GLOBALIZATION:

A STRATEGIC CONSIDERATION

ON THE ADMINISTRATION OF IPR

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Abstract

Globalization is a phenomenon whose economic dimensions involve increases in the flows of goods, capital, and information, as well as mobility of individuals across borders. Although is has received much attention in the last few years it is by no means new. Thousands of years ago traders carried goods from one part of the globe to another across oceans, therefore, initiated the movement of globalization. All these comings and goings deepen and broaden the connections among far parts of the world and facilitate the transmission of goods, ideas and cultures.

Today, the process of globalization has been substantially accelerated by the development of technology. Especially after coming into the 20th century, the introduction of telephone, television and the Internet has enabled that the vast amounts of information in multiple formats - text, voice, video - are transmitted at the speed of light.

The proliferation of IPR issues is a direct consequence of economic globalization and of the increase in international trade and economic development. Over the past decade, IP has joined fiscal, monetary, trade and industrial policies, and overseas development assistance, as a key area in which China government has come under pressure to identify the nation's interests and define public policies. In the context of a global economy increasingly propelled by knowledge-based industries, the protection of ideas and innovations has become a priority in the competitive strategy of powerful economic industries and countries. Ownership and distribution of these assets has become a high-stakes issue in international negotiations, as well as a radical condition underlying the sustainable development of China and the pursuit of a well off and harmonious social life. Politically, China's accession and the coming into force of TRIPS have burdened the government with some international commitments of IPR protection. That will be a great challenge to its institutional capacity. Although IPR is not a new topic in China, they are, to some extent, still an unknown territory for most Chinese policy makers due to its distinctive features of being relative insulated from the kind of public debate common in most areas of public policy and some cultural heritage. Moreover, the emerging global IP regulatory regime appears to place severe constraints on the policy "space" available to the government to devise and implement IP policies that are supportive of development goals. Undoubtedly, it adds difficulties to the government of IPR and asks for much more endeavor in relative research.

At the some time, we should keep it in mind that globalization need not mean global homogenization. It will hamper the healthy development of our economy and society if we thoroughly concede or accept the 'Western style" IPR regime which is in favor of developed countries. If the methods for tackling a society's problems are entirely imported, without respect for cultural and historical backgrounds, they may well result in an undesirable tragedy – presenting a threat to social and political security and stability. Globalization itself has given rise to new constituent civilizations, so must be the world culture we hope to weave from the many and varied constituent cultures. We must never forget that this new global system is made up of billions of individuals, each of whom has a face, a voice, and a right to participate the rules making.

This paper comprises four parts. The first chapter begins with the basic idea of globalization. It summarizes the characteristics of the new tide of globalization and analyses the reason. Focusing on the proliferation of IPR issues (one of the signs of globalization), briefly addresses the two

opposite tendencies, homogeneity and diversity, and presents the orientation of government's IPR policy regarding the time trends. The second chapter introduces China's view about globalization. It adopts enormous data about international trade and foreign direct investment to illustrate the positive impact of globalization on China's economic growth and social development. The same statistics is also used in proving the necessity and importance of IPR management in terms of globalization, which is reinforced by the statement of China's commitments made during its accession. The third chapter demonstrates the occurrence, evolution and newly achievements of IPR management in modern time. The forth chapter depicts the current administrative situation, background, features and disadvantages in great detail, which is sectioned into administrative agencies, working conference and association, publications and training institutes. Policy recommendations are proposed concerning the problems revealed.

The introduction of national IPR strategy reflects the need of constructing a harmonious society in harmony. It is also a destined choice to adapt China to the new development of IPR system. I sincerely hope that this discourse may provoke some insightful inspiration for the decision makers or practitioners in public administration so that they can gain a better understanding of the past, the present and the future of China's IPR management, maximum the benefit of IPR protection while minimum the unnecessary fluctuation and losses.

Key Words: Globalization, Administration, IPR

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Chapter 1

Globalization: An Ancient subject with new essences

Globalization - defined by Webster's dictionary as a process that renders various activities and aspirations "worldwide in scope or application" - has been underway for a long time. Thousands of years before the root word for this concept - 'globe' - came into use, our ancestors had already spread across the earth.

SECTION ONE: A SHORT BRIEF

Globalization is a phenomenon whose economic dimensions involve increases in the flows of goods, capital, and information, as well as mobility of individuals across borders. Although is has received much attention in the last few years it is by no means new. Thousands of years ago traders carried goods from one part of the globe to another across oceans. Missionaries traversed deserts and mountains and sailed the seas. The spread of Buddhism from India to Indonesia led to the creation of the Borobudur temple, which is one of the first monuments of globalization. From the Chinese Buddhist monk Faxian's journey to India in the 4th century, to the Arab explorer Ibn Batuta's travels to Europe, Asia and Africa a thousand years later, adventurers have continued to find new frontiers and establish connections among far-flung societies, cultures and economies. All these comings and goings deepen and broaden the connections among far parts of the world and facilitate the transmission of goods, ideas and cultures.

Since the first appearance of the term in 1962 'globalization' has gone from jargon to cliche. The Economist has called it "the most abused word of the 21st century." Certainly no word in recent memory has meant so many different things to different people and has evoked as much emotion. Some see it as nirvana - a blessed state of universal peace and prosperity - while others condemn it as a new kind of chaos.

SECTION TWO: HOMOGENEITY VERSUS DIVERSITY

The most powerful force for transmitting news or ideas across borders is the revolution in information technology in the second half of the 20th century. The telephone, television and the Internet have been the key tools. In the late 19th century, it took Queen Victoria sixteen and a half hours to send a message of greeting across a transatlantic cable to President James Buchanan. Today vast amounts of information in multiple formats - text, voice, video - are transmitted at the speed of light. Moreover, a three-minute call from New York to London costs less than a dime, instead of the $300 it cost in 1930. This dramatic drop in the price of telecommunications has made the benefits of the information explosion available to much of humanity (Table 1). Similarly, Growth in trade occurred partly as a result of reduced tariffs, but more importantly was due to sharply falling transportation costs (Table 2).

With the diversity and sheer, overwhelming bulk of information of millions of web pages is merely a click away. One writer, awestruck at the interconnectedness of globalization, writes, “When has the entire earth ever been so closely joined together, by so few threads? Who has ever had more power and more machines, such that with a single impulse, with a single movement of a finger, entire nations are shaken?” And another adds, “When . . . it will have made distances disappear, it will not only be commodities which travel, but also ideas which will have wings.

This is what makes the current phase of globalization unique. The Internet has allowed civil society networks to develop between within and among nations, increasing their power to influence policies and decision makers. More than ever before, minority, even individual, opinion plays a major role in forging the larger consensus. As so many speakers have noted, what separates the current phase from the previous waves of international interaction that have washed across the map over the past several millennia, is the increased role that individuals, and local businesses, organizations and communities, have to play in the process.

But somehow, in the face of all these homogenizing forces, individual cultures survive. Up against the strength of traditions, habits and religion, predictions of the death of difference and the end of history always turn out to be premature. The very technologies that many fear could dilute cultures may promote the opposite.

The debate on Intellectual Property Rights (IPRs hereafter) rages on and is assuming, as it should, an international dimension. This is a direct consequence of economic globalization and of the increase in international trade and economic development it comes with. This debate is crucial for the future of both developing countries and developed ones alike.

Globalization need not mean global homogenization, but provides the opportunity for the entire world to gain from the unique wisdom of all its disparate parts. The one-size-fits-all political/social/economic model doesn't fit everyone. It is arguable that that 'Western style" IPR regime should be extended to every other country in the world, with differences emerging only on the timing of such extensions. Globalization, to benefit everyone, must shed the idea that its purpose is to mold weaker countries' cultures in the image of stronger ones.

If the methods for tackling a society's problems are entirely imported, without respect for cultural and historical backgrounds, they may well result in an undesirable tragedy – presenting a threat to social and political security and stability.

Globalization itself has given rise to new constituent civilizations, where new bonds have been formed across nations, cultures, and continents, increasing the level of interaction among peoples. And so must be the world culture we hope to weave from the many and varied constituent cultures. We must never forget that this new global system is made up of billions of individuals, each of whom has a face, a voice, and a right to participate the rules making. As overwhelming as the idea may seem, the technology is there to give everyone that opportunity.

SECTION THREE: THE PROLIFERATION OF IPR ISSUES

Since the early 1990s, Intellectual Property (IP) policy has become one of the most economically and politically contentious issues in the international arena, whether in discussions on public health, food security, education, trade, industrial policy, traditional knowledge, biodiversity, biotechnology, the Internet, or the entertainment and media industries.

Over the past decade, IP has joined fiscal, monetary, trade and industrial policies, and overseas development assistance, as a key area in which China and other developing countries have come under pressure to identify their interests and define public policies. In the context of a global economy increasingly propelled by knowledge-based industries, the protection of ideas and innovations has become a priority in the competitive strategy of powerful economic industries and countries. Ownership and distribution of these assets has become a high-stakes issue in international negotiations.

IP policies are not new while they are, to some extent, still an unknown territory for most Chinese policy makers due to its distinctive features of being relative insulated from the kind of public debate common in most areas of public policy. One reason for this is the arcane and complex legal nature of IP policies.

Clearly, much has changed in recent years. IP policy has acquired a global dimension and as such it has become an issue that is hard to ignore for several reasons.

First of all, significant changes in the international regulatory system for IPRs have in themselves stimulated greater attention to IP policy. Perhaps the most significant change is the entry into force of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

Second, the pressure on Chinese government to implement national TRIPS-compliant IPR policies has generated, sometimes for the first time, national debates in those countries about the appropriateness of IP protection.

Third, the IP policy arena is now one of the most dynamic areas of international law. Beyond the TRIPS Agreement, significant new agreements are being forged at the international, regional and bilateral levels that build on and strengthen the minimum TRIPS standards. There is a common tendency in these agreements for protectable subject matter to be expanded, for new rights to be created, and for the basic features of intellectual property rights to be standardized. Consequently, national IPR regimes throughout the world are becoming increasingly pressured to harmonize their regimes in line with standards of protection that follow the standards of the technologically advanced countries.

For Chinese government, these changes in the IP policy framework generally represent a considerable strengthening of the protection offered to IP holders. The intense pressure from developed countries to implement policies to strengthen IP protection has generated increased interest in the intersections of IP policies and other development policies and goals.

