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China's Proliferation of Weapons of Mass Destruction and Missiles: Current Policy Issues

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China's Proliferation of Weapons of Mass Destruction and Missiles: Current Policy Issues

SUMMARY

Congress has long been concerned about challenges to U.S. security posed by the People's Republic of China (PRC) in the proliferation of weapons of mass destruction (WMD) and missiles that could deliver them. Recipients of China's technology include Pakistan and countries that the State Department says support terrorism, like Iran, North Korea, Libya, and Syria. Policy issues pertain to the extent of this threat and U.S. responses (e.g., sanctions, satellite exports).

Since 1991, Beijing has taken steps to mollify concerns about its role in proliferation. Steps include the: 1991-1992 promise to abide by the Missile Technology Control Regime (MTCR); March 1992 accession to the Nuclear Nonproliferation Treaty (NPT); January 1993 signing and subsequent ratification of the Chemical Weapons Convention (CWC); October 1994 statements on the MTCR and fissile material production; November 1995 white paper on arms control and disarmament; May 1996 reiteration on making only safeguarded nuclear transfers; July 1996 announcement of a moratorium on nuclear testing; signing of the Comprehensive Test Ban Treaty in September 1996; October 1997 entry to the Zangger Committee; and November 2000 missile nonproliferation pledge.

Nonetheless, as the Director of Central Intelligence reports, the PRC remains a "key supplier" of technology inconsistent with nonproliferation goals — particularly missile or chemical technology transfers. China has aggravated trends that result in more ambiguous technical assistance, more indigenous capabilities, longer range missiles, and secondary (retransferred) proliferation. Some transfers raise questions about violations of the NPT and/or contradictions of the MTCR or U.S. laws, which may require sanctions. China is not in the MTCR, Nuclear Suppliers Group, nor Australia Group.

Successive Administrations have pursued a policy of "engagement" with Beijing, while some have argued that U.S. policy needs a tougher approach to advance non-proliferation interests. In 1998, President Clinton issued certifications to implement the 1985 Nuclear Cooperation Agreement. The Clinton Administration encouraged the PRC to join the MTCR and proposed to allow more PRC satellite launches. In November 2000, the State Department agreed to waive sanctions and consider new satellite exports in return for a missile non-proliferation pledge from China.

The FY2000 Defense Authorization Act (P.L. 106-65) said that the PRC should not be allowed to join the MTCR without meeting certain conditions and required a report on the PRC's adherence to the MTCR (submitted August 18, 2000). Congress passed the Iran Nonproliferation Act (P.L. 106-178).

Under this law, on June 14, 2001, and January 16, 2002, the Bush Administration imposed sanctions for PRC chemical weapon proliferation in Iran. On September 1, 2001, the Administration imposed missile proliferation sanctions (denying satellite exports), after China apparently violated its November 2000 pledge. The 9/11 attacks added an urgent U.S. interest in weapons nonproliferation.

See also CRS Report 96-767, *Chinese Proliferation of Weapons of Mass Destruction: Background and Analysis;* and CRS Report 98-485, *China: Possible Missile Technology Transfers From U.S. Satellite Export Policy – Actions and Chronology*.

MOST RECENT DEVELOPMENTS

Although President Bush imposed sanctions, sought anti-terrorism support, and raised proliferation issues in Shanghai in October 2001 and in Beijing in February 2002, the PRC has failed to fulfill its November 2000 missile nonproliferation pledge. National Security Advisor Condoleezza Rice said that the PRC has not issued a missile export control law and insisted on "grandfathering" pre-agreement contracts. The PRC Foreign Ministry said it will send an official to Washington for further negotiations in March.

BACKGROUND AND ANALYSIS

Congress has long been concerned about U.S. policy to address transfers by the People's Republic of China (PRC) adding to the proliferation of weapons of mass destruction (WMD) and missiles. This proliferation problem refers to the threat of nuclear, chemical, or biological weapons and missiles that could deliver them. Some have argued that certain PRC transfers have violated international commitments, including the NPT, and/or have contravened U.S. laws that require sanctions. Even if no laws or treaties are violated, many view China's transfers as undermining U.S. security interests. This Issue Brief discusses current policy issues and options concerning the PRC's proliferation of WMD and missiles. For background and analysis on the 1980s to 1996, see CRS Report 96-767, *Chinese Proliferation of Weapons of Mass Destruction: Background and Analysis*.

Recent PRC Proliferation Transfers

Nonproliferation Commitments but Continued Concerns

Since 1991, Beijing — facing significant U.S. and other pressures — has taken some steps to advance its nonproliferation commitments. China promised to abide by the Missile Technology Control Regime (MTCR) in 1991-1992 and reaffirmed that commitment in a October 4, 1994 statement. The MTCR is not an international agreement and has no legal authority. It is a set of voluntary guidelines that seeks to control the transfer of missiles that are inherently capable of delivering at least a 500 kg (1,100 lb) payload to at least 300 km (186 mi). It is unclear whether China has adhered to the revised MTCR guidelines of 1993 calling for the presumption to deny transfers of *any* missiles capable of delivering *any* WMD. According to a Senate Foreign Relations Committee report of September 11, 2000, the State Department has argued that China agreed to the MTCR Guidelines, but not the Annex. However, State has also stated that China indicated it would control exports "consistent with the MTCR Guidelines and Annex" and that the MTCR consists of a common policy (Guidelines) applied to a common list (Annex). On November 21, 2000, Beijing said that it has no intention of assisting any other country in developing ballistic missiles that can be used to deliver nuclear weapons (missiles with payloads of at least 500 kg and ranges of at least 300 km). It also promised to issue missile-related export controls "as soon as possible."

Also, China acceded to the Nuclear Nonproliferation Treaty (NPT) on March 9, 1992. The NPT does not ban peaceful nuclear projects. China signed the Chemical Weapons Convention (CWC) in January 1993. In November 1995, China issued its first public defense white paper, which focused on arms control and disarmament. On May 11, 1996, the PRC issued a statement promising to make only safeguarded nuclear transfers. China, on July 30, 1996, began a moratorium on nuclear testing and signed the Comprehensive Test Ban Treaty (CTBT) in September 1996, but (like the United States) has not ratified it. On April 25, 1997, China deposited its instrument of ratification of the CWC. The CWC entered into force on April 29, 1997. Premier Li Peng issued new nuclear export control regulations on September 10, 1997. On October 16, 1997, China joined the Zangger Committee (on nuclear trade). On June 6, 1998, the U.N. Security Council (including China) adopted Resolution 1172, asking states to prevent exports to India or Pakistan's nuclear weapon or missile programs. The PRC issued regulations on dual-use nuclear exports on June 17, 1998.

