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Introducing CHINA ECONOMIST

In the wake of high-speed growth in Japan and some other east Asian countries during the 1950s-70s period, the Chinese economy has been growing briskly over the last two decades and more. It is also changing the global economic pattern forcefully and rapidly. During the 1970s, China accounted for no more than 2% of the world GDP, but today it makes up 4-5% of the world's GDP, 6-7% of the world's total exports and 9% of the world's total output of manufactured goods. This country's robust development is having such an impact on the world economy that some people even feel uneasy about it . However, there are absolutely no grounds for panic even if China accounts for one quarter of the world's GDP, exports and manufacturing industry, for these are just indicators of medium-level economic development in the world and of a medium-income country and a "better-off" society. Just consider this: nearly 22% of the world's total population and approximately one quarter of the world's total labor force are in China.

It seems that the world has been caught ill-prepared for the dramatic changes in China. This makes it all the more necessary for China to know itself and the world better, and for the world to understand China more. In that sense, to study China and discover the worldwide impact of the Chinese phenomenon is a global topic. However, despite the fact that learning Chinese as a foreign language is coming in vogue throughout the world, far fewer foreigners can read Chinese without difficulty. CHINA ECONOMIST, therefore, comes in handy for our foreign readers as an English periodical that focuses on economics and business management as well as other fields of social sciences in China.

Specifically, CHINA ECONOMIST takes it upon itself to inform the world of the latest academic progress in Chinese economics and business management, to publish original academic papers and research reports on the Chinese economy, and to disseminate the Chinese experience in economic development and corporate governance as well as the results of empirical studies in these fields.

CHINA ECONOMIST will follow a style that is at once scholarly and empirical and make a point of being readable, up-to-date and reader-friendly. Its targeted readers are economics and business management researchers and experts, high-echelon economic and business administrators, teachers and graduate students of colleges of economics and business, as well as international personages and media that pay close heed to what is going on in China .

With the backing and abundant academic resources of the Chinese Academy of Social Sciences (CASS), the nation's supreme institution of humanities and social sciences, and with the senior economists and business management scholars serving as academic advisors or on the editorial board, CHINA ECONOMIST is bound to emerge as a CASS platform for international academic exchanges, and as a link between China's economics and management science and the global scholarly community.

Nevertheless, the coverage of CHINA ECONOMIST is by no means limited to the academic achievements of the Chinese Academy of Social Sciences. The journal is an open academic platform and a mass medium that not only accommodates the study results of Chinese scholars and researchers but also introduces the achievements of international scholars and researchers in the studies of Chinese economy.

It is the commitment of CHINA ECONOMIST to observe, study and discover China with a sensible, scientific and precise attitude and approach. It is also the journal's mission to present a kaleidoscopic and all-encapsulating picture in which burgeoning construction scenes, bright prospects and splendid achievements mingle with everyday trauma and discontentment and seemingly insoluble bewilderment. Only he who truly knows and understands China can put his finger on the pulse of the world as a whole. An academic silhouette of the Chinese economy — this is exactly what CHINA ECONOMIST wants to contribute to the world. Editors of this journal sincerely invite you to enjoy reading this newly-born periodcal.

