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The development of communication technology and information exchange has been so rapid during the past four decades that any nation which fails to keep pace may risk an uncomfortable "developmental gap" with the advanced countries. With telecommunication and computer technology, people nowadays are bestowed with the capability to manipulate and distribute their information faster, cheaper and further away. In fact when a satellite communication system is in place, distance becomes irrelevant. Moreover, the development of the digital transmission technology in the past decade has completely revolutionized the transmission of numerical data, voice communication and visual images. Gradually analog communication is being replaced by digital circuitry.

It was in the midst of these enormous changes that China clinged to isolationism and practised "self reliance." Such a behaviour can be attributed to her bitter experience with imperialism at the turn of the century and her conflict with the Soviet Union in the late fifties. As the information revolution developed in the advanced nations, China lagged behind significantly. This was particularly true during the damaging years of the Cultural Revolution (1966-76) when national development almost came to a halt. And China is still suffering from the consequences of that political movement.

The backwardness of China's information technology becomes obvious when we examine her telecommunication facilities. In 1982, for example, there was only one telephone available for every 500 people in China while the number of phones available for every 10 people in the United States and Sweden was eight, and the number of phones available for every 10 people in Hong Kong was two.¹ Even the official press, People's Daily, lamented the situation and was bold enough to admit that the telephone service in China lagged behind India and a number of African countries.²

The penetration of television in China is also far from being satisfactory. Xinhua News Agency reported in 1980 that there was one TV set for every 280 people in China.³ The number of TV sets for every 100 people in the U.S. and Hong Kong for the same year was 58 and 22 respectively.⁴ Hence, when television penetration was so high in the U.S. and other advanced nations and people bought video recording machines with all of the fervor that they bought colour TV sets before, television was still a scarcity in China, particularly in the rural areas.

In computer development, the explosion that began about 1962 in the U.S. and other technologically advanced nations, has not yet occurred in China. China managed to produce a first generation digital computer in 1958, based on the plans and specifications of machines provided as part of the Soviet technical assistance programme.⁵ A second generation transistorized machine was designed in 1964 and integrated circuits became available in China only in 1968.⁶

In spite of a vigorous programme to develop her computer industry in recent years, the standard of China's computer technology is characterized as being about ten years behind that of the U.S. in terms of hardware produced in prototype or serial quantities, 20 years behind in software, and 25 years behind in fabrication and testing.⁷

The "developmental gap" in information technology between China and other developed nations is so substantial that the outburst of the information revolution in developed countries has created a monumental amount of impact on China that deserves careful examination.

The Adoption of a Liberal Foreign Policy

China's foreign policy has been significantly impacted by the information revolution. The information revolution facilitates interaction among people and nations and at the same time heightens a sense of interdependence. Interdependency across the national boundaries is needed to regulate food production, population control, energy and economic stability to the advantage of all nations.

The foreign policy of China had been dominated by Mao Zedong's

doctrine of "self reliance." In order to attain technical advancement, both Zhou Enlai and Deng Xiaoping advocated a liberal foreign policy to learn from the experiences of the advanced nations. Speaking at the Opening Ceremony of the National Science Conference in 1978, Deng Proclaimed:

*Any nation or country must learn from the strong points of other nations and countries, from their advanced science and technology. It is not just today, when we are scientifically and technically backward, that we need to learn; after we have caught up with the world's advanced levels in science and technology, we still have to learn.*⁸

The need to attain technical advancement in China demanded a break from the old policy of self-reliance and a new policy of dependency on other nations, particularly the developed nations. Table I summarizes some of the efforts China has made in establishing relationship with the developed nations and a number of the Asian countries in the seventies. As soon as diplomatic relations were formally established between China and these countries, agreements on scientific and technical cooperation were also concluded to facilitate the exchange in science and technology.

TABLE I

ESTABLISHMENT OF DIPLOMATIC RELATIONS 1970-80

<u>Countries involved</u>	<u>Month/year</u>
China - Italy	Nov. 1970
China - Belgium	Oct. 1971
China - Japan	Sept. 1972
China - FR Germany	Oct. 1972
China - Luxembourg	Nov. 1972
China - Australia	Dec. 1972
China - Malaysia	May 1974
China - The Philippines	June 1975
China - Thailand	July 1975
China - United States	Jan. 1979
China - Portugal	Feb. 1979
China - Ireland	June 1979

The liberal foreign policy adopted by China goes even so far as to establish "special economic zones" in the provinces of Guangdong and Fujian. There foreign investors are being offered various forms of compensation, trade and joint ventures. At the same time, foreign oil companies have also been invited to take part in the exploration and exploitation of China's offshore energy resources.

