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# Foreign Military Sales trend analysis: impacts on the future with application to Taiwan

Moore, Kevin L.; Ho, Chih-Haur; Foust, Coleen; Kerutis, Aidas

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**NAVAL  
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SCHOOL**

**MONTEREY, CALIFORNIA**

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**MBA PROFESSIONAL REPORT**

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**Foreign Military Sales Trend Analysis:  
Impacts on the Future with Application to Taiwan**

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**By: Kevin L. Moore,  
Chih-Haur Ho,  
Coleen A. Foust, and  
Aidas Kerutis**

**June 2007**

**Advisors: Jerry L. McCaffery,  
Thomas H. Hoivik**

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**FOREIGN MILITARY SALES TREND ANALYSIS:  
IMPACTS ON THE FUTURE WITH APPLICATION TO TAIWAN**

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Submitted in partial fulfillment of the requirements for the degree of

**MASTER OF BUSINESS ADMINISTRATION**

from the

**NAVAL POSTGRADUATE SCHOOL  
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# **FOREIGN MILITARY SALES TREND ANALYSIS: IMPACTS ON THE FUTURE WITH APPLICATION TO TAIWAN**

## **ABSTRACT**

The purpose of this MBA Project is to investigate and provide an analysis of the prominent factors that affect the United States Foreign Military Sales (FMS) program. This project was conducted with the sponsorship and assistance of the Naval Postgraduate School's Acquisition Research Institute, Financial Management and International programs. The overall goal of this project is three-fold: 1) To identify the purpose of the United States FMS program and its processes 2) To identify, define and evaluate historical economic, political, social and industrial changes and trends that affect FMS worldwide allocation and support and 3) To apply these findings to a specific country (Taiwan) to make a prediction of future participation and support.

The role of arms sales in world politics has grown tremendously since the end of World War II and more specifically since the passage of new arms laws in 1979. The importance of FMS is increasingly evident in the foreign policies of both supplier and recipient nations, in international politics, competition and relations. Arms sales have become in recent years a crucial dimension of international affairs. This paper examines several trends in military equipment, services and training exchanges and investigates their potential impact on future conflicts. The nature of FMS is complex. This discussion plans to identify and analyze trends relating to socio-political, economic, and industrial and technological changes associated with FMS spending. This discussion then applies these findings to Taiwan as a case study and expands on the customer's experience with FMS. The intent of this paper is to increase the reader's knowledge of FMS, pinpoint trends in the program and use FMS to Taiwan as a point of comparison to increase comprehension of this extremely complex and not well-understood program.



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# I. INTRODUCTION

## A. CHAPTER OVERVIEW

This chapter of the research report covers the background, problem statement, purpose of study, research questions, methodology, limitations, definitions, significance of study and report overview. The objective of this chapter is to create a clear and concise understanding of the research problem, its significance and how the problem will be analyzed. This introduction chapter establishes a foundation and roadmap for the subsequent chapters.

## B. BACKGROUND

The role of arms sales in world politics has grown tremendously since the end of World War II and more specifically since the passage of new arms laws such as the Arms Export Control Act in 1979.<sup>1</sup> The importance of Foreign Military Sales is increasingly evident in the foreign policies of both supplier and recipient nations<sup>2</sup>, in international politics<sup>3</sup>, competition and relations. Arms sales have become in recent years a crucial dimension of international affairs.<sup>4</sup> This paper examines several trends in military equipment, services and training exchanges and investigates their potential impact is on the conduct of conflict in the future. The nature of Foreign Military Sales is complex. This research plans to identify and analyze trends relating to socio-political, economic, industrial and technological changes associated with Foreign Military Sales spending. These findings will then be applied to Taiwan as a case study in order to expand on the customers' experience with Foreign Military Sales. The intent of this paper is to increase

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<sup>1</sup> Defense Institute of Security Assistance Management, "DISAM'S Online Green Book," Chapter 9, Oct. 2006, 1 May 2007, <<http://www.disam.dsca.mil/pubs/DR/greenbook.htm>>.

<sup>2</sup> U. S. Arms Control and Disarmament Agency, "World Military Expenditure and Arms Transfers 1995," 3 May 2007, <<http://dosfan.lib.uic.edu/acda/reports1.htm>>.

<sup>3</sup>Richard R. Grimmett, *Conventional Arms Transfers to the Developing Nations, 1996-2003*, Washington D.C.: Congressional Research Service, 2004).

the reader's knowledge of Foreign Military Sales, pinpoint trends in the program and use Foreign Military Sales to Taiwan as a point of comparison to increase comprehension of this extremely complex and not well-understood program.

### **C. PROBLEM STATEMENT**

While there is meticulous information on the monetary value and type of equipment, services and training purchased by foreign countries through the FMS program, there is little research linking this data to the economic state of being, political shifts of power, social movements or industrial advancements both domestically and foreign. Additionally, there is minimal research available which analyzes the trends affecting FMS as well as perspectives of customers. This research effort plans to bridge the gap in information by identifying the predominant environmental factors, correlating trends and addressing issues from a customer's perspective as associated with the FMS program.

### **D. PURPOSE OF STUDY**

The purpose of this study is to establish and analyze the predominant trends that impact the FMS program in an effort to provide information to policy makers and governmental leadership for incorporation into future strategy and policy. This information can be utilized to improve our strategic position within the world. Equipped with the knowledge provided by a detailed trend analysis, the FMS organization can make better informed decisions concerning defense security and cooperation strategies.

### **E. RESEARCH QUESTIONS**

In this report, the research team seeks to provide the data to answer the following questions:

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<sup>4</sup>Defense Institute of Security Assistance Management, "DISAM'S Online Green Book," Appendix 2 History of Security Assistance, Oct 2006, 21 Apr 2007, <<http://www.disam.dsca.mil/pubs/DR/20%20Appendix%202.pdf>>.

**1. Foreign Military Sales**

What are the mission, roles and history of the FMS program?

**2. Socio-Political**

How do changes in domestic threat conditions affect FMS?

What political factors affect FMS?

How does the shift in power within the House and Senate affect the funding for FMS?

What trends currently exist within FMS, and how have such trends changed since the end of the Cold War era?

How do military budget reductions affect FMS?

What trends do other countries value with respect to FMS?

**3. Economic**

Do changes in U.S. military expenditures affect FMS?

How do changes within military doctrine affect FMS?

Do changes in U.S. manpower strength affect FMS?

**4. Technological/Industrial**

How do changes in technological innovation affect FMS?

How do changes in the domestic Defense Industry affect FMS?

How do changes within the domestic acquisition process affect FMS?

How do offset agreements affect FMS?

**5. Taiwan**

How do foreign political situations (Taiwan) affect the size and timing of FMS?

What foreign factors affect the FMS program?

How do changes within FMS affect foreign capabilities?

How does Taiwan, as a recipient of U.S. FMS, view the program?

## **F. METHODOLOGY**

This research project combines statistical analysis and case-study methodology to provide an in-depth examination of the United States FMS program. The case-study method was determined the most appropriate research strategy because it allows for analysis of a strategically interesting region and adds a program with real-life context. The research data, which includes both academic and governmental data, was collected using a combination of methods—including literature reviews, telephonic interviews and personal interview of United States and Taiwan FMS officials, various governmental commercial reports, newspaper and periodical articles.

## **G. LIMITATIONS**

The hypersensitivity of political issues associated with Taiwan as a state limited access to personal interviews of Taiwanese officials and documents. Specifically, U.S. members of the research team were denied country clearance due to sensitivity and timing of the research. Similarly, these sensitivities limited access to classified budgetary information from Taiwan. Additionally, there is minimal availability of U.S. Foreign Military Sales program data prior to 1980 because of lack of documentation.

## **H. REPORT OVERVIEW**

This report begins with an introduction in Chapter I; this is an overview of the background, purpose, and methodology of the discussion and provides a roadmap for the entire research effort. Chapter II then defines Foreign Military Sales through its program mission, organizational structure within the United States government and processes. Additionally, Chapter II provides a history of the Foreign Military Sales program and depicts the significance and magnitude of the program today. Chapter III looks outside the Foreign Military Sales program and identifies predominant environmental factors

(economic, socio-political, and industrial) affecting program administration. Chapter III also statistically examines these factors for applicable trend data analysis to forecast future development. Chapter IV outlines a customer's perspective of the Foreign Military Sales program using Taiwan as a case study. Thus, Chapter IV explores the factors affecting purchases: the benefits, concerns and complications of the program. Chapter V brings together the trend analysis from Chapter III and applies it to information from Chapter IV—making predictions for the future of Taiwan with respect to the Foreign Military Sales program. Additionally, Chapter V concludes the piece with overall conclusions, recommendations and areas for future research.



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## II. DESCRIPTION AND HISTORY OF FMS

### A. PROGRAM DESCRIPTION

#### 1. What is FMS?

According to governing document *DoD 5105.38-M*, “the Foreign Military Sales (FMS) program is that part of Security Assistance authorized by the *Arms Export Control Act (AECA)* and conducted using formal contracts or agreements between the United States Government (USG) and an authorized foreign purchaser.”<sup>5</sup> Annually the U.S. Government appropriates funds that are requested from the President and approved by congress to help its allies and foreign countries purchase arms and other defense-related articles. The funds are held in a trust fund which is basically operated as a zero-profit revolving or working capital fund. The Foreign Military Sales (FMS) program brochure defines FMS as, “the U.S. Government’s program for transferring defense articles, services and training to other sovereign nations and international organizations.”<sup>6</sup> Thus, it is a government-to-government method for selling U.S. defense equipment, services and training. Ideally the program hopes that responsible arms sales will advance national security and foreign policy objectives by “strengthening bilateral defense relations, supporting coalition building and enhancing interoperability between U.S. forces and

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<sup>5</sup> United States, Defense Security Cooperation Agency, Security Assistance Management Manual, DoD 5105.38-M, (Washington: DoD, 2003) 91.

<sup>6</sup> Defense Security Cooperation Agency, “The FMS Advantage: Frequently Asked Questions About Foreign Military Sales,” Full Color Brochure, 21 Jan 2004, 10 May 2007  
<[http://www.dsca.osd.mil/about\\_us.htm](http://www.dsca.osd.mil/about_us.htm)>.

militaries of friends and allies.”<sup>7</sup> Figures 1 and 2 describe the financial history of the FMS program. Figure 1 shows the total dollar amount of FMS agreements and deliveries per year (in CY 2000 U.S. dollars) from 1980 to 2005.

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<sup>7</sup> Defense Security Cooperation Agency, “Foreign Military Sales,” 3 Apr 2007, 10 May 2007 <[http://www.dsc.osd.mil/home/foreign\\_military\\_sales.htm](http://www.dsc.osd.mil/home/foreign_military_sales.htm)>.

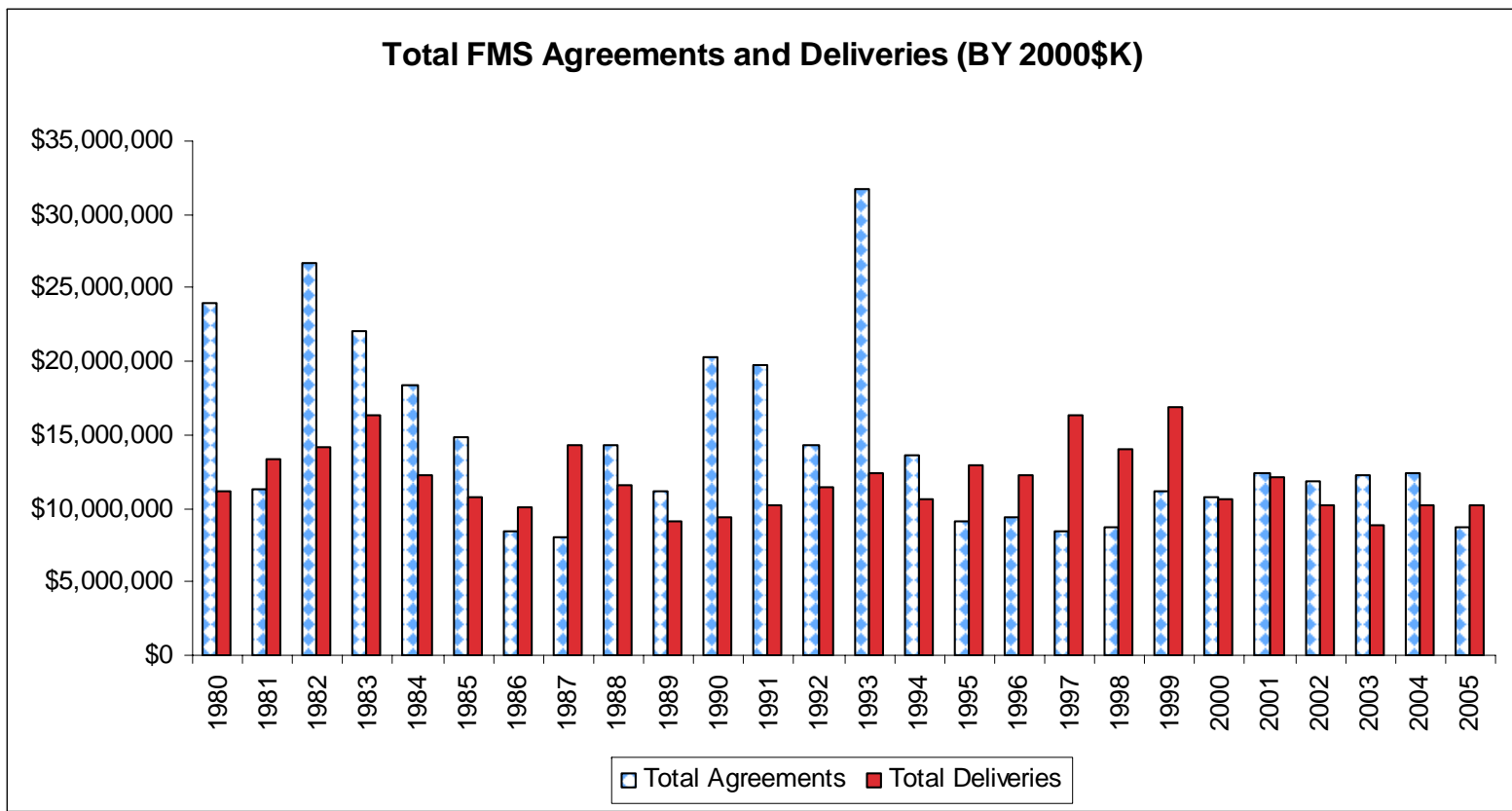


Figure 1. Total Foreign Military Sales Budget in U.S. Dollars<sup>8</sup>

<sup>8</sup> FMS figures are drawn from The Department of Defense Security Assistance Agency annual facts books at the Federation of American Scientists website, 20 Feb 2007, 28 Apr 2007 < <http://www.fas.org/main/home.jsp> >.

Actual FMS deliveries usually take place some years after the agreement has been achieved and then take more than one fiscal year to be completed. This can be observed in Figure 1, in which peaks in total amount of FMS agreements are followed over the next few years with an increased amount of FMS agreements. For example, year 1993 had the biggest amount of FMS agreements in a 25-year period; and from 1995 to 1999, the amount of FMS deliveries was greater than the amount of agreements. The main beneficiaries of the 1993 agreement dollars were Saudi Arabia, Taiwan and Kuwait.

Figure 2 tracks the Foreign Military Sales dollar value of agreements as a percentage of the US Defense Outlays. The term outlay refers to “actual government spending” which occurs through cash, check or electronic funds-transfer payments made for the contracts, purchases, and personal services and as grants and loans are executed.<sup>9</sup> Figure 2 depicts the total dollar amount of Foreign Military Sales agreements as a percentage of the US Defense Outlays. Outlays were as much as 18% in 1980, but saw a rapid decline from 1983 to 1988 as US Defense Outlays grew due to the Reagan-era U.S. military buildup. After experiencing a spike in 1993 as a reaction to the first Gulf War, the percentage stabilized at around 4-6%. However in recent years, the percentage has started to decrease again as the U.S. Defense Outlays grew from the Global War on Terror, while the amount of FMS agreements slightly declined.

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<sup>9</sup> Jerry L. McCaffery and L.R. Jones, Budgeting and Financial Management for National Defense (Greenwich: Information Age Publishing, 2004) 73.

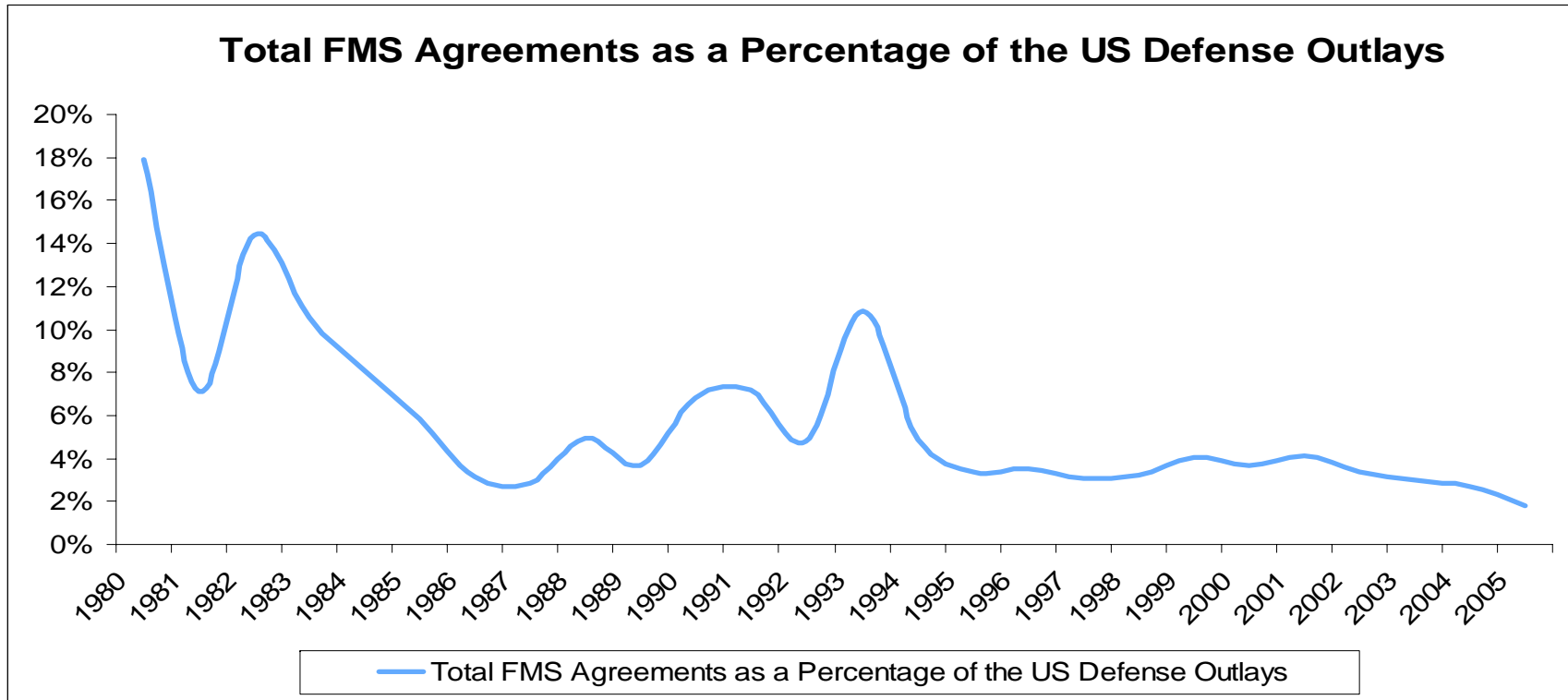


Figure 2. Total FMS Agreements as a Percentage of the US Defense Outlays<sup>10</sup>

<sup>10</sup> FMS figures are drawn from The Department of Defense Security Assistance Agency annual facts books at the Federation of American Scientists website, 20 Feb 2007, 28 Apr 2007 < <http://www.fas.org/main/home.jsp> >.

