

# Reforms and Open Policy in China

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It is well known that during the 3000 years and more before the age of industrialization, China had created a splendid culture. The Great Wall, Palace Museum, and many other historic sites remain to this day a source of national pride and are acclaimed by people throughout the world. However, in the last two centuries China has lagged behind.

In 1949 China entered into a new era, and since 1978 China has embarked on a more correct path. Rural economic reforms have proved to be a great success, bringing about prosperity everywhere. Reforms in urban areas are gaining momentum and doing well. In 1984, China's gross national product (GNP) exceeded \$455 billion (U.S. dollars), with an increase of 13 percent over the previous year. Industrial and agricultural output amounted to about \$400 billion (U.S. dollars), showing a growth of more than 14 percent, and national income went up by 12 percent. Such high rates of growth were seldom seen in China's history.

China has indeed made significant progress in recent years, but its level of development is still low in comparison with that of many other countries. At present, China's GNP per capita is only \$450 (U.S. dollars), and this places China in the group of low-income countries. Even though in the past few decades Chinese scientists have succeeded in mastering nuclear technology, launching a number of satellites, and synthesizing bovine insulin, their contribution to economic growth and to the production of consumer commodities cannot be considered satisfactory. Apart from historic, political, and ideological constraints, an important cause of such performance is the rigid economic and research and development management systems that have existed. Until this time, the state placed excessive control over research institutions and enterprises. No attention

was paid to commodity production, and the role of the marketplace was neglected. Egalitarianism prevailed in the distribution of social wealth, and many scientists, engineers, and workers got used to living at the expense of the state.

## Economic Reforms

Having studied the lessons of its own and the experience of other countries, the Chinese government has come to recognize foremost that, in the country's modernization drive, commodity economy is an indispensable stage. Second,

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*Summary.* Reforms of the economic and research and development management systems are spreading far and wide in China in a planned manner. The creative and pragmatic spirit demonstrated by the Chinese government in these reforms has won enthusiastic support of the Chinese people and aroused keen interest of statesmen, economists, and scientists the world over. The four previously established special economic zones, the opening up of 14 coastal cities and Hainan Island to foreign investment, and the smooth settlement of the Hong Kong issue by means of "one country, two systems" have brought new splendor to China's reforms. Many people in the press regard the decision of "one country, two systems" as the most courageous and fascinating creation of the 20th century.

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the positive experiences and achievements attained in developed countries often symbolize progress in human civilization and therefore merit our attention. Third, a contemporary developed economy has to be international by nature, for no country can expect to achieve modernization if it leads a self-sufficient idyllic life in seclusion. Finally, all developed countries depend on science and technology as a pillar of their development, but science and technology can keep up with the advanced level of the world only when there is an environment favorable to international interaction. A policy of seclusion can lead to nothing but backwardness.

The government of China is determined to carry out economic reforms and to open up its country to the outside world. Accordingly, two separate decisions were made and announced, one last October and the other in March of this year.

These decisions have demonstrated that the government is fully aware that in a planned market economy, based on public ownership, the law of value must be followed to stimulate commodity production and its exchange. Toward this end, the government intends to diminish state control over enterprises and research institutions by making a clear-cut distinction between ownership and the right to manage state-run organizations. Sufficient decision-making power will be granted to managers. Furthermore, the government has decided to link the remuneration of workers with the economic returns of their firms and to tie wage increases with profits. The job of the government will then be focused on guiding economic activities across the country through policy directives, laws, taxation, and investment on the basis of analyzing macrostatistical information aggregated from the whole country.

Commodity prices in the marketplace are the yardstick and leverage of product quality and its exchange. In the past, prices of nearly all commodities were set by the state. With the passage of time,

prices so set no longer reflect the true value of various commodities, nor do they reveal the actual relation between supply and demand. If the market mechanism is to be followed, the government intervention in pricing must be reduced, and prices ought to be allowed to float in response to fluctuations in supply and demand. The first step that the government is taking in the current reforms is to readjust the existing pricing system to set up a flexible, market-regulated system. The government fully recognizes that this is a decisive but rather sensitive step. Some people say economics is merciless. It sometimes offers opportunity and other times gives rise to risks. An abrupt change in prices heralds either joy or disaster. The establishment of a reasonable pricing system holds the key to the success of the current reforms. Having taken a number of precautionary measures, the government of China has decided to press ahead with the reforms

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of pricing and wage systems in the urban economy in 1985.