The determination to move towards exterior mutual dependency with other nations is also reflected in China's trade policy. Table II calculates the ratio of export values to gross national product for the period between 1952 and 1983. This ratio has generally been accepted as an indicator of the direction of an individual country's foreign policy. For conciseness, only typical years in the fifties, sixties and seventies are selected for presentation. The data indicate that foreign trade was not vigorously pursued in the fifties and sixties, but began to acquire a momentum for growth in the late seventies and early eighties. The increase in export values in renminbi terms between 1978 and 1983 is the region of 160 percent.

TABLE II

RATON OF EXPORTS TO GROSS NATIONAL PRODUCT (%)

<u>YEARS</u>	<u>CROSS NATIONAL PRODUCT</u> (in RMB Billion Yuan)	<u>EXPORT VALUE</u> (in RMB Billion Yuan)	<u>RATIO</u> (%)
1952	101.5	2.71	2.67
1957	160.6	5.45	3.39
1965	269.5	6.31	2.34
1978	684.6	16.77	2.45
1980	849.6	27.12	3.19
1981	904.8	36.76	4.06
1982	989.4	41.43	4.18
1983	1105.2	43.83	3.96

Source: China Economic Yearbook 1983
China Trader June 1984, No. 3

The Call for Modernization

The information revolution promotes communication across national boundaries and increases the chance of any one nation to understand the rest of the world. Both transistor radios and TV broadcasting through satellite communication enable receivers to hear or watch not only domestic voices and scenes, but also world news and information from abroad. It is only natural that rising expectations would be generated when people from developing countries are exposed to the living standard of the developed countries.

Hence when Chinese leaders travelled to the U.S., Japan and other developed nations, the affluence of these nations was brought to China's TV screens, spreading rising expectations among viewers. The extent of materialistic aspiration of the people in China is eloquently reflected by their growing desire for fashion and the daily flood of tape recorders, TV and stereo sets sent by Hong Kong people to their relatives in China.

Rising expectations in a developing country is a delicate and explosive problem and its handling requires extreme care and caution. Excessive expectation in the past has led to both regression and aggression. In the "Great Leap Forward" of 1958-60, excessive industrial targets led to regression in national output. Industries collapsed and there was starvation in some rural areas. Aggression, on the other hand, in the form of ideological coercive movements, abounded during the Cultural Revolution. The excessive aspiration of the Ultra-leftists to push for an egalitarian regime led to chaos and industrial stagnation.

In order to neutralize the impact of the information revolution in generating rising expectations, the Chinese government called for programmes in modernization, to maximize the satisfaction and minimize the frustration of the populace. The call for modernization was initially proposed by the late premier Zhou Enlai in 1975, to develop agriculture, industry, national defense and science and technology. The concept of modernizing these four areas (Four Modernizations) was reaffirmed at the Fifth National People's Congress in 1978 and became the principal objective of the country.

In an effort to absorb capital and technology for the Four Modernizations, China established special economic zones and opened 14 coastal

cities for foreign investment. Foreign investment pledged to China between 1979 and 1983 amounted to U.S.\$14.55 billion. Of this, U.S.\$11.93 billion came from foreign loans and the other U.S.\$2.62 billion came from direct investment of foreign entrepreneurs.⁹ The foreign loans have largely gone into infrastructural development while the direct investment has gone mainly into light industrial expansion. By taking foreign loans and accepting direct foreign investment, China indicates her readiness to adjust to the international capitalist economy.

Table III breaks the direct foreign investment between 1979-83 into five major categories. The distribution of the investment reflects China's effort to trade her natural and human resources for foreign capital and technology. Where an infusion of Chinese capital is involved as in Joint Activity Ventures, the commitment is highly restricted.

