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**China's Exports of Advanced Technology Products  
to the United States**

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## CHINA'S EXPORTS OF ADVANCED TECHNOLOGY PRODUCTS TO THE U.S.

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This briefing provides an overview of the magnitude and composition of Chinese exports of advanced technology products (ATPs) to the U.S., and shows how such exports are differentiated from Chinese ATP exports to the rest of the world (ROW). It demonstrates that Chinese ATP exports to the United States have expanded rapidly in recent years, becoming increasingly concentrated in consumer electronics—a category which include computers, TVs, telephones, printers/monitors, and cameras. An accompanying briefing on U.S. ATP exports to China provides complementary findings, by imposing similar ATP definitions on U.S. trade data.<sup>1</sup>

**Definition & Data:** “Advanced technology products” simply denotes high-technology goods. For statistical purposes, this briefing employs the U.S. Census Bureau definition, given that this definition broadly attempts to capture innovation through a dynamic approach to data classification, does not appear to be influenced by policy objectives, and lacks a competing international standard.<sup>2</sup> For simplicity, assumptions were made to best approximate Chinese ATP trade category values, given the imposition of more precise U.S. ATP definitions on Chinese trade data.<sup>3</sup> Likewise, this paper also disregarded known differences in U.S. and Chinese trade statistics (much of which derives from how Hong Kong trade flows are classified), given anecdotal evidence that such discrepancies are relatively small for ATP products.

**Trends:** U.S. ATP imports from the world amounted to more than \$300 billion in 2008, and have been growing steadily in recent years. China has been the source behind much of this growth, contributing as much as 28% of U.S. ATP imports in 2008, compared with 7% in 2000 (Figure 1).

U.S. total imports from China are also becoming increasingly specialized in ATP products. In 2000, 12% of U.S. imports from China were in ATP products, which grew to 27% by 2008 (Figure 2). Although annual revisions to the ATP product definitions might qualify some of this growth if ATP selection criteria became progressively restrictive, such revisions would nonetheless be minor compared to overall ATP

Figure 1: U.S. ATP IMPORTS  
(In \$US Billions)

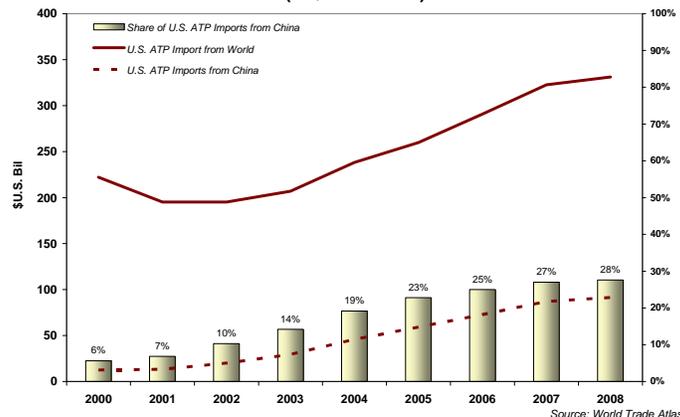
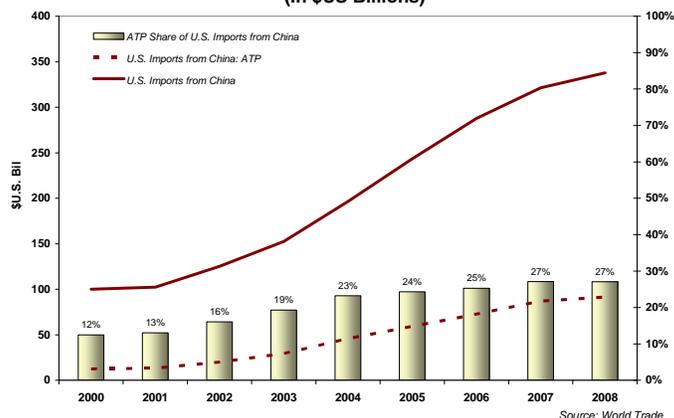


Figure 2: U.S. ATP IMPORTS FROM CHINA  
(In \$US Billions)



<sup>1</sup> See Hammer, Koopman, and Martinez, “U.S. Exports of ATP to China” (2009).

<sup>2</sup> See Ferrantino, Koopman, Wang, & Yinug, “Classification and Statistical Reconciliation of Trade in ATP” (2008).