Nevertheless, PRC weapons proliferation has continued, aggravating trends that result in more ambiguous technical assistance, longer range missiles, more indigenous capabilities, and secondary (retransferred) proliferation. The Director of Central Intelligence (DCI) noted that, for July-December 1996, "China was the most significant supplier of WMD-related goods and technology to foreign countries." The 1998 report of the Rumsfeld Commission identified China's weapons proliferation as a "threat." The DCI's semi-annual reports have named the PRC (plus Russia and North Korea) as "key suppliers" of such technology.

Nuclear Technology Sales to Pakistan

Ring Magnets. In early 1996, some in Congress called for sanctions after reports said that China sold unsafeguarded ring magnets to Pakistan, apparently in violation of the NPT and contradiction of U.S. laws, including the Arms Export Control Act and Export-Import Bank Act (as amended by the Nuclear Proliferation Prevention Act of 1994). On February 5, 1996, the *Washington Times* first disclosed intelligence reports that the China National Nuclear Corporation, a state-owned corporation, transferred to the A.Q. Khan Research Laboratory in Kahuta, Pakistan, 5,000 ring magnets, which can be used in gas centrifuges to enrich uranium. According to the report, intelligence experts believed that the magnets provided to Pakistan are to be used in special suspension bearings at the top of rotating cylinders in the centrifuges. The facility in Kahuta is not under IAEA safeguards. The *New York Times* of May 12, 1996, reported that the shipment was made after June 1994 and was worth $70,000. The PRC company involved was China Nuclear Energy Industry Corporation, a subsidiary of the China National Nuclear Corporation. The State Department's report on nonproliferation efforts in South Asia (January 21, 1997) confirmed that "between late 1994 and mid-1995, a Chinese entity transferred a large number of ring magnets to Pakistan for use in its uranium enrichment program."

The Clinton Administration's decision-making was apparently complicated by considerations of trade interests of U.S. corporations with business in China. Administration officials reportedly considered imposing then waiving sanctions or focusing sanctions only on the China National Nuclear Corporation, rather than large-scale sanctions affecting the entire PRC government and U.S. companies, such as Westinghouse Electric Corporation (which had deals pending with China National Nuclear Corporation) and Boeing Aircraft Company. At the end of February 1996, then-Secretary of State Christopher instructed the Export-Import Bank to suspend financing for commercial deals in China for one month. Christopher

reportedly required time to try to obtain more information to make a determination of whether sanctions would be required. Meanwhile, then-DCI John Deutch reportedly said at a White House meeting that PRC officials at some level likely approved the sale of magnets. This view was said to have been supported by Defense Secretary Perry, but disputed by officials from the Commerce and Treasury Departments and the U.S. Trade Representative office, who cited a lack of solid proof (*Washington Post*, April 1, 1996). Observers noted the latter departments are interested in promoting trade.

On May 10, 1996, the State Department announced that China and Pakistan would not be sanctioned, citing a new agreement with China. Clinton Administration officials said China promised to provide future assistance only to safeguarded nuclear facilities, reaffirmed its commitment to nuclear nonproliferation, and agreed to consultations on export control and proliferation issues. The Administration also said that PRC leaders insisted they were not aware of the magnet transfer and that there is no evidence that the PRC government had willfully aided or abetted Pakistan's nuclear weapon program through the magnet transfer. (Congress responded that year by adding language on "persons" in the Export-Import Bank Act.) Thus, the State Department announced that sanctions were not warranted, and Export-Import Bank considerations of loans for U.S. exporters to China were returned to normal. On May 11, 1996, China's foreign ministry issued a statement that "China will not provide assistance to unsafeguarded nuclear facilities." In any case, China since 1984 has declared a policy of nuclear nonproliferation and requirement for recipients of its transfers to accept IAEA safeguards. China formalized this policy by acceding to the NPT in 1992.

Furnace and Diagnostic Equipment. The October 9, 1996, *Washington Times* reported on a September 14, 1996, CIA report that China sold a "special industrial furnace" and "high-tech diagnostic equipment" to unsafeguarded nuclear facilities in Pakistan. In September 1996, PRC technicians in Pakistan reportedly prepared to install the dual-use equipment. The deal was allegedly made by the China Nuclear Energy Industry Corporation, the same firm which sold the ring magnets. Those who suspect that the transfer was intended for Pakistan's nuclear weapons program say that high temperature furnaces are used to mold uranium or plutonium. The CIA report was said to state that "senior-level government approval probably was needed" and that PRC officials planned to submit false documentation on the final destination of the equipment. The report said that the equipment was set to arrive in early September 1996. The *Washington Post*, on October 10, 1996, reported that the equipment was intended for a nuclear reactor to be completed by 1998 at Khushab in Pakistan. This facility is not under IAEA safeguards. One U.S. aim is to prevent China from providing reprocessing technology to this facility for separating plutonium from spent fuel (*Nucleonics Week*, August 14, 1997). On October 9, 1996, the State Department responded that it does not conclude that China has violated its statement that was issued on May 11, 1996 (see above). However, the State Department's statement did not address whether the reported transfers occurred before May 11, 1996, or violated the NPT or contradicted U.S. laws (including the Arms Export Control Act, Export-Import Bank Act, and the Nuclear Proliferation Prevention Act of 1994), which may require sanctions.

There are persistent concerns about PRC assistance to Pakistan's nuclear weapon-related facilities. Referring specifically to Pakistan's efforts to acquire equipment, material, and technology for its nuclear weapon program, the DCI's June 1997 report for the last half of 1996 (after China's May 1996 pledge) stated that China was the "principal supplier." Then, on May 11 and 13, 1998, India conducted nuclear tests, citing China's nuclear ties to

Pakistan, and Pakistan followed with nuclear tests on May 28 and 30, 1998. China, as Pakistan's military and nuclear supplier, failed to avert the tests and has not cut off nuclear aid, but condemned the tests at the U.N. The Arms Control and Disarmament Agency (ACDA)'s annual report on arms control for 1998 stated that "there continued to be some contacts between Chinese entities and Pakistan's unsafeguarded and nuclear weapons program." China built a nuclear power plant at Chashma and was previously identified as helping Pakistan to build an unsafeguarded, plutonium-producing reactor at Khushab. The Chashma reactor is to have safeguards, but not full scope safeguards. China may have provided some equipment for Pakistan's secret heavy water production plant at Khushab, which is reportedly generating weapons-grade plutonium (*Nucleonics Week*, March 23, 2000; *Nuclear Fuel*, June 12, 2000). The DCI reported in January 2002 that the PRC in the past provided "extensive support" to Pakistan's nuclear weapons programs and that, in the 1st half of 2001, "continued contacts" between PRC entities and Pakistani nuclear weapons entities cannot be ruled out, despite the PRC's 1996 promise to stop assistance to unsafeguarded nuclear facilities.

