-ups.

2. It has increased spending in 17 areas in which the state's research institutions and its enterprises collaborate, banks offer cheap loans, and special funding supports the development of domestic technologies that can replace imported ones.

3. It has tailored procurement policies to favor indigenously developed technologies. This occurs at the national, provincial, and municipal levels, especially in cities such as Beijing, Shanghai, and Guangzhou, where the state wants technology-rich industries to replace low- and mid-tech ones that are moving inland.

4. Finally, as described in the main text, it is forcing multinational companies to transfer their newest technologies to their joint ventures with China's state-owned companies.

the spirit, if not the letter, of multilateral agreements. The WTO's broad prohibitions on technology transfers and local-content requirements are more complex and easier to subvert than its rules pertaining to international trade in products. Furthermore, China hasn't yet signed the level-playing-field provisions covering government procurement; it claims that its policies don't violate them, because the WTO allows domestic policy concerns to be accommodated in government purchases. Although the WTO prohibits mandatory technology transfers, the Chinese government maintains that incentivized transfers, whereby companies trade technology for market access, are purely business decisions.

Beijing uses the new rules to drive wedges between foreign rivals.

The State's Strategies

The Chinese government has deployed several strategies to help local companies acquire state-of-the-art technologies and break into the global market. Some work in a top-down fashion, others from the bottom up.

Beijing drives the process nationally in most capital-intensive sectors. Consider high-speed railway systems, now an estimated $30 billion a year market in China. In the early 2000s the superior equipment of multinational corporations such as Alstom, which built France's TGV train system; Kawasaki, which helped develop Japan's bullet trains; and Siemens, the German engineering conglomerate, gave foreign companies control of about two-thirds of the Chinese market. The multinationals subcontracted the manufacture of simple components to state-owned companies and delivered end-to-end systems to China's railway operators. In early 2009 the government began requiring foreign companies wanting to bid on high-speed railway projects to form joint ventures with the state-owned equipment producers CSR and CNR. Multinational companies could hold only a 49% equity stake in the new companies, they had to offer their latest designs, and 70% of each system had to be made locally. Most companies had no choice but to go along with these diktats, even though they realized that their joint-venture partners would soon become their rivals outside China.

The multinationals are still importing the most-sophisticated components, such as traction motors and traffic-signaling systems, but today they account for only 15% to 20% of the market. CSR and CNR have acquired many of the core technologies, applied them surprisingly quickly, and now dominate the local market. In addition, they are cutting their teeth in the estimated $110 billion international rolling-stock market, moving into several developing countries where the Chinese government funds railway modernization projects. The combination of low manufacturing costs and modern technologies is helping them make inroads in developed markets too, with CNR recently winning contracts in Australia and New Zealand.

The Chinese government sometimes synchronizes its desire to accelerate growth in a particular sector with the imposition of new regulations on multinationals in that sector. For example, from 1996 to 2005 foreign companies held a 75% share of the Chinese market for wind energy projects. Then the government decided to grow the market dramatically, offering buyers large new subsidies and other incentives. At the same time, it quietly increased the local-content requirement on wind turbines from 40% to 70% and substantially hiked the tariffs on imported components. As the market exploded, foreign manufacturers were unable to expand their supply chains quickly and meet the increased demand. Their Chinese competitors, who had been licensing technology mainly from small European turbine producers, took up the slack rapidly and cost-effectively. By 2009 Chinese companies, led by Sinovel and Goldwind, controlled more than

two-thirds of the market. In fact, foreign companies haven't won a single central government–funded wind energy project since 2005.

