

China, WMD Proliferation, and the "China Threat" Debate

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This article argues that Chinese WMD proliferation activities have played a unique and modest but also enduring role in the "China threat" debate in the United States. Chinese arms sales have raised two types of concerns for the United States, both of which have shifted over time. First, the initial U.S. concerns in the late 1980s and early 1990s were narrowly based on direct threats to material U.S. national security interests stemming from Chinese WMD-related exports to countries in the Middle East. In this sense, the intellectual origins of the "China threat" debate lie in Chinese proliferation activities. From the early 1990s onward, however, the locus of U.S. concerns about Chinese weapons exports shifted to the broader political issue of China's intentions as an international actor. Many began to see Chinese proliferation behavior as an indicator of whether China would accept or reject the norms and rules of the international system, whether China plans to challenge U.S. influence in particular regions, and whether China can be trusted to adhere to its commitments. Furthermore, this article maintains that the U.S. discourse about Chinese proliferation has become detached from the narrowing scope of Chinese proliferation activities and Beijing's limited acceptance of the international nonproliferation regime. In the last five years China's proliferation activities have declined significantly and to a limited extent have dovetailed with U.S. nonproliferation goals; little of this progress, however, has been reflected in the current debates about the "China threat."

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KEYWORDS: China; proliferation; weapons sales; U.S.-China relations; "China threat"

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For the last decade, U.S. policymakers and scholars have been engaged in an ongoing debate about the appropriate economic, security, and foreign policies the United States should adopt toward a rising China. This discourse has been particularly intense in the last five years and has pitted experts at two ends of a policy spectrum defined by containment of China at one end and engagement at the other. The two questions at the heart of this debate have been (1) will China, as a rising power, become a systemic challenge to the evolving global order in economic, military or cultural-ideological terms, and (2) how should the United States respond to China's ascendancy? In an attempt to answer the latter question, the containment/engagement debate has produced an intriguing taxonomy of policy options including comprehensive engagement, conditional engagement, coercive engagement, constructive engagement, constraint and, most recently, conengagement.¹ Each of these policy prescriptions recommends that U.S. policymakers adopt a different mix of incentives and disincentives to shape China's external behavior in an attempt to fold Beijing into the international system of rules, norms, and institutions. This cottage industry also spawned additional intellectual offspring in the form of a sub-debate over the "China threat." This latter discussion, as well as the broader engagement/

¹The case for *comprehensive engagement* is promoted by the Clinton administration and is outlined in Kenneth Lieberthal, "A New China Strategy," *Foreign Affairs* 74, no. 6 (November/December 1995): 35-49; *conditional engagement* is outlined in James Shinn, ed., *Weaving the Net: Conditional Engagement with China* (New York: Council on Foreign Relations, 1996); *coercive engagement* is suggested by Michael J. Mazarr, "The Problems of a Rising Power: Sino-American Relations in the 21st Century," *Korean Journal of Defense Analysis* 7, no. 2 (Winter 1995): 7-40; *constructive engagement* is advocated by Audrey and Patrick Cronin, "The Realistic Engagement of China," *Washington Quarterly* 19, no. 1 (Winter 1996): 141-70; the case for *constraint* is made in Gerald Segal, "East Asia and the Constraint of China," *International Security* 20, no. 4 (Spring 1996): 107-35; and finally *conengagement* is articulated in Zalmay Khalilzad et al., *The United States and a Rising China: Strategic and Military Implications* (RAND Report, MR-1082-AF, 1999). A comprehensive piece that sets forward four distinct policy options is Daniel Byman, Roger Cliff, and Phillip Saunders, "U.S. Policy Options Toward an Emerging China," *Pacific Review* 12, no. 3 (1999): 421-51.

containment discourse, sought to analyze China's economic growth potential, military modernization, and security and foreign policies to evaluate whether China represents a challenge to U.S. global influence and to stability in Asia.

This article addresses the broad questions raised in these debates by focusing on a narrow aspect of Chinese behavior: China's proliferation activities related to weapons of mass destruction (WMD).² What role have China's proliferation activities played in U.S. debates about China policy and how has that role shifted and changed in recent years? To what extent are the U.S. debates about Chinese proliferation consistent with changes in China's behavior in recent years? China's WMD proliferation activities are particularly relevant to the U.S. debates about China policy because Chinese arms exports have been a source of significant and continued controversy in Sino-U.S. relations for over a decade. Washington and Beijing have engaged in numerous contentious disputes over proliferation and the United States has imposed sanctions on China several times for its weapons exports activities. Chinese proliferation has been viewed by many in the United States as threatening to U.S. national security interests on the one hand, and as an indicator of Chinese intentions, on the other. These views have been most readily expressed as part of the "China threat" debates. Furthermore, while no single issue—including Chinese proliferation activities—has dominated the "China threat" debate, the proliferation case study highlights important dynamics in the U.S. debates such as the interplay among three key factors: U.S. domestic politics, China's changing approaches to bilateral and multilateral negotiations, and the differing U.S. perceptions of Chinese proliferation activities. Thus, the proliferation case study provides a useful framework for understanding the evolution of the "China threat" debate in the United States and its component parts.

The central argument of this paper is that there is an irony in analyzing

²For the purposes of this paper, WMD is broadly defined to include nuclear weapons, chemical weapons, biological weapons, and delivery systems such as ballistic and cruise missiles. However, this paper does not address biological weapons because there are few consistent and reliable reports in the open-source literature about Chinese exports of biological weapons-related items.

ing the role of weapons proliferation issues in U.S. debates about engaging or containing China. China's weapons exports to Middle Eastern countries in the latter half of the 1980s represented one of the first instances in which Beijing's activities threatened U.S. national security interests and signaled China's potential challenge to U.S. global influence. In this sense, the intellectual origins of the "China threat" debate arguably lie in Chinese weapons exports. Yet, these proliferation activities have never played a dominant role in U.S. debates about China but rather have served as an enduring U.S. worry; concerns about Chinese proliferation have been amalgamated with more prominent concerns about China's military modernization, the burgeoning Chinese economy, and the intentions of the non-democratic regime in Beijing. China's proliferation activities have raised two issues for U.S. policymakers. The initial U.S. concerns in the late 1980s and early 1990s were narrowly based on *direct* threats to *material* U.S. national security interests stemming from Chinese WMD-related exports to countries in the Middle East, particularly Iran. From the early 1990s onward, the locus of U.S. concerns about Chinese weapons exports shifted to the broader political issue of China's intentions as an international actor. Many began to see Chinese proliferation behavior as an indicator of whether China would accept or reject the norms and rules of the international system, whether China plans to challenge U.S. influence in particular regions, and whether China can be trusted to adhere to its commitments. These three questions were central to determining the efficacy of an engagement policy with China.

Despite the continuing role of proliferation in the "China threat" debate, the U.S. discourse about Chinese proliferation has become detached from the narrowing scope of Chinese proliferation activities and Beijing's limited acceptance of the international nonproliferation regime. In the last five years China's proliferation activities have declined significantly and to a limited extent have dovetailed with U.S. nonproliferation goals. While worrisome Chinese exports to nations like Iran, Pakistan, and North Korea continue, the scope, content, and frequency of Chinese exports have declined. The nature of the "China proliferation" problem has changed but these shifts have not yet been acknowledged in many U.S. circles and especially in Congress.