Most fundamentally, some critics question the assumption that IPRs are necessary for innovation and commercial investment in new technologies. Most commonly, those who have doubts about the impact of existing IPR regimes, are not pro or anti intellectual property rights per se. Rather, they call for a more careful analysis of which IP policies will serve what goals and whose interests, and under what conditions.

For developing-country members of the WTO, the core concern is that they no longer have the policy options and flexibilities in the IP policy arena that developed countries earlier relied upon to serve their national development. The historical evidence confirms that several of today's developed countries readily exploited the absence of agreed international standards in the past, adapting their level of protection according to national needs. The evidence also suggests that while patent systems, for example, may indeed have helped to stimulate the development and diffusion of new technologies that were the foundation for industrial development, countries benefited from freedom to choose from a variety of possible national systems.

In short, for Chinese government, the emerging global IP regulatory regime appears to place severe constraints on the policy "space" available to them to devise and implement IP policies that are supportive of development goals. Arguably, the harmonized IPR regime that developing countries currently encounter is far better suited to the interests of technological leaders than technological followers.

Chapter 2

China's Integration into the World Economy

China is rising in the age of globalization which introduces powerful new sources of economic vulnerability.

SECTION ONE: CHINA'S VIEW CONCERNING GLOBALIZATION

Although the term "globalization" did not enter official discourse in China until 1996, its leaders acknowledged throughout the 1990s that economic affairs were playing a growing role in post–Cold War international relations.[1] Some references to globalization appeared in academic writings in the early 1990s, but the dominant concepts in scholarly and policymaking circles were interdependence, integration, and internationalization. When globalization first entered Beijing's diplomatic lexicon, officials described it as a trend driven by advances in science and technology that were producing increased cross-national flows of capital, goods, and know-how. The emphasis on the technological drivers underlying this process conceptually restricted globalization to the economic realm in official Chinese analysis although the term was soon understood elsewhere in the world to include social, cultural, political, and security dimensions. Similarly, early attention to this emerging trend emphasized the opportunities for economic development and ignored concerns about U.S. hegemony, Westernization, national sovereignty, and other politically controversial issues.

Originally, China accepted greater interdependence largely out of economic necessity early in the reform era while a series of events in the late 1990s tested China's initial notions of globalization quickly and severely. The Asian financial crisis of 1997–1998 revealed the double-edged sword of globalization, that is, the challenges it presents as well as the opportunities. Although China escaped much of the turmoil, the travails of its neighbors highlighted the threats that global economic forces posed to national economic security.

In Beijing's view, its experience with the Asian financial crisis and the WTO revealed not only that further reform and opening would be necessary to create a modern economy capable of competing effectively in a globalizing world economy but also that severe imbalances and inequities continued to persist in the international system. Chinese analysts and policymakers believe that economic globalization creates the open economic system necessary for China's growth. And remarkably, Chinese researchers are making efforts in exploring how economic globalization can actually change the parameters of great-power politics from a traditional zero-sum game to win-win competition.

SECTION TWO: CHINA'S INCREASING OPENNESS AND GROWING ROLE

Long before the term "globalization" became popularized worldwide in the 1990s, the benefits of China's growing participation in the world economy were undeniable. After Deng Xiaoping formally assumed power in 1978, transnational flows of capital, goods, information, and technology increased steadily throughout the 1980s, accelerating further during the 1990s as the

[1] The term "globalization" was introduced by then-Foreign Minister Qian Qichen during the General Debate of the United Nations General Assembly on September 25, 1996, UN document A/51/PV.8.

contours of an emerging manufacturing juggernaut took shape. By the mid- 1990s, economic ties to the outside world were widely seen as critical to the robust economic growth that made China the envy of industrializing countries everywhere. For example, by 1992 China stood as the world's leading recipient of foreign direct investment (FDI) among developing countries. Indeed, FDI accounted for sizable (and growing) percentages of China's domestic investment, industrial output, exports, tax revenues, and job growth before globalization became a catchphrase.

Over the past 20 years, and after a long period of isolation, China's role in the global economy has increased sharply.

1. Increasing Role in Regional and World Trade

As China's trade with the rest of the world has deepened, its composition and geographical pattern have also shifted. Its overall share of exports to industrial economies has increased and become more diversified. China has also become increasingly important within the Asian regional economy. Vertical specialization of production within Asia has led to an increasing share of China's imports coming from within the region, and China is now among the most important export destinations for other Asian countries.

China's international trade has expanded steadily since the opening of the economy in 1979. Exports and imports have grown faster than world trade for more than 20 years and China's share in global trade has increased steadily since 1979 (Table 3).

This process began relatively slowly in the 1980s after the relaxation of pervasive and complex import and export controls, but accelerated in the 1990s with broader trade reforms, including significant tariff reductions. (Table 4)

China has increased its penetration into advanced country markets, and has simultaneously become a more important export destination, especially for regional economies. The share of advanced country imports accounted for by China has risen over the last two decades, with particularly sharp increases since the early 1990s in Japan, the United States, and the European Union (Table 5).

China's role in Asian regional trade has also become increasingly important. A rising share of its imports comes from within the region, and China is now among the most important export destinations for other Asian countries (Table 6). For example, China now accounts for over 11 percent of Japan's exports, up from only 2 percent in 1990.

While most of the dramatic increases in exports to China have occurred from within the Asian region, the share of exports from the United States and the European Union that go to China have also increased, from 1 percent in 1990 to 3½ in 2002 (Table 7).

China's integration with the world economy is a landmark event with implications for both the global and regional economies. However, it is not unprecedented in either its scope or speed. The earlier experiences of Japan and the newly industrializing economies (NIEs) of Asia were similar in terms of their rate of growth of exports as well as with respect to their increasing share in world exports over an extended period (Table 8). This historical evidence, together with the still substantial development potential of the country, suggests that China could maintain relatively strong export growth for a number of years going forward, provided that its growth momentum is not upset by the prevailing economic and political vulnerabilities.

2. Foreign Direct Investment (FDI) Diversion

Since the adoption of reform and the opening-up policy in 1979, China's foreign trade has maintained its rapid and coordinated momentum of growth. Meanwhile, the quantity, quality, and structure of China's foreign direct investment (FDI) have been constantly increased and improved.

According to the statistics from Customs General Administration of the PRC, the annual growth rate of China's imports and exports between 1980-2003 is 14.5 percent (14.9 percent for exports and 14.1 percent for imports), a rate that is higher than China's economic growth over the corresponding period and also much higher than the rate of world economic and trade growth. In 2004, China's foreign trade is expected to exceed the benchmark of $1000 billion, which will make China the third biggest trading economy in the world.

China's FDI utilization has started off with labor-intensive textile and other light industries. In the 1980s, through primary processing trade forums, which included processing of buyers ´materials, assembling parts for the clients, processing according to clients ´samples and compensation trade, China attracted FDI from Hong Kong, Macao, some Southeast Asian nations and developed countries. As a result, China has become a recipient country for world labor-intensive industry shifts. In the 1990s, China turned its FDI focus to capital and technology intensive industries. The organic combination of worldwide economic structural adjustments in developed countries with China's industrial upgrading fueled the development of machinery, electronic, shipping, chemical and transportation industries. Toward the end of the last century and at the beginning of this century, against the setting of a new round of world industrial shifts and China's WTO accession, FDI in high-tech industries, which was pillared by the IT industry, and FDI in service sectors, such as banking, insurance, and retail services, accelerated its flows to China, which led to a new change in China's FDI scale, quality and structure.

The latest statistics from the PRC Ministry of Commerce shows that by the end of August 2004, China had approved the establishment of 494,025 foreign invested enterprises with contractual foreign investment of $1036.21 billion and actual utilized foreign investment of $545.029 billion. In 2002, China recorded $53.5 billion of FDI inflows, making it the world's top FDI recipient of the year. The actual utilized foreign investment in 2004 is now forecast to reach $57 billion, and China will remain as one of the world's largest FDI recipients.

In order to actively attract foreign investment, the government of China always attached great importance to creating a favorable investment environment. Marked by the promulgation of the Law of the People's Republic of China on Chinese-Foreign Equity Joint Ventures on July 1, 1979, China started to improve its hard and soft environment for foreign investors.

In order to integrate itself into economic globalization more actively, Chinese government also made a series of commitments for market access pertaining to finance, insurance, law, commerce, tourism and other service sectors so as to ensure further opening-up in its service industry.

China attached great importance to IPR protection. In line with the requirements of WTO Trade-Related Intellectual Property Rights (TRIPs), in 2001 and 2002, the Chinese government revised its Patent Law, Trademark Law, Copyright Law, and Regulations for the Protection of Computer Software, and Implementing Rules on the Pharmaceutical Administration Law.

SECTION THREE: WHAT MAKES IPR A RELEVANT ISSUE

Global forces such as foreign capitalistic investment, and an increasingly global economy led Chinese policy makers to aggressively seek solutions for their economic needs outside of traditional decision making patterns. Motivations include an ambitious desire to become not only a contender in the global economy, but a leader as well.

The ultimate aim of Chinese government is to promote economic development and positive social change. After recognizing that technical advancements were an integral part of the positive forces behind the development of a healthy and prosperous nation, the government has been engaging in numerous law and statute creating exercises that provided legal terms for prosecuting against infringements on intellectual properties. It was realized that the end mission of the government would be significantly helped by the promotion of technology and science, which were labeled the "premier productive forces" and that they were "critical to economic and social development".

1. IP Is Important to International Trade

China's GDP has grown at an average annual rate of over 9 percent, while its share of world trade has risen from less than 1 percent to almost 6 percent. Not only have its exports gained significant increase in magnitude, but its rapid transforming from labor-intensive to technology-intensive have made the developed countries, the primary trade partners of China, to reevaluate China's capacity and competitiveness.

And, since 1970, for most developed countries, the contribution of advanced technologies to economic performance in terms of manufacturing value-added and exports has increased substantially (Table 9). This puts a premium on innovation and creativity, aimed at developing new products and services and at differentiating existing ones from those of competitors. Consequently, the commercial importance of IPRs has grown considerably.

Technological change creates new opportunities for private appropriation, but also poses new challenges. One of these challenges is the threat of "free-riding", which certain new technologies may facilitate. IP protection helps to maximize these opportunities for private appropriation while minimizing the risks of potential "free-riding". Moreover, despite the market dominance of knowledge-rich corporations, they are also highly vulnerable. While the marginal cost of manufacturing such goods as software packages, compact discs and videos is extremely low, so is the marginal and fixed cost of copying them.