TABLE III
BREAKDOWN OF DIRECT FOREIGN INVESTMENT

<u>Type of Investment</u>	<u>Amount (in million of U.S. dollars)</u>	<u>Percentage</u>
Joint Activity Ventures	177	6.8
Compensation Trade	563	21.6
Cooperative Ventures	768	29.5
Processing and Assembling Contracts	310	11.9
Offshore Oil Exploration	782	30.1

Source: Special Economic Zones Yearbook 1983

As the Four Modernizations requires the cooperation and contributions of the professionals and technocrats, the official status accorded to the intellectuals has dramatically improved. Instead of being classified as the "stinking ninth category of class enemies," intellectuals were listed for the first time as a major social force, alongside with workers and peasants. Cadres would also be judged according to how well they succeeded in arousing the enthusiasm of the intellectuals and in bringing their wisdom and creativity into play.¹⁰

The Minister of Science and Technology Commission, Fung Yi, indicated in 1980 that a move was under way to recruit more scientists into the Communist Party to increase the percentage of scientists in the party committees of the Chinese Academy of Sciences to over 50 percent.¹¹ Needless to say, the reaffirmation of the status of the intellectual will have a tremendous influence in the modernization of China in the future.

The Rise of Individualism

The information revolution of the West preaches the right to communicate, as a nation and as an individual. With this notion, the role of the individual in a social setting receives reassessment and re-appraisal. China under the rule of Mao demanded a total immersion and total self-abnegation of the individual in the collectivity. In post-Mao China, with the overriding concern to increase productivity, self-fulfillment of the individual was emphatically stressed as a goal of socialism and as a motivating force to speed up productivity.

In a major report to the 12th congress of the Communist Party in 1982, Party Secretary, Hu Yaobang, elaborated on the change of emphasis and declared that the principal concern of the leadership lay in the progressive realization of the material interest of the individual:

*The essential task of socialism is to develop the forces of production, create ever more social wealth and meet the individual's growing material and cultural needs.*¹²

In recognition of the value of material satisfaction, the self-fulfillment of the individual was given more weight than ever before as a means to revitalize the economy. In order to break out from the "vicious cycle of poverty" into a growth cycle of prosperity, Deng Xiaoping repeatedly urged to place productivity over ideology.

*The most important issue now is to increase the production of food supplies. It does not matter whether the mode of production is individual or collective. What is essential is that it helps to increase food production. It does not matter whether the cat is black or white, it is good as long as it catches mice.*¹³

This is the rationale adopted for the introduction of the "responsibility system" in rural areas in 1979. Peasants who specialized in needed commodities and services were allowed to keep a profit after fulfilling a state quota at harvest. In this way, peasants were paid according to the quality and quantity of their work instead of by the former work point system in which extra efforts were not rewarded. The responsibility system was so successful that in five years' time, the total rural output tripled, and annual per capita income of the peasants doubled.¹⁴

Following this agrarian success, a variety of incentive systems was introduced in the factories. The most common form was the bonus system in which the factory workers were paid "to each according to his ability." The average bonus amounted to 20% of one's salary for workers and 10% for management.¹⁵

The constitutional right of the individual was guaranteed by a codified law in 1979. The law clearly defined the procedures by which it should be administered and greatly restricted the power of the party officials to influence the judiciary for political reasons. The status of the individual was also enhanced by another legal reform in which competitive elections in the local people's congresses and Party organizations were introduced. In short, the rise of individualism in China led to the creation of a system which granted the individual some legal protections and encouraged him to use his talents to better not only the state but himself and his family.

The Rationalization of the Domestic Planning Process

By providing a new technology for data transmission and processing, the information revolution helped to rationalize the domestic planning process in China. With increased information exchange and analyses, many of the follies in domestic planning were removed and mistakes rectified.

One of the biggest follies in domestic planning was the population policy in the fifties and sixties. Insisting that improvement in the economy and higher production could support any level of population growth, Mao's population policy was "the more, the merrier." An expanding population was encouraged during The Great Leap Forward to provide more hands to build socialism.

It was only in the seventies and eighties when computers became more common and international exchange of information more frequent that the drag which a growing population would exercise on economic development was realized. Computer data reveal the potentials and limits of the national resources so that a more realistic population policy can be formulated.

In 1982 when China conducted a nationwide census, a total of 29 computers were employed to process the results. The other two censuses conducted in 1953 and 1964 were manually tallied, imposing a limitation on their accuracy and analytical capability. The 1982 census carried 19 demographic variables, about 10 variables more than the previous census. The results of China's first computerized census in 1982 will help in the rational exploitation of manpower for the future.