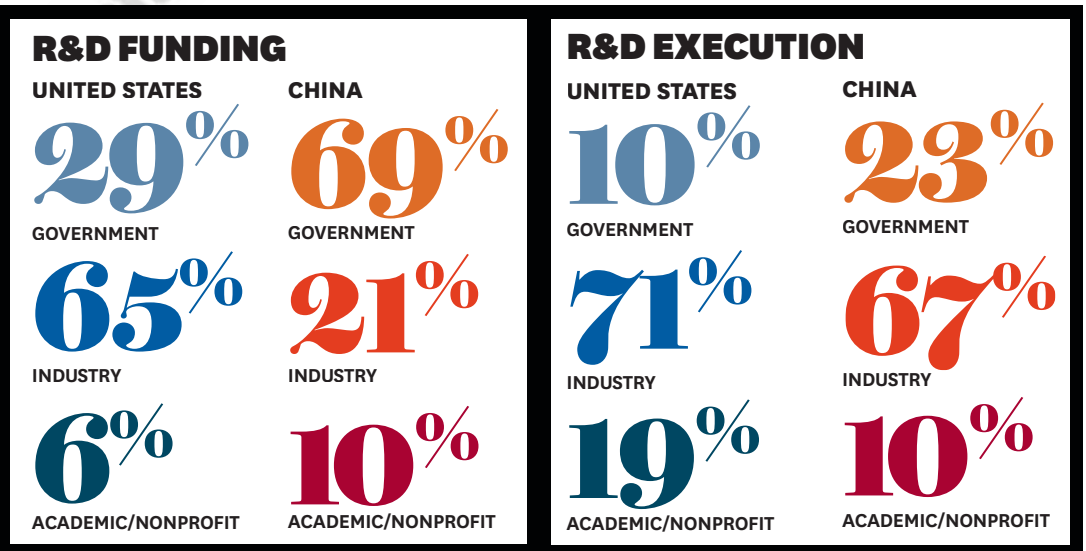
Beijing finds it tougher to deal with multinational companies in industries such as information technology. Software development doesn't lend itself to mandatory joint ventures, and China has no state-owned companies that can keep pace with the global leaders. It therefore penalizes multinational companies and favors local players in less direct ways. For instance, although Germany's SAP dominates China's ERP software market, the government gives hefty tax rebates to domestic players such as the Kingdee International Software Group, which has become the biggest ERP software supplier to small and medium enterprises in the country. In 2010 the government mandated that foreign companies selling software to state-owned customers must disclose their source codes, although it backed down after vehement protests from global vendors and Western governments. China also issues product standards and specifications that force foreign software suppliers to develop special versions for China, allowing Chinese equipment makers to circumvent Western patents and royalty obligations. For example, the country's wireless and 3G mobile telephone standards, WAPI and TD-SCDMA, will never become global standards, but they give local companies an edge and are hurdles in the path of foreign equipment manufacturers.

China's bottom-up support of the technologies of smaller, non-state-owned companies relies on local and provincial governments' self-interest and corruption, most of which is outside Beijing's control. For instance, Chinese companies have come to dominate the global silicon-wafer-panel business. That resulted from massive, uncoordinated capacity increases by dozens of private companies, aided by low-cost financing and inexpensive land sales. Many provincial officials provided Chinese entrepreneurs with land at below-market prices or even for free. Subsidies are available in the West too, but in China they often take the form of land grants that are larger than what's needed to build a factory. Companies build apartment buildings on the surplus land, the cash flow from which pays for R&D and offsets factory losses. State-owned banks give these companies loans at below-market rates, and sometimes the provincial government reimburses interest payments.

Owing to hypercompetition between Chinese companies, which spilled into overseas markets, the prices of solar panels fell worldwide by about 50% in 2009 and 2010, driving higher-cost Western producers into the red. Germany's Q-Cells, an industry pioneer, slid from an operating profit of 16% of sales in 2008 to an operating loss of 60% of sales the following year. China now exports 95% of its solar panels, and Chinese companies such as Suntech, Yingli, and JA Solar control half of the German market and a third of the U.S. market.

So far the Chinese government's technology policy has produced mixed results. In areas such as rail and wind, Chinese companies have replaced multinational corporations in the domestic market, are boosting exports, and are making profits. It's too early

In both China and the U.S., corporate entities perform most R&D. The difference is that in China, the majority of those entities are owned by the state; in 2009 the government funded 69% of the R&D efforts in the country. By contrast, the U.S. government accounted for only 29% of America's R&D expenditures that year.



SOURCES BATTELLE INSTITUTE, "GLOBAL R&D FUNDING FORECAST," DECEMBER 22, 2009; *CHINA ECONOMIC QUARTERLY*, Q3, 2006; OECD R&D STATISTICS, 2009

to tell in businesses such as jet aircraft manufacture and power generation, where Chinese enterprises lag well behind Western market leaders. In other sectors, such as solar panels, profits are scarce, and foreign rivals with higher-tech products are price competitive and more profitable. China's silicon foundries are unable to compete with sophisticated Taiwanese and South Korean producers, and among the country's computer hardware manufacturers, for instance, only Lenovo and TechFaith, a mobile phone designer, have gained any traction.

Is Conflict Inevitable?

China's policies raise the issue of whether economies with disparate objectives and at different stages of development can coexist without conflict. Tensions between China and the U.S., in particular, are growing, and something has to give if the two nations are to avoid a nasty confrontation soon. The likelihood of conflict depends on the governments of the two countries. The good news is that both of them appear to be pragmatic, operate by consensus at the top, and seem unlikely to commit to self-destructive policies. The two governments also want trade flows between their countries to keep increasing, because people and companies on both sides of the Pacific count on them for wealth and power. Besides, the Chinese government isn't a monolithic body; many senior officials in the Communist Party want the renminbi to appreciate, would like to gain control over opportunistic local officials, and hope to reduce environmental problems.