The wage system, which is closely related to the pricing system, must also be changed. This reform is aimed at removing the egalitarian system in which workers' wages are primarily determined by seniority. Under the new system, the wages of the employees of the state-run enterprises will be linked to the performance of the firms so that the principle of distribution according to work can be implemented conscientiously. Finally, while maintaining the predominance of public ownership, we must encourage the development of collective and individual sectors of the economy and promote diverse and flexible forms of cooperative management and economic associations among the state, collectives, and individual sectors of the economy.

China's economic reforms scored points first in the rural areas. Agriculture, which worried us for so long, has been enabled to develop vigorously within a short period of time. This is primarily attributed to the replacement of the people's commune system with a system of contracted responsibility that links remuneration to produce. The rural economy is moving toward specialized commodity production. Farmers now are eager to set up small businesses, and the entire countryside is bustling with activities. As a result of this reform, the production value generated by small rural firms in 1984 exceeded \$46.5 billion (U.S. dollars), an increase of 24 percent over the previous year, and accounted for 40 percent of the national agricultural output value.

### **Research and Development**

The advancement of science and technology and economic growth are twin sisters that reinforce one another. In China there is no exception. Advanced science and technology have already become the main driving force for China's modernization program.

The majority of the more than 9300 research institutions in China are supported entirely by the state. They have done much praiseworthy work over the years but have not contributed much to prosperity in the marketplace and to invigorating the economy. They pursue sophisticated technologies but are unable to translate these into social wealth. That science and technology are not tailored to the needs of economic growth constitutes the most serious defect in our research and development management system. The Chinese government has

therefore decided that, while restructuring the economic system, research and development management will also undergo a reform at the same time. This reform is intended to create an environment in which most of the research institutions, and especially those intimately involved in technology development, will have a market orientation. Research undertakings will be geared toward economic construction and judged by their economic implications. Thus the public will show more respect for those who contribute to the acceleration of economic growth, and they in turn will receive more rewards.

The first practical step of the reform is to alter the allocation of funding for research institutions. Government funding of R&D entities will be gradually reduced and eventually eliminated. The R&D institutions should be able to fund their research undertakings mainly through contracts with enterprises and transfer of technology or service to the public. A system of bidding and contracting will be put in place for major national projects. A national science foundation will be created to support basic research and some applied research projects. Financial support will be allocated to selected projects through a peer-review process. A sum of venture capital will be set aside by the government for transient and risky high-tech development. The government will continue to allocate funds in the form of block grants to institutions devoted to social welfare and service to the public such as astronomy, time services, meteorology, metrology, environmental protection, and public health.

In addition, the government of China has decided to create a market for technology transactions, thus treating technology as a kind of social wealth and commodity. It is expected that research institutions will benefit considerably from this market and be able to function and prosper without government subsidy. This will surely put an end to the practice of "eating from the same big pot," as said in China, and greatly encourage research institutions to either invest their R&D results in firms as capital or transfer them to the marketplace.

### **Creating a Demand for Technology**

Since a flourishing technology market depends on the demand of plants and factories, a number of measures are to be taken to reinforce the ability of plants and factories to assimilate and develop

new technologies. Independent research institutions are being asked to undertake joint ventures or to merge with enterprises on the basis of voluntary participation and benefit sharing. Large firms should have their own R&D departments while the medium- and small-sized firms are encouraged to collectively support research organizations. Moreover, the government will give preferential treatment in price, taxation, and credit loans to R&D activities undertaken by such cooperative research entities.

A contract system will be introduced for recruiting scientists and engineers so that they will be able to find suitable jobs and their knowledge and expertise can be brought into full play. These people are being especially encouraged to work in rural areas, in medium- and small-sized firms, as well as in remote and less-developed regions. Freedom of expression will be protected so that scientists and engineers will feel free to explore new ideas and concepts.