Prof. Chen Jiagui

Prof. Jin Bei

March 8, 2006

Prof. Chen Jiagui is the vice-president of Chinese Academy of Social Sciences (CASS).
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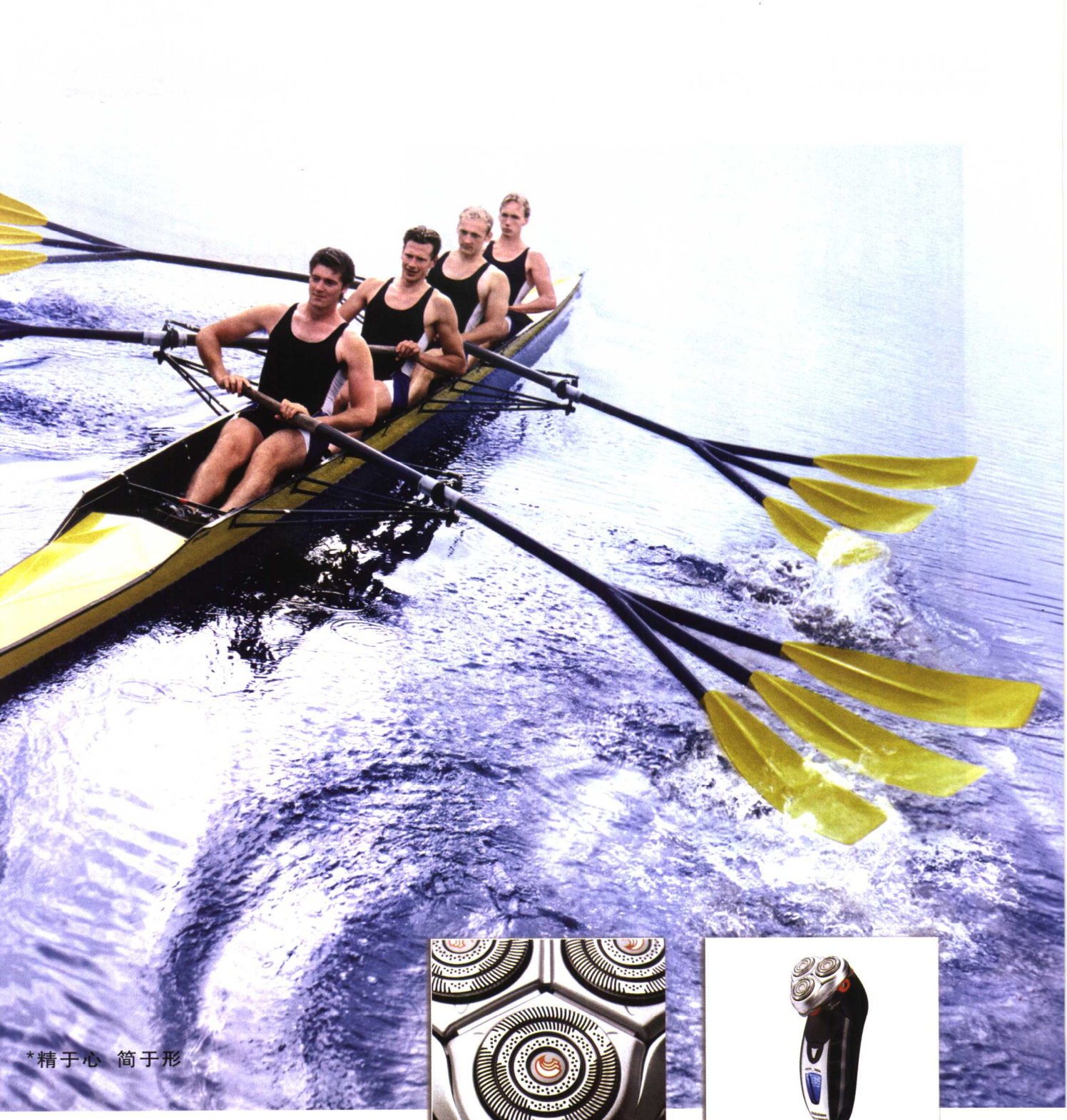