In addressing these issues, this article is divided into two parts. The first places China's proliferation behavior in the context of U.S. debates about the "China threat" with particular emphasis on the shifts over time in the nature of U.S. concerns about Chinese proliferation and the influence of key individuals in these debates. The second part examines the narrowing scope of Chinese WMD exports and the extent to which the empirical trends in Chinese proliferation activities have become removed from U.S. debates about this issue.

The Role of Chinese WMD Proliferation Activities in U.S. Debates

Both the debate in the United States about containing versus engaging China and the sub-debate about the "China threat" center on two main elements of Chinese behavior: intentions and capabilities. Varying (and often conflicting) interpretations of these two factors have led policymakers and scholars to offer different projections of China's future role in global affairs and the appropriate U.S. responses to China's rising power. China's WMD proliferation activities, however, have played a modest role in these discussions. Beijing's WMD exports, especially missile cooperation with Iran and Pakistan, are often mentioned but have never been a driving element in these debates. Rather, policymakers and scholars focus on a variety of other indicators of Chinese intentions and capabilities. These include: Chinese actions in the South China Sea, Chinese military policies toward Taiwan, domestic political dynamics in China with particular emphasis on the growth of nationalism, the military's role in politics and the future of the Chinese Communist Party, the overall character of China's foreign policy, projections of China's economic growth, and military modernization.³ In

³For some of the major articles promoting the "China threat" hypothesis, see: Richard Bernstein and Ross H. Munro, "China I: The Coming Conflict with China," *Foreign Affairs* 76, no. 2 (March/April 1997): 12-22; Denny Roy, "The 'China Threat' Issue: Major Arguments," *Asian Survey* 36, no. 8 (August 1996): 758-71; Denny Roy, "Hegemon on the Horizon? China's Threat to East Asian Security," *International Security* 19, no. 1 (Summer 1994): 149-68; Segal, "East Asia and the Constraint of China"; Gideon Rachman, "Containing China," *Washington Quarterly* 19, no. 1 (Winter 1996): 129-40. Interestingly, in Denny

this sense, proliferation has been a persistent but not a dominant element in the U.S. policy debates about China.

Despite this less prominent role, China's WMD exports have generated two types of U.S. concerns which have shifted over time. First, many of China's WMD-related exports in the late 1980s and early 1990s were seen as *direct* threats to *material* U.S. national security interests. During this period, Chinese proliferation was the focus of the "China problem." Interestingly, China's missile and nuclear exports raised the very first questions about China's intentions and the extent to which these were compatible with U.S. foreign policy goals and national security interests. In this sense, the origins of the "China threat" reside in Beijing's proliferation activities even though proliferation issues were marginal to the broader U.S. debates about China in the latter half of the 1990s.

Second, the nature of U.S. concerns shifted in the early 1990s as Sino-U.S. discussions about Chinese proliferation were characterized by a pattern of Chinese denial and evasion, followed by vague assurances and narrow interpretations of its commitments. This pattern generated growing concern about Beijing's credibility and reliability. In this sense, China's proliferation behavior became symbolic of the "China problem." These concerns were augmented by China's propensity to sell weapons and related technologies to "rogue" regimes in the Middle East, which gave Chinese activities a distinctly anti-American flavor. Collectively, this second set of issues raised profound questions about Chinese intentions such as whether China was willing to become a responsible member of the international community and whether Beijing sought to challenge U.S. global influence by expanding its own. These questions continue to play a prominent role in current U.S. debates about engaging China.

Direct Threats to U.S. National Security Interests

In the early 1980s, China's role as an international arms merchant

Roy's 1996 *Asian Survey* article on the "China threat" debate, Chinese proliferation activities are *never* mentioned. For a thoughtful criticism of these positions, see David Shambaugh, "Containment or Engagement of China: Calculating Beijing's Responses," *International Security* 21, no. 2 (Fall 1996): 180-209.

began to expand dramatically. For China, these deals provided the opportunity for aging defense factories to survive in the face of drastically reduced government procurement and a means to gain hard currency to fund purchases of foreign technologies for military modernization. By the middle part of the decade, Beijing had begun to expand its arms selling beyond conventional weapons to include exports of ballistic and cruise missiles to a variety of nations in the Middle East. For the United States, China's new missile exports directly threatened U.S. national security interests in the Middle East.

China's sales of HY-2 Silkworm cruise missiles to Iran in the latter half of the 1980s was the first major deal to attract significant U.S. attention. Iran's purchase of the Silkworms represented a qualitative leap in Iranian anti-ship missile capabilities. The Silkworm's range was several times greater than Iran's most capable system and its 550 kilogram payload permitted the delivery of WMD warheads. Adding to U.S. concerns was the fact that Iran mounted the Silkworms on platforms near the mouth of the Strait of Hormuz, allowing Tehran to threaten oil tankers transiting through the Persian Gulf. The Iranians also demonstrated a willingness to use these missiles. Between 1986 and 1987, Iranian patrol boats fired Chinese-supplied Silkworms at three oil tankers in the Persian Gulf. U.S. concerns about the Silkworms became particularly acute in May 1987 when the United States agreed to re-flag Kuwaiti tankers as a means of offering protection from Iran. These ships essentially became U.S. vessels operating under the protection of the U.S. Navy. According to Assistant Secretary of State Richard Murphy, Iran's possession of Silkworm missiles "represented for the first time a realistic Iranian capability to sink large oil tankers."⁴ Although not violating any international nonproliferation agreements, China's Silkworm exports directly affected U.S. security interests. U.S. concerns about China's missile exports culminated in the imposition of sanctions in October 1987 which suspended the ongoing liberalization of high-tech exports to China such as supercomputers. These sanctions

⁴U.S. Policy in the Persian Gulf," *Department of State Bulletin*, October 1987; Don Oberdorfer, "U.S. Warns Tehran on Missile Menace," *Washington Post*, March 20, 1987.

were lifted five months later when Beijing pledged not to continue further Silkworm exports to Iran.

China's sale of some thirty DF-3 intermediate-range ballistic missiles to Saudi Arabia further heightened concerns about the threats to U.S. national security interests posed by China's missile exports. China's sale of the DF-3 came only a few months after Beijing pledged to stop selling Silkworms to Iran in exchange for the removal of sanctions. The DF-3 sale in 1988 shocked U.S. policymakers and sensitized them to the dangers posed by China's willingness to introduce destabilizing military technologies like ballistic missiles into unstable regions of the world.⁵ The DF-3 missile was the longest-range system in any Middle Eastern arsenal and possessed a payload large enough for the delivery of either a nuclear weapon or a high-explosive conventional warhead. Given these capabilities, the Chinese missile was viewed as a direct threat to Middle East stability, to Israeli security, and possibly to the free flow of oil in that region.⁶ The Sino-Saudi deal also raised additional questions about whether more missile exports were on the way.

These U.S. concerns were validated when Chinese firms began marketing and selling M-9 (600 km/500 kg) and M-11 (290 km/800 kg) missiles to Iran, Syria, Libya, and Pakistan. The United States had poor relations with all of these nations and considered all (save Pakistan) to be "rogue states" which actively supported anti-U.S. activities such as terrorist attacks on U.S. forces and directly threatened Israeli security. In the case of Pakistan, U.S. officials worried about the outbreak of a regional arms race following the introduction of ballistic missiles into the region; the short flight times between Islamabad and New Delhi combined with the relative lack of defense against missiles (as opposed to strike aircraft) in-

⁵The irony behind the U.S. reaction to China's DF sale to Saudi Arabia is the fact that the Saudis purchased the Chinese missiles precisely because the Reagan administration was unwilling to sell Saudi Arabia F-15 fighters. See James Mann, *About Face: A History of America's Curious Relationship with China from Nixon to Clinton* (New York: Alfred A. Knopf, 1999), 169.