Missile Technology Sales to Pakistan

M-11s and Sanctions. Transfers of the PRC's M-11 short range ballistic missiles or related equipment exceed MTCR guidelines, because the M-11 has the inherent capability to deliver a 500 kg (1,100 lb) warhead to 300 km (186 mi). U.S. sanctions were imposed on transfers of PRC M-11 missile-related technology (Category II), not complete missiles (Category I), to Pakistan. Sanctions were imposed twice under Section 73(a) of the Arms Export Control Act and Section 11B(b)(1) of the Export Administration Act. In June 1991, the Bush Administration first imposed sanctions on China for transferring M-11 technology to Pakistan. The sanctions affected exports of supercomputers, satellites, and missile technology. The Administration later waived the sanctions on March 23, 1992. On August 24, 1993, the Clinton Administration determined that China had again transferred M-11 equipment (not whole missiles) to Pakistan and imposed new sanctions (affecting exports of some satellites). Later, Secretary of State Christopher and Foreign Minister Qian Qichen signed a joint statement on October 4, 1994, that Washington would waive the August 1993 sanctions and Beijing would not export "ground-to-ground missiles" "inherently capable" of delivering a 500 kg warhead 300 km. The sanctions were waived on November 1, 1994.

The *Washington Times* (March 14, 1997) said that "numerous" intelligence reports have indicated that M-11 missiles are "operational" in Pakistan, but these findings were disputed by some policy-makers. In a March 1998 report on Nuclear Nonproliferation in South Asia, the Secretary of State acknowledged concerns about reports of M-11 missiles in Pakistan, but added that there is no determination that such transfers occurred. Gordon Oehler, former head of the CIA's Nonproliferation Center, testified on June 11, 1998, to the Senate Foreign Relations Committee that in November 1992, "the Chinese delivered 34 M-11s to Pakistan." In July 1998, the Rumsfeld Commission reported that China had transferred complete M-11s to Pakistan. Still, some said that sanctions were not imposed for transfers of complete M-11s, because the missiles remain inside crates at Sagodha Air Base (*Wall Street Journal*, December 15, 1998). Others said that the Administration avoided making any determinations in the first place.

Then, on September 9, 1999, the CIA publicly confirmed for the first time that "Pakistan has M-11 SRBMs from China" and they may have a nuclear role. Nonetheless, the State

Department responded on September 14, 1999, that it required a "high standard of evidence" and had not yet determined that Category I sanctions are warranted, despite the intelligence judgment. (Category I sanctions would deny licenses for exports of Munitions List items, among other actions, and Congress in 1998 transferred satellites back to the Munitions List.) The *Far Eastern Economic Review* reported on May 18, 2000, that the Clinton Administration and Senator Helms of the Foreign Relations Committee had struck a deal in 1999 that required a decision within six months on sanctions for the PRC's M-11 transfer to Pakistan in exchange for the confirmation of Robert Einhorn as Assistant Secretary of State for Nonproliferation (approved on November 3, 1999). On November 21, 2000, the Clinton Administration said it determined that PRC entities had transferred Category I and Category II missile-related items to Pakistani entities, and sanctions would be waived on the PRC for past transfers, given its new missile nonproliferation commitment.

Missile Plants, MRBMs, and Sanctions. While China promised not to transfer *missiles*, it has reportedly helped Pakistan to achieve an indigenous missile capability. U.S. intelligence reportedly concluded in a National Intelligence Estimate that China provided blueprints and equipment to Pakistan to build a plant for making missiles that would violate the MTCR (*Washington Post*, August 25, 1996). Analysts disagreed, however, about whether the plant will manufacture some major missile components or whole copies of the M-11 missile. Construction of the plant allegedly began in 1995. On August 25, 1996, Vice President Al Gore acknowledged concerns about the plant. *Time* alleged on June 30, 1997, that the Clinton Administration would not discuss possible sanctions based on intelligence on the missile plant. A November 1997 report by the Secretary of Defense also confirmed the facility. By 1998, the missile plant in Fatehjung was almost complete, awaiting delivery of crucial equipment from China (*Wall Street Journal*, December 15, 1998).

Pakistan first tested its nuclear-capable Ghauri medium-range ballistic missile (MRBM) on April 6, 1998. The Administration, on April 17, 1998, imposed Category I sanctions on North Korean entities, because the Ghauri is based on the North Korean No Dong missile. U.S. intelligence is said to suspect that China Poly Ventures Company delivered, perhaps in 1999, U.S.-made specialized metal-working presses and a special furnace to Pakistan's National Development Center, a missile plant, reported the *Washington Times* (April 15, 1999). China reportedly has been building a second missile plant and providing specialty steel, guidance systems, and technical aid (*Far Eastern Economic Review*, June 22, 2000; *New York Times*, July 2, 2000). Apparently confirming these stories, the DCI reported in August 2000 that, besides North Korean help, PRC entities provided "increased assistance" to Pakistan's ballistic missile program in the 2nd half of 1999. Also, China reportedly has assisted Pakistan with development of the Shaheen-2 two-stage, solid-fuel MRBM (*Jane's Defense Weekly*, Dec. 13, 2000), and DCI Tenet confirmed U.S. concerns about such assistance in testimony on February 7, 2001 and in his February 2001 report on proliferation.

PRC entities transferred technology to Pakistan that were "inconsistent" with the November 2000 missile nonproliferation agreement, stated Vann Van Diepen, Acting Deputy Assistant Secretary of State for Nonproliferation, on January 17, 2002. In the first several months of 2001, a PRC company reportedly had delivered 12 shipments of missile components for Pakistan's Shaheen-1 SRBM and Shaheen-2 MRBM programs (*Washington Times*, August 6, 2001). On September 1, 2001, the State Department imposed sanctions on the China Metallurgical Equipment Corporation (CMEC) for proliferation of missile technology (Category II items of the MTCR) to Pakistan. The sanctions also applied to

Pakistan's National Development Complex. (Also see **Nonproliferation Sanctions**.) In January 2002, the DCI reported that, in the 1st half of 2001, PRC entities provided "significant assistance" to Pakistan's ballistic missile programs, including serial production of solid-fuel SRBMs (e.g., Shaheen-1 and Haider-1) and the Shaheen-2 MRBM.

Nuclear Technology Sales to Iran

Suspecting that any nuclear technology would be used to build a scientific and technical infrastructure for Iran's clandestine nuclear weapon program, Washington has urged China (and Russia) not to sell any nuclear technology to Iran, although peaceful nuclear energy projects are allowed by the NPT and Iran cooperates with IAEA inspectors. In 1995, China suspended a sale of nuclear reactors to Iran. Showing Israeli influence, Prime Minister Benjamin Netanyahu publicly reported in August 1997 that PRC Vice Premier Li Lanqing said that China canceled plans to build the reactors. However, there have been other controversial PRC nuclear deals with Iran which have pointed to an Iranian nuclear weapon program. PRC technicians built a calutron, or electromagnetic isotope separation system, for enriching uranium at the Karaj nuclear research facility, according to "confidential reports" submitted to President Rafsanjani by his senior aides. The PRC system is similar to the one used in Iraq's secret uranium enrichment program. (*Washington Times*, September 25, 1995.) Iran's nuclear facility at Karaj is not under IAEA safeguards. The Secretary of Defense reported in April 1996 that "the Iranians have purchased an electromagnetic isotope separation unit from China."

