The Republic of China's High-Tech Export Control System*

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This paper will analyze the international background for the Republic of China's institution of a high-tech export control system; Taipei-Washington talks on the subject; and the establishment, special characteristics, and implementation of the system. The study shows that U.S. pressure, international requirements, increased high-tech imports, and the desire to participate in the international community were direct factors leading to the establishment of the system, and that its future development will be determined by its efficiency, the development of a new international control system, cross-Strait relations, and U.S. attitudes.

Keywords: high-tech controls, Taipei-Washington high-tech control talks, COCOM, 5K countries

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The Republic of China's (ROC's) formal announcement on July 1, 1995 of the implementation of an export control system for high-tech commodities was of great significance as it was the first time that it had established such a system. It was also an attempt by the government to further expand control over high-tech exports after the introduction of high-tech import controls in April 1994.

Although the ROC had established various export control systems and relevant regulations and laws long before,[1] high-tech export

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[1]Please consult regulations and laws promulgated by the Board of Foreign Trade, such as the Approval Guidelines for Exports of Commodities; the Measures on Applications for Exports; the Measures on Classification and Administration of Imported and Exported Goods; the Measures on Planned Production and Marketing of Such Exported Products as Mushrooms, Asparagus, and Bamboo Shoots; the Measures on

control was a new challenge, as the government had never had similar export regulations and experiences. High-tech commodities are special in nature and complicated in variety; thus, control presents greater difficulty than that for ordinary commodities. It includes defense, economic, political, and diplomatic interests as well as policy considerations. It also requires a high level of high-tech appraisal and control ability. Moreover, Taipei's high-tech export control system was not instituted for domestic economic considerations, but to match the development of the international high-tech control norms. The institution of such a system was not a simple domestic problem, but an issue of international relations.

What prompted the ROC's move? In the post-Cold War period, Western countries are lifting control over high-tech trade and expanding economic exchanges with former communist countries as well as other nations; why did Taipei do exactly the opposite and adopt control measures in this field? Was it a response to international diplomatic pressure to meet the global "nonproliferation" demand, or a long-term plan based on domestic economic and diplomatic interests? The features of the system itself are worth investigating. What are the major differences between it and the systems of other countries? As high-tech controls are highly complicated, will Taipei be able to implement its system smoothly? What impact will implementation have on the ROC?

This paper aims to conduct a systematic study of these questions. On the basis of published ROC and foreign government documents, information obtained from interviews, and his own observations from irregular participation, the author will discuss why and how the ROC instituted a high-tech control system, its special characteristics, and its future prospects.

The Background

High-tech export control was a result of international political maneuverings of Western industrialized countries. After World War II, there was the fear that the flow of high-tech commodities and technologies into communist countries would endanger the security

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Applications for Export Quotas of Textiles; and other control measures on the export of endangered animal and plant species, medicines, and radioactive materials.

of the free world. Hence, Western countries, headed by the United States, jointly established in 1949 the Coordination Committee for Multilateral Export Control (COCOM) to collectively exercise control over trade with communist countries. The COCOM, which mainly consisted of members of the North Atlantic Treaty Organization (NATO) (excluding Iceland) and Japan, held regular meetings in COCOM headquarters in Paris to discuss export control approval procedures. The COCOM had three major international export control categories: atomic energy, munitions, and industrial products. For exports of items on these lists, all COCOM members had to abide by the international control procedures. Since its establishment, the COCOM system remained basically intact, though considerable operational changes were introduced in later periods. However, as a result of radical changes in the international environment in the post-Cold War era, the COCOM was dissolved on March 31, 1994. A new organization to take its place is currently being arranged by consultation.[2]

Following its retreat to Taiwan in 1949, the ROC government's basic policy was to fight against the communists and recover mainland China. Based on this anticommunist premise, contacts with mainland China and other communist countries were forbidden. Phrases such as "Travels to communist countries not allowed" were affixed to all ROC passports to prove the government's firm stand. Accordingly, there were no trade and economic relations between Taiwan and communist countries and the problem of high-tech export control was, of course, nonexistent.

At that time, the ROC was only a country with a low degree of economic development. Without the ability to develop scientific and technological products, it had to rely on foreign technical assistance, the major supplier of which was the United States.[3] From 1951 to 1965, the U.S. government provided Taiwan with a total of US$1.5 billion in economic aid to enable the latter to proceed with infrastructure reconstruction. U.S. military assistance and techno-

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[2]For the special characteristics and development of the COCOM control system, see Tuan Y. Cheng, "The International High-Tech Control System: Implementation and Evolution," *Wenti yu yanjiu* (Issues & Studies) (Taipei) 29, no. 15 (December 1990): 87-106; and Tuan Y. Cheng, "The Evolution of the COCOM in the Post-Cold War Period," ibid. 33, no. 9 (September 1994): 39-55.

[3]James C. Hsiung et al., eds., *Contemporary Republic of China: The Taiwan Experience 1950-1980* (New York: American Association for Chinese Studies, 1981), 175-78.

logical transfers helped relax tensions in the Taiwan Strait and bring about a stable environment for economic development. U.S. corporations and enterprises also launched direct investment and technical cooperation projects in Taiwan. Though most of their investments were made in the labor-intensive processing industry, they contributed considerably to the transfer of business management techniques to Taiwan as well as to the latter's effort to upgrade the industry. Academic and educational exchanges between the two countries helped Taiwan train high-tech talents. In addition, the United States provided the ROC with a stable export market, which helped Taiwan's businesses to expand abroad.