⁶Jim Mann, "Threat to Middle East Military Balance: U.S. Caught Napping by Sino-Saudi Missile Deal," *Los Angeles Times*, May 4, 1988; David Holley, "China Defends Its Sales of Mid-Range Missiles to Saudis," *ibid.*, April 7, 1988; Daniel Southerland, "China Assures Carlucci on Mideast Arms Sales," *Washington Post*, September 8, 1988.

creased the risk of preemption during periods of crisis instability. Many U.S. analysts believed that a military conflict between India and Pakistan could easily escalate to the nuclear level.

By early 1990, Syria had reportedly signed a contract with China and provided advance funds for the missile. Syria's possession of the M-9 would have been uniquely detrimental to Israeli security. Given its 600-km range, the M-9 would—for the first time—provide Syria with the ability to successfully invade Israel by giving Syria the capability to completely disrupt Israel's second- and third-echelon mobilization efforts through missile strikes.⁷ In addition, Iran was actively negotiating with authorities in Beijing for the purchase of the M-9 missile. This system would provide Tehran with the capability to strike U.S. forces stationed in the Persian Gulf; this was seen as a real possibility given the strong anti-U.S. rhetoric coming out of Iran at the time.⁸ According to testimony on China's proliferation activities by a former senior U.S. official, "It appears that Iran may serve as a threatening Middle Eastern surrogate for China."⁹

China's missile exports in the late 1980s and early 1990s were coupled with exports of nuclear materials, equipment, and technologies with possible applications for nuclear weapons development. These deals placed China at the center of U.S. nonproliferation concerns. In 1988, the United States detected that China was helping Algeria to secretly build a small research reactor in the middle of the desert. Many aspects of the reactor—such as its location far from population centers and close to surface-to-air missile batteries combined with the absence of electrical transmission lines—suggested the facility was intended for military nuclear activities.¹⁰ China also began to expand its nuclear cooperation with

⁷For this scenario, see Martin Navias, *Ballistic Missile Proliferation in the Third World*, Adelphi Paper #252 (London: International Institute for Strategic Studies, Summer 1990).

⁸Gordon Jacobs and Tim McCarthy, "China's Missile Sales: Few Changes for the Future," *Jane's Intelligence Review*, December 1992, 562; for an analysis of the motivations for China's M-9 and M-11 exports, see Hua Di, "China's Case: Ballistic Missile Proliferation," in *The International Missile Bazaar*, ed. William C. Potter and Harlan W. Jencks (Boulder, Colo.: Westview Press, 1995), 163-80.

⁹"Testimony of Sven F. Kramer before a Hearing on China's MFN Status before the Senate Foreign Relations Committee" (June 6, 1996).

¹⁰For details on the Algeria deal, see Barbara Gregory, *Algeria: Contemplating a Nuclear*

Iran. China sold two cyclotrons for uranium enrichment to Iran in 1989, concluded a deal for a 20-megawatt power reactor, and since 1988 had been training Iranians in China on basic nuclear physics and reactor operation.¹¹ In addition, China's longstanding nuclear weapons-related assistance to Pakistan appeared to continue. China reportedly provided Pakistan with a basic nuclear bomb design, enough highly enriched uranium (HEU) for two weapons, possibly some tritium for boosted weapons, and help in constructing fissile material production facilities.¹²

These activities were viewed as particularly threatening because of China's unwillingness—until the early 1990s—to sign onto any of the international nonproliferation agreements. Beijing's lack of participation suggested that Chinese exports might continue unabated. For decades, China rejected the Nonproliferation Treaty (NPT) as inherently discriminatory and as a tool for the nuclear weapon states to qualitatively improve their arsenals while placing nonnuclear nations at a disadvantage. Beijing also rejected many of the informal nuclear supplier control regimes such as the Zangger Committee and the Nuclear Suppliers Group (NSG). Following the creation of the Missile Technology Control Regime (MTCR) in 1987, China had similar complaints, protesting that Beijing would not adhere to a discriminatory accord that it had no part in negotiating. Given Beijing's public complaints about key nonproliferation treaties and agreements, China unsurprisingly possessed very little bureaucratic or regulatory infrastructure for addressing nonproliferation issues in the late 1980s and early 1990s.

*Chinese Proliferation Activities
as an Indicator of Chinese Intentions*

The U.S. concerns about Chinese weapons exports as a direct threat to material U.S. national security interests were largely confined to the late

Weapon Option? (McLean, Va.: Science Applications International Corporation, March 25, 1995).

¹¹For details on Sino-Iranian nuclear cooperation, see Rodney Jones et al., *Tracking Nuclear Proliferation 1998* (Washington, D.C.: Carnegie Endowment for International Peace, 1998), 49-60.

¹²Ibid.

1980s and early 1990s. From that point onward, however, the United States and China began to engage in serious and continued dialogues on nonproliferation issues and China began to assume some limited multilateral and bilateral nonproliferation commitments. In this changing context, the locus of U.S. concerns gradually shifted to fears of China's intentions as a rising power based on two patterns of Chinese behavior: the PRC's continued proliferation activities and suspect compliance with its nonproliferation pledges.¹³

Regarding proliferation, China's behavior began to raise a newer set of profound questions concerning Beijing's long-term intentions, its desire to undermine U.S. influence, and U.S. ability to trust the Chinese. Is China willing to play by the established rules of the international system or is China trying to undermine the established international rules, norms, and institutions? Will Beijing try to change the international nonproliferation regime and will this include an effort to weaken U.S. influence in certain regions? Can China be trusted to fulfill its existing bilateral and multilateral nonproliferation commitments? These questions have kept China's proliferation activities as a persistent element in domestic debates about engagement versus containment and the "China threat."

This second set of U.S. concerns is based on several Sino-U.S. disputes about China's nuclear and missile exports and China's interpretations

¹³To be sure, China's sale of C-802 anti-ship cruise missiles and associated production technology to Iran in 1996 rekindled some of the U.S. earlier fears about the threats to U.S. forces from Chinese missile exports to the Middle East. As with the Silkworm deal in 1987, the C-802 represented a qualitative leap in Iran's anti-ship capabilities. Yet, this deal appears to have been an isolated incident in the 1990s and by 1997 the United States and China reached a bilateral agreement in which China agreed to ban future exports to Iran of C-801 and C-802 missiles and their production technologies. The CIA has verified in recent years China's compliance with that pledge. For details on the Sino-Iranian missile deal, see Barbara Starr, "Iran Adds a New Threat with Cruise Missile Test," *Jane's Defence Weekly*, February 7, 1996, 14. For the U.S. assurances, see Barton Gellman, "Reappraisal Led to New China Policy," *Washington Post*, June 22, 1988, 1; Barton Gellman, "U.S. and China Nearly Came to Blows in 1996," *ibid.*, June 21, 1998, 1; Steve Erlanger, "U.S. Says Chinese Will Stop Sending Missiles to Iran," *New York Times*, October 11, 1997, 1. For the CIA verification, see "Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions: 1 January Through 30 June 1998" (The Nonproliferation Center, Directorate of Central Intelligence, Central Intelligence Agency, February 9, 1999). See <<http://www.cia.gov/cia/publications/bian/bian.html>>.

of its nonproliferation commitments. In the eyes of U.S. policymakers, a pattern of behavior emerged in which Chinese officials denied deals despite U.S. evidence to the contrary, provided only vague assurances when pressed, and then narrowly and legalistically interpreted agreements to justify future exports. The fact that many of these exports were destined for anti-U.S. regimes in the Middle East, particularly Iran, further heightened worries about Beijing's willingness to arm U.S. enemies. In addition, the haphazard nature of many of China's weapons exports suggested that the Chinese government had little control over arms export firms, which diluted the value of many of the Foreign Ministry's nonproliferation pledges. The U.S. perceptions of this pattern of Chinese behavior are based on a number of bilateral incidents detailed below.