The China Nuclear Energy Industry Corporation reportedly had plans to sell Iran a facility to convert uranium ore into uranium hexafluoride gas, which could be enriched to weapons-grade material (*Washington Post*, April 17, 1995; June 20, 1996). According to past intelligence reports, the deal was proceeding with PRC nuclear experts going to Iran to build the new uranium conversion plant near Esfahan (*Washington Times*, April 17, 1996). However, some PRC civilian nuclear officials indicated to the IAEA and U.S. officials that China would not transfer the uranium conversion facility, ostensibly because of Iran's inability to pay. Some analysts point to changes as stemming from Iran's turn to Russian reactors and China's increasing dependence on Mideast oil. Also, China may have responded to concerns of Israel (a key supplier to China's military). Robert Einhorn reportedly told Members of Congress that China canceled this deal but had provided Iran with a blueprint to build the facility (*Washington Post*, September 18, 1997). On the eve of a U.S.-China summit in Washington in October 1997, PRC Foreign Minister Qian Qichen provided a secret letter to Secretary of State Madeleine Albright, promising not to begin new nuclear cooperation specifically with Iran, after building a small nuclear research reactor and a factory to fabricate zirconium cladding to encase fuel rods in nuclear reactors (*Washington Post* of October 30, 1997). U.S. officials say the projects are not significant for nuclear proliferation. In the February 2001 report (on the 1st half of 2000), the DCI dropped an earlier observation that this pledge appeared to be holding. The DCI reported in January 2002 that there were "some interactions" between PRC and Iranian entities that raised questions about Beijing's continued commitment to the pledge during the 1st half of 2001.

As uncovered during a closed hearing of the Senate Foreign Relations Committee on Mar. 12, 1998, the *Washington Post* reported that, in January 1998, the China Nuclear Energy Industry Corporation negotiated with Iran's Isfahan Nuclear Research Center to provide "a lifelong supply" of hundreds of tons of anhydrous hydrogen fluoride (AHF), or

hydrofluoric acid, under falsified documents about end-users. The AHF chemical could be used to produce uranium hexafluoride used in uranium conversion facilities. AHF is also a precursor for the chemical weapon agent Sarin. After Washington protested, Beijing reportedly stopped the sale. The Administration argued that Beijing responded positively and the chemical is controlled by the Australia Group (on chemicals) and not on a nuclear control list. An April 2, 1999 U.S. intelligence report is said to suggest that the China Non-metallic Minerals Industrial Import/Export Corporation "revived" negotiations with the Iranian Atomic Energy Organization on the construction of a plant to produce graphite (used as a moderator in some reactors), reported the *Washington Times* (April 15, 1999).

Missile Technology Sales to Iran

Ballistic Missiles. Depending on the specifications of the equipment and whether the equipment have been delivered, China may have violated its commitment to observe the MTCR and U.S. laws, including the Iran Nonproliferation Act, Iran-Iraq Arms Nonproliferation Act, Arms Export Control Act, and Export Administration Act. The CIA reportedly found that China delivered dozens or perhaps hundreds of missile guidance systems and computerized machine tools to Iran sometime between mid-1994 and mid-1995, according to the *International Herald Tribune* (June 23, 1995). The November 21, 1996 *Washington Times* cited a CIA report which said that China agreed in August 1996 to sell to Iran's Defense Industries Organization gyroscopes, accelerometers, and test equipment, which could be used to build and test components for missile guidance. On the same day, the State Department refused to comment on the report but said that "we believe at this stage that, in fact, the Chinese are operating within the assurances they have given us."

The *Washington Times*, on September 10, 1997, cited Israeli and U.S. intelligence sources as saying that China Great Wall Industry Corp. (which markets satellite launches) was providing telemetry equipment used in flight-tests to Iran for its development of the Shahab-3 and Shahab-4 MRBMs (with ranges, respectively, of about 800 mi. and 1,240 mi.). Over 100 PRC and North Korean experts are reportedly working there (*Washington Times*, November 23, 1997; *Washington Post*, December 31, 1997). Citing a May 27, 1998 intelligence report, the June 16, 1998 *Washington Times* reported that, in May 1998, China discussed selling telemetry equipment (for testing missiles) to Iran. On July 22, 1998, Iran first tested the mobile Shahab-3 missile, which the Pentagon confirmed to be based on a North Korean Nodong missile. In Beijing in November 1998, Acting Undersecretary of State John Holum protested continuing PRC missile technology aid to Iran, including a reported shipment of telemetry equipment in November 1998 (*Washington Post*, November 13, 1998; *Washington Times*, December 7, 1998). U.S. intelligence reportedly suspected continued PRC sales of missile technology to Iran in 1999, including specialty steel, telemetry equipment, and training on inertial guidance, reported the *Washington Times* (April 15, 1999). On November 21, 2000, the State Department announced that it determined that PRC entities had transferred Category II items (missile components) to Iranian entities and U.S. sanctions would be waived on the PRC given its new missile nonproliferation commitment. According to a report (*Washington Times*, Jan. 26, 2001), NORINCO (a PRC defense industrial firm) shipped materials (metals and chemicals) for missile production to Iran. President Bush reported to Congress on December 4, 2001 (on the national emergency related to weapons proliferation) that PRC entities "have continued to supply Iran with a wide variety of missile-related goods, technology, and expertise." The DCI reported in January 2002 that, in the 1st half of 2001,

PRC (and Russian and North Korean) entities continued to supply "crucial" ballistic missile-related equipment and technology to Iran.