Defense outlays are drawn from the US Government Printing Office website, 21 Feb 2007 <[www.gpoaccess.gov/usbudget/fy06/sheets/hist02z1.xls](http://www.gpoaccess.gov/usbudget/fy06/sheets/hist02z1.xls)>.

## 2. Eligible Participants

The eligibility of participants in the FMS program is based on Presidential determination. In accordance with *AECA*, section 3 (reference (c)), the President makes a determination as to whether the prospective purchaser is eligible. Both defense articles and/or services may be sold or leased to a country or international organization once determined eligible. Table 1 summarizes the *AECA* criteria for this determination.<sup>11</sup>

Table 1. Presidential Determination Criteria for FMS Eligibility<sup>12</sup>

FMS Eligibility Criteria	
1	The furnishing of defense articles and defense services to such country or international organization strengthens the security of the United States and promote world peace;
2	The country or international organization shall have agreed not to transfer title to, or possession of, any defense article or related training or other defense service so furnished to it or produced in a cooperative project, to anyone not an officer, employee, or agent of that country or international organization, and not to use or permit the use of such an article or related training or other defense service for purposes other than those for which furnished unless the consent of the President has first been obtained;
3	The country or international organization shall have agreed that it shall maintain the security of such article or service and provide substantially the same degree of security protection afforded to such article by the United States; and
4	The country or international organization is otherwise eligible to purchase or lease defense articles or defense services.

## 3. Organization

### a. *Defense Security Cooperation Agency (DSCA)*

Before getting too deep into what FMS is and does, it is important to understand how it falls into the governmental structure. The FMS program is one of several programs administered by the Defense Security Cooperation Agency (DSCA). The DSCA is a Defense Agency within the Office of the Secretary of Defense (OSD)

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<sup>11</sup> United States, Defense Security Cooperation Agency, Security Assistance Management Manual, DoD 5105.38-M, (Washington: DoD, 2003) 91.

<sup>12</sup> United States, Defense Security Cooperation Agency, Security Assistance Management Manual, DoD 5105.38-M, (Washington: DoD, 2003) 91.

overseen by the Undersecretary of Defense for Policy as depicted in Figure 3. The DSCA’s mission is to “lead, direct and manage security cooperation programs and resources to support national security objectives that build relationships that promote U.S. interests; build allied and partner capacities for self-defense and coalition operations in the global war on terrorism; and promote peacetime and contingency access for U.S. forces.”<sup>13</sup>

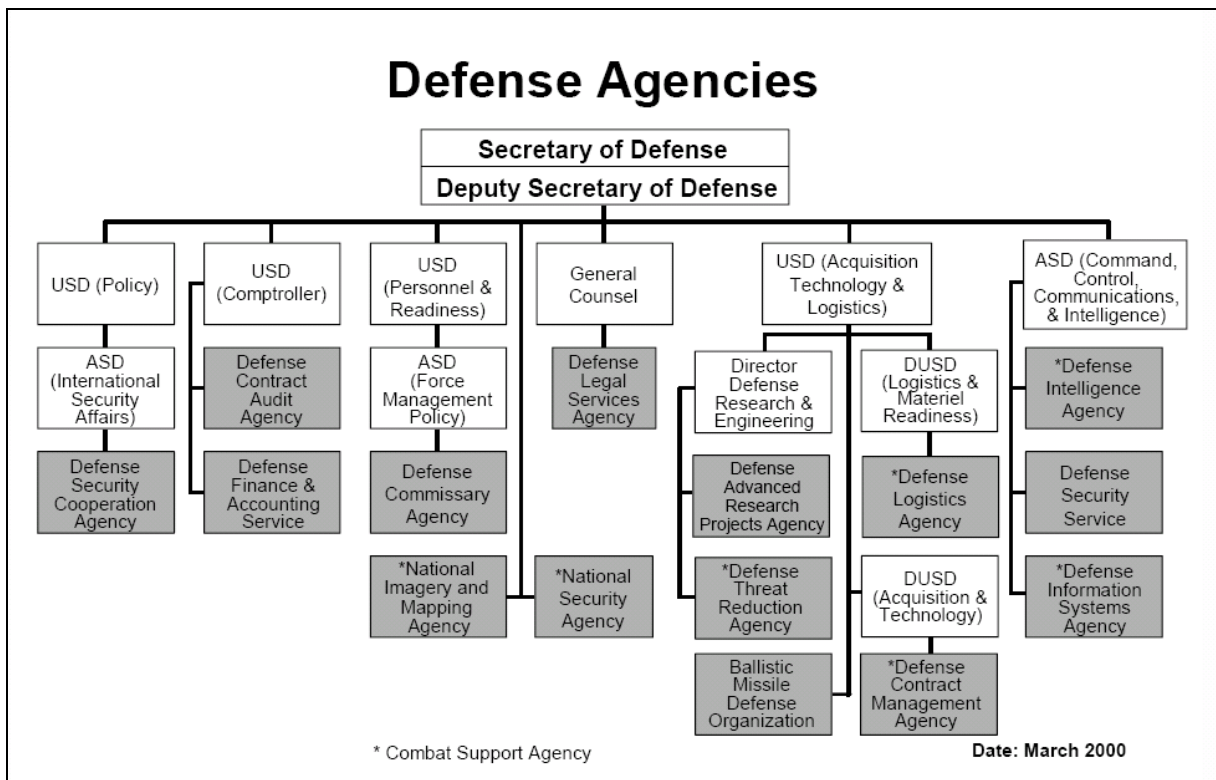


Figure 3. Organization Chart of Defense Agencies<sup>14</sup>

As previously stated, the FMS program is one of several programs administered by the Defense Security Cooperation Agency (DSCA). In addition to FMS, the DSCA also administers seven other functions: Military Assistance, Foreign Military

<sup>13</sup> Defense Security Cooperation Agency, “Welcome to DSCA,” Overview Presentation, 8 Mar 2005, 10 May 2007, <[http://www.dsca.osd.mil/about\\_us.htm](http://www.dsca.osd.mil/about_us.htm)>.

<sup>14</sup> Office of the Secretary of Defense, Director of Administration and Management, Directorate for Organizational and Management Planning, “The Department of Defense Organizational Structure,” Mar 2007, 10 May 2007, <<http://www.dod.mil/odam/omp/pubs/GuideBook/DoD.htm#Defense%20Agencies>>.



Financing (FMF), International Military Education and Training (IMET), Excess Defense Articles (EDA), Humanitarian Assistance, Disaster Relief and Mine Action (HDM), Drawdowns, and Regional Defense Counter-Terrorism Fellowship Programs.<sup>15</sup> These functions are managed by directorates divisions as depicted in the DSCA organization chart, Figure 4. The Operations, Programs and Strategy directorates are broken into subdivisions based on geographic location, type of program and plans and policies, while the other directorates perform support functions.

***b. DSCA Directorates***

Specifically, the Operation Directorate (OPS) provides policy oversight, guidance, planning coordination and direction for the execution of security cooperation programs; these programs include sale, lease, commercial contracts and drawdown of defense articles and services to foreign governments. The responsibility of the OPS is divided into three divisions with overlapping regional areas of responsibility to meet U.S. foreign policy and national security interests: 1) Middle East South Asia (MSA) Division supports CENTCOM and EUCOM; 2) Europe Africa (EAF) Division supports EUCOM, CENTCOM, NORTHCOM and PACOM; and 3) Asia Pacific Americas (APA) Division supports PACOM, NORTHCOM and SOUTHCOM.<sup>16</sup>

The Programs Directorate (PMG) is responsible for International Military Education and Training, End-use Monitoring, formulation of the President's Budget for Foreign Military Financing and International Military Education and Training, Excess Defense Articles, Humanitarian Assistance and Mine Action, and Weapon Systems. The PMG is also broken down into three divisions: 1) Management (MGT) Division oversees the International Military Education and Training, End-use Monitoring, and formulation of the President's Budget for Foreign Military Financing and International Training Programs; 2) Human Assistance, Disaster Relief and Mine Action (HDM) Division

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<sup>15</sup> Office of the Secretary of Defense, Director of Administration and Management, Directorate for Organizational and Management Planning, "The Department of Defense Organizational Structure," March 2007, 10 May 2007, <<http://www.dod.mil/odam/omp/pubs/GuideBook/DoD.htm#Defense%20Agencies>>.

<sup>16</sup> Defense Security Cooperation Agency, "Operations Directorate," Mar 2007, 10 May 2007, <[http://www.dscs.mil/programs/Country\\_Programs/cntry\\_programs.htm](http://www.dscs.mil/programs/Country_Programs/cntry_programs.htm)>.

ensures timely disaster relief and effective direction, supervision and oversight of DoD Humanitarian mine action and humanitarian assistance programs for the Director of DSCA; and 3) Weapons (WPN) Division is accountable for Excess Defense Articles, International Trade Shows and Weapons Systems.<sup>17</sup>

The Strategy Directorate (STR) is charged with envisioning, developing, resourcing, promulgating and assessing Security Assistance and Security cooperation policy, programs and activities. The STR is also divided into three divisions: 1) Plans Division conducts assessments, coordinates Security Cooperation Guidance/Strategy, coordinates agency efforts supporting the Global War on Terrorism, analyzes national strategic documents, and facilitates transformation initiatives; 2) Policy Division serves as the DSCA's lead point of contact for developing, writing, and disseminating security assistance/cooperation policy and procedures, including writing and maintaining the *Security Assistance Management Manual (SAMM)*, *DoD 5105-38-M*, and the reviewing of business processes; and 3) Requirement Division is responsible for out-year resource planning, sales forecasting coordination, issuing a Planning and Programming guidance for the Security Cooperation Community, as well as for performing manpower analysis, program analysis and evaluation for the DSCA community.<sup>18</sup>

The other four directorates have no divisions, but rather functional areas. First, the Business Operations/Comptroller (DBO) administers the financial aspects of foreign purchaser's programs (including the Foreign Military Financing Program) and develops policies and procedures to control financial execution of security cooperation within the DoD.<sup>19</sup> Second, the Directorate for Information Technology (IT) functions to maintain and operate those assigned information systems that support the DSCA and the entire security cooperation community, as well as to develop and enhance information

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<sup>17</sup> Defense Security Cooperation Agency, "Program Directorate," Mar 2007, 10 May 2007, <<http://www.dsca.mil/programs/pgm/index.htm>>.

<sup>18</sup> Defense Security Cooperation Agency, "Strategy Directorate," Mar 2007, 10 May 2007, <[http://www.dsca.mil/programs/Program\\_Support/psd\\_org.htm](http://www.dsca.mil/programs/Program_Support/psd_org.htm)>.

<sup>19</sup> Defense Security Cooperation Agency, "Business Operations/Comptroller Directorate," Mar 2007, 10 May 2007, <<http://www.dsca.mil/programs/Comptroller/comptroller.htm>>.

systems to deliver new business value to the security cooperation community.<sup>20</sup> Third, the Defense Institute of Security Assistance Management (DSIAM) Directorate provides professional education, research and support to advance U.S. foreign policy through Security Assistance and Cooperation.<sup>21</sup> Lastly, the Defense Institute of International Legal Studies (DIILS) Directorate provides expertise in over 350 legal topics of Military law, Justice Systems, and the Rule of Law, with an emphasis on the execution of Disciplined Military Operations through both resident courses and mobile education teams. Participants from 136 nations have taken part in DIILS Mobile Education, Resident and Model Maritime Service Code programs.<sup>22</sup>

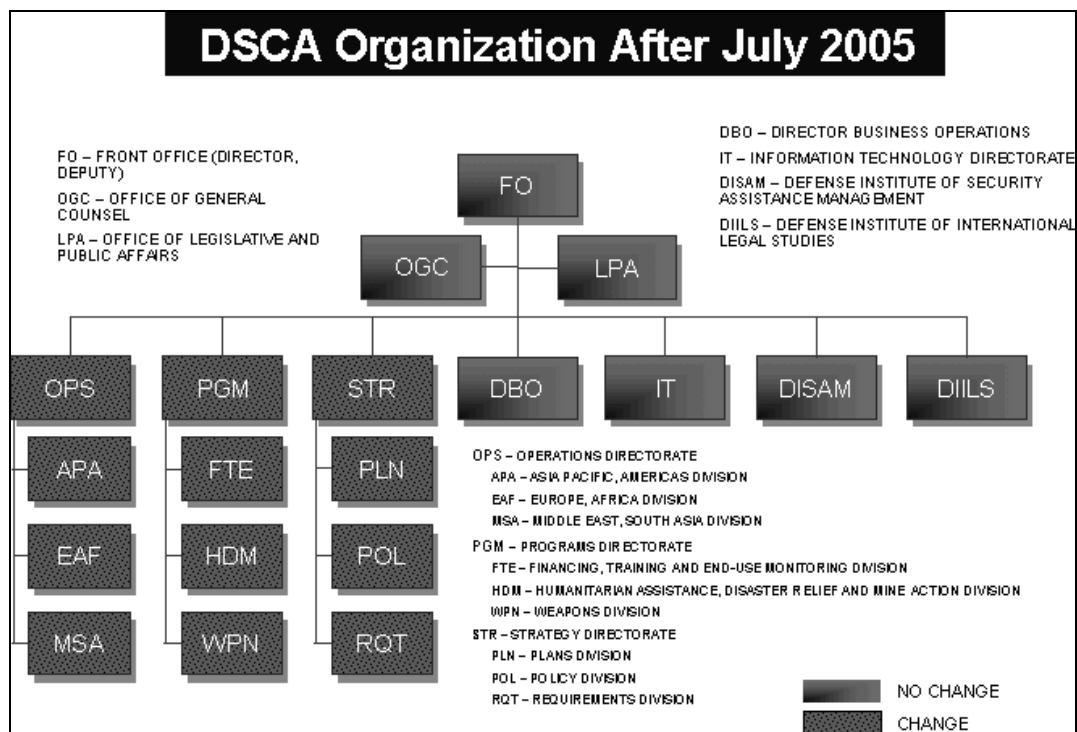


Figure 4. Defense Security Cooperation Agency Organization Chart<sup>23</sup>

<sup>20</sup> Defense Security Cooperation Agency, “Directorate for Information Technology,” Mar 2007, 10 May 2007, <[http://www.dscamilitary.com/programs/IT/info\\_tech\\_dir.htm](http://www.dscamilitary.com/programs/IT/info_tech_dir.htm)>.

<sup>21</sup> Defense Institute of Security Assistance Management, “DISAM Mission Statement,” Mar 2007, 10 May 2007, <<http://www.disam.dscamilitary.com/>>.

<sup>22</sup> Defense Institute of Security Assistance Management, “Defense Institute of International Legal Studies,” Mar 2007, 10 May 2007, <<http://www.dscamilitary.com/diils/>>.

<sup>23</sup> Defense Security Cooperation Agency, “Organization Chart,” Mar 2007, 3 Apr 2007, <<http://www.dscamilitary.com/organization.htm>>.

*c. Key Oversight Departments*

In addition to the directorate management, the DSCA relies on two key organizations to help fulfill its mission: 1) Department of State (DOS) and 2) Department of Defense (DoD).

The Department of State is charged with determining which countries have programs, reviewing and approving all sales and transfers, issuing munitions export licenses (commercial sales), and determining foreign assistance funding levels. The Department of Defense is responsible for determining what equipment is available for sale, recommending foreign assistance funding levels, implementing the FMS program, implementing grant and credit FMF programs, and implementing military education programs.<sup>24</sup> While the Department of Defense is directly responsible for FMS implementation, the Department of State designates potential customers and oversees sales; each is reliant on the other for program execution.

**4. How FMS Operates**

FMS is primarily managed and operated by the DoD on a no-profit and no-loss basis. Approved program participants purchase defense equipment and services at prices that recover the actual costs incurred by the United States. However, to cover administration costs, the sale prices include a 2.5% fee and as of October 2006, the administrative cost increased to 3.5%.<sup>25</sup> The FMS program operates as a no-loss country trust fund, which is a U.S. Treasury account credited with receipts, earmarked by law and held in a fiduciary capacity by the U.S. government to carry out specific purposes and programs. According to the Defense Security Cooperation Agency, the FMS trust fund “represents the aggregation of cash received from purchaser countries and international organizations. The DSCA is responsible for management of the trust fund. DFAS-DE is responsible for accountability of the trust fund. FMS customer cash deposits for defense

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<sup>24</sup> Defense Security Cooperation Agency, “Welcome to DSCA,” Overview Presentation, 8 Mar 2005, 10 May 2007, <[http://www.dsca.osd.mil/about\\_us.htm](http://www.dsca.osd.mil/about_us.htm)>.

<sup>25</sup> Defense Institute of Security Assistance Management, “DISAM’S Online Green Book,” Chapter 9, Oct 2006, 10 May 2007, <<http://www.disam.dsca.mil/pubs/DR/greenbook.htm>>.

articles and services sold under Sections 21 and 22, *Arms Export Control Act (AECA)*, are made in advance of delivery or performance and for making progress payments to contractors.”<sup>26</sup> Figure 5 below traces the movement of cash in and out of the trust fund.

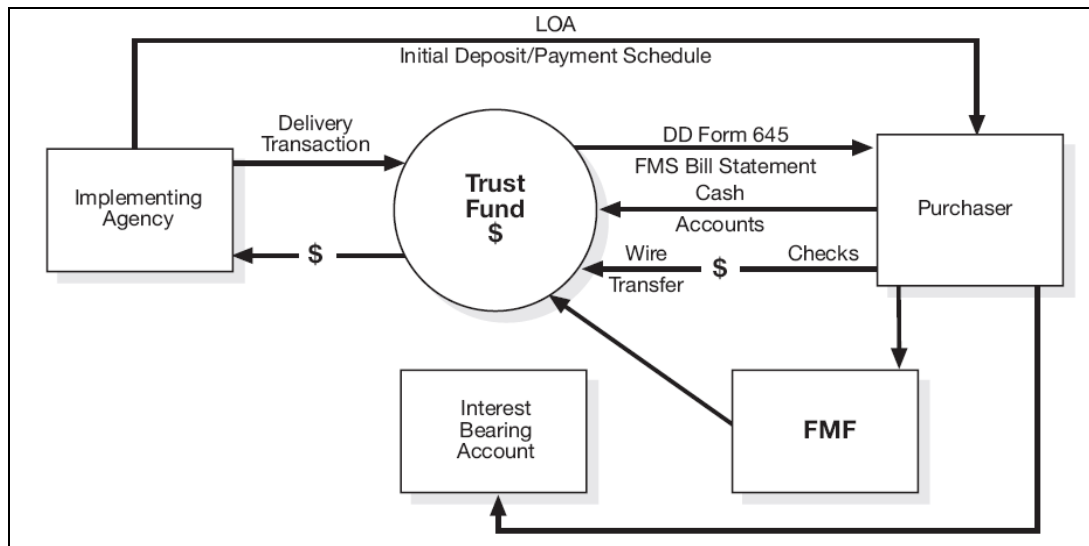


Figure 5. Foreign Military Sales Flow of Funds<sup>27</sup>

Participating countries initiate a Letter of Request (LOR) through a representative to their U.S. counterpart when defense equipment, training or services are needed. Copies of the request are then forwarded to the Department of State’s Bureau of Politico-Military Affairs and the DSCA. The original request is given to the Department of Defense’s Military Department or other executing Defense Agency as a Letter of Request (LOR). The agency then prepares a response in the form of a Letter of Offer and Acceptance (LOA). The diagram below, Figure 6, depicts the process for request and approval of FMS items.