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Jin Bei

024 Strategic Options for the New Five-Year Plan

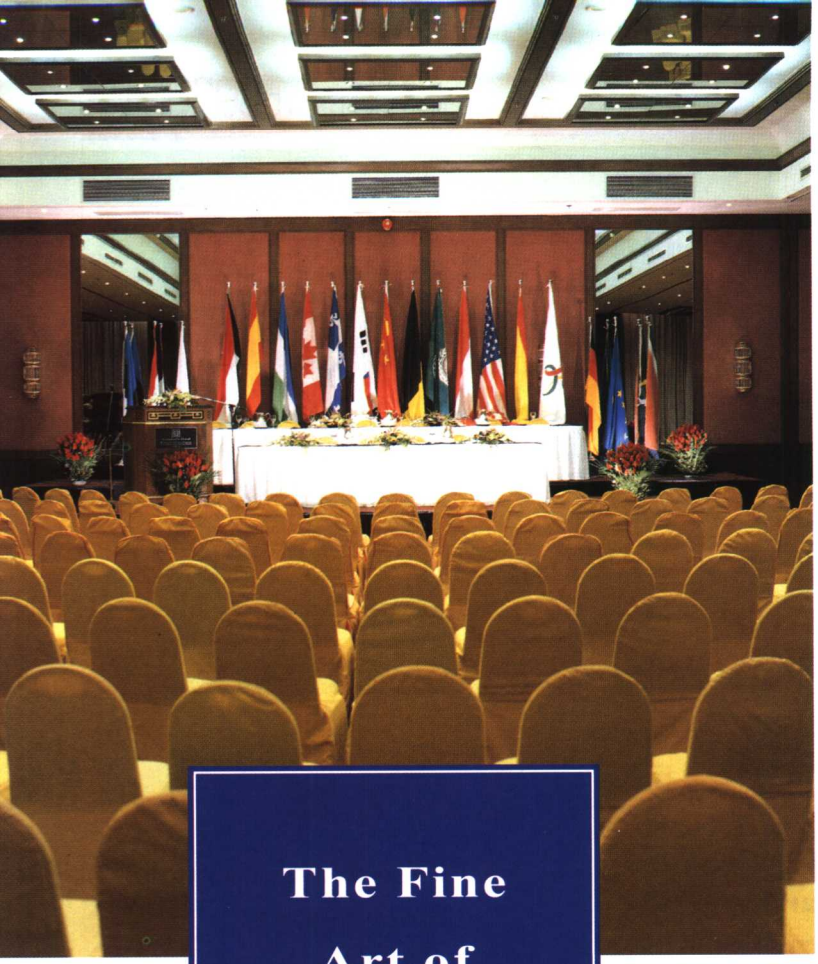
Research Team, Academy of Mcroeconomic Research (SDPC)

The 11th Five-Year Plan covers a major historical period in the socioeconomic development of China. It is a time of many contradictions and risks, for it is regarded as both a "golden age of development" and an "age fraught with contradictions". If proper strategic choices are made, these opportunities may be grasped with great benefits. Otherwise, development will be delayed with a heavy cost.

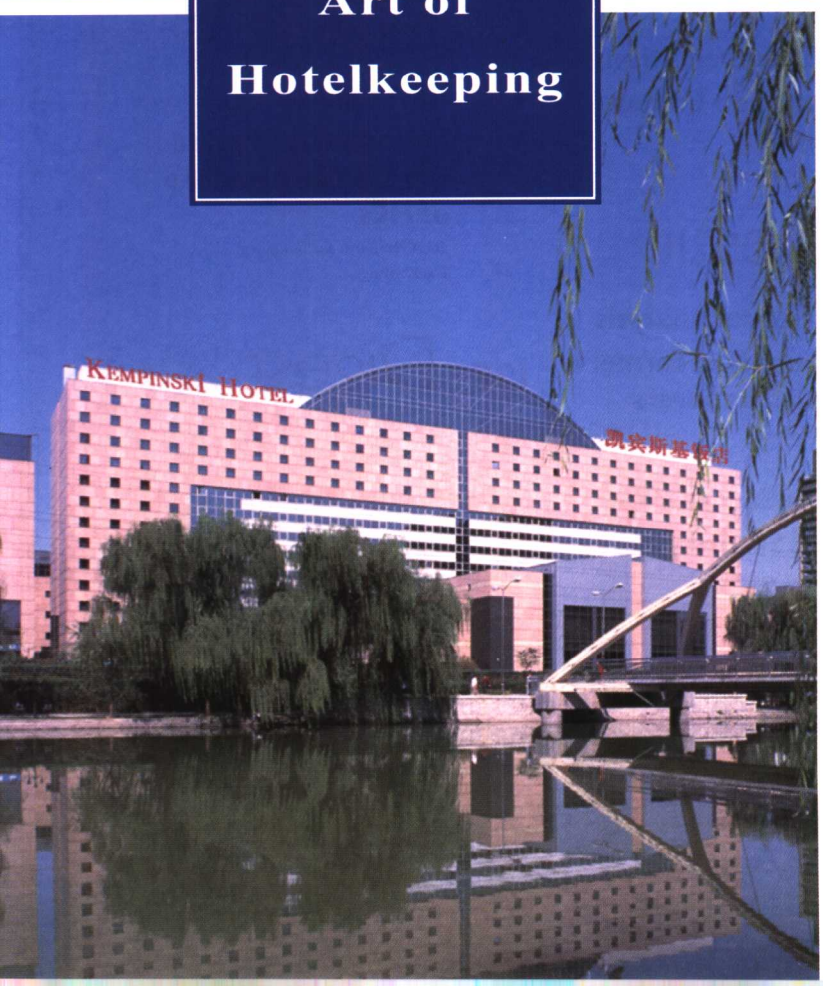
046 Fiscal Investment Impact on Economic Growth