C-802 Anti-Ship Cruise Missiles. China has sold land-, sea-, and air-launched anti-ship missiles to Iran. In January 1996, Vice Admiral John Scott Redd, as Commander of the U.S. Fifth Fleet, reported that China supplied to Iran C-802 anti-ship cruise missiles (*Washington Times*, March 27, 1996). In 1997, General J.H. Binford Peay, Central Command commander, said that China transferred 20 patrol boats with 15 equipped with C-802 missiles (*Washington Times*, January 29, 1997). The C-802 is a subsonic (0.9 Mach) missile which has a range of 120 km. (75 mi.) and carries a 165 kg. (363 lb.) warhead. No international agreement bans transfers of anti-ship missiles, and the C-802 is not covered by the MTCR, which controls exports of ballistic and cruise missiles that can deliver 500 kg. warheads to 300 km. Nevertheless, some argue that the transfer has violated the Iran-Iraq Arms Nonproliferation Act (P.L. 102-484), which requires sanctions for transfers that contribute to Iranian or Iraqi efforts to acquire "destabilizing numbers and types of advanced conventional weapons" (including cruise missiles) or WMD. On April 10, 1997, Deputy Assistant Secretary of State for Nonproliferation Robert Einhorn testified that "especially troubling to us is that these cruise missiles pose new, direct threats to deployed U.S. forces." Einhorn also stated that "we have concluded that the C-802 transfers that have occurred so far are not of a destabilizing number and type." Arguments against sanctions were in part based on the case that anti-ship cruise missiles are not a new type of weapon in Iran's arsenal; China previously transferred Silkworm anti-ship cruise missiles to Iran. Others in Congress and the Pentagon argued that U.S. sanctions should be imposed on China for the delivery of C-802 anti-ship cruise missiles to Iran which are "destabilizing" to the region.

According to *Reuters*, on June 17, 1997, Defense Secretary Cohen reported Iran had test-fired PRC air-launched, anti-ship cruise missiles. They were C-801 missiles fired from F-4 fighters. (China Precision Machinery Import-Export Corporation markets air-launched anti-ship cruise missiles called C-801K and C-802K. The subsonic C-801K has a range of 50 km (31 mi).) Cohen added that the U.S. military is watching very closely and has "the capability to defeat any weapon system that Iran might possess." After seeking to clarify apparently vague PRC assurances made at the U.S.-China summit in October 1997, Defense Secretary Cohen said in Beijing on January 20, 1998, that the PRC President promised that China does not plan to transfer to Iran additional anti-ship cruise missiles, including those under contract, or technology to achieve over-the-horizon capability or indigenous production (*Reuters*, January 20, 1998). During another visit to China, Secretary Cohen said on July 10, 2000, that the PRC has "abided by that agreement" made in 1998 "as far as the shipment of cruise missiles to the Iranians." In his January 2001 report on proliferation, Secretary Cohen did not mention China's promises on Iranian cruise missiles.

U.S. intelligence reportedly believed that China already delivered perhaps 150 C-802 missiles to Iran, which has made additional C-802s, using suspected French TRI-60 engines manufactured and sold by Microturbo SA to China beginning in 1987 and perhaps also to Iran in 1998 (*Washington Post*, April 3, 1999). Responding to U.S. diplomatic protests, Paris said that the French firm sold generators, not missile engines. The DCI reported in July 1999 that "China also was an important supplier of [advanced conventional munitions] to Iran through the second half of 1998, but President Jiang Zemin pledged to cease supply of cruise missiles" [in January 1998]. The report did not say whether that pledge was holding. The *Washington Times* (August 19, 1999) cited intelligence reports that said China signed an $11 million

agreement to improve Iran's FL-10 anti-ship cruise missiles. North Korea reportedly has helped Iran to improve the over-the-horizon accuracy of the C-802 cruise missiles, according to the *London Times* (January 11, 2000). The DCI's August 2000 report, on the second half of 1999, said that China (and others) helped Iran to develop its capability to produce conventional weapons, including PRC-designed anti-ship cruise missiles.

Chemical Sales to Iran and Sanctions

Concerning sales for chemical weapons, the *Washington Post* of March 8, 1996, reported that U.S. intelligence had been monitoring transfers of precursor chemicals and chemical-related equipment from China to Iranian organizations affiliated with the military or the Revolutionary Guards. The equipment includes glass-lined vessels for mixing the caustic precursors and special air filtration equipment to prevent poison gas leaks. Iran is also buying PRC technology for indigenous and independent production.

Confirming long-suspected PRC transfers, on May 21, 1997, the Clinton Administration imposed sanctions on two PRC companies, five PRC citizens, and a Hong Kong company for transfers to Iran contributing to chemical weapon proliferation. U.S. sanctions, affecting U.S. government procurement and imports, were imposed under the Arms Export Control Act and Export Administration Act (as amended by the Chemical and Biological Weapons Control and Warfare Elimination Act). Sanctions were not imposed under the Iran-Iraq Arms Nonproliferation Act (affecting "persons" or "countries"), because the transfers apparently occurred before February 10, 1996, the date when provisions on WMD proliferation took effect; and because the State Department said that it had no evidence that the PRC or Hong Kong governments were involved. The sanctions remain in effect.

An intelligence report was said to allege that China completed in June 1997 a plant in Iran for making glass-lined equipment used in producing chemical weapons, wrote the *Washington Times* on October 30, 1997. The Nanjing Chemical and Industrial Group built the factory, and North Chemical Industries Corporation (NOCINCO) brokered the deal. (NOCINCO is affiliated with NORINCO, a defense-industrial firm.) However, the PRC government reportedly held up supplies of raw materials. The *London Daily Telegraph* (May 24, 1998) reported that SinoChem Corp.'s branch in Tianjin, China, concluded a sale to Iran of 500 tons of phosphorus pentasulphide (which is controlled by the Australia Group as useful for production of nerve agents).

On June 14, 2001, the George W. Bush Administration imposed sanctions under the Iran Nonproliferation Act of 2000 (P.L. 106-178) on Jiangsu Yongli Chemicals and Technology Import and Export Corporation (one of the two PRC companies sanctioned in 1997) for proliferation of chemical weapons-related materials or equipment to Iran (*Federal Register*, June 26, 2001). According to the *Washington Times* (June 28, 2001), the PRC company helped Iran to build a factory to manufacture dual-use equipment applicable to chemical weapons. Again, on January 16, 2002, the Administration imposed similar sanctions (for transfers of chemical and/or biological items controlled by the Australia Group) on Liyang Chemical Equipment Company, China Machinery and Electric Equipment Import and Export Company, and a PRC citizen (Chen Qingchang) (*Federal Register*, January 24, 2002). Mr. Chen was also sanctioned in 1997, and the State Department said that he has knowingly and materially assisted Iran's chemical weapons program. Sanctions remain for two years, but there is no economic effect because of the absence of U.S. Government contracts, assistance,

arms sales, or dual-use exports with/to such "persons." The State Department did not impose sanctions under the Arms Export Control Act nor the Iran-Iraq Arms Nonproliferation Act, apparently because unlike those laws, the Iran Nonproliferation Act authorizes sanctions based on "credible information" that a person, since 1999, transferred to Iran items controlled by international nonproliferation groups. After those sanctions were imposed, the DCI's January 2002 public report said that, in the 1st half of 2001, Iran continued to seek production technology, training, expertise, equipment, and chemicals from PRC (and Russian) entities to achieve its goal of having "an indigenous nerve agent production capability."