<sup>26</sup> Defense Institute of Security Assistance Management, “DISAM’S Online Green Book,” Chapter 9, Oct 2006, 1 May 2007, <<http://www.disam.dsca.mil/pubs/DR/greenbook.htm>>.

<sup>27</sup> Defense Institute of Security Assistance Management, “DISAM’S Online Green Book,” Chapter 9, Oct 2006, 1 May 2007, <<http://www.disam.dsca.mil/pubs/DR/greenbook.htm>>.

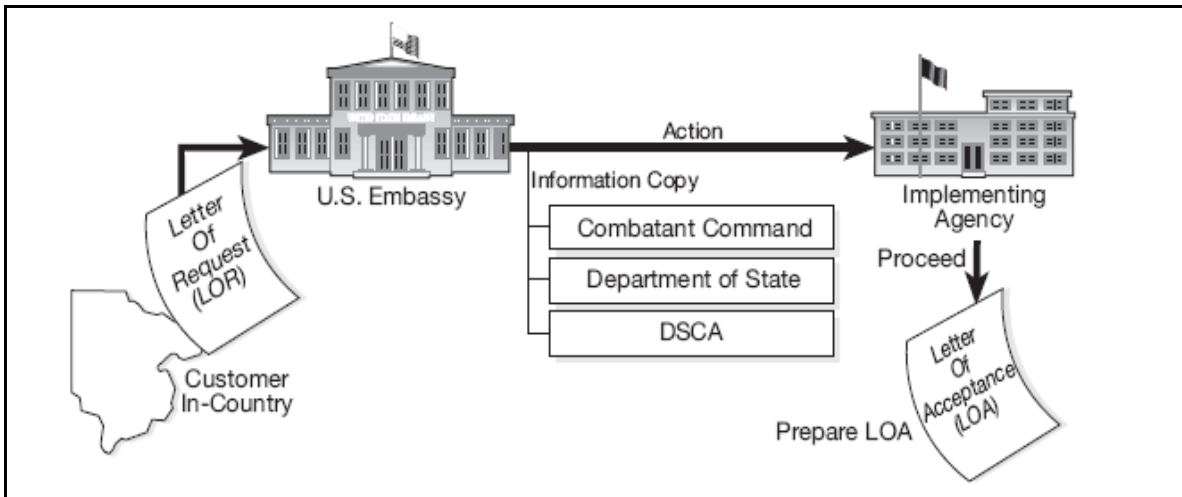


Figure 6. Foreign Military Sales Customer Purchasing Process<sup>28</sup>

LOAs take three forms: Defined Line, Blanket Order and Cooperative Logistics Supply Support Arrangements. First, Defined Line agreements offer items at individually estimated prices and delivery dates. Only *certain* defense equipment, training and services can be provided through Defined Line LOAs. Sequentially, the U.S. Government contracts for the required items to fulfill the LOA. As outlined in DISAM guidance, “the types of defense articles, services, or training normally processed as defined-order cases include:

- SME. This includes major end-items and weapon systems (e.g., tanks, ships, airplanes, missiles, etc.), and any related requirements to activate and operate an item or system during an initial period of time.
- Explosives including munitions
- Specific services (i.e., transportation, aircraft ferrying.)
- Technical data packages<sup>29</sup>

Second, Blanket Orders LOAs are suited for handling recurring needs, items required on a frequent or periodic basis. Once established, the Blanket Order LOA

<sup>28</sup> “Defense Institute of Security Assistance Management, “DISAM”S Online Green Book,” Chapter 5, Oct 2006, 21 Apr 2007, <<http://www.disam.dsca.mil/pubs/DR/05%20Chapter.pdf>>.

<sup>29</sup> “Defense Institute of Security Assistance Management, “DISAM”S Online Green Book,” Chapter 6, Apr 2007, 1 May 2007, <<http://www.disam.dsca.mil/pubs/DR/05%20Chapter.pdf>>.

decreases the time needed for order processing and contracting for required items and/or services. The Blanket Orders cover the following types of items:

- Spare and repair parts
- Publications
- Support Equipment
- Maintenance
- Technical Assistance Services
- Training
- Training Aid Devices<sup>30</sup>

Third, a Cooperative Logistics Supply Support Arrangement (CLSSA) allows customers access to the U.S. logistics pipeline for the support of specified end items. With CLSSA agreements, customers use existing U.S. stocks to supply repair parts and avoid waiting for completion of a procurement cycle. CLSSAs are usually established for countries with well-developed logistics systems which are, therefore utilizing larger quantities of end items.<sup>31</sup>

The FMS process is essentially an acquisition process.<sup>32</sup> Figure 7 below depicts how and where the FMS program fits into the *DoD 5000* Acquisition Process. It is important to note where in the acquisition life cycle FMS is incorporated in order to understand how procurement of FMS items and U.S. State Department policies are incorporated. As represented in Figure 7, FMS programs are for currently deployed systems that are in the Full Rate Production level as opposed to those in the developmental stages of the acquisition lifecycle.

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<sup>30</sup> Defense Institute of Security Assistance Management, "DISAM'S Online Green Book," Chapter 6, Apr 2007, 1 May 2007, <<http://www.disam.dsca.mil/pubs/DR/06%20Chapter.pdf>>.

<sup>31</sup> Defense Security Cooperation Agency, "How Does FMS Operate," Frequently Asked Questions, 3 Apr 2007, <<http://www.dsca.osd.mil/PressReleases/faq.htm#How%20Does%20FMS%20Operate>>.

<sup>32</sup> Defense Institute of Security Assistance Management, "DISAM'S Online Green Book," Chapter 9, Oct 2006, 10 May 2007, <<http://www.disam.dsca.mil/pubs/DR/greenbook.htm>>.

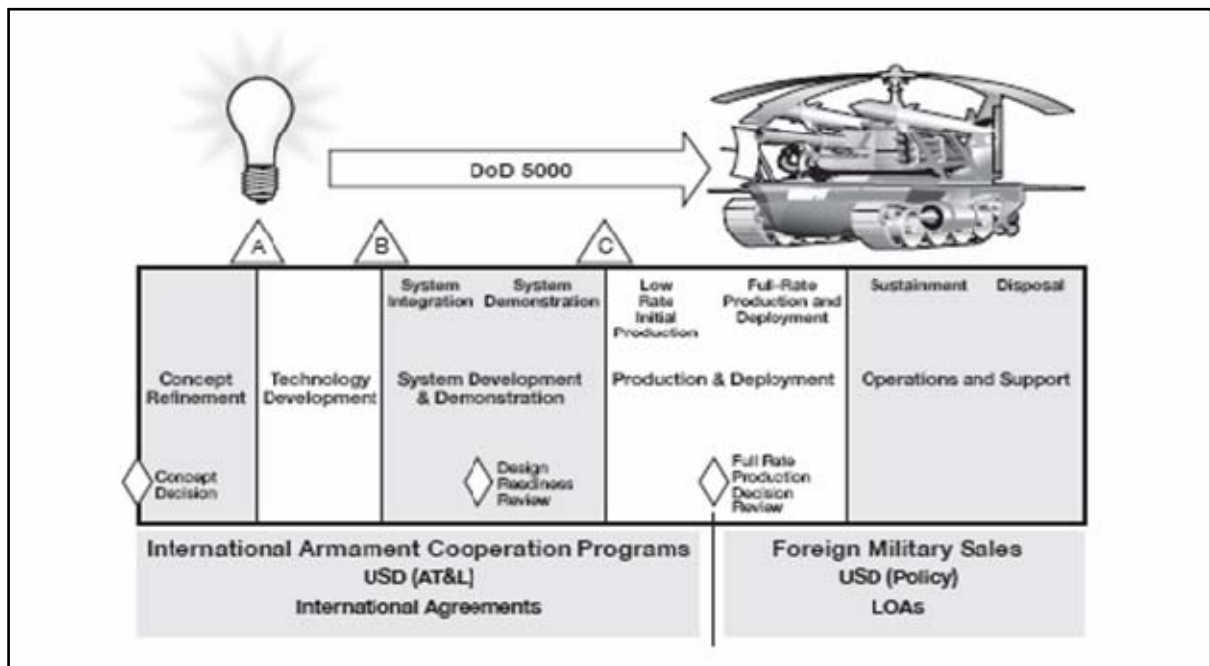


Figure 7. Foreign Military Sales and the Department of Defense Acquisition Process<sup>33</sup>

## 5. Direct Commercial Sales (DCS) versus Foreign Military Sales (FMS)

Foreign countries have two differing contract options of procuring systems from the U.S., Direct Commercial Sales (DCS) and Foreign Military Sales (FMS). Direct Commercial Sales (DCS) are sales of military equipment, services or training through civilian/commercial or non-governmental companies, as opposed to sale through the Department of Defense. According to the DSCA, “DCS allows the foreign customer more direct involvement during contract negotiation, may allow firm-fixed pricing and may be better suited to fulfilling non-standard requirements.”<sup>34</sup>

However, with the FMS program, the DoD uses the same acquisition process for procuring their own goods as it does for foreign customers. Using this process helps to ensure standardization with U.S. forces, decrease unit costs through economies of scale, and provide contract administration services where they may not be available in the

<sup>33</sup> “Defense Institute of Security Assistance Management, “DISAM”S Online Green Book,” Chapter 9, Oct 2006, 21 Apr 2007, <<http://www.disam.dsca.mil/pubs/DR/09%20Chapter.pdf>>.

<sup>34</sup> Defense Security Cooperation Agency, “The FMS Advantage: Frequently Asked Questions About Foreign Military Sales,” Full Color Brochure, 21 Jan 2004, 10 May 2007 <[http://www.dsca.osd.mil/about\\_us.htm](http://www.dsca.osd.mil/about_us.htm)>.



private sector. Recently *Federal Acquisition Regulations* have opened the door to allow foreign governments the opportunity to partake in FMS contract negotiations as appropriate.<sup>35</sup>

In differentiating the two, it is imperative to know that some items are not available for DCS due to technology transfer and other restricting factors, and that it is solely the procuring countries decision on which program they choose. The *Security Assistance Management Manual (SAMM)* outlines the process for designating items that are restricted to FMS only. The major differences between DCS and FMS are that with FMS, the customer is entering into a direct Government-to-Government agreement, whereas with DCS, the customer is dealing directly with industry. Under the *Arms Export Control Act*, both sales must be approved by the U.S. Government and have congressional approval for any FMS of DCS item valued at \$14 Million or more. Below, Figure 8 delineates the major difference in the process between DCS and FMS. Specifically it depicts the flow of documentation from the customer country to the U.S. contractor and/or government.

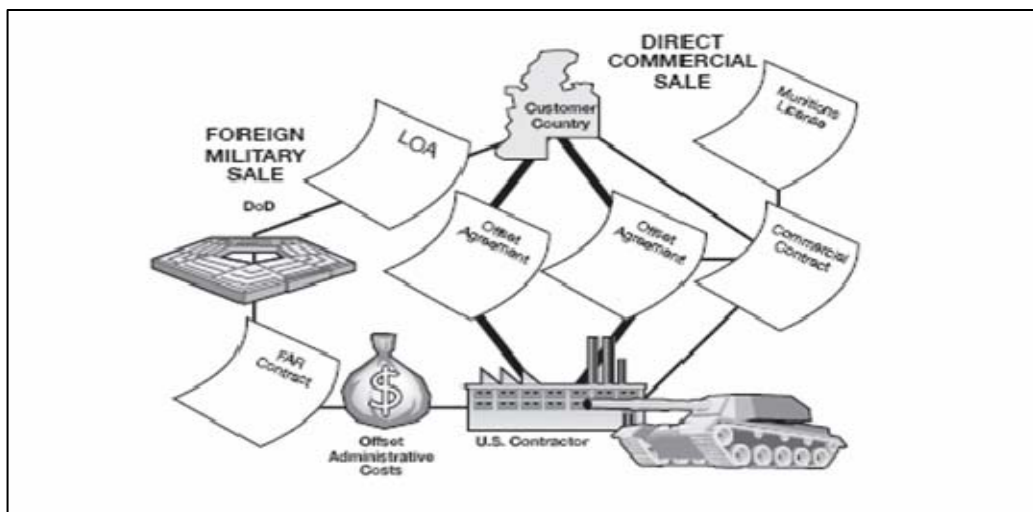


Figure 8. Foreign Military Sales and Direct Commercial Sales Process Flow<sup>36</sup>

<sup>35</sup> Defense Security Cooperation Agency, "The FMS Advantage: Frequently Asked Questions About Foreign Military Sales," Full Color Brochure, 21 Jan 2004, 10 May 2007. <[http://www.dsc.aosd.mil/about\\_us.htm](http://www.dsc.aosd.mil/about_us.htm)>.

The FMS program is comprised of both strengths and weaknesses; thus, the program incites some concern. Purchases by the U.S Government are made in accordance with well-established DoD Regulations and policies, and foreign governments under the FMS program are afforded these same guidelines and procedures throughout their procurement processes. Under the FMS program, proper market research and price and cost analysis are conducted to determine if the price is fair and reasonable and to ensure the contract is awarded based on lowest feasible price from qualified sources under the most efficient contract type. According to the Defense Institute of Security Assistance Management (DISAM), DoD orders are often consolidated to obtain economy of scale buys and, therefore, significantly lower unit costs. One key aspect of the FMS program is the extent of oversight given to these contracts. Audits and other oversight regulations outlined in the *Truth In Negotiation Act (TINA)*, the *Federal Acquisition Regulation (FAR)* and other governing regulations and acts apply to all FMS procurements. At the same time, FMS sales do not require export licenses, and FMS transactions have mandatory financial management reviews and must meet Cost and Accounting Standard guides. Below is a list of the advantages and disadvantages of the FMS Program as viewed by DISAM:

*a. Advantages of FMS*

- Purchaser pays actual U.S. Government Costs
- Direct interaction between military personnel who operate the weapon system with receiving countries; military personnel who will use the system (value added to the customer)
- Contract administration; under FMS, contract quality assurance, inspection and audit services are routinely provided and are included in FMS costs.

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<sup>36</sup> “Defense Institute of Security Assistance Management, “DISAM”S Online Green Book,” Chapter 9, Oct 2006, 21 Apr 2007, <<http://www.disam.dsca.mil/pubs/DR/09%20Chapter.pdf>>.

- Initial cash flow requirements required at LOA are generally lower than commercial contract down-payments
- FMS can provide customers with unique the DoD training technology and equipment that contractor support cannot access.
- Procuring country pays only the actual costs to DoD with profits controlled by the *FAR*
- Items may be available from DoD stock in times of emergency
- Allows better access to training at U.S. military schools
- FMS does not require export licenses

***b. Disadvantages of FMS***

- Government-to-Government agreement: Political climate may discourage procuring from the U.S. Government
- Less flexibility in the contract package deals: Customer may not want other items being offered for sale
- Under the LOA the U.S. Government reserves the right to terminate an FMS LOA and/or halt the actual export deliveries of FMS items when it is determined to be in the national interest of the U.S.
- Defense articles that are in production can be procured more quickly via commercial channels than through the FMS system
- The contracting of Direct Commercial Sales or a good or service may be more flexible than FMS since U.S. Industry has no structure or regulatory guidance such as the *FAR*; and the flexible arrangement may be better for the customer under DCS

- The FMS system provides for estimated prices and payment schedules, which mean the final price (including the delivery schedule, etc.) may be higher than the initial estimated price
- FMS charges Non-recurring costs to customers, where DCS is exempt from charges
- DCS provides more capability to tailor packages to unique country needs
- DCS provides new equipment directly from the production line<sup>37</sup>

Table 2 directly compares the positive and negative elements in both the Foreign Military Sales and Direct Commercial Sales programs. In summary, Foreign Military Sales are intended for countries wishing to contract directly with the U.S. government, thus avoiding export licenses requirements and enhancing access to equipment training. On the other hand Direct Commercial Sales are best suited for countries wishing to contract directly with U.S. suppliers for a faster and more robust means for acquiring defense related articles. Note that both approaches have both positive and negative characteristics.

Table 2. Comparison of Foreign Military Sales Direct Commercial Sales (Positive/Negative Elements)<sup>38</sup>

	POSITIVE ELEMENTS	NEGATIVE ELEMENTS
Foreign Military Sales	<ul style="list-style-type: none"> <li>• Gov't-to-Gov't</li> <li>• Access to Training</li> <li>• Pays actual USG costs</li> <li>• No Export License required</li> <li>• Package deals</li> </ul>	<ul style="list-style-type: none"> <li>• Lacks flexibility in package deals</li> <li>• Complex</li> <li>• Non-recurring costs</li> <li>• Estimated Pricing</li> <li>• Slower</li> <li>• Package deals</li> </ul>
Direct Commercial Sales	<ul style="list-style-type: none"> <li>• No Federal acquisition Surcharge</li> <li>• Simple</li> <li>• Quicker acquisition</li> </ul>	<ul style="list-style-type: none"> <li>• Requires Export License</li> <li>• Down payment more expensive</li> <li>• No package deals</li> </ul>

## B. HISTORY OF FMS PROGRAM

### 1. Program Initiation and Development

The use of Foreign Military Sales can be traced back as far as Thucydides' history of the Peloponnesian War over 2500 years ago; the supply and demand for weapons transfer continues to be a national goal in maintaining national security.<sup>39</sup> Foreign Military Sales have come in the form of arms, munitions, goods, services, and many other forms provided on loan, as grants, or bought outright by foreign countries in need of security assistance. The first example of the use of FMS and security assistance with respect to the United States of America came from France in the form of arms and munitions during the War for Independence in an effort to help the US defeat the British. The assistance came not just in the form of munitions and arms, but also to garner

<sup>37</sup> "Defense Institute of Security Assistance Management, "DISAM'S Online Green Book," Chapter 15, Oct 2006, 21 Apr 2007, <<http://www.disam.dsca.mil/pubs/DR/15%20Chapter.pdf>>.

<sup>38</sup> "Defense Institute of Security Assistance Management, "DISAM'S Online Green Book," Chapter 15, Oct 2006, 21 Apr 2007, <<http://www.disam.dsca.mil/pubs/DR/15%20Chapter.pdf>>.