However, the environment changed radically in the late 1970s and early 1980s:

The serious impacts of the severance of diplomatic relations between the United States and the ROC. Although Taipei and Washington still maintained unofficial contacts in such fields as arms sales, economic and trade relations, and educational and cultural exchanges after 1979, the People's Republic of China (PRC) often used its official ties with the United States to create difficulties. Taipei increasingly felt the need to develop substantial relations with other countries in order to increase its visibility on the international stage.

The need for market diversification. In the late 1970s, the worldwide economic recession caused by the second oil crisis forced advanced countries to adopt protectionist measures, seriously affecting Taiwan's exports. The situation was precarious, as Taiwan's export market was overcommitted to the United States and Japan. In 1981, the United States also began to pressure Taipei to revalue the NT dollar, reduce tariffs, and open up the domestic market, since the latter had a large trade surplus with the United States. In order to reduce factors disadvantageous to economic development and maintain sustained export growth, it was necessary for Taipei to seek other overseas markets.

Opening of trade with East European countries. Taiwan had never had direct conflicts of interest with East European countries, so there was no need to always exclude them from trade relations. In addition, Eastern Europe was a market with great potential: it had rich industrial raw materials sold at low prices and lacked consumers' goods, which suited Taiwan's needs to purchase raw materials and promote exports. On November 30, 1979, the ROC government formally opened direct trade with Poland, East Germany, Yugoslavia, Hungary, and Czechoslovakia. In October 1987, after East European

countries had abandoned communist ideology and the planned economy, introduced reforms, and sought democratization, Taipei added Romania and Bulgaria to the list of its East European trade partners. All imports from and exports to these countries were to be handled in accordance with the regulations governing imports from and exports to ordinary free areas.[4] In February 1990, Taipei also approved direct trade with the Soviet Union and Albania. Since then, Taiwan's trade relations with East European countries have become normalized.

The rapid growth of cross-Strait economic and trade relations. After the PRC's economic opening-up in 1979, the long-term complete segregation between the two sides of the Taiwan Strait was gradually eroded. In the beginning, trade contacts were limited and transaction volumes small. In 1979, indirect trade between the two sides totalled only US$78 million. However, their annual total trade volume soon increased rapidly. Cross-Strait trade and economic activities especially flourished after 1987, when Taipei approved indirect imports of twenty-nine mainland Chinese agricultural and industrial raw material items and allowed Taiwan residents to visit their mainland relatives.

In 1985, bilateral indirect trade amounted to US1.1 billion. The figure increased to US$1.5 billion in 1987, US$3.48 billion in 1989, and US$7.4 billion in 1992, with an average annual growth rate of 42 percent.[5] In addition, during these years, Taiwan's exports to mainland China via Hong Kong became increasingly varied. The exports of scientific and technological commodities, including power-generating machinery, special machinery for industrial use, electronic accessories and equipment, computers and related products, increased steadily.

The challenge of industrial upgrading and scientific and technological advancement. After many years of personnel training and technology introduction, Taiwan had improved its self-production capability and established a manufacturing industry on a considerably big scale. Taiwan manufacturers were not only adept at introducing Western commercial technologies, but had obtained the capability of developing new scientific and technological products. The export

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[4] *Jingji ribao* (Economic Daily) (Taipei), December 1, 1979, 1; *Zhongguo shibao* (China Times) (Taipei), October 6, 1987, 1.

[5] *Dalu jingji tongji yuekan* (Mainland Chinese Economic Statistic Monthly) (Taipei), December 1993.

rate of high-tech commodities (including mechanical, electronic, computer, telecommunications, and automation products) increased year by year.[6] Moreover, beginning from 1980, Taiwan's manufacturing industry needed to maintain its competitiveness in international trade by upgrading itself. Therefore, the ROC government made strenuous efforts to develop technology-intensive and high-intelligence industries. It strived to establish science-based industrial parks (for instance, the Hsinchu Science-Based Industrial Park) in the place of export processing zones, and also promoted the introduction of international high technology, the establishment of strategic enterprise alliances with multinational corporations, and the development of new high-tech products.

In brief, in the 1980s, the ROC encountered great changes in its domestic situation, foreign policy, and economic development. These changes transformed Taiwan into a "problematic" country in the realm of international high-tech export control. Thus, the United States and other COCOM nations began to pressure Taiwan to institute a high-tech control system.

International Factors

The readjustment of the COCOM system and U.S. diplomatic pressure were important international factors which contributed to Taiwan's institution of a high-tech control system. In the early 1980s, U.S. President Ronald Reagan adopted an uncompromising confrontation policy toward the Soviet Union. In view of increased Soviet military strength, the Reagan administration increased the defense budget to upgrade its military equipment, and at the same time demanded that international high-tech controls be reinforced to impose more rigorous control on technology exports to the Soviet Union and East European countries. The administration believed that East-West détente in the 1970s had led to relaxation of the COCOM system. Many West European member nations relaxed trade control toward member states of the Soviet camp for the sake of economic interests; hence, a large amount of high-tech products flowed into the Soviet Union and enhanced the Soviet military buildup. Therefore, the ad-

[6]Denis Fred Simon, "The Orbital Mechanics of Taiwan's Technological Development," in *Taiwan in the Asia-Pacific in the 1990s*, ed. Gary Klintworth (Canberra: Australia National University, 1994), 195-216.

ministration took the position that COCOM export controls should be readjusted to improve their efficiency.[7]

In the mid-1980s, after long consultations, COCOM members agreed on four principles: (1) revitalizing COCOM (including harmonizing member countries' licensing and enforcement mechanisms); (2) focusing COCOM controls on truly sensitive technology; (3) negotiating COCOM-like export control systems in non-COCOM countries; and (4) eliminating or reducing controls on trade with COCOM countries and with non-COCOM countries with adequate export control systems.[8] According to these principles, the control lists would gradually be reduced, but they would be enforced more rigorously. Not only would COCOM members strictly abide by the control procedures, but such controls would be expanded to newly industrialized countries (NICs) capable of producing high-tech products.