Missile Technology Sales to North Korea

Since 1998, there have been public concerns about and U.S. government confirmation of PRC assistance to North Korea's missile program. The PRC may have interests in North Korea's missile advances. Indeed, the PRC's Lieutenant General Xiong Guangkai, a Deputy Chief of General Staff, visited North Korea in early August 1998, right before the surprising test-firing of a three-stage, medium-range Taepo Dong 1 missile on August 31, 1998. However, North Korea's missile program has harmed PRC interests, since that threat has spurred U.S. and Japanese support for missile defense opposed by China. Some say PRC entities acted on their own. Such PRC aid has further implications, since North Korea also supplies Iran, Syria, Pakistan, and Egypt.

The National Security Agency (NSA) reportedly suspected in late 1998 that the China Academy of Launch Vehicle Technology (CALT) was working with North Korea on its space program (closely related to missiles) to develop satellites, but that cooperation is not confirmed to be linked to the Taepo Dong MRBM program (*Washington Times*, February 23, 1999). An NSA report dated March 8, 1999, reportedly suggested that China sold specialty steel for use in North Korea's missile program (*Washington Times*, April 15, 1999). In June 1999, U.S. intelligence reportedly found that PRC entities transferred accelerometers, gyroscopes, and precision grinding machinery to North Korea (*Washington Times*, July 20, 1999). An October 20, 1999 classified report is said to say that China's Changda Corp. sought to buy Russian gyroscopes that are more of the same that China supplied to the North Korean missile program earlier that year (*Washington Times*, Nov. 19, 1999). In December 1999, the NSA reportedly discovered an alleged PRC deal to supply unspecified PRC-made missile-related items to North Korea through a Hong Kong company (*Washington Times*, January 1, 2000). The DCI first publicly confirmed PRC supplies in July 1999. The DCI's January 2002 report said North Korea acquired missile-related raw materials and components, especially through North Korean firms in China, in the 1st half of 2001.

Missile Technology Sales to Libya

Beginning in early 2000, public reports appeared on PRC assistance to Libya's missile program. The Defense Department reportedly discovered in December 1999 that the PRC had plans to build a hypersonic wind tunnel in Libya for missile design (*Washington Times*, January 21, 2000). A classified March 2, 2000 report by the NSA was said to describe the PRC's missile technology transfer to Libya that month, helping Libya to develop the Al Fatah missile with a range of 600 miles. China Precision Machinery Import-Export Corp. allegedly began cooperating with Libya in March 1999 (*Washington Times*, April 13, 2000). The June 30, 2000 *Washington Times*, citing a classified NSA report, said that the PRC is training Libyan missile experts at the Beijing University of Aeronautics and Astronautics. Aside from

wind tunnels, PRC assistance has also covered navigational and guidance systems (*Jane's Defense Weekly*, February 13, 2002). The DCI's August 2000 report publicly confirmed PRC missile assistance to Libya for the first time, and the January 2002 report said that PRC (and other foreign) assistance was "critical" to Libya's ballistic missile programs in the 1st half of 2001.

Missile Technology Sales to Syria

While the DCI's public reports have not specified PRC assistance for Syria's missile program, Secretary of Defense Cohen's January 2001 report (*Proliferation: Threat and Response*) said that PRC firms, in addition to North Korean and Russian entities, have contributed equipment and technology to Syria's liquid fuel missile program.

Policy Issues and Options

Weapon proliferation by the PRC raises policy issues concerning: (1) assessments of the nature and seriousness of the security threat; (2) the priority of this issue relative to other U.S. interests (i.e., other security issues, Taiwan, trade, human rights); and (3) the Administration's response (including the use of sanctions) and possible new legislation.

Successive Administrations have pursued a policy of "engagement" with Beijing. Administration officials tend to cite PRC nonproliferation statements and agreements as indications that the policy is advancing U.S. goals, especially on nuclear nonproliferation. Some also say that U.S. sanctions are counterproductive and are too broad. Rather, China needs to recognize nonproliferation for its own national interests and develop stronger export controls. Also, China would be more cooperative if brought in to draw up "the rules."

Others argue that PRC weapons proliferation activities have continued and PRC assurances have proved to be unreliable. Also, they say that U.S. security interests are better served with a tougher approach to deter China's transfers, which may include appropriate sanctions. Some argue that the United States should not be "subsidizing" China's missile and nuclear industries. These proponents tend to see the U.S. position as stronger than that of China's. They also point out that China's suspension of its participation in the Middle East Arms Control effort ended it, and China weakened wording about on-site inspections during negotiations on the CTBT. Some are skeptical that China views nonproliferation as in its national interest; Beijing may see its sales as a form of leverage against Washington.

No matter what options are pursued, many argue that U.S. leadership and a forward-looking and coherent strategy are needed for dealing with China's rising influence in world affairs. A strategic approach might underpin short-term responses to violations and use both positive and negative sources of leverage. Besides sanctions and satellite exports, other unilateral, bilateral, and multilateral options may be considered.

Foreign and Defense Policies

Presidential Engagement. After the downturn in U.S.-PRC relations because of the 1989 Tiananmen crackdown, the Clinton Administration resumed high-level exchanges and argued that "comprehensive engagement" with China advances U.S. security goals, including nonproliferation. President Clinton granted Jiang Zemin summits in Washington, on October 29, 1997, and in Beijing, on June 29, 1998. Leading up to the 1997 summit, the Administration urged China to adopt "comprehensive, nationwide regulations on nuclear export control." China responded by implementing a set of regulations (not a law) on nuclear export controls signed by Premier Li Peng on September 10, 1997. The regulations permit nuclear exports to only facilities under IAEA safeguards. China also joined the Zangger Committee (on nuclear trade) on October 16, 1997. Then, China issued new export control regulations on dual-use nuclear items on June 17, 1998. The 1998 summit in Beijing produced an agreement on non-targeting nuclear weapons, and joint statements on South Asia and on biological weapons. But China refused to join the MTCR, saying that it was "actively studying" whether to join. President Bush raised the proliferation issue in Shanghai in October 2001 and in Beijing in February 2002, but the PRC failed to fulfill its November 2000 pledge and did not issue the promised missile export controls.

Fight against Terrorism. The vicious terrorist attacks of September 11, 2001, added a compelling U.S. interest in considering U.S. policy on PRC weapons proliferation. With questions about the viability of Pakistan's government after it gave strong support to the anti-terrorism war, the United States could seek intelligence from the PRC about Pakistan's nuclear weapons and cooperation in not further adding to instability in South Asia. Also, the Bush Administration could maintain its response to the proliferation problem, since PRC entities have reportedly transferred nuclear, missile, and/or chemical weapons technology to sponsors of terrorism (listed by the State Department), like Iran, North Korea, Libya, and Syria. If the Administration lifts sanctions for supportive countries, options also include waiving proliferation-related sanctions. On October 25, 2001, Senator Kyl warned against "rewarding" Beijing with any relaxation of U.S. restrictions as we seek China's cooperation. In his January 29, 2002 State of the Union speech, President Bush identified the two primary threats as terrorism and weapons proliferation, and he targeted North Korea, Iran, and Iraq as an "axis of evil." However, despite U.S. sanctions, the 9/11 attacks, promised anti-terrorism support, and Presidential visits, PRC transfers to Pakistan and Iran have reportedly continued (*New York Times*, Feb. 21, 2002) and the November 2000 promise is unfulfilled.