In the late 1980s and during the height of Sino-U.S. strategic cooperation, China's weapons exports and Beijing's reactions to U.S. complaints generated initial questions about China's credibility and intentions. In 1987 Chinese officials vehemently denied transferring Silkworms to Iran and further denied selling any arms to either Iran or Iraq during their ongoing war—even though China was the most significant supplier to both sides.¹⁴ Chinese officials called the U.S. reports "sheer fabrication" and even denied the deal when presented with satellite photos showing the missiles being loaded onto a vessel in China and being off-loaded in an Iranian port. Although Beijing argued that the Iranians got the missiles from the international arms market, China finally agreed (after the United States lifted sanctions imposed earlier) to take "strict measures" to prevent further Silkworms from reaching Iran.¹⁵ Only months after the Silkworm controversy, the PLA-run company Poly Technologies Inc. (Baoli Gongsi) sold approxi-

¹⁴This denial is well documented in Mann, *About Face*; R. Bates Gill, *Chinese Arms Transfers: Purposes, Patterns, and Prospects in the New World Order* (Westport, Conn.: Praeger, 1992).

¹⁵China's argument that the missiles were "diverted" from the international arms market was probably a reference to China's transshipment of the missiles through North Korea to recipients in the Middle East. Transshipment through North Korea provided Beijing with plausible deniability that the government was involved in the Silkworm sale. See Lena Sun, "China Strongly Denies Selling Arms to Iran," *Washington Post*, June 11, 1987; David K. Shieler, "U.S. Informs China High-Tech Exports Could Be Widened," *New York Times*, March 10, 1988.

mately thirty-five DF-3 missiles to Saudi Arabia. For U.S. officials, the deal reflected a complete lack of recognition on the part of the Chinese of the risks associated with introducing intermediate-range ballistic missiles with WMD capabilities into a region with such a precarious military balance. After bilateral discussions on this issue, Chinese officials only provided their U.S. counterparts with vague assurances that Beijing would act "very prudently" and would no longer sell "intermediate-range" missiles.¹⁶ Neither of these terms were defined and both were left open to interpretation.

The DF-3 deal combined with the prior controversy over the Silkworms led to an initial questioning of China's intentions and a gradual erosion of trust, even during the apex of Sino-U.S. strategic relations in the late 1980s. Many in the United States began to express worries about whether China would be a long-term partner of the United States. In a private letter to Chinese leaders following the DF-3 sale, Secretary of State George Shultz stated that "the introduction of Chinese intermediate-range ballistic missiles into the Middle East has the potential to create serious doubts in the United States and elsewhere over China's policies and intentions."¹⁷ In addition, China's missile sales led to serious doubts about the value of the then-robust Sino-U.S. defense cooperation. According to Eden Woon, a former Pentagon China specialist:

The frustration level at the Pentagon in the latter half of 1987 rose steadily as the Chinese continued to avoid the Silkworm issue. This lack of candor compounded by speculations about Chinese Silkworms sales/deliveries to Iran and anxiety about the safety of U.S. naval vessels in the Gulf escort operation, eroded the goodwill toward China by many in the U.S. defense establishment. Some even questioned the basic worth of a military relationship with China. . . . To many who did not trust China because of the Silkworm, however, sales to Saudi Arabia provided further proof that Chinese arms sales policy was in conflict with U.S. interests.¹⁸

In the early 1990s, a pattern of denials, ambiguous assurances, and narrow interpretations of existing commitments by the Chinese became

¹⁶Southerland, "China Assures Carlucci on Mideast Arms Sales."

¹⁷This letter was recently declassified and is cited in Mann, *About Face*, 170.

¹⁸Eden Woon, "Chinese Arms Sales and U.S.-China Military Cooperation," *Asian Survey* 29, no. 6 (June 1989): 601-18; and Mann, *About Face*, 168.

apparent to the United States. This behavior (especially the blunt denials) generated growing concerns for U.S. policymakers. Could China be trusted to meet its nonproliferation commitments? Did Beijing lack the willingness to implement and enforce its commitments? And if so, then what did this indicate about China's intentions as a global power and U.S. approaches to China? The veracity of China's nonproliferation pledges had especially important implications for the entire bilateral relationship given the growing institutionalization of the Sino-U.S. relations. Since normalization, Washington and Beijing had reached tens of agreements ranging from economically relevant trade accords, to politically sensitive agreements on cultural exchanges, to strategically significant military-to-military discussions. Yet, China's willingness to carry out these promises was now being called into doubt.

This pattern of intransigent behavior became readily apparent to U.S. policymakers when Chinese firms began marketing and selling M-9 and M-11 missiles to countries in the Middle East, South Asia, and North Africa. In particular, the Sino-U.S. dispute over China's M-11 exports to Pakistan highlighted U.S. doubts about Chinese intentions stemming from Beijing's denials, weak assurances, and narrow interpretations of its commitments.

In May 1991, the United States imposed sanctions on China for the sale of a single M-11 test-missile to Pakistan which violated a U.S. law linked to the MTCR prohibitions.¹⁹ After bilateral negotiations and in exchange for lifting of sanctions, China provided the United States in November 1991 with a pledge that it would "intend to adhere to the guidelines and parameters of the MTCR." Although seen as a breakthrough at the time given China's general disdain for the MTCR, this promise was fraught with ambiguities that took almost a decade to clarify. First, the initial MTCR commitment was inherently weak. As former U.S. Secretary of State James Baker noted in his memoirs:

¹⁹See Testimony of Dr. Gordon Oehler, "Hearing on the Proliferation of Chinese Missiles" (Senate Foreign Relations Committee, U.S. Senate, June 11, 1998). The sanctions imposed were Category II MTCR sanctions as mandated under the 1990 Missile Technology Control Act.

[The PRC] objected to language saying that China "will observe" the MTCR guidelines, demanding that it be changed to "intends to observe." By arguing forcefully for a less categorical pledge, it seemed as though Qian Qichen were tactfully acknowledging the possibility that some entity in China's defense community might cheat on this commitment.²⁰

Second, Beijing and Washington interpreted the scope of this commitment in drastically different ways. In November 1992 China shipped some thirty-four M-11s to Pakistan. The United States responded by again imposing sanctions arguing the deal was a direct violation of Beijing's earlier commitment.²¹ Chinese officials argued that the M-11 missile was not covered by its MTCR commitment given that the missile's advertised range and payload—290 km/800 kg—fell outside of the specific parameters of the MTCR (300 km/500 kg). When this issue emerged in the U.S. press, senior Chinese leaders such as then-Foreign Minister Qian Qichen vehemently denied that this transaction had ever occurred. This denial, as with previous incidents, served to further accelerate the growing mistrust between U.S. and Chinese officials. To this day, Chinese officials continue to deny the M-11 deal with Pakistan despite the strong U.S. evidence (including satellite photos) that the missiles had been sitting in crates at Pakistan's Sargodha air base outside of Islamabad.²²

The ambiguities in China's 1991 MTCR commitment were partially resolved in October 1994; the United States and China signed a bilateral agreement in which Beijing agreed to accept the "inherent capability" standard which obliges China not to export any missile with a range/payload

²⁰James A. Baker III, *The Politics of Diplomacy: Revolution, War, and Peace 1989-1992* (New York: G.P. Putnam's Sons, 1995), 594.