Guo Qingwang and Jia Junxue

Focusing on the 8-2003 annual statistics about China, and by using vector auto-regression (VAR) and impulse response function, this paper takes an analytic look at the dynamic impacts of aggregate fiscal investment, fiscal capital investment and fiscal innovation investment on aggregate output, total-factor productivity and private investment. Through these analyses, the authors prove that fiscal investment has a remarkably positive impact on economic growth and a strong crowd-in effect on private investment. Moreover, some of the salient features of the fiscal investment's dynamic impacts on economic growth and private investment have an important bearing on the design of the Chinese fiscal policy and the timing of its implementation.



The Fine Art of Hotelkeeping



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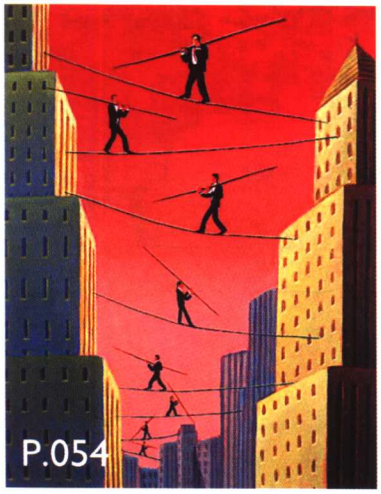

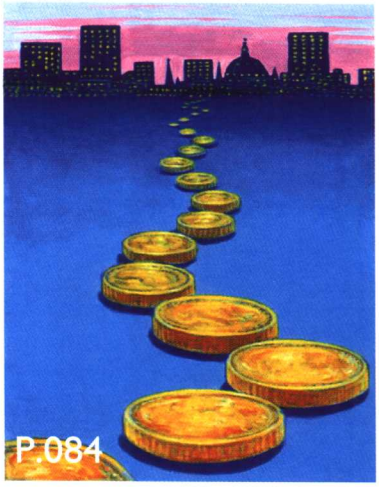

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China Under Resource and Environmental Constraints

By Jin Bei

Industrial production is transformation of material resources with the participation of human beings. It is a process in which natural resources are processed or manufactured into products for consumer or re-processing purposes, and in which natural resources are needed to power the processing or manufacturing of products. Therefore, consumption of natural resources is a necessary condition for industrial production. Solid, liquid, gas and other wastes resulting from industrial production are bound to affect the natural environment, and thus environmental changes are another inevitable result of industrial production. There is a limit to either the degree of consumption of resources, or to that of environmental change (pollution and destruction in particular) that may be tolerated. Excessive resource consumption and environmental destruction not only make industrial production unsustainable, but also destroy the basic conditions for humanity's survival. China's industrialization is a unique process: it is industrial development with the participation of the largest population in human history, hence the colossal consumption of resources and its impact on the environment. Therefore, China's industrial development is challenged more severely by resource and environmental constraints than any other country in the world. In the 21st century, resource and environmental problems are becoming even more serious. This situation is challenging us with a severe question: Whether China can blaze a new trail for industrialization, maintain a sustainable development and achieve its socioeconomic development goals despite severe resource and environmental constraints?