In that period, NICs had indeed caused difficulties for COCOM enforcement. Their rapid economic development and remarkable foreign trade ability had enabled them to have a share on the international high-tech market. In 1985, 17 percent of U.S. high-tech imports came from the "four dragons of East Asia," namely, Taiwan, South Korea, Singapore, and Hong Kong,[9] who also engaged in trade with non-COCOM East European nations. In addition, Singapore and Hong Kong were also international free ports very convenient for transhipments or reexports of commodities. The Soviet Union could exploit these loopholes in COCOM controls to secure Western high-tech products in an indirect way.

In the mid-1980s, the COCOM adopted a resolution which demanded about twenty non-COCOM countries (including the NICs in East Asia) to set up COCOM-like export controls. These countries were divided into several groups according to their geographical situation, phase of development, state roles, and existing control measures. COCOM members would contact these countries on a bilateral basis and use economic or historical relations to convince them of the need

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[7]See Michael Mastanduno, *Economic Containment: COCOM and the Politics of East-West Trade* (Ithaca, N.Y.: Cornell University Press, 1992), chap. 7.

[8]Gary K. Bertsch and Steve Elliott-Gower, "U.S. COCOM Policy: From Paranoia to Perestroika?" in *After the Revolutions: East-West Trade and Technology Transfer in the 1990s*, ed. Gary K. Bertsch, Heinrich Vogel, and Jan Zielonka (Boulder, Colo.: Westview Press, 1991), 19-22.

[9]National Academy of Sciences (NAS), *Balancing the National Interest* (Washington, D.C.: National Academy Press, 1991), 66-67.

for cooperation in the realm of high-tech export controls. Thus, West Germany contacted the Austrian, Swedish, and Swiss governments; France talked with the Spanish authorities; Japan approached Singapore; and the United States negotiated with South Korea, Hong Kong, Malaysia, and Taiwan. It was hoped that these non-COCOM countries would be persuaded to sign bilateral memorandums of understanding (MOUs) as a sign of their acceptance of COCOM high-tech export controls.[10]

In accordance with this resolution, the United States began to exert pressure on non-COCOM countries. In early 1985, the U.S. government published a directive authorizing the Department of Defense to review the licensing of certain types of high-tech exports to fifteen non-COCOM countries, including Taiwan, South Korea, Hong Kong, Singapore, and Malaysia. The Defense Department was asked to stop issuing export licenses if the import countries lacked appropriate high-tech control measures.[11]

In May of the same year, the U.S. Department of Commerce revised the Export Administration Regulations to set conditions for the issuance of distribution licenses (DLs).[12] The use of distribution licenses would be granted to U.S. exporters and foreign consignees only when the latter had established internal control programs. In other words, the firms involved were required to establish their own export control system, train and appoint responsible control personnel, and institute internal checking procedures to evaluate whether their clients were on the "blacklist" and whether end users of their products were using them in an inappropriate manner.[13]

In August 1985, the United States revised the Export Administration Act, making a clear distinction between COCOM and non-

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[10]Ibid., 148-49, 212-13; Jan Stankovsky and Hendrik Roodbeen, "Export Controls Outside COCOM," in Bertsch, Vogel, and Zielonka, *After the Revolutions*, 73-75.

[11]D. L. Overman, "Reauthorization of the Export Administration Act: Balancing Trade Policy with National Security," *Law and Policy in International Business* 17, no. 1 (1985): 372-73.

[12]There are two kinds of U.S. export licenses: general licenses which do not require approval from the Department of Commerce, and validated licenses which must go through application procedures for such approval. The latter is also divided into two categories: individual validated licenses, which require formal approval procedures for each shipment of products or technologies; and partial shipment validated licenses (for instance, distribution licenses), which permit exports of certain products by partial shipment within a certain period of time. The use of partial shipment licenses enables exporters to save a lot of time.

[13]NAS, *Balancing the National Interest*, 112.

COCOM countries regarding positioning in the licensing system. Article 5(K) of the 1979 Export Administration Act had authorized the U.S. government to negotiate with non-COCOM countries for the conclusion of bilateral high-tech export control cooperation agreements in coordination with COCOM controls. The 1985 Export Administration Act enabled the U.S. government to encourage more compliance by stipulating that all countries willing to sign bilateral agreements with the United States and establish COCOM-like high-tech export control could receive COCOM-like preferential treatment in the U.S. export licensing system and be given the 5K status.[14]

This "5K treatment" was very important. First, it meant that enterprises in non-COCOM free countries that had to depend on the U.S. market for high technology would hope to qualify for all categories of distribution licenses like their counterparts in COCOM states. To gain COCOM-like status, they would voluntarily pressure their own government to enter into negotiations with the United States. Second, many non-COCOM countries were partners in international economic competition. If one of these countries obtained 5K treatment, the other countries would be forced to seek the same. Thus, by setting 5K conditions, the United States had completed preparations for negotiations with non-COCOM countries. After that, it proceeded to promote bilateral contacts and negotiations on high-tech export controls.