²¹For the first reporting of this M-11 shipment, see Jim Mann, "China Said to Deliver Missiles to Pakistan," *International Herald Tribune*, December 5, 1992. This report was verified by the 1998 testimony of Gordon Oehler, the CIA's former chief nonproliferation expert. See Oehler testimony cited in note 19 above. Some sources suggest that the November 1992 M-11 shipment was in retaliation for President George Bush's fall 1992 decision to sell F-16s to Taiwan; yet there is still not sufficient information to make such a determination. See Harlan Jencks, "F-16s to Taiwan: Proliferation Implications," *Missile Monitor* (Center for Nonproliferation Studies, Monterey, California, Spring 1993).

²²R. Jeffrey Smith and David Ottoway, "Spy Photos Suggest China Missile Trade; Pressure for Sanctions Builds over Evidence That Pakistan Has M-11s," *Washington Post*, July 3, 1995; R. Jeffrey Smith, "Report Cites China-Pakistan Missile Links," *ibid.*, June 13, 1996, A19.

combination that falls within the MTCR parameters. Yet, even once this issue was resolved, new problems emerged. During bilateral nonproliferation discussions in 1995, Chinese officials informed their U.S. counterparts that China's MTCR commitment did not include the MTCR annex which specifies all the technologies controlled under the regime's guidelines. The United States had previously assumed that China's 1991 MTCR commitment included the annex. Chinese officials claimed to use an internal control list that was not, however, available for review. By failing to accept the MTCR annex, Chinese officials, in essence, created a loophole allowing Chinese firms to export dual-use missile technologies while continuing to comply with the letter of their MTCR commitment. Chinese firms currently utilize this loophole to continue shipping missile technologies to Iran and Pakistan.

This pattern of Chinese denials, weak assurances, and narrow interpretations of existing commitments was not limited to China's missile exports. In 1996 when the United States discovered that a Chinese firm had sold specialized ring magnets to Pakistan for use in uranium enrichment centrifuges, China's Foreign Ministry denied the deal had ever occurred. These denials persisted throughout the bilateral negotiations and, in the end, the Chinese never admitted any wrongdoing. Ironically, despite the official denials, China's National Nuclear Corporation (CNNC) publicly admitted that a small factory in southern China was responsible for the magnet deal but that the factory had not received authorization from central authorities in Beijing.²³ During the magnet controversy the United States viewed the Chinese government as, once again, narrowly interpreting their nonproliferation commitments. Chinese officials defended the deal by arguing the magnets are not listed on any international list of controlled nuclear items; the United States responded that the magnets are a key part of a controlled dual-use nuclear item (a magnet suspension bearing) and were going to a facility in Pakistan which was directly involved in Pakistan's nuclear weapons program.²⁴

²³For the CNNC statement, see Vivian Pik-Kwan Chan, "Nuclear Sales Talks Bid to Stop Sanctions," *South China Morning Post*, April 3, 1996.

²⁴For the U.S. and Chinese positions on the magnet deal, see R. Jeffrey Smith, "U.S. Aides

Many of these nuclear and missile deals came in swift succession over a four- to five-year period from the late 1980s to the early 1990s. This series of exports created a strong impression among U.S. policymakers and experts that China was one of the world's worst proliferators of weapons of mass destruction and their delivery systems. Many of these concerns exist today. The international and domestic contexts in which the U.S. concerns about Chinese proliferation emerged are particularly important in understanding the extent to which China's actions during the 1990s were viewed as threats to U.S. national security and why these impressions persist.

On the international level, China's exports clashed with two of the U.S. most acute national security concerns: the proliferation of weapons of mass destruction and Middle East stability. Beginning in the early 1990s, U.S. emphasis on stemming WMD proliferation increased significantly following the collapse of the Soviet Union. Transnational threats had replaced U.S. concerns about an all-out nuclear war with the Soviets. Both the Bush and Clinton administrations identified WMD proliferation as a national security priority and began devoting substantial government resources to address this growing threat. In late 1990, the Bush administration launched the Enhanced Proliferation Control Initiative to strengthen export controls on WMD items; a few years later the Clinton administration initiated the Counterproliferation Initiative to develop military approaches to combat proliferation threats. These initiatives reflected a recognition at the highest levels of the dangers posed by WMD proliferation and the importance placed on expanding institutional support to address this new threat.

U.S. concerns about stability in the Middle East also assumed new prominence. Following the end of the Gulf War in 1991, linkages between U.S. national security and Middle East stability became particularly strong. The United States had publicly galvanized an international coalition in order to evict Iraq from Kuwait, to ensure the free flow of oil from the

See Troubling Trends in Sino-Pakistani Nuclear Ties," *Washington Post*, April 1, 1996; R. Jeffrey Smith, "China Silent on Nuclear Export Plans," *ibid.*, May 14, 1996; "China Denies Nuclear Technology Sale to Pakistan," United Press International, April 4, 1996; "China Rejects Allegations of Nuclear Exports," Reuters, April 12, 1996.

Persian Gulf, and to halt Iraq's development of nuclear, chemical, and biological weapons and their delivery means. Tens of thousands of U.S. troops were still deployed in the region and the U.S. military presence, although declining from Gulf War levels, was expected to continue for at least another decade. Iraq's secret programs to develop nuclear, chemical, and biological weapons and ballistic missiles (in violation of its treaty commitments) further heightened U.S. concerns about the dangers of WMD proliferation in the Middle East region. Given this context, Chinese missile and nuclear exports to a variety of nations in the Middle East heightened already acute U.S. sensitivities and thus were seen as direct threats to material U.S. national security interests.

From a domestic perspective, concerns about China's denials, vague assurances, and apparent backtracking on nonproliferation commitments played a part in enhancing anti-China sentiments in the U.S. Congress. In the early 1990s, the anti-China discourse in the United States became increasingly vociferous and widespread as many U.S. policymakers began to fundamentally reevaluate Sino-U.S. relations in the wake of the Tiananmen Incident and the demise of the Soviet Union. Several Congressmen sought to link extension of most-favored-nation (MFN) status to improvements in China's overall proliferation record as well as the human rights situation in China. During the 1991 Congressional debates, policymakers—both Democrats and Republicans—characterized China as a "merchant of death" and a "rogue elephant" in the international community given the PRC's profit-driven sales of nuclear and missile goods to the Middle East. The Chinese, argued many Congressmen, were facilitating the military modernization of the very regimes the United States most ardently opposed. Sen. Jesse Helms notably characterized China's arms dealers as a "weapons mafia" run by the sons and daughters of some of China's most senior leaders, further suggesting the irresponsibility of the regime in Beijing.²⁵ Moreover, U.S. worries about China were not limited to conservative legislators but

²⁵See "China's Weapons Mafia" (Comments of Jesse Helms before the U.S. Senate), *Congressional Record*, October 31, 1991, S15694; "China: Rogue Elephant on Weapons Proliferation" (Comments of Joseph Biden before the U.S. Senate), *ibid.*, April 17, 1991, S13668.

spanned the political spectrum to include liberal Democratic Senators like Joseph Biden, John Glenn, and Albert Gore, Jr. These senators formed a bipartisan coalition with arch-conservatives like Jesse Helms in an effort to put pressure on presidents George Bush and Bill Clinton.