Resource and environmental conditions for industrial growth in China

1. A basic appraisal of China's resources conditions

Industrial production is a process during which raw materials are

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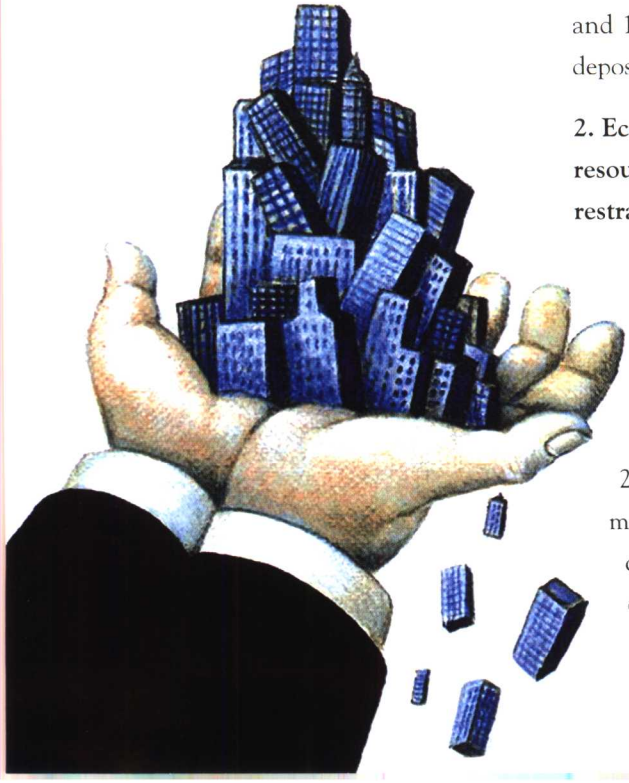
processed and manufactured into products. Massive utilization of natural resources and the generation of energy are major hallmarks of industrial production. However, many natural resources and mineral energy sources on earth are not naturally renewable. Some natural materials, such as petroleum and coal, are renewable through geological evolution, but their renewing cycle is often too slow and too long to be of any immediate significance for human activity. For this reason, supplies of natural resources and energy restrain large-scale modern industrial production. Such restraints are showing no sign of relaxation. This poses a contradiction that can never be avoided in industrialization.

China is the world's most populous country, with a population density above the world average level. However, the Chinese population density is not particularly high compared with that of some developed countries. China is rich in gross resources insofar as land, forests, water and mineral ore deposits are concerned. However, in terms of per-capita possession of resources, China is below the average world levels in most categories. Judging from natural resource endowments vis-à-vis territory size, China's abundance levels of various natural resources are imbalanced. The nation accounts for 21% of the world's total population, 7.1% of the world's total land area, 7.1% of the world's total acreage of farmland, 9.3% of the world's total grassland acreage, 7% of all the world's water resources, 3.3% of the world's total forest acreage, 2.3% of the world's total petroleum deposits, 1.2% of the world's total natural gas resources, and 11% of the world's total coal deposits.



2. Economic growth stretches resource and environmental restraints to the limit

China accounts for 12% of the world's total verified mineral deposits, ranking third behind the United States and Russia. More than 200,000 mineral ore fields and mineralized zones have been discovered across the country, but only a little more than 20,000 of them have been surveyed and prospected. A new round of investigations into major territorial resources that began in 1999 has reaped major results, with the mineral resources in 21 major prospective mineralization areas prospected, the potential of the resources further verified, and 421 new mineral zones discovered. This, however, cannot change the fact that China is short in per-capita possession of mineral resources, accounting for 58% of the world average and ranking 53rd in the world.[2]

Limited natural resources are not a complete obstacle to Chinese industrial development. China actually holds a competitive edge in many aspects, especially in aggregate amounts and varieties. Nevertheless, nature has not been particularly generous in endowing resources on China. Moreover, China must face up to two fundamental factors: a huge population and inadequate resources in per-capita terms. It is unfeasible, therefore, for China to depend upon natural resources for long-term industrial growth.