A major mistake in domestic planning occurred during the ferour of the Great Leap when small, uneconomic enterprises and backyard furnaces were set up. Many of these factories were inefficient or too small to achieve an economy of scale. The closure of these factories will speed up economic activities, particularly if they are found to be consuming too much energy or they do not provide valuable supplementary supplies to deficit areas. The move by the Chinese planners in recent years to declare that small iron and steel mills with furnaces of less than 50 cu. metres capacity and small chemical fertiliser plants producing only 2,000-3,000 tons annually were wasteful in their consumption of coke and raw materials and should be closed, was a healthy measure for the national economy.¹⁶

An imbalance also existed in the state investment policy. In the past, heavy industry had been over-emphasized on a scale out of harmony with the rest of the economy. As a result, many major economic relationships were thrown off balance, including the relationship between agriculture, and light and heavy industries, between accumulation and consumption; and between production, construction and people's livelihood.

In 1978, heavy industry represented 41.1% the total national output while agriculture and light industry occupied only 27.8% and 31.4% respect-

ively.¹⁷ A more balanced national economy is needed, with greater emphasis on the development of the light industry. This sector plays a major role in supplying China's export markets to earn foreign exchange and in meeting the needs of China's own consumers. As the interaction between China and foreign countries has increased as a result of the information revolution, a reorientation of production towards consumption has gradually taken place. In 1983, a more balanced ratio between agriculture, light and heavy industries finally emerged, with agriculture representing 33.9%, light industry 32.1% and heavy industry 34% of the total national output.¹⁸

While praising the ability of the Chinese economic system to mobilize physical and human resources for achieving a national goal, a 1983 World Bank study stressed that the future development in China "must be based on increasing efficiency of resource use rather than on mobilization of resources as in the past."¹⁹ It would be of great significance to the world economy to see how the rationalization of China's domestic planning process with the advent of the information revolution will help to increase China's efficiency of resource use in the years ahead.

The Romanization of the Chinese Language

The information revolution in the West has given rise to an equally important revolution in the structure and use of the Chinese language. To meet the requirements of the computer age, the Chinese government moved to romanize one of the world's most difficult languages.

Reform of the Chinese language was adopted as a national policy as early as 1955. The reform was to be carried out in three stages. In the first stage, the objectives were to reduce the number of Chinese characters in use and to simplify their written forms. There are more than 50,000 characters in the Chinese ideographic language, with about 5,000 characters in common use. The aim was to reduce the number of characters in common usage to 3,000 and to simplify a total of 7,000 characters.

The second stage of the reform focussed on the popularization of a standard spoken language based on the Peking dialect. This standard language is known as "Pu Tung Hua." Its popularization is a preparation for the alphabetization of the written Chinese in the final stage of the language reform.

To alphabetize the Chinese language, a romanised phonetic script, known as the "Pinyin," was adopted to replace the prevailing Wade-Giles system devised mainly by missionary scholars. With Pinyin, Mao Tse-tung is spelled as "Mao Zedong" and Teng Hsia-p'ing as "Deng Xiaoping."

The first formal use of the romanised script began in August 1976 as a pilot project in the Sinkiang Uighur autonomous region where 13 different minority groups inhabited. Initially, the introduction of the new script in schools and government institution to replace the old scripts of the minority groups received some success.²¹ The romanization of the Chinese language, however, will take decades if not generations to complete. When Chinese is successfully alphabetized, the Computer listing, sorting, merging and searching of Chinese names and terms will be as easily as their equivalent in English.

Many attempts have been formulated to make the idea of electronic Chinese a reality. A government source said there are more than 400 inputting methods being developed in China in the early eighties.²² Among the more promising methods include the "Cang Jie" method in which each Chinese character is entered by pressing from one to five English letters, the "Three Corners" method in which characters are input by typing in the codes for the three radicals appearing at the top left, top right, and bottom right corner of each character, and the "Pinyin" method in which Chinese words are typed into the computer according to their romanization.

Even though quite a number of Pinyin methods have emerged since China officially promulgated the 23-letter romanization system in 1979, the problem of inputting Chinese by sound persists. The difficulty lies in the fact that many Chinese words are homophones, and many have both the same sound and tone inflection. As a result, many Pinyin methods require the user to enter additional codes when typing in a word's pronunciation. These codes represent radicals or one of the four tones used in the standard spoken language, Putunghua.