Moreover, these characterizations of China's proliferation behavior from the early 1990s persisted throughout the decade and actively influenced U.S. debates about China. For example, during the 1997 hearings about the activation of the dormant U.S.-China nuclear cooperation agreement, three prominent Congressmen called China "the Wal-Mart of international nuclear commerce,"²⁶ and the 1999 Cox Committee Report characterized China as "one of the leading proliferators of complete ballistic missiles systems" based on Beijing's exports of missiles in the late 1980s and early 1990s. Most of these same impressions of China as a rogue, irresponsible, and profit-driven proliferator persist today. Indeed, these impressions of Chinese proliferation activities have also played a role in recent partisan politics. As the 2000 presidential election approaches, Republican legislators have sought to cast the Clinton administration as weak on national security issues. Chinese proliferation activities, particularly Clinton's unwillingness to sanction China for various WMD-related exports, are often cited by Republicans as one of many examples of Clinton's inattention to pressing national security issues.

One of the most curious aspects of the U.S. debates about China's proliferation behavior has been the role of key individuals who actively sought to keep the public spotlight on Chinese WMD-related exports. The activities of these individuals help to explain the persistent role that proliferation issues have played in U.S. policy debates about China. In the early 1990s, William C. Triplett II, who worked for Sen. Jesse Helms on the Foreign Relations Committee, was reported to have leaked classified information on Chinese military exports to the press as a means of pressuring the Bush and Clinton administrations to take a harder line on China. He became so notorious that according to some he functioned as a conduit for

²⁶Edward J. Markey, Benjamin A. Gilman, and Christopher Cox, "China and Nuclear Trafficking," *Washington Post*, October 29, 1997, A23.

disenfranchised intelligence officers in the Pentagon and the Central Intelligence Agency (CIA) to release information about pending Chinese missile and nuclear exports.²⁷ Triplett, despite his conservative orientation, also actively worked with Democrats such as Gore, Glenn, and Biden to forge bipartisan coalitions opposing China's weapons proliferation. Jim Mann, in his book-length survey of history of U.S.-China relations, colorfully summarized Triplett's key talents in keeping the anti-China forces in the United States alive:

Triplett was a master of the well-time leak, the delayed nomination hearing, the planted question at the noontime White House briefing. He would call up the State Department officials and urge them to do something because the press was hot on the trail of a story; then he would phone reporters to tell them the State Department was about to change its policy.²⁸

As Triplett became less active on Capital Hill in the latter half of the 1990s, his role was quickly assumed by Bill Gertz, a national security reporter for the conservative *Washington Times* newspaper. Like Triplett, Gertz became a key conduit for leaking intelligence information into the press; according to many, the information came to him, he did not have to solicit it. Gertz, for example, was responsible for leaking key information about Chinese exports of ring magnets and other dual-use nuclear technologies to Pakistan, China's export of a uranium conversion facility to Iran, Chinese exports of FL-10 cruise missiles to Iran, and various other nuclear, missile, and chemical exports by Chinese firms. The political undercurrent in much of Gertz's reporting was that the Clinton administration continually overlooked Chinese proliferation activities and failed to penalize China in order to benefit major campaign contributors who had business interests in China. To be sure, the veracity of Gertz's reporting is often undermined by the fact that his stories are often based on partial intelligence briefs with the caveats, balancing factors, and context omitted. Despite these weaknesses, Gertz's stories serve the strategic function of continually raising questions and re-igniting debates in the United States about China's ability and willingness to meet its pledges. In broad terms,

²⁷Mann, *About Face*, 241-45.

²⁸*Ibid.*, 243.

Gertz's stories kept policymakers focused on China's proliferation behavior as an indicator of Chinese intentions. This partially accounts for the continuing concern in the United States about China's proliferation activities.²⁹

Perception versus Reality:

Reevaluating Chinese Proliferation in the Late 1990s³⁰

Despite the minimal role that proliferation has played in the U.S. debates about the "China threat," the current discussions about Chinese WMD-related proliferation have become detached from the reality of China's actual behavior in the latter half of the 1990s. Many in the United States, particularly in Congress, have failed to acknowledge the narrowing scope of China's WMD-related exports, the progress China has made in terms of signing onto a number of international nonproliferation agreements, and the difficulties the Chinese government has had implementing some of its commitments given the PRC's nascent export control infrastructure. While many of the concerns about China's WMD exports had an empirical basis in previous years, the situation has changed. Residual U.S. impressions left over from a series of Chinese exports in the 1980s and early 1990s appear to continue to drive the current U.S. discussions about China's WMD proliferation and the appropriate policy responses to this behavior. Yet, these impressions do not conform to or recognize the changing character of China's WMD-related exports and the efforts by the Chinese government to curb its nuclear, chemical, and missile technology exports. This line of argumentation is not meant to suggest that Chinese proliferation activities are no longer an issue of international concern but rather that the nature of the problem has changed and that appropriate policies need to be adopted.

²⁹For a collection of Gertz's views, see Bill Gertz, *Betrayal* (Washington, D.C.: Regnery, 1999).

³⁰This section draws largely from Evan S. Medeiros, "The Changing Character of China's WMD Proliferation Activities" (Paper presented at the seminar on China and Weapons of Mass Destruction sponsored by the Congressional Research Service, Washington, D.C., November 4, 1999).

Over the last two decades the overall scope of Chinese proliferation activities has declined across the board. The geographic distribution of Chinese proliferation-relevant exports has narrowed from almost a dozen countries to three: Iran, Pakistan, and to a lesser extent North Korea. The character of China's exports similarly narrowed *from* a broad range of nuclear materials and equipment (much of it unsafeguarded) and complete missile systems *to* exports of dual-use nuclear, missile, and chemical technologies today. In addition, during much of the 1980s and 1990s, China's nuclear and missile assistance directly contributed to the nuclear and missile programs in other countries; today such assistance is indirect, at best. The frequency of such exports also appears to have declined to a dribble of dual-use items, albeit declining less than the scope or technical character of China's exports. Despite this overall narrowing of China's WMD-related exports, further progress will be slow. Significant policy differences between Washington and Beijing exist about controlling dual-use nuclear, chemical, and missile goods to Iran and Pakistan. These contrasting policies are based on profound differences between the foreign policy approaches that the United States and China respectively adopt toward Iran and Pakistan, the utility of supply-side technology control regimes, China's ability to implement and enforce its export control laws, and linkages to bilateral issues such as U.S. arms sales to Taiwan. The following sections will outline these trends by examining China's nuclear, missile, and chemical exports over the last two decades.

Chinese Nuclear Exports

Chinese nuclear exports have changed dramatically over the course of the last twenty years. The geographic distribution of Chinese nuclear exports has narrowed, the character of nuclear items sold and their relative contribution to nuclear proliferation has changed for the better, and the frequency of nuclear exports (including technical assistance) has significantly decreased. As of 1999, U.S. concerns about Chinese actions which contribute to nuclear proliferation are fundamentally different compared to twenty years ago.