<sup>39</sup> Defense Institute of Security Assistance Management, "DISAM'S Online Green Book," Appendix 2 History of Security Assistance, Oct 2006, 21 Apr 2007, <<http://www.disam.dsca.mil/pubs/DR/20%20Appendix%202.pdf>>.

relations and policy between the French and the Americans. The Nineteenth century period after the War for Independence saw the first policy to establish security assistance in the form of the Monroe Doctrine. Ever since the culmination of the doctrine, Presidents from McKinley to Kennedy and Clinton have all used some form of Security assistance for national security and for foreign relations.<sup>40</sup>

## **2. World War Era**

In World War I, the U.S. emerged as the leading participant in the international munitions trade, exporting approximately \$2.2 Billion in war supplies to Europe between 1914 and 1917. This included over \$1 Billion of arms alone in 1914; by 1920, the U.S. was responsible for more than 52% of the global arms exports. In 1930, the first special Senate Munitions Investigating Committee, or Nye Committee, was assigned to determine whether the arms trade could be regulated under current laws and treaties. The result of the Committee's review produced a munitions control board for oversight over the U.S. arms industry.

World War II saw the same effect and influence of arms trade and was highlighted by the Lend-Lease Program to aid the British in 1941. In the Lend-Lease Program, the U.S. loaned materials and services to the allies in return for payment upon completion of the war. The amount later repaid to the U.S was less than one fifth of the loaned amount.<sup>41</sup> Following the conclusion of WWII, the rise of the bi-polar super powers emerged, and President Truman felt that the spread of "Soviet Hegemony was inimical to the national interests of the U.S." Thus the declaration of the Truman Doctrine resulted in over \$400 million dollars of aid to Greece and Turkey alone in 1947. Truman declared to Congress on 12 March 1947:

I believe that it must be the policy of the United States to support free peoples who are resisting attempted subjugation by armed minorities or by

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<sup>40</sup> Defense Institute of Security Assistance Management, "DISAM'S Online Green Book," Appendix 2 History of Security Assistance, Oct 2006, 21 Apr 2007, <<http://www.disam.dsca.mil/pubs/DR/20%20Appendix%202.pdf>>.

<sup>41</sup> Defense Institute of Security Assistance Management, "DISAM'S Online Green Book," Appendix 2 - History of Security Assistance, Oct 2006, 21 Apr 2007, <<http://www.disam.dsca.mil/pubs/DR/20%20Appendix%202.pdf>>.

outside pressure. I believe that we must assist free peoples to work out their own destinies in their own way. I believe that our help should be primarily through economic and financial aid which is essential to economic stability and orderly political processes. In addition to funds, I ask the Congress to authorize the detail of American civilian and military personnel to Greece and Turkey, at the request of those countries, to assist in the tasks of reconstruction and for the purpose of supervising the use of such financial and material assistance as may be furnished, I recommend that authority also be provided for the instruction and training of selected Greek and Turkish personnel...<sup>42</sup>

These arms transfers were made to participants in an emerging network of U.S. alliances, and were provided as grants, under what became known as the military assistance program (MAP).<sup>43</sup>

### **3. Cold War Era**

In 1948, Congress established the European Recovery Plan (ERP), which provided loans and grants for arms and defense-related articles in the amount of \$15 Billion to sixteen nations of Western Europe between 1948 and 1952. Until 1965, NATO countries received approximately 56% of all arms transferred through foreign military sales; however, in the mid 1950's, as the stock pile of WWII material declined, the U.S. began offering technical assistance and industrial equipment to help expand European defense production. With several incidents in the 1950's, including the Korean War in 1950, Egyptian initiatives to acquire Soviet arms in 1955, and the increasing involvement of the U.S. in Indochina in the late 1950's, the Eisenhower Doctrine was initiated on March 9, 1957. This Doctrine asserted the "right of the U.S. to assist any nation or group of nations [...] from any country controlled by international communism." U.S. assistance was now outlined to be based upon a request from any endangered country; however, the doctrine was to be evoked only in the event of external, communists armed aggression, and was not to be applied in response to an internal insurrection or civil war.

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<sup>42</sup> Truman Presidential Museum and Library, "Student Activity Harry Truman and the Truman Doctrine," Mar 1990, 8 May 2007, <<http://www.trumanlibrary.org/teacher/doctrine.htm>>.

<sup>43</sup> U. S. Arms Control and Disarmament Agency, "World Military Expenditure and Arms Transfers 1995," Oct 1995, 3 May 2007, <<http://dosfan.lib.uic.edu/acda/reports1.htm>>.

President Kennedy initiated other aid and diplomatic actions and the Nixon Doctrine incorporated new guidelines for American Foreign Policy, initially termed the Guam doctrine, which focused more attention on the role of U.S. as a partnership with foreign countries than a dictatorial role. At this same time, new legislation was passed through Congress to institute more efficient security assistance management procedures and greater control over the future transfer of arms. The *International Security Assistance and Arms Export Control Act (AECA)* of 1976 prohibited arms transfers to any nation found to be in systematic violation of human rights and established closer oversight of arms transfer by Congress.

On July 8, 1981, however, President Reagan announced a new conventional arms transfer policy which viewed arms transfers as an essential element of our global defense policy and an indispensable component of U.S. foreign policy. Reagan's approach, which differed considerably from the Carter Administration's view of arms transfers as an "exceptional foreign policy implement." identified arms transfers to America's major alliance partners as its first priority—ensuring that the policy remain flexible and robust to respond quickly to changing conditions and shifting Soviet strategies.<sup>44</sup>

#### **4. Post-Cold War to Present**

The results of the monumental fall of the Berlin Wall resulted in the flow of large supplies of cheap excess defense articles being made available for transfer. Also, due to the downsizing, cutbacks and cancellations in Department of Defense weapons acquisitions, legal provisions were made for broader eligibility and simpler implementation. This reduction in system development and production caused U.S. industry to look to overseas markets; many organizations, requested the assistance of various U.S. government officials and their agencies in entering the foreign marketplace. President Clinton's Secretary of State, Warren Christopher, reiterated a previous policy encouraging U.S. embassies to actively assist U.S. marketing efforts overseas. This was interpreted to include aiding U.S. defense contractors in the pursuit of direct commercial



sales and foreign military sales of defense articles, services, and training overseas. In 1993, FMS sales topped \$33 Billion due primarily to major defense equipment sales to countries in the Arabian Gulf area and Taiwan. This new policy did not represent a dramatic change from previous policy; rather, it was introduced “as a summation and codification” of the Clinton Administration’s “decision-making in the arms transfer arena...” Clinton’s policy goals were to ensure assistance was available to help allies and friends prepare themselves against aggression, to remain interoperable with U.S. military forces, to promote regional stability in areas of U.S. interests and to support the U.S. industrial base—ensuring technological superiority; and to lower unit costs for U.S. military procurement. The results following the terrorist attacks of September 11, 2001, and the initiation of the Global War on Terrorism (GWOT) continues and will continue to promote FMS and security assistance in the forms of arms, munitions, and other goods and services and will continue.<sup>45</sup> The following two graphs illustrate the dynamics of the global arms transfers trends over the past 25 years.

Figure 9 compares arms transfer dollar amounts of the world’s two biggest arms suppliers, US and Russia, for the period of 1980 to 2005. Figures for Russia until 1991 include arms transfer amounts from other Union of Soviet Socialist Republics countries, such as Ukraine and Belarus. As seen in the graph, the USSR dominated the world arms market until its collapse in 1991. Since then, the U.S. has become the global leader in arms transfers, peaking in 1998. Yet, then for the next four years the U.S. saw a gradual decrease in sales allowed Russia to regain, losing its position as the number one weapons supplier in the world from 2002.

Figure 10 compares the total dollar amounts of the U.S. and the rest of the world’s arms transfers over the period of 1980 to 2005. From 1991-1996, the U.S. accounted for

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<sup>44</sup> United States, U.S. Department of State, Country Reports on Human Rights Practices for (1984), Report prepared for the Committee on Foreign Affairs, U.S. House of Representatives, and the Committee on Foreign Relations, U.S. Senate (Washington, D.C.: Government Printing Office, 1984).

<sup>45</sup> Richard R. Grimmett, Conventional Arms Transfers to the Developing Nations, 1996-2003, Washington D.C.: Congressional Research Service, 2004).

more arms transfers in dollars than all the other countries in the world combined. Interestingly, when US exports started to decline in 1999, did its global arms transfers share dropped below 50%.

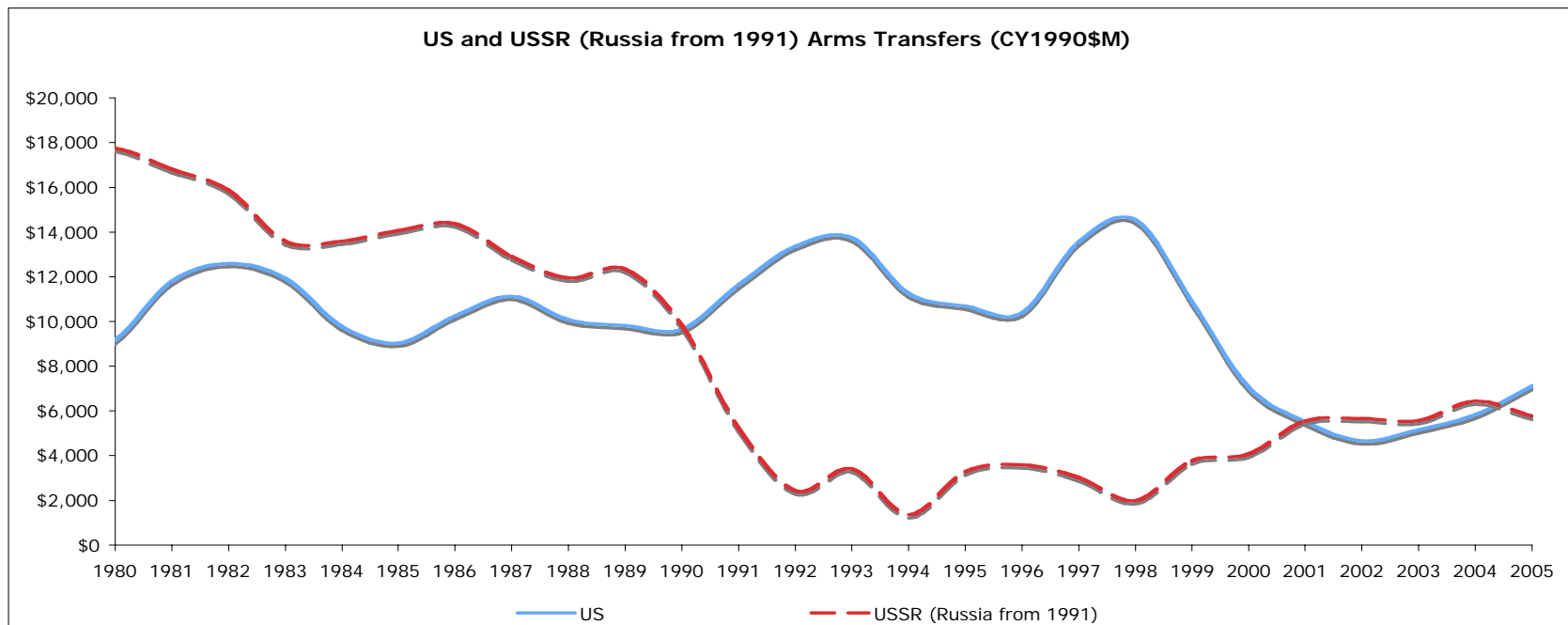


Figure 9. U.S. and USSR (Russia from 1991) Arms Transfers<sup>46</sup>

<sup>46</sup> Stockholm International Research Institute, "The SIPRI Arms Transfers Database – Access," Oct 2006, 5 May 2007, <<http://www.sipri.org/contents/armstrad/access.html#twenty>>.

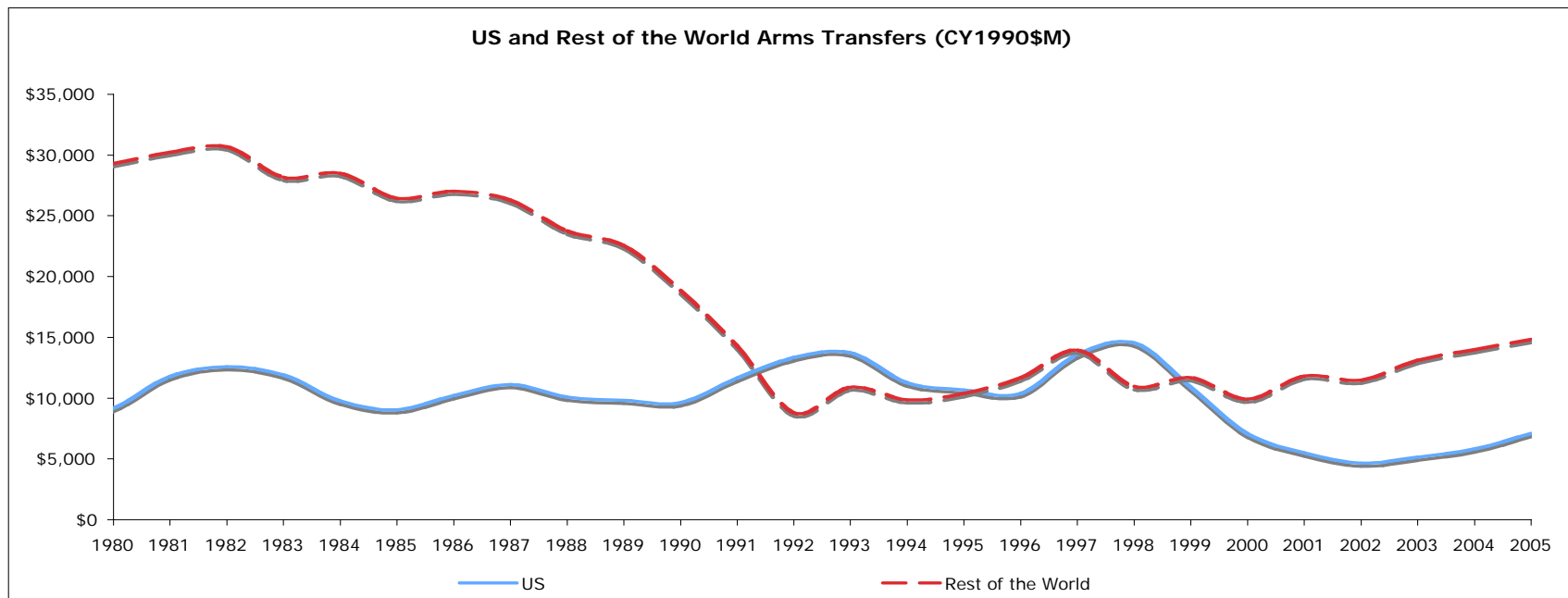


Figure 10. Arms Transfers Trend Comparison of the U.S. to the Rest of the World <sup>47</sup>

<sup>47</sup> Stockholm International Research Institute, "The SIPRI Arms Transfers Database – Access," Oct 2006, 5 May 2007, <<http://www.sipri.org/contents/armstrad/access.html#twenty>>.

### C. FOREIGN MILITARY SALES ISSUES AND CONCERNS

Issues and concerns have been identified throughout the FMS timeline and this section will outline some of the major concerns from the Cold War to the present Global War on Terrorism.

Since the passing of the *Arms Export Control Act* of 1976, one of the first major areas of concern arose from the Defense Department's failure to recover costs. For example, a GAO study in 1979 identified an estimated \$370 Million of unrecovered costs during six fiscal years on items sold to foreign governments. Furthermore, the study argued that since 1970, defense pricing instructions required that the items being sold to foreign countries be priced to recover full contract costs and that proper quality assurance services be put in place to meet these requirements.<sup>48</sup>

In a 1976, another GAO study identified that many members of Congress were concerned that the rapid growth of U.S. arms transfers abroad was taking place without adequate consideration of the potentially destabilizing effects of such transfers. Some of the expressed concerns were the potential effects on the stimulation of regional arms races, encouragement of certain countries' tendencies to place too much emphasis on military considerations at the expense of social-humanitarian concerns, and identification of the United States with regimes which, for one reason or another, appear to adopt extreme repressive practices.

Another area of concern surfaced in 1999 with the delicate sensitivity of FMS with regard to foreign policy of the United States. An example of this was outlined in "Country Briefing: Saudi Arabia," which quoted Officials in Saudi Arabia as saying "that the kingdom may look elsewhere for a replacement for the F-5 if the USA continues to link future military sales to Israeli security concerns."<sup>49</sup> Clearly there is a sensitivity pertaining to providing FMS to countries who are allies of the U.S. but who may have policy issues with each other.

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<sup>48</sup>United States, Government Accountability Office, "Improperly Subsidizing Foreign Military Sales Program; A Continuing Problem, FGMSD-79-16." (Washington D.C.: GAO, 1979).

<sup>49</sup> "Country Briefing: Saudi Arabia," Jane's Defense Weekly 18 Aug 1999: 30.

In 1999, a FMS Financial Audit for the Deputy Secretary of Defense was conducted which identified a number of FMS management inaccuracies or delayed financial management transactions. The review produced a number of recommendations with the potential to improve financial management in the near-term.<sup>50</sup>

A GAO (GAO-03-939R) study from 2003, reported controls of spare parts containing sensitive military technology being released to foreign countries.<sup>51</sup> Another GAO study found that the Air Force did not currently have any internal controls in place to prevent the release of spare parts containing sensitive military technology.<sup>52</sup> The report identified examples such as in 1997, when a requisition for a C-130 refueling kit, which was to be used on U.S. aircraft only, was not reviewed by anyone and was transferred to a foreign country because there were no controls in place to require that it be reviewed. The GAO reported that the *Security Assistance Management Manual* indicates that the transfer of technology is to be restricted, however it does not define a process or established criteria for such restrictions.

Further issues with controls in place to review technology transfer and restrictive spares to foreign countries were also examined in 2004 by the GAO (GAO-04-327, 2004 April 15). The GAO found that the Army's internal controls over foreign military sales were not adequate and placed classified spare parts and unclassified items containing military technology at risk of being shipped to foreign countries. Of 40 random requisitions reviewed by the GAO, three of them between 1997 and 2003 had released classified parts to foreign countries.

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<sup>50</sup> Defense Security Cooperation Agency, "Foreign Military Sales (FMS) Financial Management, 13 Dec 1999, 4 May 2007, <[http://www.dsca.osd.mil/DSCA\\_memoranda/DSCA%20\\_00-19/Hamre\\_Dec\\_99\\_memo.pdf](http://www.dsca.osd.mil/DSCA_memoranda/DSCA%20_00-19/Hamre_Dec_99_memo.pdf)>.

<sup>51</sup> United States, Government Accountability Office, "Foreign Military Sales; Improved Air Force Controls Could Prevent Unauthorized Shipments of Classified and Controlled Spare Parts to Foreign Countries, GAO-03-664," (Washington D.C.: GAO, 2003).

<sup>52</sup> United States, Government Accountability Office, "Foreign Military Sales; Air Force Does Not Use Controls to Prevent Spare Parts Containing Sensitive Military Technology from Being Released to Foreign Countries, GAO-03-939R," (Washington D.C.: GAO, 2003).