Taipei-Washington High-Tech Control Talks

After the ROC government opened direct trade with seven East European countries in 1987, the United States became concerned. In early 1988, the American Institute in Taiwan (AIT) formally asked Taipei to exercise self-restraint, show respect for the international high-tech control norms, and not export high-tech products to com-

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[14]See Appendix 18, "Export Administration Act of 1979 as Amended by the Export Administration Acts of 1981 and 1985," in Homer E. Moyer, Jr. and Linda A. Mabry, *Export Controls as Instrument of Foreign Policy* (Washington, D.C.: International Law Institute, 1985), 426-27. For the definition of 5K countries and requirements for the acquisition of such a status, see Taiwan Institute of Economic Research, *Zhongmei qianding gaokeji chanpin yu jishu chukou guanzhi shuangbian xieding dui woguo zhi yingxiang fenxi* (An analysis of the impacts of the ROC-U.S. bilateral agreement on high-tech products and technology export controls on our country) (Taipei: Taiwan Institute of Economic Research, February 1989), chap. 4, 82-90.

munist countries.[15] In October, an ROC delegation, consisting of officials from the Ministry of Foreign Affairs, the Ministry of Economic Affairs (MOEA), the National Science Council, and the Hsinchu Science-Based Industrial Park, was invited to visit the United States, and a meeting with export control officials from the U.S. State Department, Department of Commerce, and Department of Defense was arranged. During the meeting, a detailed explanation of the U.S. export control system was given and a request for cooperation in establishing high-tech export controls was made.[16] In March 1989, the United States sent a nine-member strategic high-tech export control delegation to visit Taipei. The delegation reiterated the U.S.'s intention to cooperate with Taiwan in high-tech export controls and urged the latter to sign a bilateral agreement on high-tech export controls as soon as possible.[17]

In response to U.S. diplomatic moves, the ROC government urged Taiwan manufacturers not to export products on the COCOM control lists to communist countries so as not to induce U.S. economic retaliation. It also informed the United States that it would not consider signing a bilateral agreement at the moment as the institution of related regulations and administrative systems could not be completed in a short time. However, it recognized the U.S.'s determination to push high-tech export controls, and could not reject this demand since the United States was its chief supplier of new technologies. Consequently, the ROC government planned to establish a high-tech control system more favorable to Taiwan's political, economic, and security developments.

In May 1989, the ROC government decided to establish an interministerial committee for the study of the high-tech export control system. In a report completed in April of the following year, the committee recommended forming a high-tech export control system according to the principles of "passive cooperation" and "long-term gradual progress." Thus, the government would cooperate only passively and adopt minimum control measures to meet the international (especially the U.S.) demand for high-tech export controls; it would not volunteer to add new items or countries to the control lists.

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[15] *Zhongguo shibao*, March 28, 1988, 1; *Jingji ribao*, March 26, 1988, 10; *Ziyou shibao* (Liberty Times) (Taipei), May 14, 1988, 3.
[16] *Jingji ribao*, October 19, 1988, 2.
[17] *Zhongyang ribao* (Central Daily News) (Taipei), March 16, 1989, 2.

Moreover, it would establish the control system in stages, as necessary readjustment of the trade administration system could not be completed in a short time.[18]

Despite these policies, Taipei recognized its dependence on foreign trade and that adopting excessive export control would reduce its economic competitiveness and access to overseas markets, and at the same time incur extra administrative costs. Since it had to respond to U.S. pressure and the need to develop international high-tech controls, it considered making a compromise by establishing a simple system to reduce the scope of unnecessary controls and the increased costs of both the government and the enterprises.

The United States continued to step up pressure for the conclusion of a bilateral agreement. During a consultative conference on strategic trade controls held in Washington in August 1989, Taipei's proposal to establish an export control system in stages was accepted and the two sides agreed to begin negotiations for the conclusion of a bilateral agreement.[19] In Washington on May 4, 1990, the two sides initialed an MOU on the Protection of Trade in Strategic Commodities and Technical Data, which would be signed after formal ratification by the two governments.[20]

According to this MOU, the two sides agreed that increased protection of strategic commodities and technical data was in their common security and economic interests, and protective measures would be established according to COCOM principles and enforced effectively. The two sides promised full cooperation in providing information on control violations and relevant data, but it had to be done in accordance with their respective laws and stipulated procedures. In addition, Taipei agreed to gradually establish a strategic export control system in stages, which would be enforced only after relevant laws had been enacted by the legislature. The U.S. side agreed to help in the process, including providing relevant control data, helping to arrange training plans, and counseling.

This MOU was a product of U.S. pressure—in fact, it marked the achievement of U.S. objectives—but Taipei had also obtained remarkable results. First, its status and treatment as a COCOM-

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[18]ROC Ministry of Economic Affairs (MOEA), "Report of the Committee for the Study of the High-Tech Export Control System" (April 1990).

[19]*Jingji ribao*, November 10, 1989, 2; November 11, 1989, 2.

[20]*Lianhe bao* (United Daily News) (Taipei), May 5, 1990, 7; May 6, 1990, 6.

cooperative country was assured, as the United States would do its utmost to ensure that Taiwan be treated by all COCOM members and cooperative authorities according to COCOM principles. Second, it was agreed that Taipei has a say in its own control lists. The United States asked Taipei to accept all COCOM control lists, but Taipei emphasized that it did not have the obligation to do so as it was not a COCOM member. Finally, the two sides agreed to hold consultations about the control lists at an appropriate time. Third, the MOU would only apply to their bilateral relations and would not involve third countries. Originally, the United States demanded that all control items be banned from reexport without the authorization of the original export countries. However, Taipei made it clear that reexport control bans would be restricted to bilateral relations only and expansion of such control to other countries could only be realized through the conclusion of bilateral agreements between Taipei and the countries concerned. Fourth, it was agreed that the United States would treat Taipei as a 5K country when the latter took steps to gradually establish the export control system.