The future of inputting Chinese by the Pinyin method depends largely on the success of China in upgrading the Pinyin system from a mere sound annotation system to a full-fledged phonetic natural language. When

Chinese can be spelled without any ambiguity as to the meaning of the word, the ambition of having electronic Chinese can be realised as an important product of the information revolution.

Changes in the Educational Policy

Professionalism and expertise were denounced during the Cultural Revolution. But during the spread of the information revolution, science and technology were honored resulting in changes to China's educational policy

In 1977, entrance examinations in higher education were reintroduced to guarantee an academic standard. Priority investment of resources were also designated for key universities to develop expertise in certain areas. Moreover, a system of postgraduate studies was reestablished, and principles for awarding academic degrees were formulated.

A major effort to upgrade the teaching in science and technology took place resulting in that more than 60 percent of students at universities enrolling in the area of science and engineering by 1979.²³ In addition, thousands of Chinese scholars and students were sent abroad to pursue programmes mainly in science and technology during the late seventies and early eighties.

Apart from strengthening the teaching in science and technology, efforts were also made to extend the use of communication technology in education. A notable success along this line was in the development of the television universities. The Central Television University was established in Peking in 1979. Today, there are 29 TV universities operating in China. With a total enrolment of 800,000 students in 1984, these universities are directly regulated by the Central Broadcasting Administration under the auspices of the Ministry of Education.²³

The courses are taught via nationally televised video lectures in the morning six days a week. The enrollment consists of cadres, workers, technicians and teachers. Workers and teachers represent the greatest majority. The courses taught include basic engineering, mathematics, chemistry, physics and English.

In a country as vast as China , TV universities play a significant role in promoting mass education by bringing the lectures to students in their factories or offices instead of having students commute for lectures. This system of open and distant learning through television greatly relieves the enrollment pressure on China's conventional universities. In Peking, for example, the Central Television University of Peking enrolled 40,000 students in 1980, three times as much as the total enrollment of the 49 institutions of higher learning in the municipality.²⁴

Another important development in the use of communication technology in education was the establishment of the Institute of Educational Communication and Technology in the Ministry of Education in 1978. This institute is responsible for upgrading the quality of teaching in schools with the use of audio-visual aids.

The objectives were to develop a substantial amount of audio-visual teaching materials to supplement the written materials and to set up an audio-visual center in every school by 1990. As of September 1982, a total of 16,000 audio-visual centers had been established. Table IV summarizes the establishment of audio-visual centers by types of schools between 1978 and 1982.

TABLE IV

ESTABLISHMENT OF AUDIO-VISUAL CENTERS 1978-1982

<u>Types of Schools</u>	<u>Number of Centers</u>	<u>Percentage of Total Schools</u>
Colleges	500	70
Teacher Training Institutes	300	40
Middle Schools	7,000	7.5
Primary Schools	7,000	0.8

Source: A report by Huang Sinpak to the first National Conference on Educational Communication and Technology in 1983

With the advent of the information revolution, the demand for trained communicators increased. As a result, greater emphasis was placed on the much neglected area of communication education. In 1980, there were only four departments of journalism and communication in China, producing less than 260 graduates. In 1982, the number of universities offering journalism programs rose to 14 and the number of graduates increased to 597.²⁵ International Journalism and International Communication are two of the most popular courses taught in these programmes.

With the renewed emphasis on education in general and science and journalism education in particular the government has allocated more funds for intellectual development. In the five years from 1979 to 1983, China invested 95.8 billion yuan in education, scientific research and related capital construction, averaging 19.2 billion yuan a year. The investment is almost 3.2 times the 5.9 billion yuan invested annually in the previous 26 years from 1953 to 1978.²⁶

Development of the Information Industry

In his 1981 budget speech, Vice-Premier Yao Yilin described the information industry in China as a field where "the greatest possible development should be made."²⁷ The sense of urgency to uplift the industry was also suggested by Vice-Premier Wan Li, in 1983:

*We are at least ten years behind. This business must be managed properly because time does not wait for us!*²⁸