In 2000, a GAO study was conducted on FMS and the changes needed to correct weaknesses in the end-use monitoring program.<sup>53</sup> The study concluded that the Department of Defense had not effectively implemented the requirement that its field personnel observe and report on foreign governments' use of U.S. defense articles and services transferred through the Foreign Military Sales program. Because the extent of observation needed to verify that defense articles and services are being used appropriately will vary from country to country, the Department had not issued guidance specifying what monitoring is required. As a result, field personnel interpret the requirements and the activities that they should perform differently. Field personnel in 40 of the 68 countries they surveyed reported that they did not carry out this requirement due to insufficient resources.<sup>54</sup>

In addition, Congressional concerns include accusations against congress for turning a blind eye to illegal use of export weapons against civilians. Sometimes the sale of weapon systems are in the best interest of the foreign customers country, however, are not necessarily in the best interest of the U.S. Take for example, In 1998, Raytheon sold to Israel through foreign military sales more than 200 AIM-120 Advanced Medium Range Air-to-Air Missiles for more than \$100 Million, 14 Beech King B200 fixed-wing aircraft for \$125 Million, and a Patriot missile system for \$73 Million, according to the Federation of American Scientists. Unfortunately, Israel has used U.S.-provided weapons on several occasions to kill Palestinian civilians. One example of this happened in July 2002 when U.S.-made F-16s destroyed an apartment building in Gaza City, killing 17 Palestinians civilians in what Israeli Prime Minister Ariel Sharon termed "a great success." White House spokesperson Ari Fleischer acknowledge that it was "a deliberate attack against a building in which civilians were known to be located." However, to admit that Israel is in violation of this law would jeopardize future U.S. arms exports to

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<sup>53</sup> United States, Government Accountability Office, "Foreign Military Sales; Changes Needed to Correct Weaknesses in End-Use Monitoring Program, GAO/NSIAD-00-208," (Washington D.C.: GAO, 2000).

<sup>54</sup> United States, Government Accountability Office, "Foreign Military Sales; Changes Needed to Correct Weaknesses in End-Use Monitoring Program, GAO/NSIAD-00-208," (Washington D.C.: GAO, 2000).

Israel and present the defense industry with a nightmarish scenario in which their \$2 Billion yearly subsidy would dry up.<sup>55</sup>

Issues have also raised congressional attention in the past few years; in June of 2005, Senator Daniel K. Akaka (D-HI) called on the federal government to help Hawaii and other states collect unpaid taxes from federal contractors owing state taxes that have been withheld. In his opening statement to the permanent subcommittee on investigations, Sen. Akaka, along with Sen. Carl Levins, requested that the Government Accountability Office (GAO) review the amount owed by federal contractors for unpaid taxes. The GAO Study found that 33,000 federal contractors owe \$3 Billion to the U.S. government.<sup>56</sup> The outcome of this investigation is still ongoing.

In this chapter we have introduced the Foreign Military Sales program along with the history and organizational structure. We have also reviewed the history of FMS and some of the issues and concerns that have been addressed from industry and congressional officials and the differences between contracts for FMS and DCS. In the next chapter, explores analytical concepts to describe FMS and the possible trends that are present.

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<sup>55</sup> Joshua Ruebner, "Ratheon-Israel-Congress," CounterPunch, 11 Feb 2003, 10 May 2007, <<http://www.counterpunch.org/ruebner02112003.html>>.

<sup>56</sup> Daniel Kkahikina Akaka, U.S. Senator for Hawaii, "Newsroom," 15 June 2005, 7 May 2007, <<http://akaka.senate.gov/public/index.cfm>>.



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### **III. ANALYSIS OF FMS FACTORS AND TRENDS**

#### **A. INTRODUCTION**

Foreign Military Sales has helped the U.S. achieve its foreign policy goals as well as support its allies. In this chapter, we explore some analytical concepts to identify factors affecting FMS. The research is divided into three major areas of trend analysis. The objective of the analysis is to determine whether any apparent trends were evident in the area of Socio-Political, Economic, and Industrial and Technological arenas.

#### **B. SOCIO-POLITICAL TRENDS**

In assessing the correlation with FMS and the threat condition of the US and its allies, this research defined the foreign threat to the U.S National Interests abroad at four major milestones: 1) The Cold War Era (WWII-1989), 2) First Gulf War (1991-1993), 3) Peace Keeping operations (1993-2001), and 4) the Global War on Terrorism (2001-present). The researchers examined both the total Foreign Military Sales agreements and Foreign Military Sales delivered by five specified regions stretching from 1980 until 2005 and analyzed each region based upon the entire FMS budget. The regions are specified accordingly to the prescribed reporting done by the DCSA and are as follows: 1) Western Hemisphere with Canada FMS 2) Africa FMS, 3) Europe FMS, 4) Near East and South Asia FMS, 5) East Asia and Pacific FMS. Based on this information, the graphs below, Figures 11 and 12, identify which regions were given what amount of the FMS budget. The research then examined what “Hot Spots” or areas of U.S. National Interests correlated with the regional FMS agreements and deliveries respectively to examine what correlation may exist.

Taiwan Agreements	Taiwan Deliveries	Total Agreements	Total Deliveries	Year	East Asia and Pacific Agreements	East Asia and Pacific Deliveries	Near East and South Asia Agreements	Near East and South Asia Deliveries	Europe Agreements
\$879,631	\$403,766	\$24,009,453	\$11,103,982	1980	\$3,803,554	\$2,061,910	\$11,362,205	\$4,533,620	\$8,354,956
\$540,387	\$652,096	\$11,250,129	\$13,299,005	1981	\$3,116,881	\$3,273,249	\$3,397,704	\$5,425,968	\$3,796,377
\$851,303	\$627,232	\$26,650,681	\$14,224,485	1982	\$7,680,633	\$2,063,411	\$14,348,821	\$7,216,961	\$3,082,087
\$1,066,291	\$600,792	\$22,118,531	\$16,409,753	1983	\$3,146,590	\$2,649,966	\$7,595,602	\$8,953,608	\$10,868,631
\$1,049,125	\$444,645	\$18,418,682	\$12,198,697	1984	\$2,293,038	\$2,255,484	\$5,857,843	\$5,319,752	\$9,274,694
\$992,857	\$486,534	\$14,818,844	\$10,823,069	1985	\$3,422,477	\$2,428,969	\$5,213,483	\$4,524,325	\$5,068,535
\$709,829	\$341,454	\$8,499,428	\$10,081,806	1986	\$2,482,284	\$2,026,676	\$2,522,739	\$4,712,204	\$2,708,842
\$689,929	\$487,798	\$8,081,990	\$14,327,624	1987	\$2,364,623	\$2,507,685	\$2,462,419	\$7,715,017	\$2,473,511
\$660,809	\$666,897	\$14,282,330	\$11,564,494	1988	\$2,899,374	\$3,355,293	\$8,919,314	\$3,428,078	\$1,705,229
\$663,661	\$500,582	\$11,173,461	\$9,152,303	1989	\$1,934,338	\$2,596,272	\$6,646,103	\$2,045,571	\$1,847,629
\$611,951	\$556,284	\$20,322,236	\$9,423,947	1990	\$3,623,384	\$2,344,593	\$13,339,189	\$3,046,272	\$2,830,896
\$555,437	\$643,286	\$19,687,861	\$10,232,346	1991	\$2,543,960	\$2,201,903	\$13,044,215	\$4,682,919	\$2,546,882
\$545,207	\$811,592	\$14,306,391	\$11,490,781	1992	\$4,214,243	\$2,288,184	\$2,839,030	\$6,070,927	\$5,635,484
\$6,124,006	\$905,182	\$31,680,516	\$12,452,286	1993	\$8,774,589	\$2,266,571	\$15,557,791	\$7,235,139	\$6,243,521
\$389,728	\$920,014	\$13,679,905	\$10,661,243	1994	\$3,435,789	\$2,933,123	\$5,019,966	\$3,929,727	\$4,387,257
\$470,998	\$1,423,558	\$9,079,234	\$12,931,370	1995	\$2,160,613	\$3,507,204	\$2,429,383	\$6,809,958	\$3,640,661
\$991,137	\$868,990	\$9,412,086	\$12,314,342	1996	\$3,084,757	\$2,770,952	\$3,923,641	\$5,702,162	\$2,118,544
\$1,170,681	\$2,438,148	\$8,408,943	\$16,294,591	1997	\$2,953,992	\$4,170,700	\$2,098,991	\$7,821,097	\$2,950,407
\$1,334,927	\$1,451,036	\$8,689,600	\$14,040,551	1998	\$2,383,795	\$3,497,212	\$4,300,374	\$6,708,508	\$1,700,299
\$1,165,140	\$2,512,709	\$11,201,155	\$16,927,384	1999	\$3,086,048	\$4,618,899	\$5,316,994	\$6,692,908	\$2,572,023
\$717,531	\$783,767	\$10,820,154	\$10,671,734	2000	\$2,515,240	\$3,662,365	\$3,676,507	\$4,050,694	\$4,134,308
\$1,094,775	\$1,139,135	\$12,456,912	\$12,059,194	2001	\$3,056,658	\$3,118,773	\$5,649,053	\$4,413,252	\$3,508,357
\$715,809	\$1,374,172	\$11,839,264	\$10,168,512	2002	\$3,887,824	\$3,205,224	\$4,864,676	\$4,103,849	\$2,263,215
\$1,394,999	\$625,342	\$12,202,560	\$8,899,950	2003	\$3,267,992	\$2,117,120	\$2,991,183	\$3,077,246	\$5,521,042
\$2,117,314	\$862,800	\$12,388,689	\$10,219,646	2004	\$3,783,820	\$2,479,780	\$5,570,821	\$3,959,841	\$2,654,600

Figure 11. Foreign Military Sales Agreements Distributed by Regions<sup>57</sup>

<sup>57</sup> FMS figures are drawn from The Department of Defense Security Assistance Agency annual facts books at the Federation of American Scientists website, 20 Feb 2007, 28 Apr 2007 < <http://www.fas.org/main/home.jsp> >.

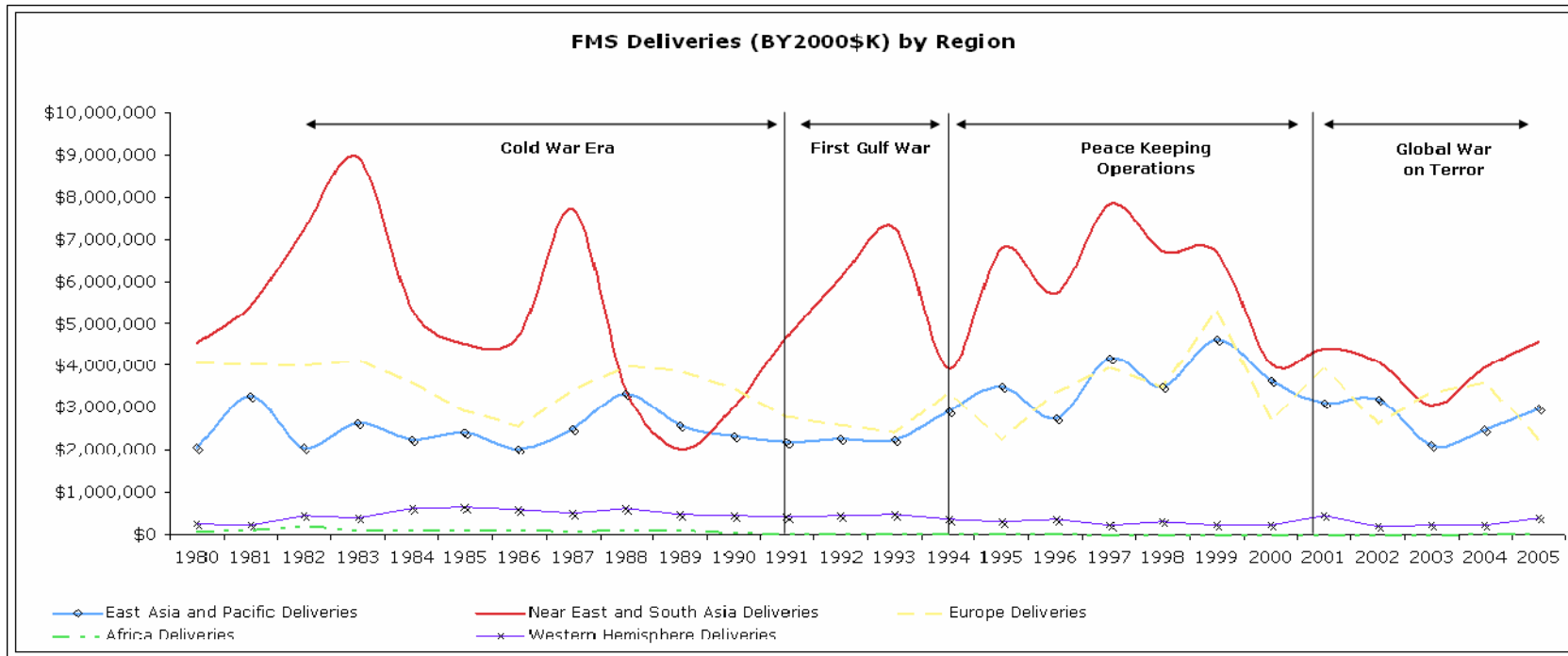


Figure 12. Foreign Military Sales Deliveries Distributed by Region<sup>58</sup>

<sup>58</sup> FMS figures are drawn from The Department of Defense Security Assistance Agency annual facts books at the Federation of American Scientists website, 20 Feb 2007, 28 Apr 2007 < <http://www.fas.org/main/home.jsp> >.

As depicted in the graphs above, Figures 11 and 12, the areas receiving the highest total amount of the FMS budget are the regions which posed the highest threat to the security of the US and their allies and are reflective of the administration's National Security Strategy and foreign policy doctrine at the time. During the early 1980s, the region with the highest dollar amount of FMS agreements proved to be Near East and South Asia, as the US doctrine under the Reagan Administration focused on containment of communism and the support to bordering or buffer states such as Iran and Afghanistan.<sup>59</sup> Reagan said, "the U.S. must rebuild the credibility of its commitment to resist Soviet encroachment on U.S. interests and those of its Allies and friends, and to support effectively those Third World states that are willing to resist Soviet pressures or oppose Soviet initiatives hostile to the United States, or are special targets of Soviet policy."<sup>60</sup>

However, as the Berlin Wall fell, and with the downfall of the Soviet Union, the major region receiving the highest amount of FMS agreements shifted to the European countries and the new found freedoms of many formerly soviet socialist republics. After this timeframe, the US adopted a two-major-regional-conflict (MRC) strategy for foreign and military policy.<sup>61</sup> Shortly there after, the highest amount of FMS agreements reverted to the Near East and South Asia regions with the invasion of Kuwait and the major support both in FMS and in military troop presence for Saudi Arabia. During the same period, President Clinton's National Security Strategy focused both on the perceived threats of North Korea, Iran and Iraq as well as on the Middle East peace process with the Jewish State of Israel and their Muslim neighbors.<sup>62</sup> During all of the

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<sup>59</sup> Mark P. Lagon, The Reagan Doctrine: Sources of American Conduct in the Cold War's Last Chapter (Westport: Praeger Publishers, 1994).

<sup>60</sup> NSC National Security Decision Directive 75, "U.S. Relations with the U.S.S.R.," 1983, 11 May 2007, <<http://www.fas.org/irp/offdocs/nsdd/nsdd-075.htm>>.

<sup>61</sup> United States, Department of Defense, Defense Security Assistance Agency Fiscal Year Series, (Washington: DoD, 1993) 10-11.

<sup>62</sup> United States, Department of Defense, Defense Security Assistance Agency Fiscal Year Series, (Washington: DoD, 1993) 10-11.

milestones, it is important to note that the majority of FMS agreements to East Asia and the Pacific continued to see major funding to Taiwan and the policy of containment from the threat of China and communism.

From 2001 until 2005, the graph depicts the funding for FMS during the new Global War on Terrorism. As evident with the location of military forces in Iraq and Afghanistan, the majority of funding for FMS continues to be the Near East and South Asia region and will likely continue until the threat of terrorism from this region is no longer an issue.

Based on this analysis, the research for this project concludes that FMS is offered to areas which are deemed a security threat to the interests of the U.S. and/or its Allies. Through this analysis, the research shows an obvious relationship between the U.S. National Security Strategy and the distribution of FMS. Based on this research, it is highly likely that the amount of FMS agreements in the future will continue to be provided to areas of concern that are deemed “Hot Spots” by the United States. As a result, the Near East and South Asia region will likely continue to receive higher amounts of FMS agreements throughout the Global War on Terrorism. Taiwan will likely continue to see a steady state of FMS agreements due to the uncertainty of China relations. Japan and Korea will likely see changes in the size of their FMS agreements as the threat from North Korea fluctuates.

## **C. ECONOMIC TRENDS**

### **1. Evaluated Areas**

The project team investigated the possible US economic factors that might be related to and possibly influence the total dollar amount of annual FMS spending by foreign countries. The team identified five US budget line-items that could have association with the FMS spending: US Defense Outlays, Military Personnel, Operations and Maintenance (O&M), Procurement and Research, Development, Test and Evaluation (RDT&E). Annual US federal budget figures for the period of 1980 to 2005 were compared to the respective annual size of FMS agreements to determine whether there is

association between the fluctuations in the US Defense budget figures and the size of the FMS agreements. Due to the long-term nature of FMS contracts and complicated delivery schedules, the relationship between the US Defense budget and FMS delivery figures was not analyzed. All data used was normalized to Budget Year 2000 dollars for comparison purposes. Appendix A contains the actual data tables, derivations and sources.

## **2. Outlays**

Total Annual US Defense Outlay data were analyzed to see if it is correlated with the annual FMS agreements figures. First, both analyzed data series for the period of 1980 to 2005 were graphically represented on the same chart in Figure 13 to observe possible patterns.

Both data series are in millions of Budget Year 2000 dollars, but FMS agreement data was multiplied by a factor of 10 for easier visual comparison, as depicted in Figure 13, fluctuations in the US Defense Outlays (solid line) have been much less volatile than the FMS spending (dashed line). The graph shows how the size of the outlays fluctuated according to the major historical milestones such as the Reagan military build-up in the 1980s, the fall of the Berlin Wall, the first Gulf War and especially the impact of the new Global War on Terrorism since 2001. Visually, despite a possible inverse relationship from 1982 to 1987, where FMS spending was shrinking while at the same time the US defense budget was growing, the FMS spending line shows little correlation with the US defense budget. A surge in FMS spending in 1993, attributable solely to Saudi Arabian FMS agreements due to the Gulf War is not mirrored by the respective period in the US defense budget. Also, the FMS spending remained anemic to a dramatic increase in US defense spending due to the GWOT from 2002 to 2005.