However, the MOU also had some shortcomings. First, as a non-COCOM member, the ROC government would have to depend completely on the United States for COCOM export control policies, control lists, and other relevant information. Consequently, the United States acquired a virtually dominant position in Taipei's export control issue. Second, although the United States agreed to give Taipei the treatment accorded to COCOM-cooperative countries, it did not promise to help Taipei acquire COCOM membership. In fact, Taipei had originally planned to further expand the bilateral agreement into multilateral cooperation, but such an arrangement was not made in the MOU. Third, although the United States promised to give Taipei 5K treatment, it did not clearly specify what kind of export licensing preferences would be offered. There are at least six kinds of licensing preferences, each of which would affect exporters differently.

Establishment of the High-Tech Control System

The ROC government began to work for the gradual establishment of a high-tech control system after the above-mentioned bilateral agreement was completed. The three main aspects of the work included: establishing an administrative structure for the high-tech control system; continuing to consult with the United States and

receiving U.S.-provided training programs; and adopting relevant laws and regulations and their implementation rules.

Since excessive controls would reduce Taiwan's competitiveness in foreign trade and increase its administrative costs, the ROC government had decided, even before the conclusion of the MOU with the United States, to establish a simplified control administration structure. No new organization would be set up for this purpose; the control tasks would be assumed by existing trade administrative organizations. However, an interministerial high-tech control committee would be established to facilitate contacts and coordination among various departments.[21] In November 1990, the Executive Yuan formally approved the committee's establishment, and it was renamed the High-Tech Protection Committee in May 1991. Composed of fourteen to nineteen representatives from various ministries and convened by a vice economic minister, it is responsible for high-tech control policymaking and coordination. Controls are to be actually enforced by the MOEA's Board of Foreign Trade, the Industrial Development Bureau, the Industrial Counseling Committee, the Industrial Technology Research Institute, and relevant ministerial departments. For their respective responsibilities, see chart 1.

The 1990 Taipei-Washington MOU formally entered into force after the two governments expressed their approval through an exchange of notes in April 1991.[22] According to the MOU, the two sides will consult annually to review their high-tech control cooperation plan; such conferences began in June 1991. The focus of consultations in the early stage was on helping Taipei establish a high-tech export control system, helping Taipei with training programs related to the operation of licensing agencies, and providing Taipei with technological support for the establishment of control lists. The United States also arranged several short-term training courses in Washington and Hawaii for Taiwan, as agreed to in the MOU.

As early as 1989, Taipei's MOEA revised the Foreign Trade Law (Draft) to add some articles on high-tech controls and punishments for violations of such controls.[23] The Foreign Trade Law was

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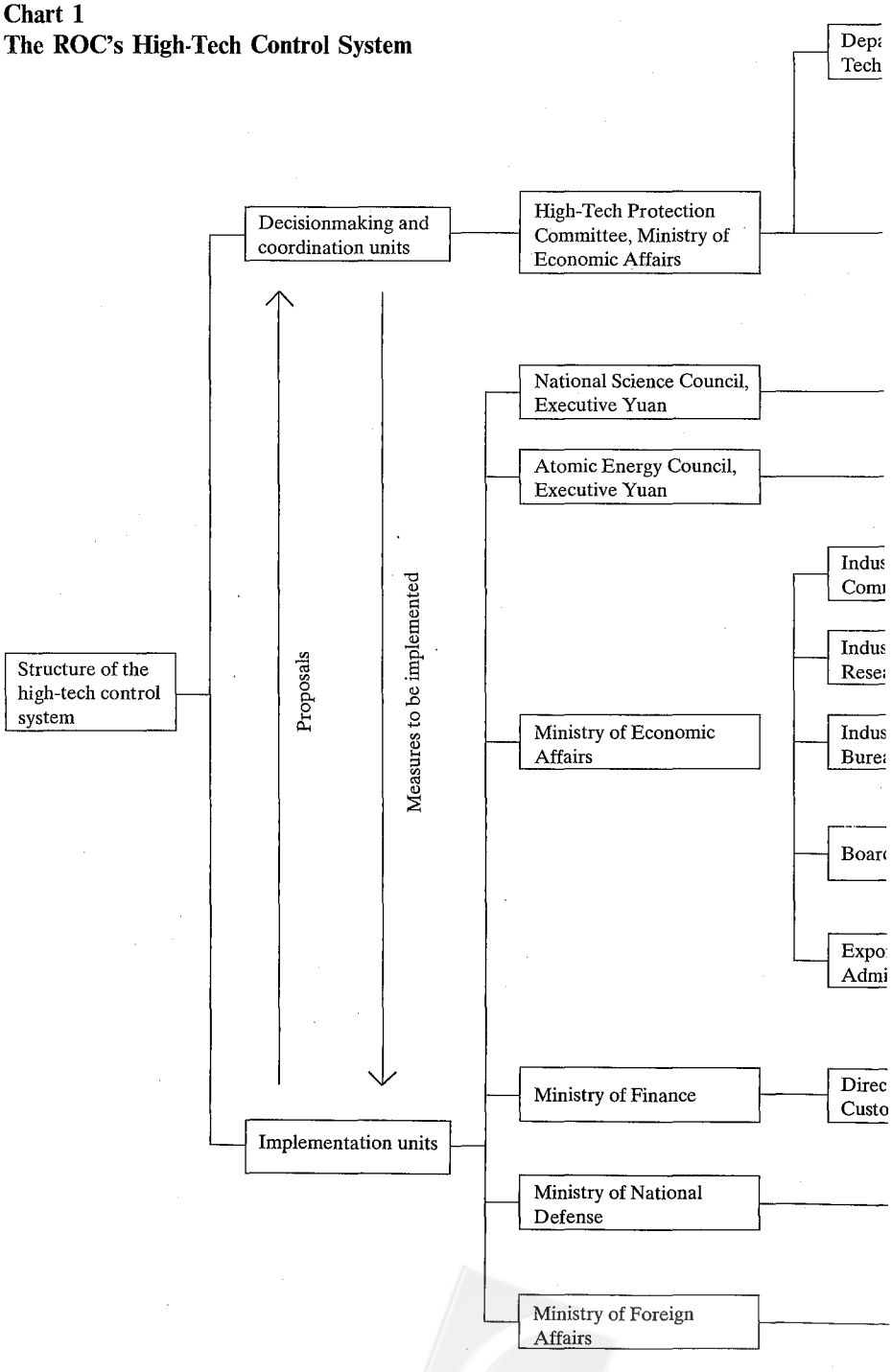
[21]See note 18 above.