However, China and the U.S. are structurally prone to economic conflict. They differ radically in their beliefs, expectations, and objectives because of their histories, economic and political systems, and policies. For instance, China regards the management of trade and investment flows as a legitimate way to regain its global leadership, while the U.S. believes the state should play a limited role. Connecting these two systems has reinforced imbalances rather than bringing about equilibrium.

There's a link between China's rapid development and America's slowing growth. China has only about a tenth the capital stock of the U.S., in per capita terms, so it invests roughly three times more, as a percentage of GDP, than the U.S. does. It funds these investments from government surpluses and the profits of state-owned enterprises, by minimizing health care and pension safety nets, and by preventing its savers from accessing investment opportunities abroad. There's also a difference in expectations about future benefits: China is inclined to save more today, while the U.S. prefers current consumption. Despite the postrecession increase in the household savings rate, the U.S. government continues to borrow to maintain consumption levels. It keeps interest rates low, supports current consumer spending, enlarges its net debtor status—and compromises its future growth. Meanwhile, China has invested heavily in manufacturing to cater to this consumption. To keep prices low, it pegs the renminbi to the dollar by limiting currency holdings outside China and requiring exporters to sell their dollars to the central bank. Instead of selling surplus dollars on the foreign exchange market, China's central bank uses them to purchase U.S. debt, keeping the renminbi's exchange rate low and the U.S. economy ticking.

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China faces policy rigidities. The Communist Party's ability to remain in power depends on maintaining the rapid growth of the economy and making larger capital investments. The popular view in China is that both trends will continue, that Beijing is doing the right things, and that foreign complaints are de facto attacks on the country. Many economists fear that the government is turning its back on the forces that brought China to where it is today, but its leaders see state capitalism and the containment of foreign companies as China's best chance of regaining technological superiority. As noted earlier, Beijing has little control over local and provincial policies, which deliver most of the subsidies to exporters. Local tax revenues are calculated in relation to sales, not profits, and officials are promoted according to how much employment they generate. This incentive structure for decision makers reinforces the creation of excess capacity, leading to lower prices, which spill over into export markets and irk the U.S.

The U.S. and China do have common interests, such as developing clean energy, protecting the environment, and reining in rogue states. However, an agenda of cooperation between disparate and

Whose R&D Will Deliver Results?

Are China's R&D efforts as productive as America's? Creative destruction is a major force in U.S. business: A company now on the S&P 500 can hope to stay there for 15 years—half the life expectancy in 1990. In China, the corporate pecking order is more apt to change because of state-sponsored mergers than competition. That fact alone suggests that America's R&D is more productive than China's.

China's most innovative technologies have come from privately owned companies, such as the electric automobile maker BYD, the telecom firm Huawei, and the solar panel manufacturer Suntech. However, 40 of the 50 Chinese companies with the largest R&D expenditures are state owned; they will have to become more innovative if China is to catch up to the U.S. And catching up isn't the same as keeping up.

Of course, the U.S. has problems, too. Government funding of basic research has been flat, in real terms, since 1995, and the U.S. is falling behind in areas such as clean energy and water. In addition, the common U.S. practice of awarding narrowly focused, short-duration federal research grants underperforms the establishment of multidisciplinary teams that stay together. Still, the U.S. may well respond to the Chinese challenge once that challenge becomes widely known—as it successfully did to the Soviet space program in the 1960s.

conflicting systems brings problems. Working with the other side is beneficial but not a core objective, so if the U.S. values cooperation more than China does, it may compromise its interests during negotiations. It might be useful for the U.S. to dispense with the premise that it can have an economically compatible relationship with China. That would clarify China's development strategy and its adverse effects on Western interests, thus brightening the lines the U.S. simply cannot allow China to cross.

It's not clear what will alleviate the structural problems. Changes in China's economic policies are unlikely to happen soon, and counting on them only delays coming to grips with the issue. Although most people anticipate that the Chinese and U.S. systems will eventually become more similar, they are likely to remain fundamentally different until China gets bigger and much richer—and more technologically sophisticated.

There will be no shortage of crises along the way, especially because China "manages" its foreign policy by pressuring rivals. America's challenge, in addition to raising U.S. saving and investment rates, is to overcome its passive reliance on markets and develop aggressive public development strategies of its own. The U.S. either misread what would happen or undervalued its own economic interests while integrating China into the global system. Five years ago Robert Zoellick, then the U.S. deputy secretary of state and now the president of the World Bank, stated with confidence, "[U.S.] policy has succeeded remarkably well: The dragon emerged and joined the world." Perhaps, but in the process the U.S. may have gotten more than it bargained for.