The prominent political leader Deng Xiaoping recently pointed out: "The new economic structure must be favorable to science and technology advancement, and the new R&D system should, in turn, be conducive to economic growth. The two systems should go hand in hand, and the long drawn-out problem of mismatch between the two may be resolved satisfactorily."

It is inevitable that the current reforms will impinge upon the conventional customs and concepts of the people in social activities. It is indeed a major move, much like a large oceangoing vessel altering its course. Nevertheless, these reforms are in keeping with the world trend of development, conforming to the actual conditions in China. They enjoy abundant support of the Chinese people and have captured the attention of people throughout the world. As long as we keep the reforms on the right track and take well-calculated steps, we are confident we will succeed.

### **An Open Policy**

With progress in science and technology, our globe is getting smaller. Communication satellites keep us aware of what happened just a few hours before in every part of the world. People can reach any place on Earth within a day if necessary. In fact, our world has become a closely interwoven large-scale system, and no country can stay away from it. Historically, the reason science and technology have reached their current state is that each nation has contributed

its share. Needless to say, in the last century developed countries, the United States in particular, have made and are still making significant contributions to the advancement of science and technology. Today, hardly any discovery in science or any significant breakthrough in technology can be made without concerted efforts and collaboration of scientists and experts throughout the world in one way or another. No longer does any country have the luxury of operating within an isolated, self-sufficient economic system. No country, if separated from the world, can achieve significant progress in developing its economy, science, and technology. A nation can hardly expect to enjoy the full blessings of modern civilization if it confines itself behind closed doors.

It is precisely on the basis of this understanding that the Chinese government has decided to pursue a policy of opening its country to the outside world, discarding its tradition of closedness. The concept of "one country, two systems," the opening up of coastal cities to foreign investment, the ever expanding scope of international cooperation in science and technology are all examples of the open policy. In brief, this policy will enable us to learn from the new knowledge and positive experience of other countries and blend them with our own cultural tradition to invigorate China's economy and raise its science and tech-

nology capabilities. We believe that in the foreseeable future the Chinese nation will stand side by side with other great nations in the world and make greater contributions to mankind.

Although China's open policy has been in effect for a relatively short time, its tremendous impact is apparent in many aspects of the nation's life. From 1980 to 1983, China's national income increased 32 percent, and the total volume of imports and exports went up by 57 percent. Foreign investment in China now amounts to nearly \$7 billion (U.S. dollars). Up until now, China has signed agreements with foreign countries on more than 3000 projects for science and technology exchanges and cooperation. More than 50,000 foreign experts and scientists have been invited to visit China. Chinese scientists have joined more than 50 international scientific and technological organizations and academic bodies. Approximately 30,000 Chinese are now studying in foreign countries as students or visiting scholars.

To facilitate the people-to-people exchange with other countries, the government of China has formulated and is drawing up a great many laws and regulations related to immigration, marriage, taxation, and so on, to create a more favorable environment for foreign guests.

Reforms and the opening up of the country are at the core of China's mod-

ernization drive. These two policies are symbiotic, for neither can be effective and endure for long without the other. With current world trends and China's need for modernization, I would like to imagine that, some decades in the future, China will be inextricably involved and locked into the complicated international economic, science, and technology systems of the world. At that point, no one would dare to draw back from the world system into seclusion again, for that would probably bring about disaster to the entire economy of China. I believe that these policies will live and continue in effect as long as the Chinese people remain committed to making further progress in their country.

There exists profound friendship between the peoples of China and the United States. The relationship between the two governments is improving satisfactorily. China is prepared to develop economic, technological, and trade agreements with the United States on the basis of equality and mutual benefit. We encourage American entrepreneurs to set up businesses or trade organizations in China and American scientists and specialists to undertake such activities as study or lecture tours, or collaborative research, development, design, or manufacturing ventures with Chinese colleagues. In so doing, you will be able to watch the fascinating process of rejuvenation of an old nation.