IPRs may also have important repercussions on the international flow of protected goods and services. The protection in a given country of a company's R&D investments through IPRs may induce that company to export its products to that country, thereby increasing the international flow of trade. In this respect, there is a positive link between IPR protection and trade. On the other hand, IPR-holders may block imports if those infringe upon their domestic exclusive rights.[2] In that sense, there is a negative link between IPR protection and trade, with IPRs acting as trade barriers.

As for technology ownership, a similar story of developed country – especially United States – interest in high levels of IPR protection can be inferred from the relevant statistics. It is not only IPR-protected products, technologies and services that are major exports of developed countries such as the United States, but also the rights themselves, in the form of licences to use patented

[2] For instance, the importation of generic drugs from countries that do not yet recognize drug patents may be prevented by the holder of a corresponding drug patent in a country recognizing such patents.

processes, techniques and designs, copyrights, trademarks and franchises.

Finally, it should be noted that despite the existing links between IPRs and trade, the implications of IP protection go well beyond commerce. IPRs equally affect a number of social and cultural areas that are of considerable importance to developing countries.

2. FDI & Technology Transfer

A core assumption underlying the TRIPS Agreement is that the "protection and enforcement of intellectual property rights" will contribute "to the transfer and dissemination of technology". The Agreement stipulates that developed countries shall provide incentives to their enterprises and institutions for the purpose of promoting and encouraging technology transfer to the least developed countries. Proponents of stronger IP protection in developing countries assert that the combination of stronger IP laws and more stringent enforcement will also enhance flows of FDI to developing countries, and greater innovation through research and development.

The effect of IPR protection on FDI is particularly important considering the remarkable volume of FDI in China as illustrated above. Proponents of strengthening IPRs in developing countries frequently cite the benefits it will bring in terms of creating a better environment for technology transfers and inflows of FDI. By enhancing the technological base, technology transfers and FDI contribute to employment and economic growth. The argument implies that foreign firms would be more likely to share technological information with Chinese affiliates and licensees when local competitors are legally restrained from infringing on the domestic firm's intellectual property.

When a firm seeks to protect its reputation for quality, however, it may prefer FDI over either exports or transferring technology to a local vendor when intellectual property protection is low (Horstmann and Markusen 1987). Indeed, in interviews with foreign enterprise managers in China, Maskus and Dougherty (1998) recognize a reluctance to license technologies or otherwise transfer technologies to local operations because of perceived weak IPRs. They identify several defensive measures such as the transfer of only old technologies to joint venture partners, the establishment of strict vertical supply chains to monitor quality and to conceal underlying technologies, and sale to only large established firms with a premium placed on quality, i.e., public enterprises or hospitals. Weak IPR protection could also induce firms to decide not to export goods to China or to produce them in China. For example, during the 1990s international seed producers restricted the export of some seed varieties to Chinese farmers due to poorly specified IPRs for new plant varieties in China.[3]

It should be pointed out that a wide range of other conditions will play a prominent role in a firm's decision to engage in technology transfer, FDI, or exports. The IPR regime may be a rather minor element in a firm's decision to transfer technology or invest in China.

The empirical evidence concerning the links between stronger IP protection and technology remains inconclusive. However some studies have shown that the relationship between IP policies and technology transfer depends on the level of development of a country, the specific technological fields involved, and the behaviour and absorptive capacity of individual firms. They also suggest that the impact of stronger IPR regimes on informal and formal modes of technology transfer can be expected to differ.

[3] China recently upgraded its IPRs protecting plant varieties as part of the package of measures passed to facilitate compliance with TRIPS Agreement.

It becomes evident that the effect of strengthened IP protection is often dependent on its relationship with other factors, such as the size of the domestic market, the specific technological fields involved, the behaviour and absorptive capacity of individual firms, the structure of factor supply, productive infrastructure, the level of development of the country, and the degree of stability of the macroeconomic environment. Therefore, it is clear that China should not simply accept the assumption that strengthening and enforcing IPRs will induce much more innovation, FDI and technology transfer.

3. China's WTO Commitments[4]

The WTO approved a multilateral Protocol of Accession for China on September 17, 2001 and approved its membership on November 10, 2001 at the Doha WTO Summit. China formally became a member of the WTO on December 11, 2001.

Trade reforms and commitments made as part of China's accession to the World Trade Organization (WTO) have been crucial in promoting its integration with the global trading system. These reforms, which took place over a 15-year period, have included substantial tariff reductions and the dismantling of most nontariff barriers (NTBs). Improved market access following WTO accession has also been important. Continued implementation of WTO commitments in the coming years will further facilitate China's ongoing integration with the global economy and generate benefits for most partner countries. However, it may also pose significant challenges for the authorities; and the extensive safeguard provisions under the WTO agreement represent a downside risk that could constrain China's export growth in the future.

(1) Trade in goods

All tariffs on imported goods are to be eliminated or reduced, mostly by 2004. Tariffs on industrial goods will be reduced to an average of 9 percent, and import quotas will be removed by 2005. Tariffs on agricultural goods will be lowered to an average of 15 percent. The tariff reductions planned by China in the context of its WTO accession are the continuation of a longstanding trend. This trend is reflected in the decreasing level and dispersion of tariffs and the continued reduction in NTBs, especially since the early 1990s (Table 10).[5] Past reforms also introduced widespread import tariff exemptions, especially for processing trade and foreign investment, and therefore a majority of China's imports were in effect not subject to any tariffs in 2000. As a result of the above reforms, as well as continued domestic price liberalization, domestic prices of most traded goods had largely converged with international prices by the mid-1990s.

(2) Trade in services

Foreign access is to be ensured through transparent and automatic licensing procedures in various sectors, including banking and insurance, legal and other professional services, telecommunications, and tourism. Specifically:

- Right to Trade and Distribution—within two years (by end-2003) foreign service suppliers

[4] The accession agreement was concluded on December 11, 2002. A more complete description of the terms of China's WTO accession is available at *http://www.wto.org/english/news_e/pres01_e/pr252_e.htm*.

[5] For example, while import tariffs were over 50 percent in the early 1980s, they averaged 12 percent in 2002, less than Mexico's and less than half of India's.

will be permitted to engage in the retailing of all products; within three years (by end-2004) all firms will have the right to import and export all goods except those subject to state trading monopolies (e.g., oil or fertilizers); within five years (by end-2006), foreign firms will be allowed to distribute virtually all goods domestically.

- Banking—foreign financial institutions will be permitted to provide services without client restrictions for foreign currency business upon accession; local currency services to Chinese companies within two years (by December 2003); and services to all Chinese clients within five years (by December 2006).

In contrast with the continuity in tariff reductions, China's commitments on trade in services represent a milestone.6 Plans include the opening of key services sectors where foreign participation was previously nonexistent or marginal, notably telecommunications, financial services and insurance. In those sectors, full access will eventually be guaranteed to foreign providers through transparent and automatic licensing procedures. China will also remove restrictions on trading and domestic distribution for most products.[6]

(3) Trading and investment regimes

- National treatment/non-discrimination—Measures and practices that discriminate against imported products or foreign companies will be removed.

- Export subsidies—Upon accession, all forms of export subsidies inconsistent with WTO rules, including grants and tax breaks linked to export performance, were eliminated.

- Trade-Related Investment Measures (TRIMs)—Foreign investment approvals will no longer be subject to mandatory requirements (e.g., technology transfer or local content requirements).

- Trade-Related Aspects of Intellectual Property Rights (TRIPs)—China will enforce the rights protecting intellectual property within China.

- Agricultural subsidies—China has agreed to limit domestic agricultural subsidies to 8.5 percent of the value of production (i.e. less than the 10 percent limit allowed for developing countries under the WTO Agreement on Agriculture), and to eliminate all agricultural export subsidies upon WTO entry.

Apart from market access, the accession protocol lays out China's major commitments on trade-related activities, such as the national treatment and non discrimination principles, and as provided under the Trade-Related Investment Measures (TRIMs) and Trade-Related Aspects of Intellectual Property Rights (TRIPs) which China has agreed to implement in full upon accession. Compliance with such commitments is likely to have far-reaching implications domestically, including by encouraging greater internal integration of domestic markets (through the removal of inter-provincial barriers), as well as by enhancing the predictability of the business environment.

(4) Trading partner safeguards.

[6] According to its WTO accession protocol, China will maintain (i) import state trading for wheat, corn, rice, vegetable oils, sugar, tobacco, crude and processed oils, chemical fertilizers and cotton; and, (ii) export state trading for tea, rice, corn, soybeans, coal, crude and processed oils, silk and unbleached silk, a variety of cotton products, and several kinds of tungsten and ammonium products.

- Transitional product-specific safeguard mechanism—As provided under the WTO Agreement on Safeguards, a country may impose restrictions on imports if it can demonstrate that they cause or threaten to cause serious injury to domestic firms producing similar products.

- Special safeguard mechanism for China's textile and clothing exports.

- Anti-dumping. Under WTO agreement, other members can invoke "non-market economy" provisions to determine dumping cases for 15 years following accession. Non-market economy provisions imply that domestic prices cannot be used as a reference point and make it much easier to reach a positive finding in an antidumping investigation.

The siren call of the potential benefits from WTO membership fundamentally changed China's approach to IPRs. WTO membership requires that each member adhere to the strong minimum standards for intellectual property set forth in the 1994 TRIPS Agreement. The WTO requires its members to adopt the TRIPS Agreement without reservations. After 2005, even the least developed members must fully adopt TRIPS. It became quickly apparent that for China to join the WTO, its IPR laws and enforcement practices would have to be strengthened substantially.

Obviously, globalization is introducing more and more pressures both economically and politically, both domestically and internationally, both practically and institutionally on China's attitude towards IPR issues. China's response is highly concerned by international community. The IPR-related reactions will eventually set the pace of China's economic development, even its peaceful rising. In sum, all these considerations make IPR a very hot and relevant issue.

Chapter 3

The IPR's evolution in China

Potentially or actually, China represents a vast market for goods and services, which can be either intellectual-property-based or only labor-intensive. For obvious reasons, protection of intellectual property has become an important issue in international trade.