[22]Tuan Y. Cheng, "The Nature and Impacts of the ROC-U.S. High-Tech Export Control Agreement," *Zhongyang ribao*, April 17, 1991, 2.

[23]*Lianhe bao*, April 4, 1990, 2.

Chart 1
The ROC's High-Tech Control System



Sources: Taiwan Institute of Economic Research (TIER), "A Study of Our Promotion of the Implementation of High-Tech Export Controls" (June 1993); TIER, "Explanations on Our Implementation of Import and Export Controls of High-Tech Commodities" (September 1994).

dustrial
- Coordinating the division of labor among relevant units
- Attending to relevant work as directed by the convenor

- Drafting the high-tech policy and system
- Contacts and coordination among relevant high-tech control units
- Conducting high-tech control consultations and negotiations with foreign countries
- Other affairs related to high-tech control

- Enforcing high-tech controls in science-based industrial parks

- Drafting control lists of atomic energy technologies and commodities

ling
- Collecting exporters' opinions on the high-tech control lists and areas, and offering them information services

logy e
- Technical support for the determination of control items

pment
- Drafting the control lists of industrial technologies and commodities

Trade
- Issuance of licenses for high-tech commodities
- Implementing the IC/DV system and attending to other relevant affairs
- Checking the whereabouts of high-tech commodities

g Zone
- Enforcing high-tech controls in export processing zones

ral of
- Verification of imports and customs examination of exports

- Drafting the control lists of national defense technologies and commodities

- Drafting the lists of control areas and conducting high-tech control negotiations with foreign countries

formally adopted in February 1993, and its 13th and 27th Articles[24] provide a legal basis for the enforcement of high-tech controls. According to the stipulation of this law, in March 1994 the MOEA promulgated the Regulations Governing Exports and Imports of High-Tech Commodities, which constituted Taiwan's first formal norm for high-tech controls.

In November 1992, a high-tech import control IC/DV (Import Certificate/Delivery Verification) system was implemented on a trial basis in the Hsinchu Science-Based Industrial Park. This was done because enforcement of high-tech import controls was easier and could provide valuable experiences for future implementation of high-tech export controls. Nationwide implementation of high-tech import controls began in April 1994 after the Regulations Governing Exports and Imports of High-Tech Commodities was promulgated. Preparatory work for enforcing high-tech export controls, including establishing a licensing system, promulgating control lists and countries, and informing exporters about high-tech export control operations, started in 1995. Finally, on July 1 of the same year, nationwide high-tech export controls were implemented. Thus, the ROC government completed the formation of its high-tech control system.

Special Characteristics and Implementation of the High-Tech Control System

Basically, the ROC's high-tech control system was established in imitation of the control systems of such COCOM members as the United States and Japan and the control norms of South Korea[25] and other COCOM-cooperative countries. Its foundation consists of the control lists, the control countries, and the licensing procedures.

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[24]Article 13 of the Foreign Trade Law reads: "To meet the need of introducing high-tech commodities of advanced countries, the Ministry of Economic Affairs should formulate administrative measures on imports and exports of high-tech commodities." Article 27 of the same law reads: "Those who import or export high-tech commodities in violation of the control measures of Article 13 will be sentenced to imprisonment or forced labor under detention of less than two years, and/or imposed a fine of less than NT$300,000."

[25]For information about South Korea's high-tech controls, see Han S. Park, "South Korea's Export Control Policy," in *International Cooperation on Nonproliferation Export Controls*, ed. Gary K. Bertsch, Richard T. Cupitt, and Steven Elliott-Gower (Ann Arbor, Mich.: University of Michigan Press, 1994), 247-60; "Country Focus: Korea," *Export Control News* 7, no. 4 (April 29, 1993): 8-11.

The ROC high-tech control lists were made on the basis of the COCOM Industrial Lists, Atomic Energy Lists, and Munitions Lists,[26] which were provided by the United States at consultative conferences on strategic trade controls. In principle, Taipei's lists can be revised in accordance with changes in the domestic and international situation and actual needs. Moreover, exporters can make proposals to the Board of Foreign Trade about items to be added or deleted from the control lists.

The control countries are divided into four categories according to international control norms and the domestic situation. The first category includes proscribed countries, including post-COCOM areas and nations under United Nations embargoes. At present, it includes Iraq, Iran, North Korea, Libya, Serbia, and Montenegro. Without special authorization by the government, exports of high-tech commodities to these countries are prohibited. The second category consists of mainland China. The control scope is more relaxed than that for the first category countries, and items on the control lists specified as control items to mainland China will be dealt with according to the method for the first category countries; items without that specification will be dealt with according to the method for the third and fourth category countries. However, all exports to mainland China must not violate the stipulations of the Regulations on Permission of Trade Between the Taiwan Area and the Mainland Area. The third category refers to former COCOM members and COCOM-cooperative countries. At present, a total of twenty-eight countries belong to this category,[27] and all have already implemented IC/DV control or import and export control of high-tech commodities. Normally, licenses for high-tech exports to these countries will be granted if the applications are made with stipulated documents. The fourth category refers to all countries that do not belong to the above-mentioned three categories. Basically, exports to these countries are given the same treatment as those to the third category countries but one more document, the end-user certificate, is required for license applications.