Starting in the early 1980s (only a few years after Sino-U.S. normalization), Chinese state-owned companies began selling a variety of nuclear

items to an eclectic mix of countries all over the world. Chinese companies were providing a comprehensive assortment of nuclear equipment, materials, and technical assistance to countries such as Argentina, Algeria, Brazil, Chile, India, Iran, possibly Iraq, Pakistan, and South Africa. Initially, most of China's nuclear exports were not placed under international safeguards and thus were used in the military nuclear programs in many of these countries. In the case of Pakistan, China also provided substantial direct assistance in designing and building nuclear weapons.³¹

China's extensive nuclear exports to these countries during the 1980s are largely explained by the weakness of China's formal nonproliferation commitments combined with the relative lack of bureaucratic infrastructure within China to support nuclear nonproliferation. For years, Chinese officials had rejected the NPT as a biased and inherently discriminatory treaty.³² At that time, China had no functioning export control system, set of export control laws, or technology lists which governed China's very limited commitments which stated that the PRC did not encourage or engage in nuclear proliferation. China's arms control and nonproliferation community was similarly underdeveloped. Nonproliferation was not an independent discipline in China and there was little bureaucratic support in the Foreign or Trade ministries to understand or implement these verbal commitments.

By the early 1990s, the character of China's nuclear exports had begun to change. Chinese companies stopped providing nuclear-specific materials, equipment, and technologies to unsafeguarded facilities in countries with suspected nuclear weapons programs like Argentina, Brazil, India, and South Africa. The geographic scope of China's nuclear exports declined to cover mainly Iran and Pakistan, the character of China's re-

³¹See Leonard Spector, March McDonough with Evan S. Medeiros, *Tracking Nuclear Proliferation 1995* (Washington, D.C.: Carnegie Endowment for International Peace, March 1995); Yan Kong, *China and Nuclear Proliferation, 1980-1990: A Select Annotated Bibliography of English-Language Publications* (Cambridge, Mass.: Center for Science and International Affairs, Harvard University, 1990).

³²Zhu Mingquan, "The Evolution of China's Nuclear Nonproliferation Policies," *The Nonproliferation Review* 4, no. 2 (Winter 1997): 40-48; Hu Weixing, "China's Nuclear Export Controls: Policy and Regulations," *ibid.* 1, no. 2 (Winter 1994): 3-9.

maintaining nuclear exports gradually shifted to dual-use nuclear goods, and the relative contribution of these exports to nuclear proliferation accordingly declined.

By the end of the 1990s, China's nuclear cooperation with Iran had almost entirely stopped despite an initial expansion in the first part of the decade. This contraction is a direct result of U.S. pressure on China to cease all nuclear cooperation with Iran. Most notably, in fall 1997 and during the first Clinton-Jiang summit meeting, China agreed to cancel the planned sale of two 300-megawatt power reactors and a uranium conversion facility in exchange for the implementation of the dormant U.S.-China nuclear cooperation agreement. Chinese officials also pledged to halt all future nuclear cooperation with Iran and the CIA has verified in recent years China's adherence to that promise.³³ Direct assistance to Pakistan's nuclear weapons program appears to have ended while the scope of China's other nuclear transfers has narrowed significantly. Much of China's assistance over the last ten years indirectly contributed to Pakistan's bomb program through transfers of dual-use nuclear goods and nonnuclear technologies to unsafeguarded facilities involved in fabricating weapon-grade nuclear materials. Yet, even this dual-use assistance has stopped following the expansion of China's nuclear nonproliferation commitments in the mid-1990s. Although some Chinese nuclear assistance to Pakistan may continue, such aid is mainly limited to exchanges of scientists and experts which is inherently difficult to control.

This narrowing of China's nuclear transfers coincided with the gradual expansion throughout the 1990s of China's formal nuclear nonproliferation commitments. China signed the NPT in 1992 and in subsequent years began to clarify their commitments and codify them in domestic law. China issued its first nuclear export control law in 1997, and a second one covering dual-use nuclear goods was released in June 1998. The latter law importantly includes a "catch-all" clause to stop any and all dual-use nuclear exports not specifically mentioned in the regulations; this step even

³³For verification of China's end to nuclear cooperation with Iran, see "Unclassified Report to Congress" (cited in note 13).

goes beyond the NSG restrictions on dual-use exports. Since the early 1990s, China has also developed the bureaucratic infrastructure necessary to help implement these commitments. The China Atomic Energy Agency or CAEA in conjunction with the Ministry of Foreign Trade and Economic Cooperation (MOFTEC) and the Foreign Ministry have assumed responsibility for overseeing the nuclear export control process. Most notably, the Foreign Ministry within the last two years established a Department of Arms Control and Disarmament Affairs under the directorship of one of China's most experienced arms control experts, Ambassador Sha Zukang. This department has an entire division of some ten experts devoted to Chinese nuclear affairs including nuclear exports and export control issues.

Chinese Missile Exports

In the last ten years, China's exports of ballistic and cruise missiles and related technologies have undergone an evolution similar to, but not as dramatic as, the reduction in China's nuclear exports. The geographic scope of China's missile exports has narrowed to include Iran, Pakistan, and to a lesser extent North Korea. The character of China's missile exports has shifted from sales of complete systems to exports of dual-use missile technologies. China has also assumed a growing number of missile non-proliferation commitments. In contrast to the nuclear area, many of these commitments are vague, lacking legal basis, and poorly implemented. Significant concerns also persist about China's interpretations of its pledges. As of 1999, the principal U.S. concern about China's missile proliferation revolves around the continued export by Chinese firms of dual-use missile technologies and production technologies to organizations in Pakistan, Iran, and North Korea which are involved in missile development.

Beginning in the late 1980s and ending in the early 1990s, China actively marketed and sold a variety of complete ballistic and cruise missile to several countries. As indicated earlier in this article, these activities included: sales of Silkworms and C-801 cruise missiles to Iran; DF-3 sales to Saudi Arabia; efforts to sell M-9 and M-11 to Iran, Syria, Libya, and Pakistan; and the export of a 150-km range missile known as the 8610 to Iran. However, since the early 1990s when China shipped M-11s to Pakistan,

Beijing has not exported any MTCR-class missiles. Rather, Chinese firms have provided a continuous stream of dual-use technologies to help Iran build short-range ballistic missiles; some of these technologies may also have been used to improve Iran's medium-range systems. Similar to China's missile cooperation with Iran, China's assistance to Pakistan's missile programs involved mainly dual-use technologies. Chinese firms have supplied Pakistan with a wide range of equipment, materials, and technologies that are helping Pakistan to develop indigenous missile production capabilities. Much of this assistance has been for China's largest missile project in Pakistan: the construction of a missile production facility at Rawalpindi. A 1997 Pentagon report on global proliferation developments confirmed the existence of this facility and China's central role in the plant's construction.³⁴ Once this facility becomes operational, the plant will likely produce a Pakistani version of the M-11 under the designation Hatf-3. This deliberate cooperation with Iran and Pakistan is matched by illicit missile technology exports which are not authorized by the government. Chinese firms, in the last two years, have provided different types of technical assistance and dual-use missile technologies to entities in North Korea involved in missile production. China still lacks export control laws covering missile technologies and this absence of a regulatory structure permits these exports to continue.

China's interpretations of its missile nonproliferation commitments lie at the heart of the problem of the continued PRC missile technology sales to Iran, Pakistan, and North Korea. Beijing's original MTCR pledges suffer from some basic weaknesses. China has never accepted the MTCR annex as the definitive list of items to be controlled under the regime. China has also never accepted the 1993 revisions to the MTCR's guidelines and parameters. Thus, the United States and China have little basis for agreement on which items are banned under the MTCR. In stark contrast to China's work in the areas of nuclear and chemical goods, China has not yet issued a series of export control regulations covering MTCR-controlled

³⁴Office of the Secretary of Defense, U.S. Department of Defense, "Proliferation: Threat and Response" (November 1997).

equipment, materials, and technologies. Without these regulations, the Chinese government has no legal authority to monitor, control, or curb the exports of Chinese firms. Chinese Foreign Ministry nonproliferation specialists maintain that at best the Foreign Ministry can request that a firm halt certain export activities but their power and influence is limited by the absence of regulations.