As a net exporter of intellectual property as well as IPR-intensive products, China's major trade partners including the United States, Japan and EU have incentives to pressure China to upgrade IPR laws and enforcement, while China, a net importer of intellectual property and IPR-intensive goods, has incentives to resist.[7] Relations between the two parties are tempered by the limited capacity of China's legal system and society to change rapidly in response to both domestic and foreign pressures till China's desire to join the World Trade Organization (WTO) fundamentally changed the nature of the game. Due to the WTO's strong minimum standards for IPR laws and the veto held by the United States and the European Union over Chinese ascension to WTO membership, substantial attention towards IPR and practical action agenda emerged.

SECTION ONE: CULTURAL BACKGROUND

Cultural dynamics set against securing ownership of private property in developing countries also will lead to a weaker patent system. The Chinese cultural opinion on being entitled to your own ideas at the exclusion of others has been relatively low. Imitation and copying is viewed as a form of compliment rather than disrespect in this culture. In this the cultural standard is correctly assessed by experts in that the "Chinese view copying as flattery"[8]. Therefore, it would be very difficult to implement a hard-nosed patent system that was rigorously against infringement if the culture of the developing country itself was set toward the idea of copying rather than against it.

As noted Asian legal scholar William Alford's insightful book, To Steal a Book is an Elegant Offense,[9] makes clear, the main intellectual traditions of China do not consider knowledge to be a form of property. Donald Munro, one of America's leading scholars of Chinese thought, has developed the same point, though from a somewhat different perspective. Munro's extensive writings highlight five interrelated, central tenets of Confucianism that are germane to our discussion.[10] First, according to Munro, the dominant strands of Confucian thought do not distinguish between a fact and a value. Rather, all facts—all knowledge—are imbued with either a positive or negative moral value. There is "good knowledge" and "bad knowledge," the

[7] See Gruen and Prior (1996).

[8] D'Antico

[9] William Alford, To Steal a Book is an Elegant Offense, Stanford, CA: Stanford University Press, 1995.

[10] See in particular Donald Munro: The Concept of Man in Early China, Stanford, CA: Stanford University Press, 1969; The Concept of Man in Contemporary China, Ann Arbor, MI: University of Michigan Press, 1977; Images of Human Nature: A Sung Portrait, Princeton, NJ: Princeton University Press, 1988; "Egalitarian Ideal and Educational Fact in Communist China," in John Lindbeck, ed., The Management of a Revolutionary Society, Seattle, WA: University of Washington Press, 1971; "The Malleability of Man in Chinese Marxism," China Quarterly (London), Oct–Dec., 1971; "The Man, State and School," in M. Oksenberg, ed., China's DevelopmentalExperience, Praeger, 1973.

distinction being in the moral quality of the behavior that the knowledge produces. Second, since "good" knowledge is necessary to inculcate morality and create a well-ordered society, the primary task of a teacher, intellectual, or master—the word for these in classical Chinese (shi) is the same—is to engage in moral education. Accordingly, to prevent the dissemination of "good" knowledge is therefore immoral. Third, learning does not entail developing an ability to think critically or acquiring an understanding of underlying scientific principles. Rather, learning involves emulating models. Copying and memorizing have been central features of Chinese pedagogy from time immemorial, and remain so today. Fourth, the intellectual attainments of human beings are due less to their innate attributes than to what their parents, neighbors, teachers, siblings, and friends have implanted in their minds. (This is one reason that relatives and neighbors are held partly responsible for the transgressions of a criminal.) According to this logic, inventions do not arise from the creativity of an individual; they result from society's cultivation of that individual. For innovators to claim credit and to seek to profit from their creation is selfish and an act of ingratitude. Society, not individuals, is the true source of human innovation. Finally, in Imperial China, the emperor and his agents, as the guardians of morality, had the right—indeed the duty— to propagate and disseminate "good" knowledge and to limit the dissemination of knowledge that would harm the social order. The cultivation of ethical behavior was a central purpose of the traditional Chinese state, which logically required that all knowledge be at the disposal of the state.

Thus, all knowledge throughout the realm belonged to the emperor, or more precisely to the imperial Chinese state. Further, many of the advanced technologies in traditional China were developed under imperial sponsorship. Unless an individual opted out of the system and became a hermit or a monk, he could not retain private knowledge; in theory, the emperor had the right to appropriate it to advance public virtue. In reality, this situation produced a tendency for merchants to hoard commercial knowledge and for private artisans to keep their techniques secret. Merchants and artisans organized guilds to protect their commercial interests.

Clearly—as the efforts of merchants and artisans to protect their knowledge indicates—Confucian views of knowledge and the role of the state were a good deal more varied and sophisticated than this rather simplistic summary. Recent Western scholarship suggests that concepts of property and contract law were more developed than conventional wisdom about the imperial system would have it.[11] And in the 20th century, Western ideas have had considerable impact on Chinese views of knowledge and property. Nonetheless, the five interrelated tenets noted above constitute a powerful, internally consistent philosophy that continues to influence contemporary Chinese thought. Different cultures do have different views on how knowledge is created, what purposes knowledge should serve, and who has a claim upon it. While those differences have narrowed, they persist to the present day. One of the most dominant strands of political thinking in China today, for example, a direct legacy from traditional China, is the idea that the state is responsible for society, rather than accountable to it. As a result, Chinese tend to approach issues of IPR from a different vantage point than their Western counterparts.

[11] For important scholarship that challenges previous assertions about the weakness of law in traditional China and about the domination of the artisan classes by the bureaucrats, see Kathryn Bernhardt and Philip C.C. Huang, eds., Civil Law in Qing and Republican China, Stanford, CA: Stanford University Press, 1994; William Rowe, Hankow: Commerce and Society in a Chinese City, 1796–1889, Stanford, CA: Stanford University Press, 1984; and Hankow: Conflict and Community in a Chinese City, 1796–1896, Stanford, CA: Stanford University Press, 1989.

SECTION TWO: LEGAL CLIMATE

Three developments are essential for the establishment of a sound and effective IPR regime in China: first, an IPR regime should be nested within a well-established legal system; second, respect for property must be a notion well-engraved not only in law but in the minds of political leaders and citizens alike; third, individual ownership of intellectual property should be recognized and supported.

On all these dimensions, China is lacking. It is still in the early stages of creating a legal system, as that term is understood in the West, enforced by an independent judiciary.[12] Laws governing ownership of material property, such as land and manufacturing equipment, are still being less developed. Markets for the purchase, sale, rent, lease, or hire of technology, real estate, capital, and labor are only at their initial stage, further laws and regulations are needed after enough experience and knowledge have been accumulated. Moreover, most large industrial enterprises are either owned by the state or have extensive and intimate links to supervising ministries, planning and economic commissions, and provincial and/or municipal governments. They are connected formally through these governmental agencies and informally through personal ties with other corporations in the same industrial sphere, with which they are expected to cooperate and share information. Only recently has the process of privatization really gotten under way; only in the past decade have firms been able to retain the bulk of their profits. In short, incentives for state-owned enterprises to retain their technological innovations or intellectual property have only recently begun to outweigh the rewards for sharing and disseminating this information with their sister enterprises, and in some industries this reform has not proceeded very far.

IPR regimes in Western countries, especially in copyright, are among the most sophisticated and, in some cases, among the newest areas of the law. Technological improvements of the past three decades—photocopying, videotaping, digital recording, and, most recently, data transfer over the Internet—have greatly expanded the ease of copying and have introduced new dimensions to the problem. In this changing environment, intellectual property continues to be an evolving and slippery concept. Just a few years ago, for example, most American professors did not recognize they were infringing on intellectual property when they photocopied a chapter from a book for inclusion in a "course reader" for sale to college students.

SECTION THREE: HISTORICAL ACHIEVEMENT

1. The Republican Era (1911–49)

In the 20th century, as William Alford notes, Western concepts of intellectual property began to affect Chinese thinking, and with pressure and inducements from the West both the Qing and Republican governments enacted laws protecting IPR. Then, as now, the problems of implementation were enormous, reaching their apogee in the warlord era (1911–27) when the central government had no authority over most regions of China. Nonetheless, limited progress was made in the areas of trademark, patent, and copyright law.

Copyright protection was less compatible with the Confucian ideological legacy than trademarks

[12] Pitman B. Potter, Foreign Business Law in China: Past Progress, Future Challenges, San Francisco: The 1990 Institute, 1995, especially chapter 1. See also Michael Dutton, Policing and Punishment in China: From Patriarchy to "The People," Hong Kong: Cambridge University Press, 1992.

and patents. The Chinese government grasped the significance of trademarks and patents as matters affecting commerce and industry. The bureaucracies established to protect those aspects of IPR were seen as necessary for China's modernity, although trademarks and patents of Chinese firms were more zealously guarded than those of foreigners. Copyrights, however, dealt with the realm of literature and the arts, and were therefore seen as a cultural issue. And when the Kuomingtang (KMT), or Nationalist, government began to impose censorship upon the literary and artistic worlds in the 1930s, it used copyright laws to prevent the dissemination of works it deemed harmful to the state and to social order. Since all works had to be registered to obtain a copyright, the process offered a natural vehicle through which the state could deny the right to publish. What started out as an idea imported from the West to protect the rights of writers and artists became an instrument through which the Chinese state limited those rights in accordance with traditional Chinese thought.

Thus, in the Republican era, copyright matters became the responsibility of the cultural institutions of the state, where they have remained ever since. This is a fascinating instance of a value or belief—that knowledge embodies morality or virtue—becoming embedded in a state structure. Moreover, since copyright laws were used to impose KMT censorship, Chinese intellectuals did not become enamored of this Western idea. It was not a concept that had enhanced their rights and served their interests.

2. The Mao Era (1949–76)

Reflecting Marxist-Leninist notions, the Chinese Communist Party (CCP) did not seek to protect private property. Upon coming to power, the Communists abolished the intellectual property rights regime that the Nationalist government had enacted and placed writers on the state payroll, guaranteeing them a secure salary. There was no great or immediate outcry. At first, most intellectuals considered the new situation to be an improvement. Their livelihood was guaranteed. They received royalties for their publications, but the right to use their publications resided with the state. By the mid-1950s the state had nationalized all publishing houses, film studios, and radio stations. Intellectuals had become fully subject to communist-style censorship, and artistic creativity was suppressed. During the remainder of the Mao era, government policy vacillated. In 1954–55, 1957–58, 1960–61, 1963–65, and 1966–76, the CCP launched various campaigns against writers, artists, and composers.[13] At other points, as in 1956–57 and 1961–63, brief overtures were made to placate intellectuals and restore their morale, but censorship did not cease. Underlying the CCP's policy toward intellectuals was a debate within the party: were intellectuals part of the bourgeoisie or the working class? And was their product therefore a product of capitalists (and thus the result of exploitation) or a product of the proletariat?