Licensing procedures are as follows: First, exporters must consult the control lists and ascertain whether their high-tech products are

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[26] *Gaokeji huopin qingdan* (Lists of high-tech commodities) (Taipei: Board of Foreign Trade, MOEA, May 1995).

[27] *Gaokeji huopin shuchu guanli zuoye xuzhi* (Guides to the administrative procedures for high-tech exports) (Taipei: Board of Foreign Trade, MOEA, June 1995), 2-3.

on the lists. If they cannot decide by themselves, they may apply for an appraisal by the Industrial Technology Research Institute. Next, exporters must determine to which category of control areas the destination of their export products belong, and prepare required documents according to different stipulations for exports by impartible or partial shipment, such as product catalogs, specifications, technical manuals, international import certificates, end-user certificates, and reexport documents issued by the original export countries.[28] With all needed documents, exporters may apply for licenses for the export of high-tech products either at the MOEA's Board of Foreign Trade, the MOEA's Export Processing Zone Administration, or the Hsinchu Science-Based Industrial Park Administration. These three organizations are authorized to issue licenses directly. In general, licenses for non-batch exports are issued within three working days, and those for batch exports within seven working days. However, if the cases are complicated, the applications might be transferred to relevant organizations or the MOEA for review and delayed. Finally, after obtaining the licenses, the exporters must complete customs formalities within a month for exports by impartible shipment, or the licenses will be invalidated. However, licenses for exports by partial shipment are effective within two years.

Judging from the above, the ROC's high-tech control system is simple and efficient. Although the items on the control lists are very complicated, highly technical, and difficult for ordinary exporters to understand, the Industrial Technology Research Institute may help exporters with appraisals. In addition, although there are four control area categories, only the seven countries in the first and second categories are actually subject to high-tech controls. For high-tech exports to the third and fourth category countries, only licensing procedures in coordination with international controls are required. Moreover, with the exception of mainland China, the seven countries subject to actual control have only limited trade and economic relations with Taiwan. Finally, the licensing process appears to be simple and free of red tape. Basically, the three licensing agencies are authorized to review relevant documents and decide whether to grant licenses by themselves. Therefore, export licenses are normally issued within three or seven days. In comparison, in the United

[28]For details, see ibid., table 4, 39-41.

States, ordinary applications for high-tech exports would take fifteen to thirty days.

However, the ROC's control system and the licensing process still have some shortcomings:

The ROC government has no right to decide its own control lists. Being a non-COCOM country, the ROC cannot participate in reviews or deliberations of the international control lists. It lacks direct information about COCOM controls and relies mainly on the United States for all important information, including the control lists. At present, Taipei can propose at the annual Taipei-Washington consultative conferences to review some control items. However, it has had difficulty in obtaining information about rapid developments in the field of high-tech controls. Consequently, it has been unable to promptly readjust its own control system in accordance with changes in international high-tech controls. This might also affect its ability to seize high-tech trade opportunities.

To coordinate with the goal of international high-tech controls, the ROC has no choice but to impose controls on countries that are targets of international controls. However, what countries should be included on the international control lists is a highly controversial issue even among former COCOM members. For instance, Iraq, Iran, North Korea, and Libya's listing as first category countries is generally considered to be a reflection of U.S. foreign relations views; it does not necessarily mean that these countries are "very dangerous" or "engaging in international terrorism everywhere." Taiwan has always maintained friendly economic relations and trade with Iran and Libya and regarded North Korea as a potential market for exports. However, under the pressure to coordinate with international high-tech controls, it has had to sacrifice certain trade relations with these three countries.

In consideration of the special cross-Strait situation, it is understandable and acceptable that mainland China is under high-tech controls, but explicit norms for controls over high-tech exports to mainland China do not exist. Are the control items for mainland China on the international control lists or have they been individually classified as so by Taipei? If control over these items is exercised only by Taipei, the efforts might be fruitless. If these items are on the international control lists, the adoption of controls still seems to go against the tendency of international high-tech controls, as both Russia and mainland China are targets of cooperation for the COCOM-successor organization.

There are no obvious differences between third and fourth category countries in the ROC's classification of control areas. According to the general operational principles for international high-tech controls, the third category consists of countries that have already implemented international controls; therefore, high-tech export controls to these countries are more relaxed, but more prudent approaches are adopted to high-tech exports to the fourth category countries that have not yet implemented international controls. However, the difference in treatment seems to be nonexistent in the ROC's high-tech control system.

Although the application procedures for export licenses seem simple and convenient, exporters are burdened with the onerous duty of document preparation. Exporters of high-tech commodities are required to furnish a number of stipulated documents, no matter whether they apply for partial or impartible shipments or reexports. Some documents, such as international import licenses, end-user certificates, and approvals for reexports issued by the original export countries, require formal approval of import or relevant countries and firms. The process can take a long time to complete and involves heavy manpower. Should the countries involved have questions about the required documents, the exporters might find the task more troublesome and complicated.

The ROC's high-tech control system has been implemented since July 1995. In so short a period, an overall appraisal of its implementation has been impossible. However, the control operations have been enforced quite smoothly thus far. It seems that the aforementioned shortcomings have not caused much trouble. The reasons for this might be as follows:

1. The ROC's economic and trade units in various countries have already made collecting information about international high-tech controls a key task; thus, Taipei's inadequacy of information has to some extent been remedied.