Missile Defense. Some say that missile defense can play a role in the strategy to counter the proliferation threat. Others say the September 11 attacks raised questions about the likelihood of terrorists using missiles for weapons delivery. However, China has opposed U.S. deployment of missile defense systems and related cooperation with Japan or Taiwan and threatened to significantly increase its nuclear missile force. China is concerned that missile defense would spur an arms race, negate its deterrence capabilities, forge closer U.S.-Taiwan military cooperation, and violate the MTCR. During Defense Secretary William Cohen's visit to China in July 2000, the PRC reportedly warned that it would continue missile proliferation activities if the United States provides missile defense to Taiwan (*Washington Post*, July 12, 2000). Also, top PRC arms control official Sha Zukang warned that the PRC would withhold cooperation on arms control and weapons nonproliferation in response to U.S. deployment of NMD (*Washington Post*, July 14, 2000). Others say that PRC proliferation activities and missile buildups would continue regardless.

Linkage to the Taiwan Issue. China has tried to link missile nonproliferation to U.S. arms sales to Taiwan, and one policy issue is whether the United States would respond to such linkage. During the 1998 summit in Beijing, the Clinton White House reportedly considered a PRC request for a U.S. pledge to deny missile defense sales to Taiwan, if China promised to stop missile sales to Iran; but no agreement was reached (*Far Eastern Economic Review*, July 16, 1998).

Trade Controls

Satellite Exports. There are policy issues about using satellite exports to gain China's cooperation in missile nonproliferation. Since 1988, the policy of granting export licenses and Presidential waivers of post-Tiananmen sanctions (Section 902 of P.L. 101-246) have allowed satellites to be exported for launch by China Great Wall Industry Corp. (the same company sanctioned for missile proliferation) and – increasingly – for China's own use. In the Clinton Administration, the National Security Council, in a Secret memo on bilateral talks leading up to the 1998 summit (dated March 12, 1998, and printed in the *Washington Times*), proposed to expand space cooperation, increase the number of satellite launches, issue a blanket Presidential waiver of sanctions, and support China's membership in the MTCR — in return for PRC missile export controls. On November 21, 2000, the State Department said it would waive sanctions as well as resume processing licenses (suspended in February 2000) to export satellites to China and discuss an extension of the bilateral space launch agreement (to expire end of 2001), in return for another PRC promise on missile nonproliferation. However, on September 1, 2001, the State Department imposed sanctions on a PRC company, the China Metallurgical Equipment Corporation (CMEC), for proliferation of missile technology to Pakistan, denying satellite exports to China. (Also see **Nonproliferation Sanctions**.) (See CRS Report 98-485, *China: Possible Missile Technology Transfers From U.S. Satellite Export Policy – Actions and Chronology*.)

Nonproliferation Sanctions. Policy debates concerning PRC technology transfers have often centered on the question of whether to impose unilateral sanctions under various U.S. laws or to enact new laws requiring sanctions. While certain PRC transfers may not violate any international treaties, sanctions may be required under U.S. laws. Congress has passed numerous laws to set U.S. nonproliferation policy and enforce nonproliferation treaties and guidelines with unilateral sanctions in response to violations. Underlying the question of whether sanctions should be used are disagreements about the most effective approach for curbing dangerous PRC sales and promoting U.S. interests and leadership. The elimination of the Soviet threat sharpened debate about the primacy of security interests over economic interests. Some argue that sanctions are not effective in countering the PRC's proliferation practices. Others say they signal U.S. resolve on this important security issue.

In the 106th Congress, Members in 1999 passed the FY2000 National Defense Authorization Act (**P.L. 106-65**), requiring a report on the PRC's adherence to the MTCR (the classified report was submitted on August 18, 2000). In 2000, Congress passed the Iran Nonproliferation Act (**P.L. 106-178**). In May 2000, Senator Thompson, along with Senator Torricelli, introduced S. 2645, the China Nonproliferation Act, to require annual reviews (based on "credible information"), sanctions, and use of the U.S. securities market as a policy tool. In September 2000, the Senate passed (65-32) a motion to table the legislation as an amendment to the bill granting China permanent normal trade relations (PNTR) status.

On November 21, 2000, the State Department said it would waive economic sanctions as well as resume processing licenses to export satellites to China and discuss an extension of the bilateral space launch agreement, in return for another PRC promise on missile nonproliferation. However, continued PRC transfers soon raised the issue of imposing sanctions, and Beijing has not yet issued missile export controls as promised. By July 2001, the United States formally protested to China about its compliance with the agreement (*Washington Post*, July 27, 2001). Visiting Beijing ahead of President Bush's trip to Shanghai in October 2001, Secretary of State Powell said on July 28, 2001, that expert talks would be held on proliferation, noting "outstanding issues" about China's implementation of the November 2000 agreement. Unsatisfactory talks were held on August 23.

So, on September 1, 2001, the State Department imposed sanctions on a PRC company, the China Metallurgical Equipment Corporation (CMEC), for proliferation of missile technology (Category II items) to Pakistan. The sanctions also applied to Pakistan's National Development Complex. (*Federal Register*, September 11, 2001) The sanctions have the effect of denying licenses for two years for the export of satellites to China for its use or launch by its aerospace entities, because the Category II sanctions deny U.S. licenses to transfer missile equipment or technology (MTCR Annex items) to any PRC "person," which is defined by the so-called Helms Amendment (section 74(8)(B) of the AECA) as any PRC government activity related to missiles, electronics, space systems, or military aircraft, and the State Department considers that satellites are covered by the MTCR Annex (since it includes satellite parts). The President has the authority to waive the sanctions. Although Presidents Bush and Jiang met in Beijing on February 21-22, 2002, and Beijing's missile export control list was reportedly ready to go, the PRC has failed to fulfill its November 2000 pledge. Traveling with Bush, National Security Advisor Condoleezza Rice said that the PRC should issue a missile export control law and stop "grandfathering" pre-agreement contracts.

Nuclear Cooperation Agreement. As agreed during the U.S.-China summit in October 1997, President Clinton, on January 12, 1998, signed certifications (as required by P.L. 99-183) about China's nuclear nonproliferation policy and practices to implement the 1985 Nuclear Cooperation Agreement. According to President Clinton, the agreement serves U.S. national security, environmental, and economic interests, and "the United States and China share a strong interest in stopping the spread of weapons of mass destruction and other sophisticated weaponry in unstable regions and rogue states — notably, Iran." The President also waived a sanction imposed after the Tiananmen crackdown (in P.L. 101-246). Later, at the 1998 summit, the Department of Energy (DOE) and the PRC State Planning Commission signed an agreement on peaceful nuclear cooperation, including bringing PRC scientists to U.S. national laboratories, universities, and nuclear reactor facilities.