This debate became particularly sharp in the early 1960s, and then from 1973 to 1976. In the early 1960s, a campaign was waged against those in the party who allegedly sought to protect capitalist legal rights, including copyright. In 1973–76, intellectuals were still suffering from the terror of the Cultural Revolution and its aftermath. Some leaders—especially Zhou Enlai and Deng Xiaoping—considered it important to repair the damages of the Cultural Revolution. However, the champions of the Cultural Revolution, with Mao Zedong's support, asserted that intellectuals were not proletarians and that protection of their work would be defense of a "bourgeois right." If the Chinese government protected intellectual property—especially books

[13] This tortuous history is carefully traced in Merle Goldman, Literary Dissent in Communist China, Cambridge, MA: Harvard University Press, 1967; China's Intellectuals: Advise and Dissent, Cambridge, MA: Harvard University Press, 1981; and Sowing the Seeds of Democracy in China: Political Reform in the Deng Xiaoping Era, Cambridge, MA: Harvard University Press, 1994. See also Peter Moody, Opposition and Dissent in Contemporary China, Stanford, CA: Hoover Institution, 1967.

and works of art and music—and bestowed rights upon intellectuals, it would be embarking on the "capitalist road." These champions of the Cultural Revolution were not just engaging in rhetoric. Many fervently believed these radical ideas. They enjoyed monopoly control of the media, and the shrillness of their rhetoric belied the existence of moderates in the CCP—followers of Zhou and Deng—who were dismayed by the cruel treatment of intellectuals. The bureaucracies most affected by the Cultural Revolution ideology were the CCP Propaganda Department and the government's cultural and educational institutions. Indeed, it was in these agencies where the most intense battles, literally and figuratively, were fought from 1966 to 1976. Although Mao's top cultural advisors lost power following his death in 1976, the cultural bureaucracies today still bear the scars of that era.

3. Creating an IPR Regime in the Deng Era

At a National Science Conference in the spring of 1978, with encouragement from a wide range of associates and advisors, Deng Xiaoping dramatically announced a new policy course.[14] In the months that followed, intellectuals were recast as part of the proletariat, and property was no longer classified as a "bourgeois right." It again became appropriate for intellectuals to enjoy rights derived from their products, since they were part of the working class. Thus the ideological basis was laid for establishment of an intellectual property rights regime. In December 1978 the State Council passed regulations to reward inventions in the P.R.C. The drafting of trademark, patent, and copyright laws soon got under way. Within a few years, China promulgated an impressive array of laws and regulations regarding intellectual property. The government also began to create the bureaucratic infrastructure to enforce these rules and it joined various international conventions on intellectual property.8 China passed the Trademark Law in August 1982 (revised 1993), the Patent Law in March 1984 (revised 1993), the Copyright Law in September 1990, and the Computer Software Regulations in October 1991. In addition, the General Principles of Civil Law, adopted in April 1986, recognized the rights of individuals and legal entities to hold copyrights, patents, and trademarks. This enactment and a subsequent Civil Procedure Law passed in April 1991 enabled Chinese citizens and legal entities, as well as foreigners and foreign enterprises and organizations, to demand in Chinese courts that infringements be halted and that courts award claimants compensation for damages. Decisions of the National People's Congress Standing Committee in 1993 and 1994 have strengthened penalties against counterfeiting and infringing on copyrights. China enacted new copyright and trademark laws on October 27, 2001 to bring them into conformity with the TRIPS Agreement. An amended Patent Law was approved by the People's Congress in August 2000 and came into effect in July 2001. China issued new regulations for protecting plant varieties and layout designs of integrated circuits, effective October 1, 1997. Trade secrets are protected under Article 10 of the Chinese Unfair Competition Law.

In the international arena, China was accepted as a member of the Geneva-based World Intellectual Property Organization (WIPO) in April 1980. It joined the Paris Convention for the Protection of Industrial Property in December 1984 and the Berne Convention for the Protection of Literary and Artistic Works in October 1992，the Geneva Phonograms Convention in 1993, the Patent Cooperation Treaty in 1994. Beijing also adheres to the Budapest Treaty on Deposit of Microorganisms; the Nice Agreement on Marks; the Strasbourg Agreement on international

[14] See Richard Suttmeier, Science, Technology, and China's Drive for Modernization, Stanford, CA: Hoover Institution Press, 1980; Denis Fred Simon and Merle Goldman, Science and Technology in Post-Mao China, Cambridge, MA: Harvard University Press, 1989, especially pp. 69–198; Denis Fred Simon, "China's Scientists and Technologists in the Post-Mao Era," in Merle Goldman, Timothy Cheek, and Carol Lee Hamrin, eds., China's Intellectuals and the State, Cambridge, MA: Harvard University Press, 1987, especially pp. 45–64.

patent classification; the Locarno Agreement on industrial design classification; the Revised International Convention for the Protection of New Varieties of Plants; and the 2000 Patent Law.

China has establishhed special IPR courts in 5 provinces and cities: Hainan, Guangdong, Fujian, Beijing, and Shanghai (Kolton, 1996). Specialized courts were set up to ensure that judges well versed in complex IPR law hear these cases. The new Chinese courts have awarded monetary damages to major American corporations, such as Prentice Hall, Harcourt Brace, and World Disney as remedies for copyright violations. Foreign firms have, however, complained that Chinese courts have few mechanisms for enforcing their orders.[15] Foreign attention has also been focused on Article 62(3) of TRIPS which requires that all final administrative decisions with respect to IPRs be subject to review by a judicial or quasi-judicial authority. Currently, most administrative decisions in China are final. China's courts also do not allow the award of damages in IPR infringement cases in which the infringer was unaware that infringement was taking place. This conflicts with Article 45(2) of TRIPS which allows for damages even if the infringer was unaware that the infringing activity was against the law.

Monetary aid and personnel training from the German government helped the Chinese government to establish electronic data bases for patents in 1995.

Several major universities, e.g., Beijing University, the People's University, and Wuhan University, have established IPR training programs for judges, lawyers, government IPR officials, and businessmen.

China has been slow to pass legislation regulating internet copyright and trademark issues. However, in 2000 the Beijing Supreme Court issued a "Guide Opinion on the Trial of Civil Cases Related to IP Rights Caused by the Registration & Use of Domain Names," which acknowledges that registering and using well-known trademarks as domain names constitutes unfair competition. Also, in December 2000, China's Supreme People's Court issued interpretations of China's IPR laws with respect to their applicability to internet copyright disputes. The October 2001 revision of China's copyright law incorporated numerous new provisions governing on-line copyright protection.

All these rapidity of these developments[16] earned widespread praise from the international community, especially from the World Intellectual Property Organization.

[15] See Seth Faison, "Pirates Show their Colors: Chinese Firms Start to Defy Courts, International Herald Tribune, May 18, 1995, p. 17.

[16] The most recent developments concerning China's protection of IPRs can be found in the China White Paper (Year 2004) which is attached at the end of this paper as a matter of convenience. More information on this document can be found at the following link to Xinhua News Agency :
http://news.xinhuanet.com/english/2005-04/19/content_2849786.htm

Chapter 4

Government Management & Policy Suggestions

The many IPR laws and regulations enacted in the 1980s and 1990s, the linkages established with the outside world, the IPR policies and foreign agreements that China's leaders have adopted, and China's economic development have resulted in the creation of many agencies in Beijing and the provinces responsible for implementation of an IPR regime. Moreover, many public, semipublic, and private agencies have acquired interests in the enforcement or disregard of IPR laws and policies. And several top leaders have special responsibilities for IPR. To varying degrees, the institutional landscape in Beijing is replicated at the provincial and municipal levels. China's IPR policy community constitutes the agencies and individuals with which the outside world must cooperate if ongoing disputes are to be avoided.[17]

SECTION ONE: THE ADMINISTRATIVE AGENCIES

Institutionally, by 1995 three agencies existed to implement the major IPR laws and regulations: the previously mentioned State Copyright Administration, with an authorized staff in Beijing of 35 people organized into six bureaus and housed within the SPPA; the China Patent Office is dealing with cases involving the Patent Cooperation Treaty, performing international patent searches and preliminary examinations. Meanwhile, China has established a fairly comprehensive system for patent work. Relevant departments of the State Council and local governments have established patent administrative organs in accordance with the provisions of the "Patent Law." China now has more than 5,000 people working in patent agencies, and a service system mainly providing patent commissioning, patent information, patent technology transfer intermediary and patent technology evaluation services has taken initial shape; and the Trademark Office, which is under the State Administration of Industry and Commerce (SAIC). Applications for protection of IPR in pharmaceuticals and agricultural chemicals must be filed with the State Pharmaceutical Administration's China Huake Pharmaceutical Intellectual Property Consultation Center.

Recently, in its practice of IPR protection, a two-way parallel protection mode, namely, administrative and judicial protection, has emerged in China. Several departments in China are assigned with the duty to protect IPR. They include primarily: (1) the State Intellectual Property Office; (2) State Administration for Industry and Commerce which licenses corporations to do business and therefore can withdraw licenses from IPR infringers; (3) Press and Publication General Administration; (4) State Copyright Bureau; (5) Ministry of Culture responsible for inspecting all retail and wholesale outlets selling cultural commodities (books, records, videotapes, CDs, paintings), for removing offending materials, and for fining the violators; (6) Ministry of Agriculture; (7) State Forestry Administration; (8) Ministry of Public Security which arrests violators of the law and accumulates evidence against alleged criminals; (9) General Administration of Customs which has authority to examine the customs declaration bills and

[17] The concept of "policy community" originated in the study of American politics and was introduced to the study of Chinese politics by Nina Halpern. See her Economic Specialists and the Making of China's Economic Policy, 1955–1983, University of Michigan PhD, 1985, and "Information Flows and Policy Coordination in the Chinese Bureaucracy," in Lieberthal and Lampton, op. cit. pp. 125–150. See also Michel Oksenberg and Elizabeth Economy, "China: Implementation Under Economic Growth and Market Reform," in Edith Brown Weiss and Harold Jacobson, eds., Engaging Countries: Strengthening Compliance with International Environmental Accords, Cambridge, MA: MIT Press, forthcoming. In our study, we broaden the scope of the term to include all who become involved in the formation of IPR policy.

certificates, inspection of imported and exported goods, detention and investigation of right-infringing goods, punishment of illegal importers and exporters, and disposal of right-infringing goods; (10) Supreme People's Court which hears complaints of infringement and can impose fines and imprisonment; (11) Supreme People's Procuratorate which receives cases from the MPS and brings cases to court; (12) the Ministry of Commerce.