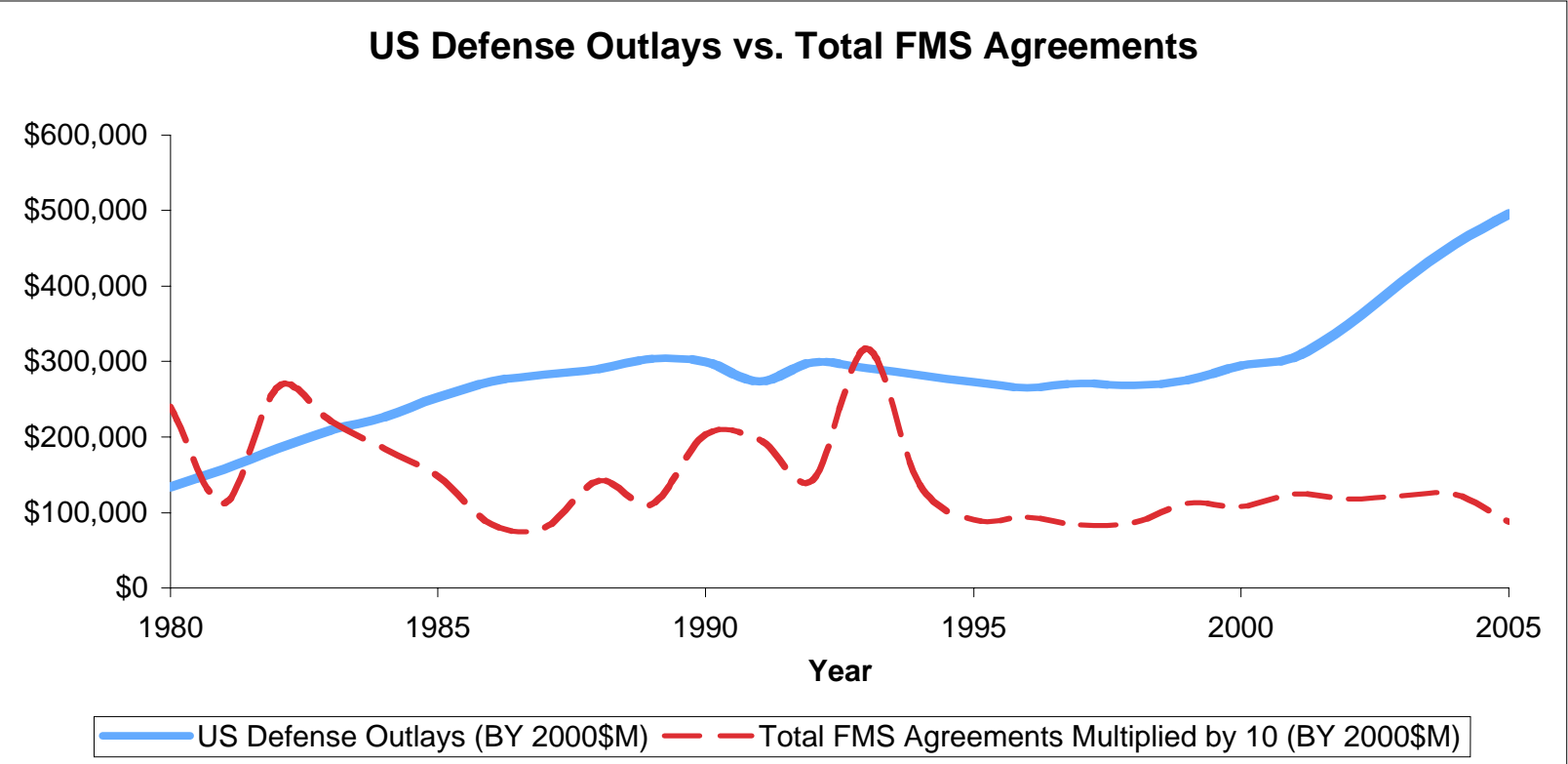


Figure 13. Comparison of US Defense Outlays to Total FMS Agreements



Additional possibility of FMS spending having a one or two year lag behind the US defense spending was investigated – as U.S. spending changes for the year X, other countries follow with associated FMS spending in year X+1. However, moving the total FMS spending line horizontally by one or two years behind the US defense outlays line did not produce a better visual fit of the two lines.

To further examine the possible correlation between the US Defense Outlays and Total FMS Agreements, a linear regression of the two variables was performed. The regression equation defines the linear relationship found by the model between the dependent (FMS agreements) and independent (US Defense Outlays) variable. As illustrated in Table 3, the model found a regression equation with the intercept of 22915829 and a negative slope of 30, which indicates a negative correlation between the two variables. In other words, the model found that an increase in US Defense Outlays results in a decrease in the FMS agreements. However, the coefficient of determination R-squared (represents the proportion of variation in the data explained by the model) is very low at 14.1%. Therefore, it can be summarized that the model has a slight negative correlation, but it explains only 14.1% of total FMS variation, is not credible and should not be used to draw any further conclusions about the relationship between the two variables.

Table 3. Regression Statistics for US Defense Outlays and Total FMS Agreements  
**Regression Goodness of Fit Statistics**

<b>Regression Total FMS Agreements (BY2000\$K) vs.</b>	<b>Equation</b>	<b>R squared</b>
US Defense Outlays (BY 2000\$M)	22915829 -30 * US Defense Outlays (BY 2000\$M)	0.1410

### **3. US Defense Budget Line-items**

The research examined four separate U.S. defense budget line-items: military personnel, operations and maintenance, procurement and research, development, testing

and evaluation—to see if these items separately provided better correlation with the total FMS spending than the total US Defense Outlays.

*a. Personnel*

In order to see if there is a visual relationship between the total FMS spending and the fluctuations in the annual US spending on military personnel for the period of 1980 to 2005, both data series were graphically represented in Figure 14.

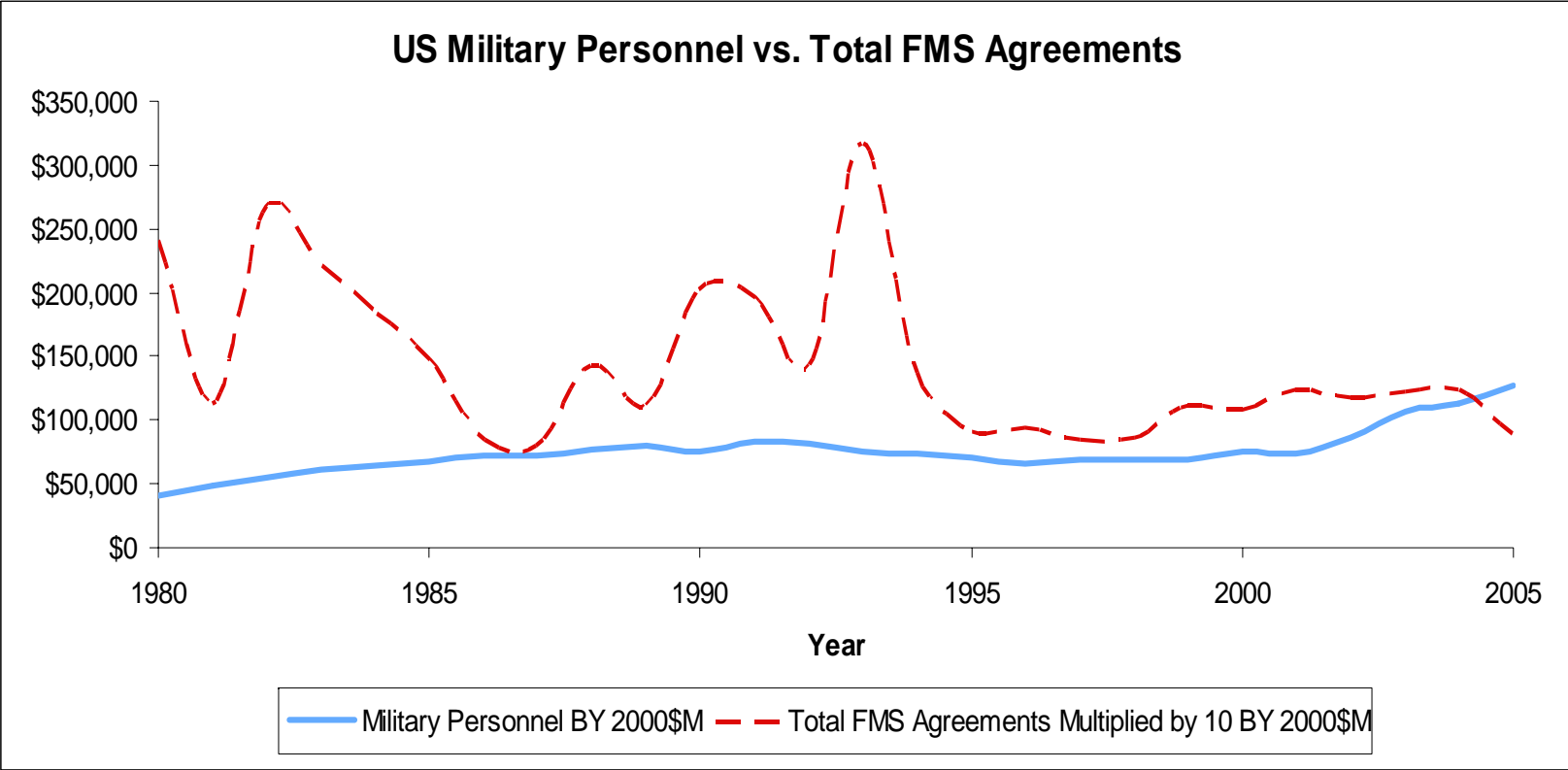


Figure 14. Comparison of US Military Personnel and Total FMS Agreements

Data series for U.S. Military Personnel and Total FMS agreements are in millions of Budget Year 2000 dollars, but FMS agreement data was multiplied by a factor of 10 for easier visual comparison. As depicted in Figure 14, the pattern of US spending on military personnel closely resembles the pattern of the total US spending on defense, already covered in the previous section. It can be noted that for the period from 1995 to 2005, U.S. spending on military personnel and FMS spending lines have a similar pattern of behavior and a better visual fit. A linear regression of the two variables was performed to further examine the possible correlations between the US Military Personnel spending (independent variable) and Total FMS agreements (dependent variable). As illustrated in Table 4, the regression equation for the model with military personnel spending indicates a negative relation between the US spending on military personnel and FMS spending. The model is very weak as it explains only 9.6% of total variation in the FMS agreements data. No further conclusions can be drawn from this model.

Table 4. Regression Statistics for US Military Personnel Spending and Total FMS Agreements

<b>Regression Goodness of Fit Statistics</b>		
<b>Regression Total FMS Agreements (BY2000\$K) vs.</b>	<b>Equation</b>	<b>R squared</b>
Military Personnel (BY 2000\$M)	$22308584 - 105 * \text{Military Personnel (BY 2000\$M)}$	0.0960

The total strength of U.S. military personnel over the same period was also examined for possible association between the strength numbers and total FMS spending. US Military Manpower data series are in total number of personnel, while the Total FMS agreements are in millions of Budget Year 2000 dollars. US.. Military Manpower was divided by a factor of 10 and Total FMS agreements were multiplied by a factor of 10 for easier visual comparison.

As shown in Figure 15, the military personnel strength and FMS spending lines visually look more in concert than the US Military Personnel spending line in Figure 14, especially for the period from 1995 to 2005. Below is the statistics of the linear regression of the two variables.

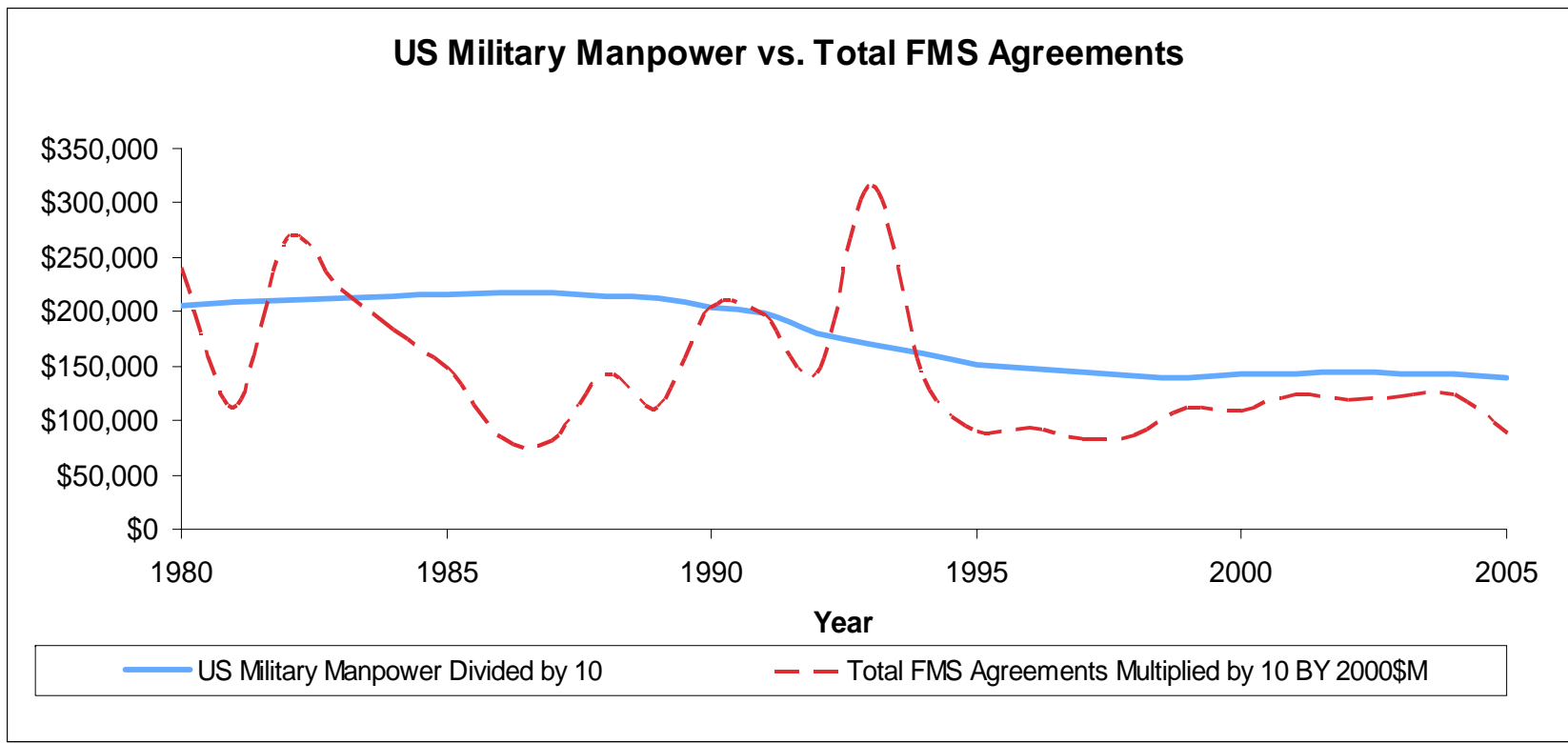


Figure 15. Comparison of US Military Manpower and Total FMS Agreements

As illustrated in Table 5, regression statistic for the model with the US Military Manpower has a positive correlation, but coefficient of regression is only 15.7%. This figure is slightly better than the one for the US Military Personnel spending model, but is still too small to allow for credible conclusions. It is possible that the relationship between the two variables exists, but it is extremely weak.

Table 5. Regression Statistics for U.S. Military Manpower Spending and Total FMS Agreements

Regression Goodness of Fit Statistics		
Regression Total FMS Agreements (BY2000\$K) vs.	Equation	R squared
US Military Manpower	$1027824 + 7.5 * \text{US Military Manpower}$	0.1570

***b. Operations and Maintenance***

The US military operations and maintenance (O&M) budget was the third economic factor that was investigated for correlation with the FMS spending by foreign countries. A graphical analysis of the annual US spending on O&M and total FMS agreements for the period of 1980 to 2005 was performed.

Data series for U.S. O&M spending and Total FMS agreements are in millions of Budget Year 2000 dollars, but FMS agreement data was multiplied by a factor of 10 for easier visual comparison.

As depicted in Figure 16, the U.S. military spending on O&M line is again similar to the total U.S defense budget line; however, it better reflects an increase in expenditures due to the first Gulf War in 1991. To further examine the possible correlation between the U.S O&M spending and Total FMS Agreements, linear regression of the two variables was performed.

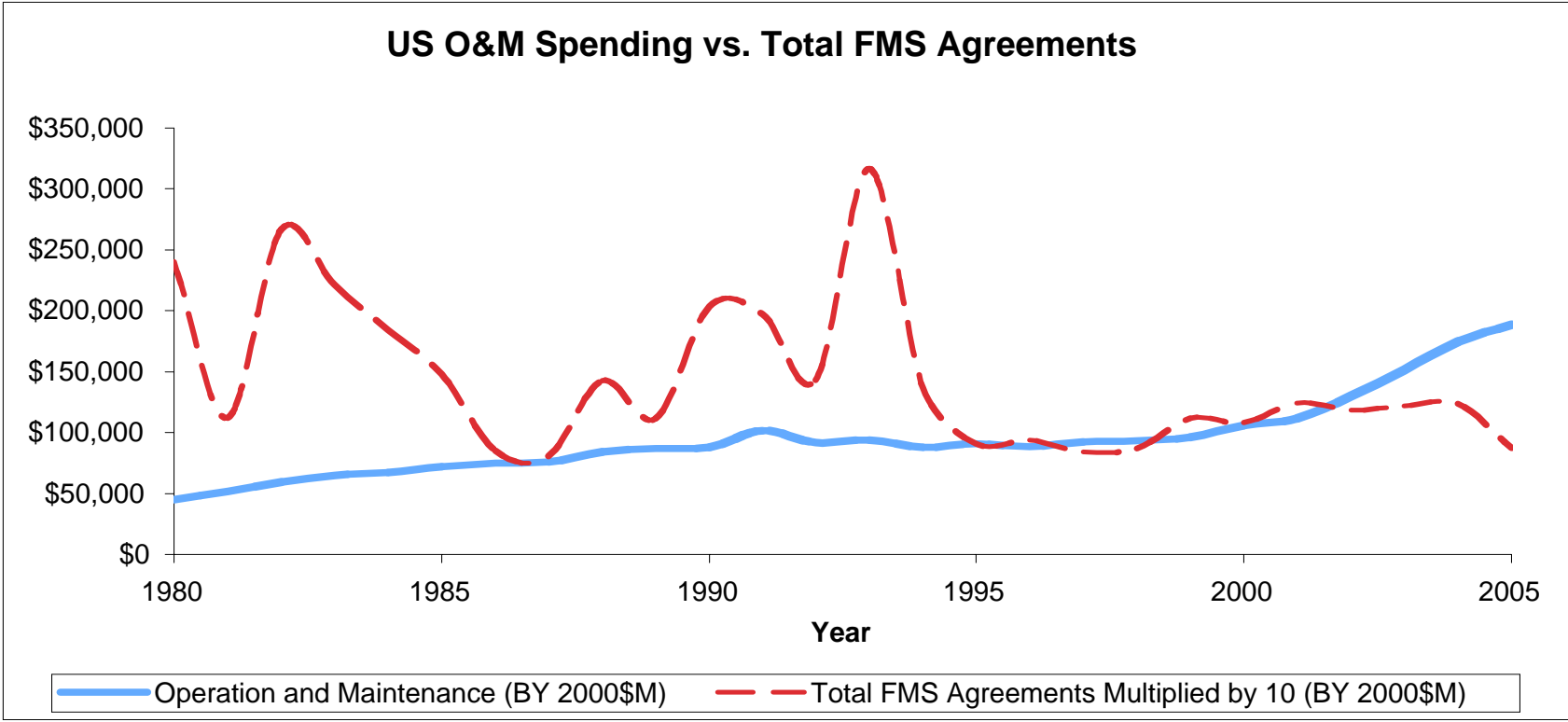


Figure 16. Comparison of U.S. Operations and Maintenance and Total FMS Agreements



As illustrated in Table 6, the slope of the regression equation is negative, indicating the negative correlation between the two variables. The model's coefficient of determination is 11.4%, which indicates an extremely weak model and leads to a conclusion that the amount of the U.S. O&M spending does not have an affect on the total amount of FMS spending for the corresponding year.