During debate on the agreement, some in Congress, the nonproliferation community, and elsewhere were skeptical that PRC policies changed sufficiently to warrant the certifications and that they are in U.S. interests. They also pointed out that China had not yet joined the Nuclear Suppliers Group. (See Nonproliferation Regimes below.) Congressional review ended on March 18, 1998, and the agreement has since been implemented. U.S. firms may apply for Export-Import Bank financing and licenses from the Nuclear Regulatory Commission (NRC) and DOE to export nuclear technology to China, and foreign firms may apply to re-export U.S. technology. Members pursued several options to affect the agreement's implementation. On November 5, 1997, the House passed a bill with an amendment sponsored by Rep. Gilman, chairman of the Committee on International

Relations, to extend congressional review for implementation of the agreement from 30 to 120 days and provide for expedited review procedures. As amended by Rep. Gilman, the National Defense Authorization Act for FY1999 (P.L. 105-261) requires the President to notify Congress "upon" granting licenses for nuclear exports to a non-NATO country that has detonated a nuclear explosive device (e.g., China). *Nucleonics Week* (March 23, 2000) and the *Washington Times* (May 9, 2000) reported that the Administration had not obtained from China an overall assurance that it will not re-export U.S. technology to another country, such as Pakistan, thus affecting the issuance of export licenses. As required, the State Department, on June 9, 2000, issued the first notification to Congress that NRC issued a license on February 3 for the export of tantalite ore to China. The Administration issued this and subsequent licenses based on case-by-case assurances from Beijing of no re-transfers.

U.S. Import Controls. While sanctions may affect U.S. exports, some policy steps may affect imports of products produced by PRC military or defense-industrial companies suspected of contributing to proliferation. Import controls have been included as possible sanctions for missile proliferation under Section 73(a)(2)(C) of the Arms Export Control Act and Section 11B(b)(1)(B)(iii) of the Export Administration Act, as well as affected by what is popularly called the "Helms Amendment," giving a broad definition of "person" as a target of sanctions. Issues include whether to sanction imports and what the parameters should be.

U.S. Export Controls. Export controls can be an important policy tool, because U.S. technology provides one source of leverage over Beijing. For example, the Reagan Administration, in 1987, froze export control liberalization because China sold Silkworm anti-ship missiles to Iran. After the Cold War, U.S. export restrictions have been reduced to focus on items that contribute significantly to the development and production of WMD. Some in Congress are concerned about U.S. technology reaching hostile states with WMD programs through China. Congress may strengthen controls over missile-related technology. U.S. military sales to China have not been allowed since sanctions were imposed after the 1989 Tiananmen Crackdown, but there is increasing demand to export dual-use technology.

Nonproliferation and Arms Control

Nonproliferation Regimes. Another policy approach is to strengthen the international nonproliferation regimes. There are two prongs in such efforts: encourage PRC support for strengthening the regimes to enforce compliance and filling gaps in China's participation. Some say that including China would capitalize on its desire to be treated as a "great power" and to be perceived as a responsible world leader. In addition, China might be more cooperative if it helped to draw up the "rules." Others argue that China's participation would obstruct efforts for tighter export controls, derail arms control efforts, link them to the Taiwan issue (e.g., the Mideast arms control talks), or weaken provisions (e.g., the CTBT).

For nuclear nonproliferation, the U.N. Security Council has recognized the limits to the effectiveness of the NPT/IAEA safeguards system (as shown by Iraq's and North Korea's advanced, clandestine nuclear weapons programs) and has tried to strengthen the IAEA's verification authority. Some advocate strengthening the Biological Weapons Convention (BWC) with a verification protocol for inspections to monitor compliance.

The United States and others might encourage China to join the MTCR (as a member after it establishes a record of compliance and effective export controls), Nuclear Suppliers Group (NSG), Australia Group (on chemical and biological weapons), and Wassenaar Arrangement (military and dual-use export controls). Indeed, Clinton's National Security Council in a secret memo, dated March 12, 1998 (printed in the March 23, 1998 *Washington Times*), proposed in a "China missile deal" to expand space cooperation with Beijing, increase the number of satellites that China can launch, issue a blanket Presidential waiver of post-Tiananmen sanctions on satellite launches, and support China's membership in the MTCR — in return for effective PRC missile export controls.

Critics say that membership in the MTCR would exempt China from certain sanctions, provide it with intelligence, give it a potentially obstructionist role in decision-making, and relax missile-related export controls to China. In September 1999, Congress passed the FY2000 National Defense Authorization Act (P.L. 106-65), stating its sense that the President shall take steps to obtain an agreement with the PRC on adherence to the MTCR and its annex and that the PRC should not be allowed to join the MTCR without meeting certain conditions. It also required a report on the PRC's adherence to the MTCR, and the classified report was submitted on August 18, 2000.

China joined the Zangger Committee (on nuclear trade) in October 1997, before a summit in Washington. Also, China issued new export control regulations on dual-use nuclear items on June 17, 1998, before another summit in Beijing. But China is the only major nuclear supplier to shun the 39-nation NSG, which requires "full-scope safeguards" (IAEA inspections of *all* other declared nuclear facilities in addition to the facility importing supplies to prevent diversions to weapon programs).

CTBT and Fissile Materials Production. China, on July 30, 1996, began a moratorium on nuclear testing and signed the CTBT on September 24, 1996. However, after the U.S. Senate rejected (51-48) the treaty on October 13, 1999, it became more doubtful that the PRC would ratify it promptly. Also, the United States has sought PRC cooperation on negotiating a global ban on the production of fissile materials for nuclear weapons and other nuclear explosive devices. On October 4, 1994, the United States and China agreed to "work together to promote the earliest possible achievement of a multilateral, non-discriminatory, and effective verifiable convention" banning fissile materials production.

International Lending and Japan

Congress may seek to link U.S. support for loans made by international financial institutions to China's nonproliferation record. The Iran-Iraq Arms Nonproliferation Act requires U.S. opposition to multilateral loans for sanctioned countries (Section 1605(b)(2)). The World Bank and the Asian Development Bank have resumed substantial lending to China since the Tiananmen crackdown of 1989. Coordination with Japan is important, since it provides the most significant bilateral aid to China and, in 1995, was the only country to cut aid to pressure China to stop nuclear testing. The U.S.-Japan Joint Declaration on Security Alliance for the 21st Century (of April 17, 1996) provides a basis for bilateral coordination on weapon nonproliferation issues.