In addition, the Legislative Bureau of the State Council plays a pivotal role in the legislative drafting process. The National People's Congress and its Standing Committee have played a major role in delaying and amending IPR legislation. The Ministry of Foreign Trade and Economic Cooperation negotiates IPR issues with foreign countries. Academics at CASS Law Institute and in the Law Departments at People's University and Beijing University have become IPR specialists. Chinese lawyers have begun to specialize in IPR law and have IPR clients; plaintiffs can seek remedies for infringement of their patents, trademarks, or copyrights in the intellectual property tribunals.

The implementing agencies and mechanisms are varied, complex, and potentially sophisticated. The institutional arrangements are now sufficiently elaborate and differentiated that they offer both Chinese and foreign parties choices in the means of enforcement and redress. Simply stated, violations of China's IPR laws can be remedied either through administrative action or through the courts. And the courts can assess damages based on the harm that the infringement has done to society or to the individual owning the intellectual property. Both administrative and legal-judicial mechanisms are now fundamental to the development of China's IPR agencies.

In recent years, the state has increased work contacts between administrative law enforcement organs and public security organs and people's procuratorates with respect to IPR protection. In October 2000, the relevant departments jointly issued the "Notice on strengthening Cooperation and Coordination in the Work of Investigating and Dealing with Criminal Cases that Infringe Intellectual Property Rights," which contains clear provisions on relevant issues. In July 2001, the State Council promulgated the Regulations on the Transfer of Suspected Criminal Cases by Administrative Law enforcement Organs," which includes clear provisions on how the administrative law enforcement organs should transfer suspected criminal cases to public security organs in timely fashion. In March 2004, the relevant departments jointly issued the "Opinions on increasing Work Contacts between Administrative Law Enforcement Organs and Public security Organs and People's Procuratorates." A work mechanism involving the coordination of administrative law enforcement and criminal law enforcement has been established, creating a joint power to deal with IPR infringements. This ensures that suspected criminal cases enter the judicial process promptly. In recent years, the judicial organs have adjudicated a large number of IPR infringement cases according to law. In civil cases, the infringed parties have received timely compensation for their financial losses.

As gradual improvements are made in the legal system on IPR protection, China has shifted its focus from legislation to law enforcement. Administrative law enforcement has been enhanced through the combination of routine management and supervision with special crackdown campaigns. In August 2004, the Chinese government decided to launch a special one-year campaign to protect IPR across the country from September 2004 to August 2005. It was decided at the national TV and telephone conference on rectification and standardization of the market economic order convened by the State Council on March 31, 2005 that the campaign was extended to the end of 2005. With unified planning, the relevant departments have investigated and dealt with major IPR infringement cases, focusing on major fields in the protection of trademark rights, copyrights and patent rights, on major links in the import and export of goods, all types of exhibitions and wholesale markets of commodities, and on key places where

producers and sellers of counterfeit goods were known to be concentrated. Their quick action and strict law enforcement efforts have dealt a blow on IPR offenders, achieving positive results.

The administrative solutions rest in the hands of the Ministry of Public Security, the Culture Market Management section of the Ministry of Culture, and the State Administration of Industry and Commerce. These agencies are able swiftly to end IPR violations through withdrawal of licenses, steep fines, disruption of business, and even coerced confessions. The quality of justice achieved via this method of law enforcement has been criticized by human rights organizations outside China.

An IPR regime in China that relies on these types of public-punitive instruments is not only vulnerable to corruption and arbitrariness but also creates, unwittingly, a competitive system for fines and fees. By generating substantial fines and fees for cash-hungry government offices, punitive measures create strong economic incentives for different legal and administrative agencies to see that violations, and hence the problem itself, continue. Public-punitive methods also undermine the development of private law, especially in the areas of property and contract.

The other, contrasting, recourse is to strengthen the role of private-compensatory remedies for victims of IPR infringement. Use of this mechanism, in theory, is preferable since its exercise would strengthen the rule of private law and the links between IPR enforcement and market forces. At present, however, this alternative is problematic. The laws are in place, but the institutions and norms are weak, and the lawyers and judges are too few and as yet not well-trained. Special IPR tribunals at lower levels have approached IPR cases primarily from the vantage of protecting the state and enforcing the public interest, rather than assessing and awarding damages to private parties. In the West, particularly the United States, the remedy in IPR cases is to compensate the plaintiff or injured party. In China, the tendency has been for the tribunals to evaluate the damage done to society. The result is that the fines imposed on violators typically are far less than the financial damage to the injured party.

The current institutional arrangements present injured parties with a Hobson's choice: to rely on administrative procedures activated by political intervention at higher levels, offering shortterm solutions of little relevance to the injured party; or to rely on a judicial system whose capacity to provide remedies is inadequate. A preferable alternative would be a system that focuses on compensating injured parties for the losses suffered as a result of infringement of intellectual property rights. An approach of augmenting public and punitive remedies, such as fines and criminal sanctions, with a private compensation regime could usefully be adopted in both China's administrative and judicial systems. Administrative agencies, while primarily concerned with public law administration, could still become more attuned to compensating victims rather than punishing violators. And while the court system is plagued with problems of inadequate funding, lack of trained staff, and insufficient political clout for enforcing judgments, the intellectual property tribunals that are being established within the courts could be effective over the long run as a source of private compensatory remedies.

SECTION TWO: THE WORKING CONFERENCE

As in other policy areas, the large number of agencies involved in IPR in Beijing produces problems of coordination. Until recently, the standard Chinese political response to problems of insufficient national attention, inadequate coordination, and failures in policy implementation has been to create a "leadership small group" headed by a vice premier to give prominence to the

issue.[18] These interagency task forces maintain a staff office located in the agency that has the greatest responsibility for the problem at hand and they have considerable authority to set policy guidelines and resolve interagency disputes. The creation of such a group indicates the primacy that the top leaders attach to a given issue. Throughout the 1980s, such groups proliferated.

In 1988 an IPR leadership small group was established, but it apparently was downgraded in the early 1990s as part of an effort to reduce the number and prominence of such groups. By 1994 the need for such a coordinating office was again evident, especially in light of mounting foreign complaints, led by the United States. A "working conference" (bangong huiyi) was established for IPR, embodying an organizational designation that was appearing with increasing frequency in Beijing as a substitute for the previous leadership small groups. The IPR Working Conference office may eventually acquire the same authority and stature as a leadership small group. The IPR Working Conference is composed of representatives of the State Science and Technology Commission; the Ministry of Foreign Trade and Economic Cooperation; the Ministry of Culture; the Ministry of Broadcast, Film, and Television; the Ministry of Justice; the Ministry of Public Security; the Customs Bureau; the State Administration for Industry and Commerce; the national patent, trademark, and copyright offices; and other relevant agencies.

In 2004, the State Council of China set-up the Lead Group of IPR Protection directed by the Vice Premier Wu Yi. The Lead Group of IPR Protection was composed by twelve related central authorities including the Supreme Court, the Supreme People's Procuratorate (SPP), the Ministry of Commerce (MOC), the Ministry of Public Security (MPS), the State Administration for Industry & Commerce (SAIC), the National Copyright Administration (NCAC), the SIPO, the General Administration for Customs of China (GACC) etc. The responsibility of the Lead Group of IPR Protection is to direct and coordinate IPR protection issues at national level, and to supervise the disposal of some outstanding IPR involved cases. Under the unified arrangement of the Lead Group of IPR Protection, a multiple departmental co-operation system for IPR administrative enforcement was established in the government of China. Every segment of IPR protection issues was linked up and coordinated under the direction of the Lead Group of IPR Protection. The IPR publicity and training issues at national level were specially deployed by the Lead Group of IPR Protection, and related issues proceeded effectively. Up-to-date, similar IPR protection workgroups had been set-up in every provincial local government, and carried out daily work and special intellectual property protection enforcement in the manner of Uniformly Directed at National Level, Responded by Local Government, Coordinated and Directed by Interdepartments of Involved Authorities, and Jointly Conducted by Multiparty of Related Issues. Because of its complexity, the administrative efficiency of the new interagency IPR working mechanism needs to be tested over a long-run.

SECTION THREE: ASSOCIATION, PUBLICATIONS AND TRAINING INSTITUTES

Government-encouraged associations and government-registered trade associations with natural interests in IPR issues are also being formed in Beijing. The China Software Alliance (CSA), for example, is a Beijing-based organization formed in March 1995 to promote the protection of IPR in computer software. The main tasks of the CSA are the advancement of public awareness of IPR in computer software and close cooperation with state policymaking, administrative, law enforcement, and judiciary organs to combat piracy.

Two other associations and their activities merit special mention. The China Intellectual Property

[18] Carol Lee Hamrin, "The Party Leadership System," in Lieberthal and Lampton, *op. cit*., pp. 95–124.

Association (CIPA) claims to have thousands of members in branches throughout China. It holds an annual meeting attended by two to three hundred delegates from throughout China, as well as by foreign experts (including representatives of the United States Patent and Trademark Office). The Copyright Society of China (CSC), closely linked to the State Copyright Administration, also convenes meetings and initiates research. The associations, in conjunction with their parent bodies, hold frequent international as well as national meetings. For example, the SCA has held 20 copyright conferences since 1992, including ten with international participation. One such meeting was organized in Kunming and brought copyright specialists from twelve East and Southeast Asian countries on behalf of the World Intellectual Property Organization, while another meeting, also organized on behalf of the WIPO, was devoted exclusively to the impact of digital technology on the intellectual property law.

In the training area, the State Council is establishing a China Intellectual Property Center (CIPC), under the supervision of the China Patent Office. Its purpose will be to provide training in patent, copyright, and trademark law to judges, lawyers, customs officials, public security personnel, and other officials from both the national and local levels. CIPC already has professors of law at foreign law schools who serve as advisors and honorary faculty.

Encouraged by the government, publications devoted to IPR issues are proliferating. The China Patent Office publishes the China Patent News twice a week and plans to publish a special newspaper devoted to intellectual property issues more generally. Finally, two Chinese-language journals are noteworthy. Zhuzuo quan (Copyright) is published by the CSC and SCA. This journal chronicles legal developments and meetings, and reprints important speeches and articles by top officials. Zhishi Chanquan (Intellectual Property) is jointly published by the CIPA, the Chinese branch of the International Protection of Industrial Property Association, and the China Association of Export License and Trade Workers.