Table 6. Regression Statistics for U.S. Military O&M Spending and Total FMS Agreements

Regression Goodness of Fit Statistics		
Regression Total FMS Agreements (BY2000\$K) vs.	Equation	R squared
Operation and Maintenance (BY 2000\$M)	$20297737 - 62 * \text{Operation and Maintenance (BY 2000\$M)}$	0.1140

*c. Procurement*

The U.S. military procurement budget was the fourth economic factor that was investigated for correlation with the FMS spending by foreign countries. Since U.S. procurement and FMS both represent military spending in the same category of weapons and weapon systems purchases, a stronger relationship might be expected for this pair of variables than any other economic factor. The graph of the annual U.S. spending on procurement and total FMS agreements data for the period of 1980 to 2005 was produced.

Data series for U.S. procurement spending and Total FMS agreements are in millions of Budget Year 2000 dollars, but FMS agreement data was multiplied by a factor of 10 for easier visual comparison. As depicted in Figure 17, the U.S. military procurement line reflects large cuts in the U.S. procurement budget covering the period from 1991 to 1998. To further examine the possible association between the U.S. Procurement spending and Total FMS Agreements, linear regression of the two variables was performed.

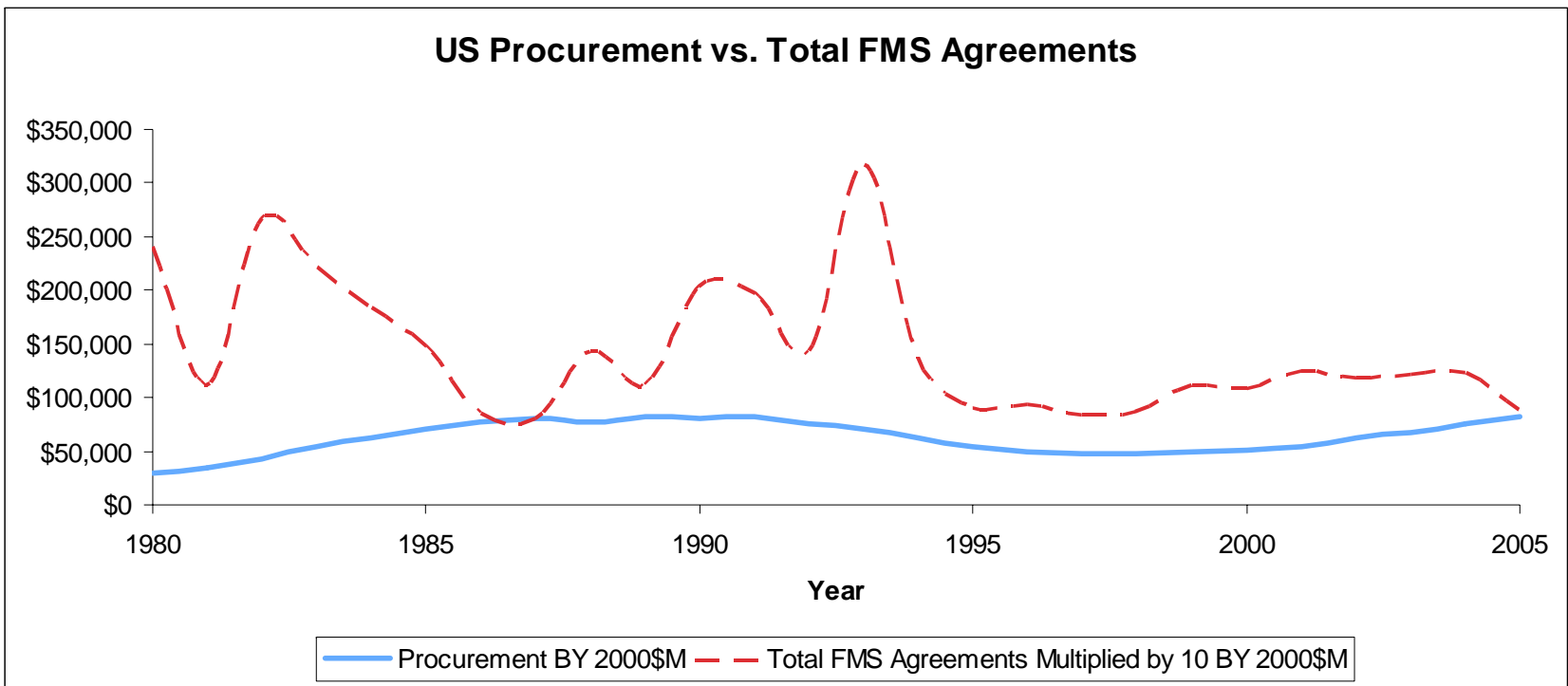


Figure 17. Comparison of U.S. Procurement and Total FMS Agreements

As illustrated in Table 7, this model explains less than 1% of total variation in data, therefore it is safe to conclude that there is no relationship between the amount of the U.S. military procurement and the total amount of FMS spending for the corresponding year.

Table 7. Regression of U.S. Military Procurement Spending and Total FMS Agreements  
**Regression Goodness of Fit Statistics**

<b>Regression Total FMS Agreements (BY2000\$K) vs.</b>	<b>Equation</b>	<b>R squared</b>
Procurement (BY 2000\$M)	$16826983 - 39 * \text{Procurement (BY 2000\$M)}$	0.0090

*d. Research, Development, Test and Evaluation*

The last economic factor analyzed is the size of the U.S. Military Research, Development, Test and Evaluation (RDT&E) budget. Data series for U.S. RDT&E spending and Total FMS agreements are in millions of Budget Year 2000 dollars, but FMS agreement data was multiplied by a factor of 10 for easier visual comparison. As depicted in Figure 18, the U.S. military spending on RDT&E line follows the trends demonstrated by the first three economic factors – it increases through the 1980’s, plateaus during the 1990’s and starts increasing again in the 2000’s. Also, the period from 1995 to 2005 has a better visual fit of two lines than other time periods.

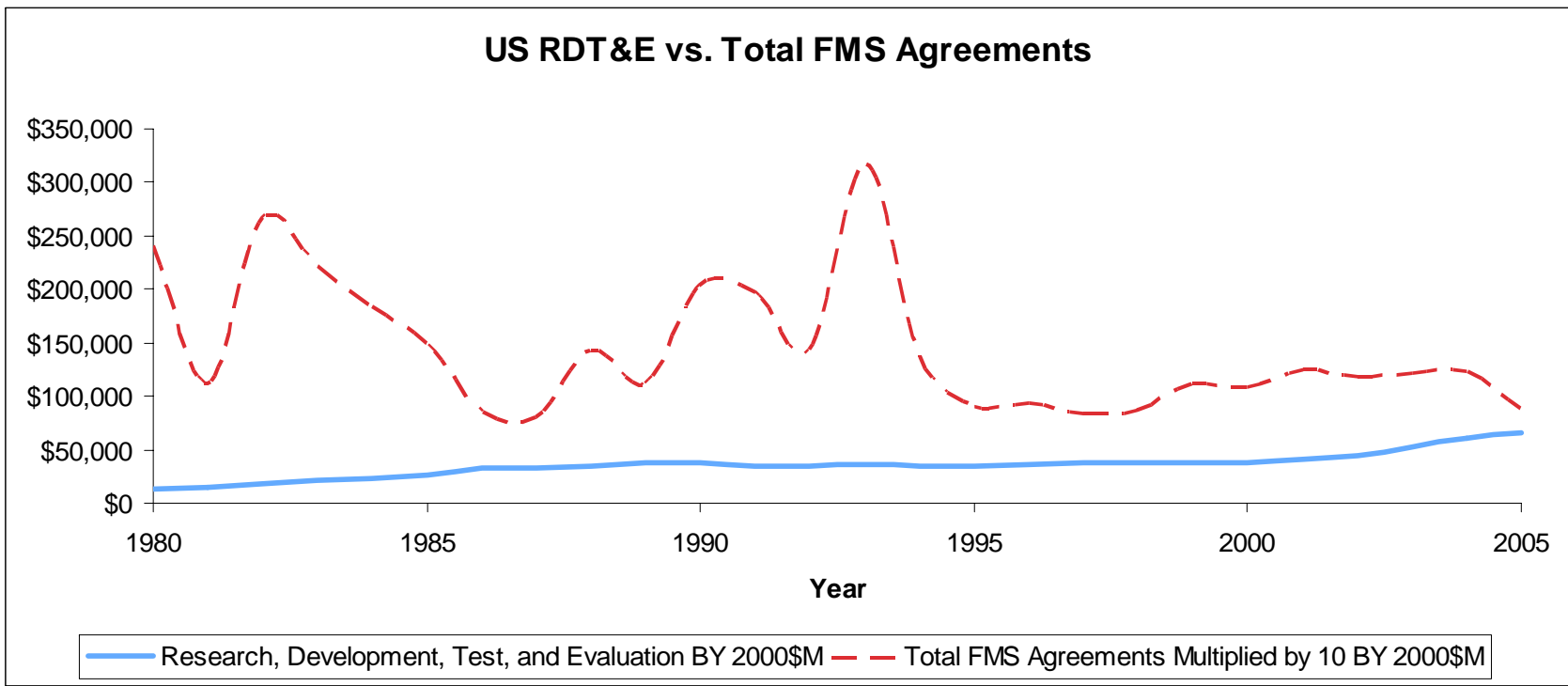


Figure 18. Comparison of U.S. RDT&E and Total FMS Agreements

As noted in Table 8, the coefficient of determination for this model is low at 18.1%. It is possible that there is an inverted relation between the size of the U.S. RDT&E budget and the FMS spending, but such association is too weak to be credible.

Table 8. Regression of U.S. Military RDT&E Spending and Total FMS Agreements  
**Regression Goodness of Fit Statistics**

<b>Regression Total FMS Agreements (BY2000\$K) vs.</b>	<b>Equation</b>	<b>R squared</b>
Research, Development, Test, and Evaluation (BY 2000\$M)	22121155 -219 * Research, Development, Test, and Evaluation (BY 2000\$M)	0.1810

*e. Conclusion*

The analysis of U.S. budget line items and their relation to the FMS spending showed virtually no correlation between the amount of U.S. military spending and foreign country spending on FMS. Therefore, it can be concluded that FMS spending is not associated with the U.S. military expenditures.

**D. INDUSTRIAL AND TECHNOLOGICAL TRENDS**

**1. Two Chief Changes**

In order to identify the trends within the U.S. industrial base that influence FMS, there are two major areas of concern that first must be addressed. The first is the effect of the Post-Cold War era, with respect to the reduction in the defense budget, the reduction in troop levels, and the decline in DoD spending for Procurement, and RDT&E. Also incorporated in this area is the capacity of the defense industrial base firms manufacturing, producing, and procuring weapon systems, and the changes in policy within the acquisition and contracting process. The second is the effects of Offsets and the increase in competition from other countries—along with the greater use of Direct Commercial Sales (DCS) in lieu of U.S. Governments FMS program.

## 2. Post Cold War Reduction

Looking at the historical timeline, the end of the Cold War culminated with a decline and reduction in the size and resources within the U.S. DoD. It also was highlighted by DoD acquisition reform such as the *Federal Acquisition Streamlining Act (FASA)* of 1994, the *Federal Acquisition Reform Act (FARA)*, the *Service Acquisition Reform Act (SARA)*, and the adoption of commercial best practices with the use of integrated product teams (IPTs). Congressional oversight and the use of the *Truth in Negotiation Act (TINA)* had discouraged commercial businesses from dealing with the government in the past. And *FARA*, *SARA*, and *FASA* were passed by congress and the DoD to lessen oversight, cost accounting standards, and provide fewer audits and regulations to encourage more commercial businesses to work with the government and compete for contracts. At the same time, with the combination of troop-level decreases, defense budget declines, and a change in the U.S. Security Threat from no longer dealing with a major adversary, the defense industrial base for the U.S. soon began to feel the impact of these policy, budget and manpower decreases within the DoD transformation. In other words, defense industry firms had to adapt to the new post- Cold War era and the effects were huge. Aircraft contractors dropped from 26 to 7 in 1994; missile contractors dropped from 22 to 9, and tank contractors from 16 to 2 over the same time period.<sup>63</sup> This rise in mergers led to a drop in numbers of contractor firms within the defense industrial base. Such mergers continue to date due to the willingness of businesses to compete for DoD contracts. Recent studies show that with the acquisition reform acts, over 39.72% of contracts are awarded to the top 10 DoD contracting firms and this trend will likely continue.<sup>64</sup> Added to this is the fact that these larger yet, fewer contractors tend to be awarded more money on weapon procurement contracts using other than full and open competition.<sup>65</sup>

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<sup>63</sup> United States, Government Accountability Office, “Trends in DOD Spending, Industrial Productivity, and Competition, GAO/PEMD-97-3” (Washington, D.C.: GAO, 1997).

<sup>64</sup> Figures and information derived from the Federal Procurement Data System (FPDS), 2003, 5 May 2007, <<https://www.fpds.gov/>>.

<sup>65</sup> Figures and information derived from the Federal Procurement Data System (FPDS), 2003, 5 May 2007, <<https://www.fpds.gov/>>.

The result of these mergers and the downsizing of the industrial force structure were highly publicized due to the large number of job cuts and lay-offs in the late '80s and early '90s. DoD data estimated a 39% decrease in defense-related employment between 1989 and 1997, or 5% per year.<sup>66</sup> These jobs were lost in the funding drawdown; but as economists would contend, job loss does not necessarily equate to unemployment and/or the loss of value. Losses can be absorbed as individuals acquire future work in the same or in different sectors of the economy.<sup>67</sup> The Defense Conversion Commission reported to the DoD “that the concept of job loss can overstate the effect of the Post-Cold War drawdown on employment because it does not account for the ability of the economy to absorb dislocated workers.”<sup>68</sup>

Shifting to DoD spending on procurement and RDT&E, the Government Accounting Office reported that the impact of victory in the Cold War brought about massive changes in the size and resources available to the armed forces. Since the peak in the defense budget in the mid 1980's, declines in the DoD spending for procurement and RDT&E have had a huge effect on the industrial base and the manufacturing and production of weapon systems. The fall of the Berlin Wall and the end of a bi-polar world changed U.S. defense doctrine and reshaped the size of public and private businesses, departments, and facilities that worked in the defense environment. The procurement budget in current 2000 year dollars changed from \$70,381 Million in 1985 to \$51,696 Million in 2000—a decrease of \$18,685 Million or 27%.<sup>69</sup> This decrease in the budget for procurement items and the increases in the competition from foreign countries in their pursuit of weapon sales to other countries and potential clients of the U.S. industrial base have placed pressure on the U.S. defense industrial base to remain strong and competitive.

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<sup>66</sup> Figures and information derived from the Federal Procurement Data System (FPDS), 2003, 5 May 2007, <<https://www.fpds.gov/>>.

<sup>67</sup> David Henderson, Ph.D., Economics, Naval Postgraduate School, Personal Interview, 10 Apr 2007.

<sup>68</sup> United States, Government Accountability Office, “Trends in DOD Spending, Industrial Productivity, and Competition, GAO/PEMD-97-3” (Washington, D.C.: GAO, 1997).

<sup>69</sup> See CBO spreadsheet attached.

The effects of these outcomes from the post-Cold War era depict a common trend evident in today's industrial base. First, the more the defense procurement budget decreases, the more the defense industrial-based companies need to look to other countries for financial support and customer relations. Also as countries develop economically, their ability to address their security needs through FMS grows. Not only does the U.S. industrial base now compete for contracts within other countries, foreign firms are now in the market for competing FMS to other countries. For example, *Defense Industry Daily* has reported numerous competition bids for contracts—including the 2005 winning bid awarded to Russia for 12 Sukhoi fighters, in which the Royal Thai Air Force had previously flow American aircrafts. Also, a multi-billion dollar jet fighter contract is still being contested between Boeing, Dassault, Saab, and MiG, which shows how competitive the market is for competition within the defense industry. This trend may likely have effects on our ability to keep a higher tier of technology above other countries since the U.S. defense industrial-based companies will need to compensate R&D money to stay competitive as well as to keep our programs at an efficient market-driven level.

### 3. Offsets

In examining how Offset agreements affect FMS, we first need to define what an offset is. According to the GAO, an “Offset means the entire range of industrial and commercial benefits provided to foreign governments as an inducement or condition to purchase military goods or services, including benefits such as co-production, licensed production, subcontracting, technology transfer, in-county procurement, marketing and financial assistance, and joint ventures.”<sup>70</sup>

There are two types of Offsets: direct offsets and indirect offsets:<sup>71</sup> A Direct Offset is a form of compensation to a purchaser involving goods or services that are directly related to the item being purchased. For example, as a condition of a U.S. sale,

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<sup>70</sup> United States, Government Accountability Office, “Observations on Issues Concerning Offsets, GAO-01-278T,” (Washington, D.C.: GAO, 2000).

<sup>71</sup> United States, Department of Commerce, Bureau of Industry and Security, Defense Offsets Disclosure Act of 1999, Pub. L. 106-113, section 1243(3), (Washington D.C.: DOC, 1999) <<http://www.bis.doc.gov/DefenseIndustrialBasePrograms/OSIES/offsets/1999DefOffDisclosureAct.htm>>.



the contractor may agree to permit the purchaser to produce in its country certain components or subsystems of the item being sold. Normally, Direct Offsets must be performed within a specified period.

Indirect Offset is a form of compensation to a purchaser involving goods or services that are unrelated to the item being purchased. For example, as a condition of a sale the contractor may agree to purchase certain of the customer's manufactured products, agricultural commodities, raw materials, or services. Indirect Offsets may be accomplished over an expected, open-ended period of time.

Historically, the U.S. government has maintained a "hands off" policy toward FMS offsets, viewing them as part of the transaction between the contracting parties. However, offsets are one of the many factors contributing to the globalization of the U. S. industrial base.<sup>72</sup> The use of Offsets can also result in reduced unit costs due to the increased size of production runs, however, as the world market gains in competitiveness by other countries' industrial bases, Offsets to foreign countries can lead to decreased business opportunities for U.S. suppliers as well as loss of capabilities to the U.S. defense industrial base.<sup>73</sup>

Looking at Offsets from the contractor's perspective, industry officials consider offsets an unavoidable cost of doing business with foreign countries, since without these agreements, export sales would be reduced, thus, the loss of these exports would result in a loss to the U.S. economy and defense industrial base.<sup>74</sup> The loss comes in the form of both employment within the defense industry and in the amount of production orders that save the DoD money—due to the decrease in unit costs as production levels increase. At the same time, national security may be affected as well, due to technology transfer since foreign countries are requiring more and more Offsets in the form of higher technology transfers. Additionally, higher Offset percentages including higher local content such as

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<sup>72</sup> United States, Government Accountability Office, "Observations on Issues Concerning Offsets, GAO-01-278T," (Washington, D.C.: GAO, 2000).

<sup>73</sup> United States, Government Accountability Office, "Observations on Issues Concerning Offsets, GAO-01-278T," (Washington, D.C.: GAO, 2000).