Succeeding in the New China

Multinational corporations must adjust to the growing tensions between China and the U.S. on their own; they operate across national boundaries and cannot wait for balancing macroeconomic forces or multilateral solutions. The Chinese government constantly tests the resolve of foreign companies, but many can't complain. The state pays less attention than it once did to consumer product giants such as Procter & Gamble, Unilever, and Yum Brands. These corporations have been selling in China for so long that consumers regard the brands as local, and their top management teams are chockablock with Chinese executives. However, the state is becoming more intrusive in some ways. By stopping Coca-Cola's acquisition of Huiyuan Juice in 2009, for instance, the government showed that it would protect promising local companies and brands. As for mid-tech manufacturers, such as Otis Elevator, Emerson Electric, and Danaher, they are of little strategic interest to Beijing and will continue to flourish in China.

But the government has fundamentally changed the game for technology-rich companies. China is a big market for them; many operate dozens of subsidiaries and employ tens of thousands of people there. It's also a learning space: The market's complexity and rapid development have already prompted these companies to locate more R&D facilities and develop products in China. The government's new policies will accelerate this trend, forcing companies to bring cutting-edge R&D into the country earlier than they might have planned and on different terms than they would have liked. Still, these companies' best response would be to continue making themselves indispensable to the Chinese government, state-owned partners, and customers.

Western corporations have much that China needs. For example, IBM is helping to build a "smart" railway-management system for the state-owned metro in Guangzhou City. Similarly, GE, because of its knowledge of aviation technology, was able to negotiate a partnership with Aviation Industry Corporation of China in 2009 for the development

of commercial aircraft. GE would have liked full control of the venture, as it enjoys elsewhere, but that's unlikely in China. Multinationals have the strongest hand with authorities when they have a technology that China wants and no one else has. In 2007 the French company Areva successfully rebuffed Premier Wen Jiabao's attempt to force it to transfer its unique nuclear-fuel-recycling technology as part of a $12 billion nuclear reactor deal. But this was a rare exception; China usually wins.

The most technology-rich multinationals can gain direct access to China's leaders, who find it more efficient to deal with the CEOs who own the technologies they want than with their governments, who like to scold. Former CEOs Hank Greenberg of AIG and Bill Gates of Microsoft are cases in point. Greenberg started cultivating China's leaders in the 1970s, buying and returning stolen Chinese works of art, and 25 years later the Chinese government rewarded AIG with special privileges when it opened the insurance market to foreign companies. Gates, after some early struggles, warmed to the challenge, looked past the software piracy in China, and learned to work with Beijing. In return, the government forced PC manufacturers in the country to load legal software onto their computers and required the computers it bought to have legal software. The Chinese have long memories; they admire the time horizons of CEOs like Greenberg and Gates.

Many multinational companies have long collaborated with state-owned enterprises to create stronger business positions than either could have achieved on its own. Cummins is an equal partner in both production and R&D with its largest Chinese diesel engine customer, Dongfeng Motor. This has allowed the U.S. corporation to develop products in China faster than it otherwise could have and to strike relationships with new customers, such as urban mass-transit operators, that value Cummins above other suppliers. All this has helped Cummins's facilities outside China sell four times as many products in China as they export from the country.

Global forces have catalyzed new forms of cooperation between Chinese companies and foreign corporations. Many products sold in emerging markets have different design requirements from similar products used in developed countries, and China, the world's largest developing country, is often the best place to develop them. For instance, Shanghai Automotive Industry Corporation and Volkswagen's 50/50 joint venture has designed a car that it will license to both partners for sale in other emerging markets, and Shanghai Auto has formed a venture with its other partner, GM, to serve India's car market. In fact, teaming up with Chinese companies is becoming essential for multinational corporations wishing to compete cost-effectively in emerging markets. New entrants in the global power industry, such as (South) Korea Electric Power, have shrunk the odds that Western companies will win bids in developing countries unless they source from China. More collaboration options are available than ever before, and the Chinese government, through its aid budgets, policies, and support of business deals, is influencing how the new order will evolve.

Companies would do well to make themselves indispensable to China.

Already multinational companies have learned to better protect their intellectual property in China. They split cutting-edge technology between different partners, post more employees from home to handle sensitive work, and build stronger personal and organizational links with their partners. They negotiate with the government over such things as the use of their technology, which officials will see it, and which jurisdiction will settle any legal disputes.

PROTESTS BY Western governments can moderate only the most aggressive of China's policy initiatives. A global realignment of business is under way. It includes the spread of competitive capability to China and other emerging markets, a surge of investment in those countries, and a shift of wealth and business platforms from developed to developing economies. If they wish to remain global technology leaders, Western corporations—which are more innovative than slow, debt-ridden governments and Chinese state-owned enterprises—must bring to bear greater imagination as they search for growth, collaboration, and advantage.

HBR Reprint R1012H

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Fonte: Harvard Business Review, v. 88, n. 12, p. 94-103, 2010. [Base de Dados]. Disponível em: <http://web.ebscohost.com>. Acesso em: 16 dez. 2010.