Thus a policy community has emerged, especially in Beijing and Shanghai, that is concerned with and knowledgeable about IPR. Some bureaucrats favor IPR and are responsible for enforcing it. Others benefit from infringement and seek to block development of an IPR regime in China. The bureaucratic landscape has clearly changed over the last decade. Major bureaucracies responsible for intellectual property have been created. Linkages with the external world have been forged.

SECTION FOUR: POLICY SUGGESTIONS

Practice over the past two decades and more has shown that the Chinese government has made arduous efforts to protect IPR. China has achieved a noticeably great improvement in IPR protection, which took the developed countries several decades and even over a century to attain. However, the Chinese government is clearly aware that, in a large developing country with a population of 1.3 billion, relatively backward economy and low level of science and technology, a complete IPR protection system cannot be established overnight. China has a long way to go in this regard, and is faced with heavy tasks in IPR protection.

At present, there are still IPR infringements in certain areas and fields in China, some of which are very serious. The awareness of the importance of IPR in Chinese society as a whole needs to be further enhanced. Meanwhile, China's IPR protection work is facing new challenges in the course of economic globalization and rapid development of science and technology worldwide. In accordance with the requirements of the concept of scientific development, the Chinese government will adopt more effective policies and measures in the process of building a well-off society in an all-round way and developing a harmonious society, exerting efforts to raise its IPR

protection work to a new level.

1. More Efforts in Fostering Extensive IPR Awareness

While reference to Chinese cultural and historical considerations can be overstated and become a convenient excuse for shortcomings in the IPR realm, they unquestionably inhibit effective implementation, especially in the copyright area. Acceptance of the IPR regime also involves changing existing popular attitudes, many of which derive from lingering traditional views that learning occurs through emulation and copying and from Marxist-Maoist views that private property is a "bourgeois right" not to be protected in a socialist state. Finally, historical and cultural factors often affect the ways in which local officials weigh IPR when balancing economic and political interests and objectives. Thus, when other factors are roughly in balance, such as when local officials are attempting to satisfy local economic and political priorities while still complying with central directives, cultural and historical attitudes about IPR will tend to tilt the balance away from IPR protection. Beginning in 2004, the state designated the week from April 20 to 26 every year as the "week for publicizing the importance of IPR protection." By making wide use of newspapers, magazines, television, radio and the Internet, and through holding seminars and knowledge contests, and making public interest advertisements, the government carries out publicity and education among the general public regarding IPR protection. The aim is to create a social atmosphere in which labor, knowledge, talent and creation are respected, and heighten the awareness of the general public regarding IPR.

2. More Integrated Policy Making on IPR

In many cases, China government faces particular difficulties in developing a comprehensive and co-ordinated policy on IPR due to the enormous magnitude and sophisticated situation of the country, plus IPR is a relatively new area of public policy. The impetus for policy changes in IPR typically comes from international agreements to which the country is signatory, without necessarily having a coherent idea of how they can be implemented nationally (for example, TRIPS or the CBD). Within government, IPR is a classic "cross cutting issue" affecting the interests of several government departments who will have different positions which will need to be reconciled. Thus the policy making process is complicated.

The government should establish a single institution responsible for IPR administration, either as semi-autonomous agency or government department operating on a trading account basis, under the supervision of a suitable government ministry. As well as IPR administration, the institution should be responsible for providing policy and legal advice to the government on all matters relating to intellectual property (in conjunction with other concerned ministries and agencies); liaison with the enforcement agencies and competition regulators (including providing training and advice as required)

3. Substantially Encourage the Policy Research and Analysis on IPR

The expansion of international IPR protection is a process that has evolved steadily over that past few decades to the point that, today, most countries of the world are involved in what can be best described as a global system of intellectual property regulation. This system comprises a series of intersecting international agreements and several powerful international institutions, the global IPR regime is very much a work in progress.

As the rules evolve, it is important that their actual and potential impact be properly understood if policymaking is to be more firmly based on evidence and less on preconceptions of the value or

otherwise of these rules to China's development. In order to catch up its newly development and base the formulation of IPR policy on a sound appreciation of how the IPR system might be used to promote development objectives, derived from an analysis of the country's industrial structure, modes of agricultural production, and healthcare and education needs. The government should encourage policy research and analysis on intellectual property subjects in the national interest (eg protection of plant varieties; traditional knowledge and folklore; technology transfer etc) within academic organizations, policy think-thank institutes and other stakeholder organizations in civil society that can contribute to the intellectual property policy and legislative development processes. To support these efforts and channel technical and financial assistance, the government should examine the feasibility of establishing a Foundation for Intellectual Property and Development Research, and donor organisations such as WIPO and the World Bank on the formation of the Preparatory Group and should provide funding for the completion of a feasibility study and other preparatory work.

The relevant studies should be able to answer the following critical questions:

- What levels of national and regional institutional capacity does China currently have in IP policymaking, regulation and enforcement? What resources does China currently allocate to IP protection and rule making via national and regional institutions? To what extent is China able to participate effectively in international IP rule making and regulation?

- What levels of national institutional capacity does China currently have in other fields of economic regulatory policy relevant to IP policymaking, regulation and enforcement, such as competition policy and law; judicial and legal systems; and police and customs administration? How important is institutional capacity building in this area for maximising the benefits of IPRs and minimizing abuse from restrictive business practices? What are the key constraints?

- What are the key priorities for building capacity in IP policymaking, regulation and enforcement, and related areas of economic regulatory policy, within national and regional institutions in China? What are the key constraints and resource costs? Could China make greater use of regional organizations and international co-operation in IP regulation?

- The consequences of full implementation of TRIPS, including the provisions relating to enforcement. The implications of the movement towards harmonization and integration of patent systems at the international level.

4. Regulating IPR is Indispensable

However, while IP protection is important for minimizing potential free-riding, it could also reinforce economic concentration and market power and create opportunities for anti-competitive behaviour, whether by individual firms or by concerted practices or agreements among firms. For these reasons, a number of industrialized countries have legislated antitrust rules concerning the use of IPRs.[19]

Regulation of IP rights, particularly in relation to matters of special public interest (as with compulsory licensing) or in relation to controlling anti-competitive practice by rights holders should be given high priority in the design of public policy and institutional infrastructure. As well as the development of appropriate regulatory frameworks per se, an important part of

[19] See Part Three of the UNCTAD-ICTSD "Resource Book on TRIPS and Development" (2003).

effective regulation is the undertaking of regular, periodic reviews of all aspects of the national IP regime, to ensure that these are relevant and appropriate.

China has introduced strong IP protection, perhaps over-strong in certain aspects, over past decades. Objectively, the consideration was limited in the context of competition regimes and other regulatory regimes designed to ensure that IP rights do not harm the public interest. In the US particularly, but also in other developed countries, pro-competitive regulation of IP rights and control of related restrictive business practices are key features of anti-trust legislation and these are regularly put into effect by the courts, competition authorities and by other relevant government agencies.

There is a clear dilemma here for the governement. On the one hand, establishing an effective regulatory framework, including competition policy, is an important complementary step for introducing stronger IP protection. On the other, this is likely to be just as complex and difficult a task as establishing an IPR regime. A widely held view in the developed world is that the IP system can only function as intended if complemented by an effective framework for competition policy. This raises the question of whether an IP system alone is a worthwhile goal for developing countries.

There is no easy solution to this dilemma. For LDCs, there is a good case for extending the transition period for the introduction of IPR regimes, but China can't enjoy this privilege. The case for developing a competition regime does not rest solely on its relationship with IPRs. The widespread privatization of state industries and increased concentration in many markets in the last two decades is another powerful reason for having an effective competition policy, as both developed and developing countries have learnt. We conclude therefore that a higher priority should be accorded to strengthening competition policies in the process of designing a balanced IPR regime.

5. More Involved in IPR Rules Making

Active participation is essential to ensure the legitimacy of standard setting and its appropriateness and relevance to nations at very different levels of development. The achievement of the Doha declaration, in part, reflected the fact that developing countries were able to present carefully developed, specific proposals that could be accommodated in WTO rulemaking. One clear implication of this, and a theme which emerged from much of our fieldwork, is that developing countries need the capacity to participate much more effectively in international IP negotiations, and on a regular rather than an exceptional basis.

To participate effectively, the government should focus on four factors. These are permanent representation in Geneva; appropriately staffed expert delegations able to attend meetings and negotiations; adequate technical support for policy analysis; and functional mechanisms for policy co-ordination and discussion in political center. These measures are important for ensuring good information flows back to domestic; participation in informal consultations and negotiations; alliance building with likeminded countries; eligibility for chairing meetings; and to enable better access to the services and assistance available from the international community.

A better understanding and participating in rules making may also significantly help the government reach more realistic and feasible agreements when conducting negotiations with their foreign partners. Agreements should not be excessively ballyhooed. Expectations must be kept realistic. The IPR problem is going to exist for a long time. Nonetheless, both sides must recognize that they will be held responsible for the commitments they make.

6. Enhancing the Technical Assistance

Cooperation between business and universities in IPR education and research is a well-known practice in countries with mature, solid IP-systems. Numerous training initiatives are already being undertaken by such organizations as the European Union, the United Nations Development Program, the U.S. Customs Service, and the WIPO, and it will be important for any new initiative to bring a value-added approach to whatever training program is adopted.

Under Article 67 of TRIPS, WTO Members from developed countries are obliged to provide technical and financial assistance to developing countries to facilitate its implementation. Most developed countries provide some sort of IP-related technical assistance to developing countries. This is done either bilaterally (mainly by national patent offices) or multilaterally. The principal international organizations involved in the provision of IP-related technical assistance to developing countries are WIPO, EPO, the World Bank, UNDP and UNCTAD. A number of non-governmental organizations are also active in undertaking research and providing technical assistance to developing countries in the area of IP.

The types of technical assistance which have been provided by donor organizations fall into the following broad categories: general and specialized training; legal advice and assistance with preparing draft laws; support for modernizing IPR administration offices and collective management systems; access to patent information services (including search and examination); exchange of information among lawmakers and judges; and the promotion of local innovation and creativity. As most donors do not have agencies in the locality, short-term advisory missions and consultants are normally deployed in developing countries to plan, deliver and monitor program activities.