Energy sources are a good example. According to a State Information Center prospective report, by 2010 the nation's energy demand will have reached 2.16 billion to 2.32 billion tons of standard coal. To meet that demand, China is bound to build infrastructure for energy supply on a large scale, and to continue

to import oil and gas in large quantities in the next two decades. By 2005, its primary energy output will have amounted to 1.32 billion tons of standard coal, or 228 million tons more than in 2000. According to the report, China's available resources allow for an annual output of 2 billion tons of coal; its annual crude oil output will reach 200 million tons at best around 2015; and its natural gas output is likely to reach 80 billion-100 billion cubic meters in 2010. Energy consumption in China has been growing quickly over the last few years; the increase averaging 4.2% during the 1990-2003 period. There is an acute supply-and-demand discrepancy for coal, electricity and oil.[3]

In striking contrast with intensified energy development and large-scale energy consumption, the energy utilization efficiency hovers at 30%, which is 10% below that of developed countries. China's per-unit consumption ratio of major energy products surpasses that of developed countries by 25-90%, or 40% in terms of weighted average. For instance, the thermal power plants in China consume an average of 404 grams of standard coal for each kwh of electricity generated, 27.4% higher than the advanced world level of 317 grams.[4]

China today is the world's second largest energy consumer. Massive energy consumption has powered high-speed economic growth, but it has also stretched the constraints of resource utilization and environmental concerns to the limit.

In the 21st century, resource and environmental problems are becoming even more serious.

3. Weakness in innovation and strength in imitation: the root of China's resource and environmental problems

The acute energy shortage and heavy environmental pressure resulting from industrial development are attributed to the fact that China has to follow the Western technical line of industrial development, a technical line which is at odds with China's natural resource endowment reality. For instance, modern Western industry is mainly powered by petroleum, whereas China's energy structure is dominated by coal.

The Chinese energy shortage is largely a manifestation of the conflict between the energy utility structure and the resource endowment structure, and that the resource constraints on the Chinese industrial growth reflect the gap between the Western industrial technical line and the natural resources endowed on China. The kinds of resources that can be efficiently used by Western technology are exactly what China lacks, such as petroleum, whereas the Chinese have an abundance of coal. The weak innovative originality of Chinese industrial technology and a strong capability in imitating Western technology has become the root cause for China's severe restrains in resources and environment. In other words, while China transfers and imitates Western industrial technology and develops its industry along the Western line, its energy resource endowment structure simply cannot keep pace. This in turn aggravates the constraints on the energy and resource supply for industrial development. However, it is unfeasible for China to take an entirely new road for industrial technology, which is very different from the set technical road of the Western countries, because by doing so China's industrialization would be seriously delayed.

Resources supply-and-demand restraints

1. Rich resources can trigger an overall shortage crisis

Richness of resources or relative lack thereof is relevant to a certain type of product mix and technical line. A "shortage" can only occur in a resource that is needed to turn out a certain product. For example, an

iron-and-steel shortage can only arise from the need to manufacture iron-and-steel products. Likewise, only when a resource is being consumed along a certain technical line can it fall short of the demand. Industrial technical lines tend to choose resources with plenty of reserves that can be obtained and processed at a relatively low cost, and avoid materials that are scarce and incur high procurement and processing costs. In this sense, shortages usually occur in resources with considerable natural deposits. Rare materials can never result in an industrial shortage of overall consequences, for it is unlikely for any industrial technical line to be based on massive use of a rare resource.

China must face up to two fundamental factors: a huge population and inadequate resources in per-capita terms.

The shortage of industrial resources is obviously an economic issue rather than a material or technical issue. In other words, such a shortage manifests itself in conflicts in economic relations. Oil, coal and water are among the most abundant material resources on earth, but they are precisely where an overall or global shortage crisis may break out. People have believed for a long time that water is an inexhaustible material, but today, water shortage is becoming a worrying possibility. Water is in short supply in some 400 of the 600-odd cities in China, and 110 of them are suffering from serious water shortages. Water supplies for the nation's urban areas fall short by a total of 6 billion cubic meters a year. World Bank statistics suggest that the water storage in China averages a meager 2,200 cubic meters per capita, or one quarter of the world average. Experts predict that the figure will drop to 1,750 cubic meters by the time the Chinese population grows to 1.6 billion, which is close to the international criterion for a strain on water resources. According to a report from the Ministry of Water Resources, *The Water Supply and Demand in 21st-Century China*, the industrial, agricultural, daily life and ecological demand for water in 2010 will amount to 698.8 billion cubic meters during a medium-degree drought year; in that scenario, there will be a 31.8 billion-cubic-meter water shortage, because the water supply will only total 667 billion cubic meters. In 2010, China will enter a period of grave water shortage, a shortage that will have reached a peak by 2030.[5]