2. Taiwan's trade volume with the "international control countries" has always been very limited, so the problem of high-tech exports to these countries does not exist.

3. At present, Taiwan's high-tech commodities are exported mainly to the third category countries to which comparatively simple control operations are applied; so far, its exports to fourth category countries have involved no highly sensitive or controversial cases.

4. Taiwan's high-tech exports are mostly products manufactured

by the machine tool and electronic information industries. Most of these exporters are large or multinational firms that already have an internal export control system or a special department responsible for high-tech export supervision. The assistance given by associations of various industries has also helped solve many export control problems.

In the final analysis, Taiwan's greatest challenges in the realm of high-tech controls are its nonparticipation in the international control decisionmaking process and controls on exports to mainland China. In the center of both issues is the "Beijing factor." When negotiating for the Taipei-Washington MOU, Taipei expressed the hope that the conclusion of the bilateral agreement would lead to the beginning of Taipei's participation in multilateral high-tech control activities. The U.S. side said that it would be pleased to see Taipei's hopes realized, though it would depend on other countries' support. At present, Taipei is striving to join the COCOM-successor organization scheduled to be established in 1996.[29] It also plans, after stable implementation of its high-tech control system is achieved, to further enlarge the control scope to include such international nonproliferation items as nuclear and chemical weapons and missiles, and at the same time strive to join relevant international control institutions such as the Nuclear Suppliers Group, the Australia Group, and the Missile Technology Control Group. However, the COCOM-successor organization would like to have the PRC as its member, or at least considers Beijing's goodwill cooperation as integral to its smooth operation in the future (although Beijing has shown interest in becoming a member of the organization, it has not yet declared its intention to join because that will involve such complicated issues as arms exports, establishment of a control system, and foreign relations).[30] Therefore, the COCOM-successor organization will be influenced by Beijing's reactions to Taipei's moves. Moreover, whether the United States is willing to give Taipei effective support remains doubtful. It is generally believed that from the U.S. point of view, a bilateral agreement with Taipei suits U.S. interests more than a multilateral agreement.

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[29] *Zhongguo shibao*, August 25, 1995, 4; December 21, 1995, 9.

[30] "Twenty-eight Nations Meet in The Hague to Plan for the COCOM-Successor Organization," *The Arms Control Reporter* (1995): 250.B.42-3.

The control of high-tech exports to mainland China might add one more controversial issue to cross-Strait relations. At present, members of the former COCOM still maintain a high-tech control policy toward Beijing, but has gradually relaxed the control measures to cope with the changes in the international situation. Moreover, if Beijing is willing to meet the requirements of the international control norms, it will no longer be regarded as a country subject to international control. Faced with such a development (in which Beijing's own attitude is of course a crucial factor), unilateral adoption by Taipei of control over high-tech exports to mainland China will not only be ineffective, but also reduce its trade opportunities and destabilize cross-Strait relations.

Conclusion

High-tech control is a state policy choice involving considerations such as international norms, national security, foreign policies, and economic interests. These factors had different roles in the ROC's establishment of a high-tech control system. On the whole, U.S. pressure, requirements of international control norms, increased high-tech imports, and the desire to participate in the international community were direct factors leading to the establishment of the system. The adoption of export control, increased administrative costs, increased burdens for exporters, and fluctuating cross-Strait relations are the prices to be paid. However, Taipei has adopted a minimum control scope to reduce costs and hopes that the establishment of the system will enhance its efforts to join multilateral international control organizations.

So far, the implementation of the ROC's high-tech control system has been smooth, mainly because high-tech exports account for a low ratio in the ROC's total exports; most exporters of high-tech commodities have already established internal control systems; and before the system's formal establishment, Taipei's economic and trade units in foreign countries had collected information about international high-tech control operations from various sources.

In the future, three factors will influence the implementation of the ROC's high-tech control system. The first is the nature and operation of the COCOM-successor organization. The new organization was scheduled to be operational in 1996 and held its first plenary session on April 3-4 in Vienna. However, due to different views among member states, the meeting failed to reach an agreement.

Another meeting is planned for the coming July.[31] Basically, the objective of the organization is to prevent the exports of arms and arms-related technologies to countries that constitute a menace to international peace and security, and in contrast to the practices of the former COCOM, it will emphasize achieving consensus of opinion through advance consultations.[32] Consequently, there will be significant changes in the existing control lists of the former COCOM and relations among the COCOM-successor organization, its member states, and cooperative states will also be readjusted. The second factor is U.S. attitudes, which will remain a key factor in Taiwan's bid to join the COCOM-successor organization or develop operational relations with this new organization. With the help of the Clinton administration, Russia will become a founding member of the new organization and South Korea is striving for membership.[33] In addition, Washington and Beijing have already begun contacts on the PRC's membership. It seems that the United States intends to capitalize on this issue to engage Beijing in arms export talks. The third and last factor is Beijing's attitudes. If Beijing intends to join the new organization, the Taipei-Washington bilateral agreement on high-tech controls will remain in its present state and any breakthrough will be difficult to achieve. In addition, Taipei's controls over high-tech exports to mainland China will be hard to maintain. From the viewpoint of international controls, Taipei's export control system will become meaningless and can only be interpreted from a cross-Strait relations perspective.

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[31]"Russia Seeks to Limit an Arms Control Accord," *The New York Times*, April 5, 1996, A10.

[32]See note 30 above.

[33]"South Korea Unveils Its Plans to Gain Membership in the COCOM-Successor Organization," *The Arms Control Reporter* (1995): 250.B.40.