The design and delivery of IP-related technical assistance to developing countries needs to be improved. It needs to be much better integrated with the overall national development strategy of individual countries. Moreover, given the lack of evaluation exercises yet undertaken, it is difficult to comment authoritatively on the impact and effectiveness of technical co-operation undertaken by the various donor organizations in specific regions. It is important for ensuring effectiveness and value for various practices.

Conclusion

The IPR problem in China's globalization is complex and will not be easily solved. The tension between those who produce advanced technologies and seek to obtain rewards for their innovations and those who seek to profit by copying the innovations of others is not unique to China. The outside world, and particularly the United States, should not lose sight of the progress that China has made in establishing an IPR regime nor underestimate the many obstacles that were overcome in establishing such a regime. Failure to acknowledge the progress and difficulties creates a perception in China of foreign arrogance.

Moreover, IPR is a realm in which Western institutions and practices are evolving rapidly and in which Western performance is far from adequate. Indeed, on many issues no consensus yet exists in the West on how best to handle the challenges presented by technological innovations. The industrial democracies have yet to agree on the "right" or "best" way to protect intellectual property rights in certain complex areas of rapid technological change. For all these reasons, the process of developing an effective IPR regime in China will be a protracted one. An important part of the large task now confronting all parties concerned is to foster Chinese institutions that

will sustain the rapidly industrializing economy and encourage an innovative society.

This does not mean that China should not be expected to develop an IPR regime. If Chinese government wishes to provide maximum financial incentives for innovation and make China an integral part of the international economy, they must protect the intellectual property rights of both Chinese citizens and foreigners. But the rest of the world must understand that China is attempting to create institutional arrangements in the absence of a mature legal system, without a well-defined sense of property rights, and with only a newly developed competitive market system.

The outside world should energetically assist China in creating an effective IPR regime not just for the profits to be derived, but in order to enable China to become a technologically advanced, innovative society in the 21st century.

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Annexes

Table 1. Communication and Computer Costs, 1960-2000

	Cost of a 3-minute Telephone Call, New York to London (in 2000 US$)	Price of Computers and Peripheral Equipment Relative to GDP deflator (2000 = 1000)
1960	60.42	1,869,004
1970	41.61	199,983
1980	6.32	27,938
1990	4.37	7,275
2000	0.40	1,000

Sources: *World Economic Outlook*, May 1997, Table 11, updated to 2000; U.S. Commerce Department, Bureau of Economic Analysis.

Table 2. Cost of Transportation, 1830-1990

	Ocean Transport		Average Air Transportation Revenue per Passenger Mile (in 1990 US$)
	Wheat, Percent of Production Costs	Ocean Freight 1920 = 100	
1830	79		
1850	76		
1880	41		
1910	27.5		
1920		100	
1930		65	0.68
1940		67	0.46
1950		38	0.30
1960		28	0.24
1970		29	0.16
1980		25	0.10
1990		30	0.11

Sources: Baldwin and Martin (1999); *World Economic Outlook*, May 1997, Table 11.

Table 3. Share in World Exports
(In percent)

	1960	1970	1980	1990	2000	2002	2003 Jan.–Jun.
China, P.R.: mainland	...	...	1.0	1.9	3.9	5.1	5.8
Germany	10.7	12.1	10.5	12.1	8.6	9.4	9.2
Japan	3.7	6.7	7.1	8.5	7.5	6.5	6.4
Korea	0.0	0.3	1.0	2.0	2.7	2.5	2.5
NIEs 1/	1.6	1.7	3.2	8.1	10.4	9.7	8.8
United States	19.4	15.3	12.0	11.6	12.1	10.8	10.4

Sources: IMF, *Direction of Trade Statistics* and CEIC.

1/ Newly industrilalized economies, comprising Hong Kong SAR, Korea, Singapore, and Taiwan Province of China.

Table 4. China: Tariffs, 1982–2002

	Unweighted Average	Weighted Average	Dispersion (standard deviation)	Maximum
1982	55.6	. . .	. . .	. . .
1985	43.3	. . .	. . .	. . .
1988	43.7	. . .	. . .	. . .
1991	44.1	. . .	. . .	. . .
1992	42.9	40.6	. . .	220.0
1993	39.9	38.4	29.9	220.0
1994	36.3	35.5	27.9	. . .
1995	35.2	26.8	. . .	220.0
1996	23.6	22.6	17.4	121.6
1997	17.6	16.0	13.0	121.6
1998	17.5	15.7	13.0	121.6
2000	16.4	. . .	. . .	. . .
2001	15.3	9.1	12.1	121.6
2002	12.3	6.4	9.1	71.0

Sources: Chinese authorities; UNCTAD; World Bank; WTO; and IMF staff estimates.

Table 5. Market Share in Major Export Markets
(Imports from China divided by total imports, in percent)

	1970	1980	1990	1995	2000	2002	2003 Jan.–Jun.
Japan	1.4	3.1	5.1	10.7	14.5	18.3	18.8
United States	0.0	0.5	3.2	6.3	8.6	11.1	11.3
European Union 1/	0.6	0.7	2.0	3.8	6.2	7.5	6.9

Source: IMF, *Direction of Trade Statistics*.

1/ Excluding intra-EU trade.

Table 6. Sources of Imports
(As a percent of China's total imports)

	1980	1990	1995	2000	2002	2003 Jan.–Jun.
Asia	15.0	41.0	47.1	50.6	53.1	54.9
ASEAN	3.4	5.6	7.4	9.8	10.4	10.5
Japan	26.5	14.2	21.9	18.4	18.1	17.7
Korea	...	0.4	7.8	10.3	9.7	9.5
Taiwan Province of China	...	...	11.2	11.3	12.9	11.6
European Union	15.8	17.0	16.1	13.7	13.1	12.0
United States	19.6	12.2	12.2	9.9	9.2	8.5

Sources: IMF, *Direction of Trade Statistics*, and CEIC database.

Table 7. Exports of Selected Countries to China
(In percent of their total exports)

	1980	1985	1990	1995	2000	2002	2003 Jan.–Jun.
Japan	3.9	7.1	2.1	5.0	6.3	9.6	11.1
Korea	0.0	0.0	0.0	7.0	10.7	14.7	16.2
Hong Kong SAR	6.3	26.0	24.8	33.3	34.5	39.3	46.4
Singapore	1.6	1.5	1.5	2.3	3.9	5.5	6.4
Indonesia	0.0	0.5	3.2	3.8	4.5	5.1	5.4
Malaysia	1.7	1.0	2.1	2.6	3.1	5.6	6.8
Philippines	0.8	1.8	0.8	1.2	1.7	3.9	3.9
Thailand	1.9	3.8	1.2	2.9	4.1	5.2	6.9
India	0.3	0.3	0.1	0.9	1.8	4.2	4.5
European Union 1/	0.8	1.8	1.2	2.2	2.7	3.4	3.5
United States	1.7	1.8	1.2	2.0	2.1	3.2	3.6
Germany	0.6	1.2	0.6	1.5	1.6	2.2	2.3

Source: IMF, *Direction of Trade Statistics*.
1/ Adjusted for intra-EU trade.

Table 8. Average Annual Export Growth Rates
(Percent change in export values in constant U.S. dollars)

Average Annual Export Growth Rates
(Percent change in export values in constant U.S. dollars)

	Period 1/	No. of Yrs.	Growth Rate
Japan	1954–81	27	14.2
Korea	1960–95	35	21.5
Malaysia	1968–96	28	10.2
China	1978–02	24	11.9
NIEs	1966–97	31	13.1

Source: IMF, *Direction of Trade Statistics*.
1/ Selected periods begin when sustained export expansion started, and end when the 3-year moving average export growth rate declined below 10 percent.

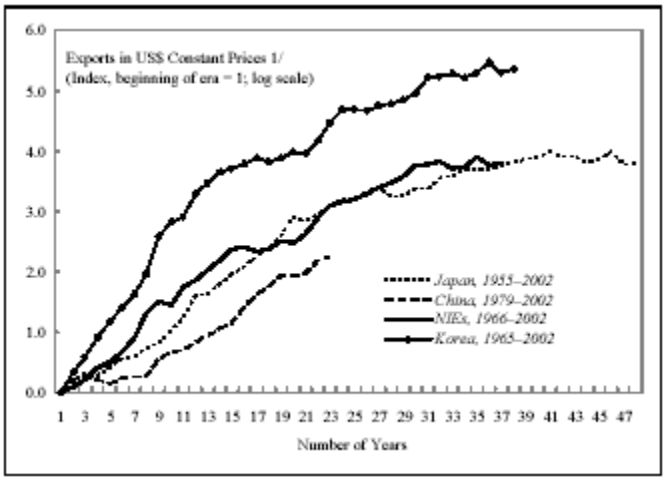

Table 9. Share of High-technology Goods in Manufacturing Value-added and Exports in Selected High-income Economies

	Value-added		*Exports*	
	1970	1994	1970	1993
Australia	8.9	12.2	2.8	10.3
Canada	10.2	12.6	9.0	13.4
France	12.8	18.7	14.0	24.2
Germany	15.3	20.1	15.8	21.4
Italy	13.3	12.9	12.7	15.3
Japan	16.4	22.2	20.2	36.7
United Kingdom	16.6	22.2	17.1	32.6
United States	18.2	24.2	25.9	37.3

Source: World Bank, World Development Report: Knowledge for Development, 1998/99, Washington, DC: World Bank, 1999:24.

Table 10. China's Bilateral Trade Balances with Selected Countries (In billions of U.S. dollars)

	1997	2002	2003	1997	2002	2003
	China Plus HK			China		
United States	41	74	88	16	43	55
European Union	9	18	29	5	10	18
Japan	14	-18	-30	3	-5	-14
Korea	-12	-19	-30	-6	-13	-21
Taiwan Province of China	-24	-42	-51	-13	-31	-37
Hong Kong SAR	...	...	...	37	48	61
ASEAN	-10	-18	-30	0	-8	-15
Others	6	-7	-11	-1	-13	-22
Total	-4	-12	-35	40	30	25

Source: CEIC database.
Notes: HK denotes Hong Kong SAR; ASEAN denotes the Association of Southeast Asian Nations.

End Notes

Mr. Johnny Xie got his Master's degree in Public Administration (MPA) from Shanghai Jiao Tong University. This paper was based on his graduation thesis and edited for the 3rd National MPA Forum of China in 2005.

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