2. Shortage in resources is, in economic essence, an issue of prices

Whether a natural resource is in short supply or not is relevant to the demand-and-supply relationship. Such a relationship, in its turn, is relevant to price. Materials with abundant reserves often become the major resources for industrial production. However, the relative abundance of a material can keep prices so low that it can be supplied even free, or at a very low price. The zero or low price invariably boosts the demand and results in a shortage. Theoretically speaking, a universal shortage of resources can be avoided so long as their prices maintain a limitless elasticity for fluctuation. Judging from the characteristics of price, industrial resources can fall into three categories:

Category One: Resources that can be supplied without limit to meet a relevantly effective demand. Such resources are priced at zero; that is to say, they can be obtained without paying a penny. Sunshine, air, and seawater, for instance, belong to this category. Freshwater resources also fell into this category in most countries and regions during the pre-industrialization period.

Category Two: Rare resources whose supplies are limited and entirely regulated by market prices.

Theoretically speaking, resources of this category are immune from a possible universal shortage. This is the case even with those materials whose reserves are extremely rarified, because their prices can be raised to unrealistic heights without causing an acute shortage.

Category Three: Rare resources whose supply must be universally ensured by all means. Legislatures are often under pressure to control the prices of these resources, because the costs for such resources cannot be allowed to go too high and endanger universal supply. Intervention therefore results in shortages. Obviously, the shortage of a resource is often associated with the degree of price control, or intolerance to price changes. Intolerance to price changes directly leads to price controls.

What really concerns the public is the possibility of a shortage in the supply of Category Three resources. The shortage of resources is in essence an issue of price and it involves two questions. Firstly, to what degree is the supply and demand for a certain universally used resource regulated by market prices? Secondly, to what extent can the society withstand the fluctuations (increases, in most cases) in this resource's price? The two questions are mutually inter-related. It is often because the public cannot tolerate a drastic price fluctuation in which the market price cannot regulate the supply and demand free from limitation and intervention; or a resource supply may fall short of demand when the price is acceptable to the public. This is one of the main reasons why shortages usually do not occur in general merchandise, but can occur in resource-based products. On the one hand, the supply of general merchandise is highly flexible and less restrained by natural conditions; on the other hand, most of such merchandise holds no price fluctuation ceilings that the public find unbearable. In the case of resource-based products in universal use, however, the public is highly sensitive to price, and ready to intervene whenever one of the prices increases to an intolerable height.

3. The difficulty of resource-related issues lies in the Chinese economy's low tolerance of price fluctuations

Categorization of industrial materials is not immutable. The same material may fall into any one of the three categories of resources in a given country or during a given period. The same resource may be in short supply in one country but not so in another. This has a lot to do, firstly, with the amount of reserves naturally endowed upon a particular country; secondly, with the verified amount of reserves (in the case of a nonrenewable resource) or with the potential amount of supply (in the case of a renewable resource), being determined by the volume of prospecting investment; thirdly, with the realistic output and supply in the case of a resource-based product, determined by production and transportation capacities, which are, in turn, circumscribed by technology, investment and those factors that affect their performances; and fourthly, with the actual supply-and-demand relationship (in the case of resource-based products), which is determined by the market price. In short, reserves, investment, production capacity (transportation capacity included), price (as well as mechanisms and

public sustainability) constitute the four basic aspects of the industrial resource issue. Among these aspects, prices for different categories of resources are at the heart of the supply-and-demand relationship. Prices remain the primary issue today and tomorrow as China tackles its shortages in industrial resources. Produc-