<sup>3</sup> U.S. ATPs are defined at the HS-10 digit level, which is not directly comparable to the Chinese HS-10 digit level. For simplicity, we have assumed that every Chinese HS-6 digit category (which is comparable to the United States’ HS-6 digit category) that included a HS-10 digit product under the U.S. Census definition was an ATP category.

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trade values. Moreover, if such revisions broadened the scope of what was considered an ATP product throughout the considered period, they would not alone account for the clear and systematic trend towards ATP trade specialization in Chinese exports to the U.S..

U.S. ATP imports from China are mostly comprised of informational & communication products – nearly 90% in 2008 alone (Figure 3). This group mainly consists of consumer electronics such as computers and their parts, telephones TVs, monitors, and cameras. The other large U.S. ATP import category from China is opto-electronics (7% in 2008), a category broadly composed of other consumer electronic products such as flat screen monitors and projectors, printers, and solar panels. U.S. information and communication ATP imports from China have grown from \$10 billion in 2000 to nearly \$80 billion in 2008, while opto-electronics have grown from \$1.5 billion to \$6.5 billion over the same period.

**Distinctive Features of Chinese ATP Exports to the United States.** Chinese ATP exports to the U.S. assume a different profile than Chinese ATP exports to the ROW –particularly in the information & communication, electronics, and opto-electronics sectors. As seen in Figure 4, information and communication accounted for roughly 82% of China’s ATP exports to the United States in 2008., verses 73% to the ROW. This reflects a greater specialization of Chinese ATP information and communication exports to the United States. What commands greater attention is the dynamic element to this trade phenomenon, as shown in the differences between China’s export shares to the U.S. and the ROW (Figure 5). As early as 2001 and 2004, China was more specialized in exports of the products to the ROW than the United States- which has gradually shifted. Chinese exports of opto-electronic goods also appeared more specialized to the United States than the ROW in 2001 and 2004, but have been converging towards the profile of China’s exports to the ROW in recent years.

In contrast to Chinese information and communication and opto-electronic trends, Chinese electronic ATP exports have been notably concentrated in the ROW relative to the United States –a trend that has become more pronounced since 2001.

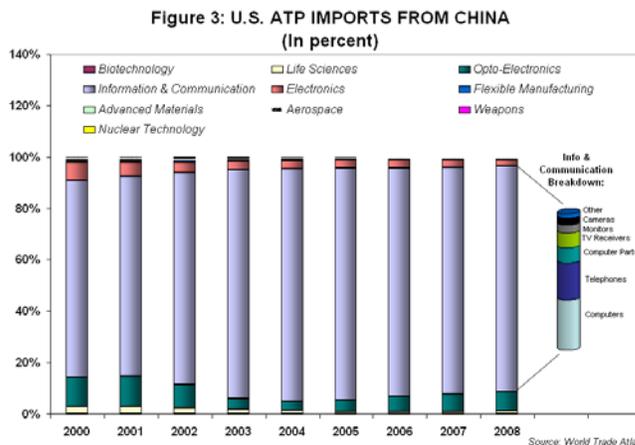


Figure 4: COMPOSITION OF CHINA'S ATP EXPORTS TO THE U.S. AND ROW (2008)

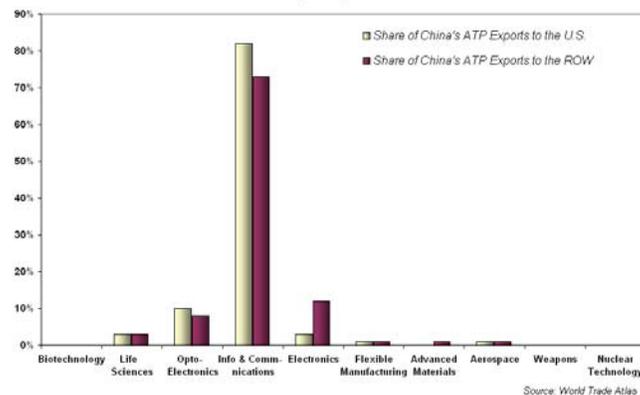


Figure 5: DIFFERENCE BETWEEN CHINA'S ATP EXPORT SHARE TO THE U.S. AND ROW, 2001-08

