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# Intellectual property protection related to technology in China

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## Abstract

The state of protection for technology in China is widely criticized from the point of view of incompleteness of the legal system as a whole. Much research dwells on the gap between the Chinese legal system and that in industrialized countries or international agreements. In comparison with the developed countries, China lacks core technologies. While holders of such technologies encounter serious problems in China, the Chinese government is not in an enviable position either. Due to the internal impetus and external pressure on China to strengthen protection for technology, China has made a giant stride and made a substantial progress in legislation, enforcement and other areas. However, designing an appropriate system for technology protection is so complex that China will unavoidably face many challenges. The reforms to be carried out in China will be based on the balance between economic and political consideration.

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## 1. Introduction

Intellectual property protection (IPP) has been one of the main concerns in the international commercial system. With the globalization of economic activities and the expansion of international transactions, both industrialized and developing countries have encountered new challenges in the intellectual property rights (IPR) regimes. In particular, the technically advanced countries have a

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large vested interest in the protection of intellectual property (IP) and call for high standards of protection at worldwide level because the majority of the world's IP is created within their boundaries. While as for developing countries, the dilemma in IPP is encountered. On the one hand, they have to reform their IPR regime in response to new international commitments, domestic economic reforms and external pressures; on the other hand, because IPR involves a lot of public interests, it is likely that the governments will take the social welfare into their consideration when they enforce the IPP.

Especially, protection of technology is the core of IP system, on the ground that the significant contribution of technologies to national and global economies has been long recognized. The protection of technology, which involves legislation, enforcement of IPP and other factors, has direct impacts on the technological transfer, trade flows, foreign direct investment (FDI), research and development (R and D) and other commercial activities. Because these activities often occur accompanied by cross-abroad flows of technology from industrialized countries to developing countries, where the IPP generally is weak, the level of IPP there becomes the primary concern of IP holders. China, due to its huge market and the lack of high technologies, is a promising and profitable objective of market expansion for oversea IP holders. However, although China has successfully joined WTO and been bound by Trade-Related Aspects of Intellectual Property Rights (TRIPs) Agreement, the imperfect system of IPR in China cannot satisfy the requirements of industrialized countries and their IP holders. Consequently, it becomes one of the biggest issues and the main barrier in international commercial activities involving technology. Moreover, the development of some domestic industries that need IPP is also a stimulus of reform in this realm.

## 2. The role of technology in the global economy and the Chinese economy

With the development of global economy, technologies have been indispensable elements in both production and transaction. On the one hand, technologies may improve the rate of productivity which often results in more profitability. Especially, in many industrialized countries, the economic growth mainly depends on the development of technologies. Generally, for example, in the recent years, the growth of GDP in the United States, Japan, Germany and England is consistent with their ability of innovation, domestic technology level and investment in R and D. Table 1, in which the amount of

Table 1  
GDP, High-tech exports and R and D in some developed countries<sup>a</sup>

	GDP (current US\$)			High-technology exports (percentage (%) of manufactured exports)			R and D expenditure (percentage (%) of GDP)		
	1990	1995	2000	1990	1995	2000	1990	1995	2000
United States	5.75E+12	7.34E+12	9.81E+12	32.3	30.2	33.2	2.77	2.5	2.69
Japan	3.05E+12	5.29E+12	4.77E+12	23.8	26	28.1	3.03	2.87	2.98
United Kingdom	9.90E+11	1.13E+12	1.43E+12	23.1	26.1	31	2.2	1.98	/
France	1.22E+12	1.55E+12	1.31E+12	15.9	19	23.9	2.38	2.32	2.15
Germany	1.69E+12	2.46E+12	1.87E+12	11.6	13.1	17.6	2.72	2.27	2.48

<sup>a</sup> Source: World Development Indicators (WDI) database World Bank 2002.

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