Chinese Chemical Exports

Unlike Chinese exports in the nuclear and missile areas, exports related to chemical weapons did not emerge as a serious problem until the early 1990s. China's chemical industry in the 1980s (particularly the private chemical producers) had just begun to grow and expand, and they only assumed a wide-scale export orientation at the beginning of the 1990s. Yet, the nature of China's chemical weapons-related exports has not changed significantly throughout the last decade. The geographic scope of this problem has remained limited to Iran and to a lesser extent Syria. The nature of the assistance continues to be dual-use equipment, materials, and technologies used to produce chemical weapons; specific exports have included chemical precursors, chemical production equipment, and production technology. The central problem continues to be illicit sales by Chinese firms operating outside of government control in marketing and selling dual-use items to Iranian and Syrian organizations involved in chemical weapons production.

In assessing China's chemical weapons-related exports to Iran and Syria, one factor which may have declined throughout the last decade has been the frequency of such exports. The difficulties in controlling illicit chemical exports situation began to change in the mid-1990s as China assumed a number of international commitments and set up domestic structures to limit chemical weapons-related exports. These have likely helped the government to control illicit exports to known chemical weapons aspirants like Iran and Syria. Beginning with China's signature of the Chemical Weapons Convention (CWC) in 1993, the Chinese government has taken numerous steps to erect an extensive chemical export control architecture. In 1995 China issued its first regulations covering all CWC-controlled chemicals and then in 1997 the State Council expanded the government's

oversight capabilities with a second law outlining an export control application and review process.

Although the Chinese government has erected these legal barriers and committed parts of the bureaucracy to monitoring China's chemical exports, Beijing's ability to implement and enforce its laws and commitments remains a continuing challenge. Despite the promulgation of the laws in 1995 and 1997, chemical weapons-related exports by Chinese firms to entities in Iran have continued. In 1996, the CIA reported that Iran "obtained considerable [chemical weapons]-related assistance from China in the form of production equipment and technology" and that "Iran obtained the bulk of its chemical weapons equipment from China and India."³⁵ Additional deals occurred in 1997 and 1998.

The government's difficulty in controlling chemical exports is largely explained by the fact that China's chemical industry is one of its largest and most widely dispersed, and unlike the nuclear and aerospace industries, most chemical exporters are private, non-state enterprises. China produces some 15,000 chemical products by 14,500 chemical producers scattered throughout 22 provinces, 5 autonomous regions, and 4 municipalities. Gansu province, one of China's most underdeveloped provinces, has 157 chemical production plants alone.³⁶ Many of these small companies probably do not know about the regulations; their priorities are to make profits rather than strictly adhere to government regulations. Furthermore, the export control culture in China is not strong. Modern export control laws, which are highly detailed and require strict adherence, differ significantly from those used during the Maoist period in which firms were only required to interpret broad-based policy directives. These problems indicate that although the frequency of China's chemical weapons-related exports may be declining, Beijing faces the difficult task of implementing and enforcing the laws it has adopted. Until the Chinese government is able to overcome

³⁵The Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions: July-December 1996" (Nonproliferation Center, Central Intelligence Agency, Report to Congress, June 1997).

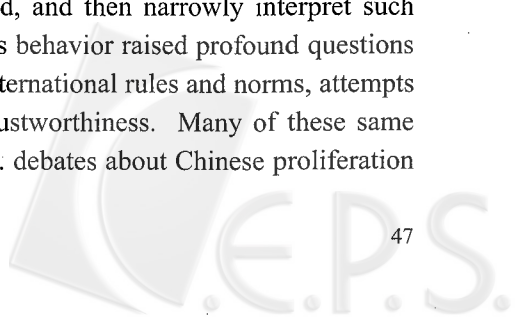
³⁶This information was culled from the voluminous *Directory of Chemical Products and Producers in China*, China's National Chemical Information Center (Beijing: Chemical Industry Press, 1998).

the problems, illicit exports of chemical weapons-related items will likely continue.

Conclusion

As U.S. debates about the nature and implications of China's ascendancy continue, Chinese proliferation activities will remain an enduring but modest element of these discussions. Unless China makes a major and unexpected policy shift, China's exports of WMD-related technologies will continue to be mentioned (and will occasionally make headlines) but will seldom dominate the U.S. debates. The spotlight will be more focused on qualitative improvements in China's military capabilities, Chinese economic growth, political reform and liberalization, and Chinese foreign policy maneuvering over Taiwan and the South China Sea. This collection of issues, more than any others, will be the key litmus tests for debate about current and future Chinese capabilities and intentions.

China's missile exports to Iran in the late 1980s were the first Chinese actions to directly threaten U.S. national security interests. China's Silk-worm exports to Iran in 1987 and especially Beijing's denial of the deal generated initial concern about China's actions and began to erode the basis of Sino-U.S. military cooperation during its height in the latter half of the 1980s. Currently, however, China's WMD-related exports tend to be seen in a different light. They are seldom seen as a direct threat to material U.S. national security interests. Rather, China's exports are viewed as an indicator of China's intentions, and specifically its trustworthiness. In the past decade, Beijing has gradually signed onto a number of global nonproliferation accords but its interpretations and implementation of these agreements have raised doubts and fears. From the U.S. perspective, a pattern of behavior emerged in which Chinese officials would deny deals, make vague promises only when pressured, and then narrowly interpret such promises to justify future deals. This behavior raised profound questions about China's willingness to adopt international rules and norms, attempts to undermine U.S. influence, and trustworthiness. Many of these same concerns persist today and drive U.S. debates about Chinese proliferation



activities. Indeed, these perceptions have assumed a key role in domestic political debates as the Republicans try to portray the Clinton administration as weak on national security issues.

Moreover, these enduring perceptions have overshadowed and obscured the major changes that have taken place in China's proliferation behavior. As argued above, the scope of China's WMD export activities has narrowed while the breadth of its commitments and willingness to enforce them has expanded. The geographic scope, the technical content, and the frequency have all declined. Whereas in the 1980s China's exports directly assisted WMD programs in a number of countries, currently China's exports of dual-use items provide indirect assistance—at best—to only three countries: Iran, Pakistan, and to a lesser extent North Korea. Indeed, in the nuclear realm Chinese exports to these nations have virtually stopped and an extensive regulatory system for nuclear goods has been put in place. In other cases, such as in China's large and highly privatized chemical industry, continued chemical weapons-related exports have resulted from small companies operating without government knowledge and not because of explicit government decision-making. China's current WMD proliferation activities are fundamentally different than those of a decade ago.

This is not meant to suggest that China's WMD-related exports are not an issue of concern for the United States and the international community. Rather, the nature of the problem has changed and new policies need to be fashioned to address the current problem and not the past one. In particular, China increasingly views some of its nonproliferation pledges, such as on missile exports, as bilateral deals struck in the context of Sino-U.S. bargaining and not as apolitical commitments to international norms. As a result, downturns in bilateral relations could likely precipitate increased missile technology exports to countries like Iran and Pakistan in which the United States and China have drastically different foreign policy priorities. Until these new trends are accepted in U.S. policy circles, Chinese WMD proliferation activities will likely continue and will remain an irritant in Sino-U.S. relations. Indeed, they will also continue to provide ammunition for those who see China as a threat to U.S. national security.