When the third plenum of the Central Committee of the Party met in 1978, a proposal to decentralise planning and control was adopted. The proposal's adoption was a reflection of the magnitude of the communication problems in the existing network. The network had only been effective for policy implementation carried mainly by one-way communication. When policy revision or trade negotiation was the issue at stake, the network proved to be inadequate as two-way communication was involved. Deng Xiaoping fully recognised the problem and proclaimed in 1978:

In the past, to overcome difficulties the Party just issued one call and the Central Committee uttered one

*sentence, and the whole country acted accordingly.
Things are not so easy today.*²⁹

Since 1979 increased funds have been set aside by the state to upgrade telecommunication facilities. Capital investment in 1979 to 1981 amounted to 2 billion yuan. This investment was four times the total capital investment funded to telecommunication in 1971 to 1978.³⁰

Emerging as a new priority area, telecommunication in China has grown exponentially in recent years. In satellite communication, China is now linked directly with Intelsat satellites above the Pacific and Indian Oceans. Fourteen satellites have been launched by China for reconnaissance and communication purposes since 1970.

Most of the satellites launched so far have had elliptical orbits. In April 1984, China's first geosynchronous satellite was launched on an experimental basis. The geosynchronous satellite successfully transmitted TV signals to remote areas of the country simultaneously.

There are altogether 38 television stations in China. All stations carry the China Central Television (CCTV) national service in addition to their local services. The four main stations in Beijing, Tianjin, Shanghai and Canton are all connected by microwave links. With increased domestic demands and foreign assistance, there has been a rapid growth in the production of TV sets in recent years. The output for 1982 was 5.9 million sets.³¹

A full-fledged effort has also been made to expand the telephone services in China. Advanced direct-dialling telephone systems will be installed in all coastal cities open to foreign investment. The minister of Post and Telecommunication, Yang Taifang, announced in 1984 that more than 500,000 programme-controlled digital telephones would be installed in provincial capitals and coastal cities and the total number of telephones in China would be doubled in six years' time.³² In the absence of an elaborate infrastructure of open wire network or coaxial links, the adoption of the programme-controlled digital telephones enables China to jump stages in the development of its telephone services.

Steady progress has also been made by China's computer industry in

recent years. Chinese factories have begun to make and market moderate quantities of micro, mini and mainframe computers. Rapid expansion is expected to take place in the production of 8-bit and 16-bit microcomputers. In 1982 China produced 500 large, medium and small computers and 5,000 microcomputers.³³

A comprehensive network of communication, supported by two separate systems has begun to emerge in China. One system is used mainly to foster cultural and educational exchanges. It consists of 38 TV stations with more than 320 relay stations. The other system is used to promote social and economic activities. It is made up of a mixture of obsolete and advanced systems of telephone services. Both systems are expected to be effectively linked to China's developing programme of satellite communication.

Conclusion

The information revolution has created a series of significant and dramatic changes in China. The most important impact was a break from China's old policy of self-reliance into a new policy of interdependency with other nations. China has stepped into the world market again as a supplier of natural and human resources and a buyer of technology and information.

The call for modernization has led to a quest for capital and technology to speed up China's development. Structural pluralism was tolerated as economic concern was placed above political considerations. Improvement of the living standard and revitalization of the economy were set as top priorities to sustain the legitimacy of the government.

For the first time in China, socialism was viewed not as a dogmatic commitment to ever greater levels of common ownership, but a practical adoption of the most efficient economic policies for a given context. As institutional guarantees of individual's constitutional rights increased, a transition from mass movement to citizen-based participation has emerged in China with the rise of individualism.

The development and expansion of the information industry also led to a shift in its uses and functions. The use of the communication facilities would not be restricted largely to government organizations. Their uses by the private section and business concerns will greatly increase in the future. Fortunately, changes in China so far represent responses to the general desires and needs of a modern society rather than a direct importation of foreign models and values.

NOTES

1. The figures were given by Mr. Hans Augustinsson, director and general manager of the Ericsson International, a Swedish-based manufacturer of telecommunication equipment in a Hong Kong newspaper, Ta Kung Pao, On April 28, 1982. The figure in China was validated by a report in People's Daily on February 27, 1982.
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4. The U.S. figure is obtained from the A.C. Nielsen Report 1980 and the Hong Kong figure is obtained from the AGB Report 1980.
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6. Ibid., p. 89.
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31. *Ibid.*, IV-74.
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33. Brown, The China Business Review, p. 36.