<sup>74</sup> United States, Government Accountability Office, "Observations on Issues Concerning Offsets, GAO-01-278T," (Washington, D.C.: GAO, 2000).

labor requirements are being required.<sup>75</sup> A recent GAO study examined the growth in demand for Offsets. Prior to the 1990's, many countries did not require offsets, but with the increase in competitiveness and economic wealth of foreign countries, these same countries now incorporate offset policies that give advantage to the host nations. Based on a study of nine U.S. companies, with 10 countries in Asia, Europe, and the Middle East, the GAO report found that over a 10 year time frame, demands for offsets increased in all participating countries. Indeed, many of the countries were now focused on longer term offset deals to pursue industrial policy goals.<sup>76</sup>

#### **4. Direct Commercial Sales**

The use of Direct Commercial Sales is also a major factor in defining how the changes in the industrial base affect FMS. As stated previously, DCS is a program approved by the State department that regulates private U.S. companies' overseas sales of weapons and other defense articles, services, and training. The DCS requires an export license issued by the office of Defense Trade Controls. The effect that DCS has on FMS is profound. According to the former Arms Control and Disarmament Agency (ACDA), 52% of all US arms exports to the world between 1986 and 1996 were provided through DCS.<sup>77</sup>

Governments tend to choose DCS over FMS for several reasons:<sup>78</sup>

- Unlike FMS sales, DCS are negotiated directly between the foreign government and the U.S. arms manufacturer without the DoD serving as an intermediary or applying administrative costs to the purchases.

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<sup>75</sup> United States, Government Accountability Office, "Offset Demands Continue to Grow, GAO/NSIAD 96-65," (Washington, D.C.: GAO, 1996).

<sup>76</sup> United States, Government Accountability Office, "Offset Demands Continue to Grow, GAO/NSIAD 96-65," (Washington, D.C.: GAO, 1996).

<sup>77</sup> United States, Arms Control and Disarmament Agency, "Article: Revision of US Arms Exports Data Series," World Military Expenditures and Arms Transfers 1997 (Washington: ACDA, 1997, revised Jan 1999).

<sup>78</sup> United States, Department of State, Department of Defense, Foreign Military Assistance Act Report To Congress, Fiscal Year 1996 (Washington: Sep1997).

- FMS sales are often more expensive than DCS, though cost depends on many factors. For instance, less complex items or items produced by two or more companies are frequently cheaper when sold directly.
- DCS sales are usually quicker than FMS, as they avoid much "red tape" associated with the government-to-government program.
- DCS are also less transparent than FMS; some buyers are attracted to the program's relative lack of reporting requirements and audits.
- Governments that have more experience in military procurement, and do not feel a need to have the U.S. government negotiate sales on their behalf, tend to choose DCS.<sup>79</sup>

Based on research conducted for this project, the Industrial base has a vital role in affecting the Foreign Military Sales program and vice versa. As identified above, continued offsets, increases in third-world countries wealth and competition from foreign countries, and regulation from the US government, the US Industrial base will likely be affected by any increase or decrease in FMS. The industrial base can either be hurt by the restriction of FMS to other countries, or it can thrive with increased orders. However, the major concern is not how the Industrial base affects FMS, but on the other hand, how FMS affects the Industrial base. One point of interest is identified in the research done on Taiwan and its FMS with the US. Taiwan is a customer for U.S. FMS however, the U.S. is not the sole provider of FMS products to Taiwan. Because of this, systems such as System X produced by a DoD industry leader is in competition with another country's producer of System X. In short, if Taiwan agrees to purchasing System X from the competitor from Country Y instead of from the U.S. firm, the U.S. firm will be left with this second-tier System X. The results will most likely be lay-offs and a huge financial loss from lack of selling these already produced units of System X. This is only one of many competitive FMS products being competed for by other nations looking to help their national industrial bases. President Clinton's Conventional Arms Transfer Policy

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<sup>79</sup> Office of the Under Secretary of Defense for Acquisition Technology and Logistics, Defense Procurement and Acquisition Policy, "Offsets," 1990, 1 May 2007, <<http://www.acq.osd.mil/dpap/paic/international/contracting/offsets/index.htm>>.

recognized the importance of economic security by making it a policy goal to enhance the ability of the US defense industrial base to meet US defense requirements and maintain long-term military technological superiority at lower costs. Based on research for this project, we can conclude that as spending for procurement and RDT&E decreases, and the number of Defense Industry firms decrease, and as the costs for new technology and state-of-the-art weapon systems increase, FMS must help U.S. Defense industries stay technologically superior to other countries. Such assistance is vital. Further research should be conducted to examine the impact of FMS competition between countries and the ability to associate a monetary value with the importance of keeping the FMS program competitive and efficient—while at the same time safeguarding the United States’ ability to remain technologically superior to other nations.

The next chapter discusses internal factors and trends within Taiwan and how these issues affect their use of the U.S. Foreign Military Sales programs as well as how the U.S. FMS program applies to Taiwan.

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## **IV. CASE STUDY APPLICATION: ANALYSIS OF TAIWAN FMS TRENDS**

### **A. INTRODUCTION**

The U.S Foreign Military Sales Program is considered vital to the safety and security of Taiwan. This chapter will analyze the internal factors that affect the use of the U.S. FMS program as well as the factors and trends that affect how Taiwan views the program.

### **B. HISTORICAL BACKGROUND OF TAIWAN FMS**

The history of postwar United States military aid to countries in the Far East reflects the U.S.'s attempt to prevent and contain the spread of Chinese Communism. In the immediate years after the end of World War II, the U.S. policy towards the Republic of China (ROC) remained ambiguous until it was too late to prevent the Chinese Communism advances by military and economic assistance alone. The Republic of China (Taiwan) was assured by President Truman that the U.S would aid it in modernizing and strengthening its armed forces. Aid in the form of the Lend Lease Program provided for 39 divisions and 8 1/3 air force groups at a total cost estimated at \$769 Million. The U.S. continued its aid in the form of military assistance even after the expiration of the program on June 30, 1946.<sup>80</sup>

In 1949 the government of the Republic of China led by Generalissimo Chiang, Kai-Shek took its forces from the mainland of China to Taiwan and offshore islands. Mainland China eventually fell into Chinese Communist hands. With the Chinese Communists building their strength on the mainland, prospects for ROC's tenure on Taiwan did not look good. The United States did not wish to become involved and indicated this publicly. On January 5<sup>th</sup>, 1950, President Truman announced that the United States would not provide military aid or advice to the ROC on Taiwan. However,

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<sup>80</sup> Yeh, An-Sheng, A Study of the U.S. Foreign Military Sales and ROC Procurement System: Taipei: 57.

the breakout of the Korean War quickly resulted in a reversal of United States foreign policy toward Taiwan. In June of 1950, President Truman ordered the Seventh Fleet to prevent any attack on Taiwan. This policy of assisting the ROC in the defense of Taiwan persisted until December 31, 1979, when the United States established diplomatic relations with the People's Republic of China and terminated the agreement of mutual defense with Taiwan.<sup>81</sup> However, the United States realized that the rise of communist China was becoming a serious threat to the U.S. national interests in the area. Due to its strategic location, Taiwan was seen as the key to the Western Pacific region and the National Security Strategy policy of containment. Therefore, the United States soon passed the *Taiwan Relations Act* (1979) which would, ideally, assist Taiwan in maintaining regional peace and containing the spread of communism.

The *Taiwan Relations Act* (TRA), P.L. 96-8, has governed U.S. arms sales to Taiwan since 1979, when the United States recognized the People's Republic of China (PRC) instead of the ROC. *The Taiwan Relations Act* specifies that it is U.S. policy:

- to consider any non-peaceful means to determine Taiwan's future "a threat;"
- to contribute to the peace and security of the Western Pacific which are of "grave concern" to the United States;
- "to provide Taiwan with arms of a defensive character;"
- and "to maintain the capacity of the United States to resist any resort to force or other forms of coercion" jeopardizing the security or social or economic system of Taiwan's people.

Section 3(a) of the *Taiwan Relations Act* states that "the United States will make available to Taiwan such defense articles and defense services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability." The *Act* also specifies a congressional role in decision-making on security assistance for Taiwan. Section 3(b) stipulates that both the President and the Congress shall determine the nature

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<sup>81</sup> Harold A Hovey, United States Military Assistance: A Study of Policies and Practices, Frederick A. Praeger, Publishers, 1965.

and quantity of such defense articles and services based solely upon their judgment of the needs of Taiwan. Section 3(b) also states, “such determination of Taiwan’s defense needs shall include review by United States military authorities in connection with recommendations to the President and the Congress.” The *Taiwan Relations Act* also established the American Institute in Taiwan (AIT) as a nonprofit corporation to handle the relationship with Taiwan. AIT implements policy as directed by the Departments of Defense and State and the National Security Council (NSC) of the White House.<sup>82</sup> Although the diplomatic relationship between Taiwan and the U.S. was terminated in 1979, the *Taiwan Relations Act* has allowed the United States to build a solid relationship with Taiwan based on shared values and mutual interests.

### **C. PURCHASE TRENDS FROM 1950 TO 2005**

Taiwan has traditionally relied heavily on U.S. suppliers for its defense equipment needs. From the U.S. entry into World War II until the break in diplomatic relations in 1979, the U.S. was a close military ally of Taiwan. Until 2004, Taiwan purchased advanced military equipment almost exclusively from the United States, often directly from the U.S. Government through the Foreign Military Sales (FMS) program. All of the major U.S. defense contractors have sold equipment and/or technology to Taiwan, and most of these firms have well-established, long-term relationships with individuals and institutions in the Taiwan military. Even after the diplomatic relationship between Taiwan and the U.S. was terminated, the FMS delivery remained constant under the assurance of *Taiwan Relations Act*. In fact, Taiwan has been the United States’ best FMS customer in the region, as Figure 19 depicts below.

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<sup>82</sup> United States, Congressional Research Service, CRS Report for Congress, Order Code RS20365, (Washington D.C.: CRS, 2001).



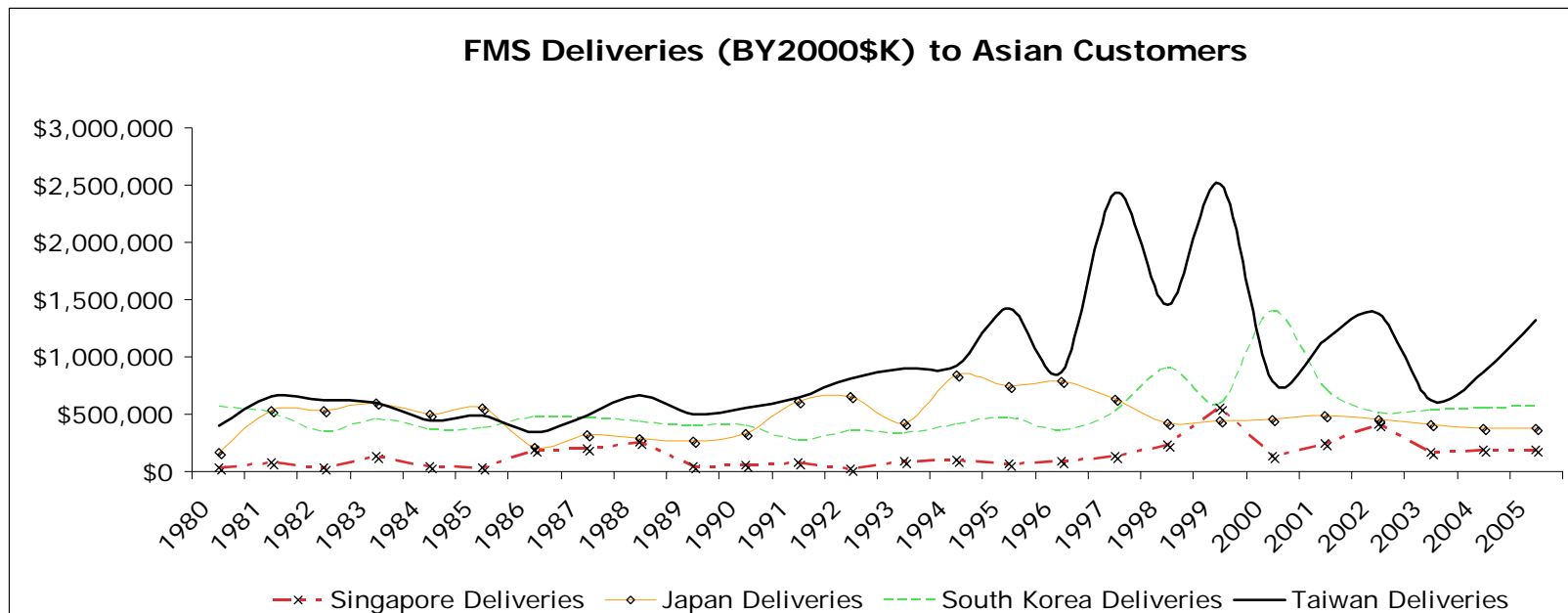


Figure 19. Foreign Military Sales Deliveries to Asian Customers<sup>83</sup>

<sup>83</sup> FMS figures are drawn from The Department of Defense Security Assistance Agency annual facts books at the Federation of American Scientists website, 20 Feb 2007, 28 Apr 2007 < <http://www.fas.org/main/home.jsp> >.

Since 1990, Taiwan has attempted to diversify its sources of defense equipment. Taiwan has ordered 60 Mirage 2000-5 fighters and six *Lafayette* frigates from France and has purchased two submarines from the Netherlands. Purchasing from new suppliers not only decreases Taiwan's dependence on the United States, it also wins the politically isolated Taiwan authorities important friends among the world's hard-pressed defense contractors. European defense contractors are aggressively courting Taiwan decision-makers, and U.S. contractors will have to protect their market share.

From worldwide sources, including the United States, Taiwan received \$13.9 billion in arms deliveries in the eight-year period from 1998 to 2005. Taiwan ranked third behind Saudi Arabia and China among leading recipients that are developing countries. Of that total, Taiwan received \$9.8 billion in arms in 1998-2001 and \$4.1 billion in 2002-2005. In 2005 alone, Taiwan ranked 6<sup>th</sup> and received \$1.3 billion in arms deliveries, while the PRC ranked 5<sup>th</sup> and received arms valued at \$1.4 billion. As an indication of future arms acquisitions, Taiwan's arms *agreements* in 2002- 2005 totaled \$4.9 billion. The value of Taiwan's arms agreements in 2005 alone did not place it among the top ten recipients that are developing countries.<sup>84</sup> Figure 20 shows the historical pattern of FMS sales from 1980 to 2005; note the dramatic increase of agreement in 1993 when the U.S. approved the sale of 150 F-16 fighters. There is no agreement in 2005 since the defense budget for foreign military agreements proposed by the U.S. in 2001 is still waiting for resolution in Taiwan's Legislative Yuan.

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<sup>84</sup> Richard Grimmett, "Arms Sales Agreements with and Deliveries to Major Clients 1997-2004, Report RL33217," Congressional Research Service, 29 Dec 2005.

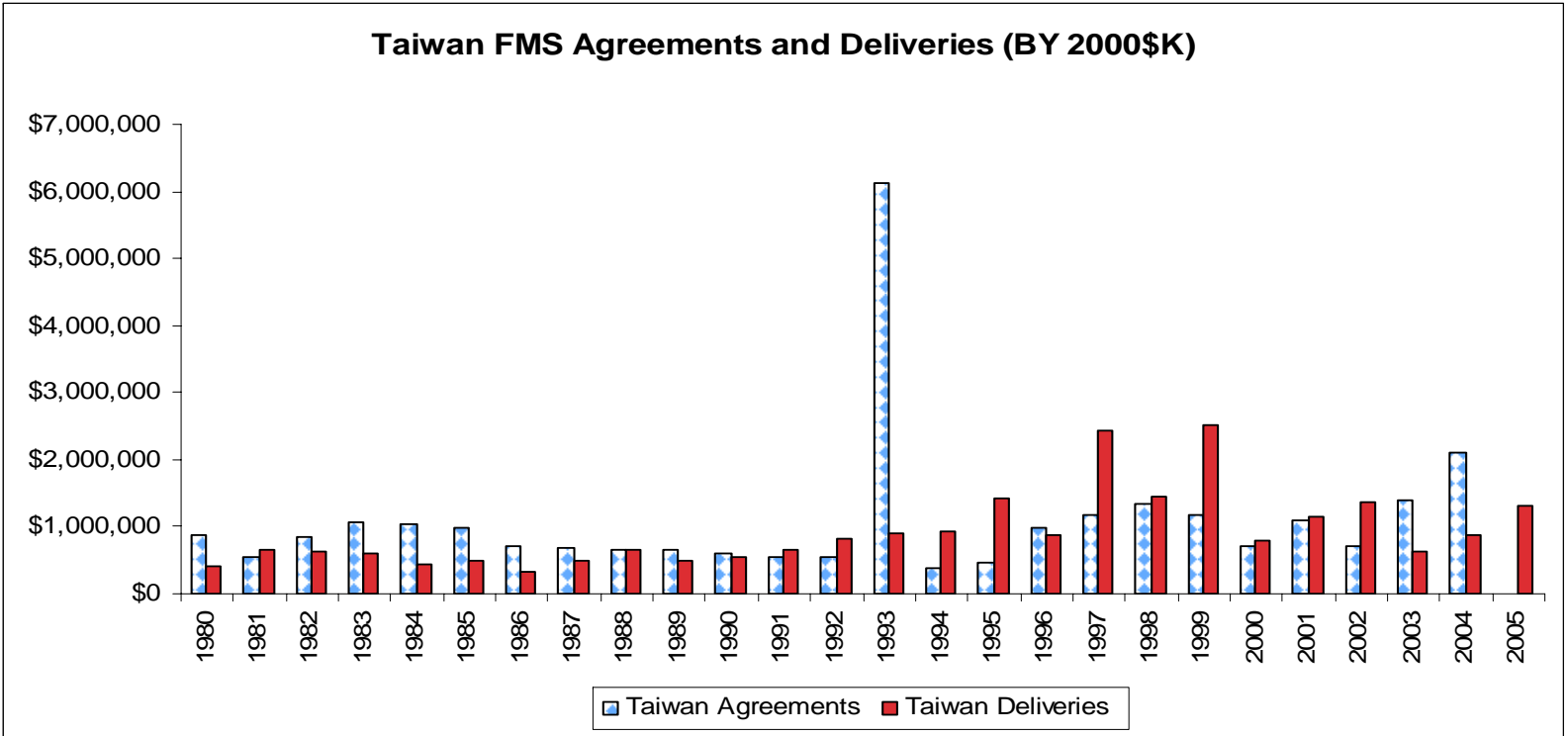


Figure 20. Amount of U.S. Foreign Military Sales Agreements and Deliveries to Taiwan<sup>85</sup>

<sup>85</sup> FMS figures are drawn from The Department of Defense Security Assistance Agency annual facts books at the Federation of American Scientists website, 20 Feb 2007, 28 Apr 2007 < <http://www.fas.org/main/home.jsp> >.

## D. TAIWAN'S DEFENSE PROCUREMENT PROCESS

Under Taiwan's Ministry of National Defense,

The Procurement Bureau (PB) and the Defense Procurement Division (DPD), Taipei Economic and Cultural Representative Office (TECRO)/Washington are Taiwan's largest and most important official military purchasing agencies. They purchase most of the military equipment and supplies required by Taiwan's defense organizations. Other military procurement bodies, such as the military services' logistics commands and the Chung Shan Institute of Science and Technology play a relatively minor role in military purchasing abroad. Military organizations may purchase imported items without PB or DPD tendering bids, but all equipment and supplies with a purchase amount exceeding the designated audit ceiling of NTD50 million, approximately \$1.85 million U.S. dollars, must be purchased through PB or DPD tenders.<sup>86</sup>

Procurements can be classified into "single review" and "divided review" tenders, based on differences in the procedures used to review the bids. Tender documents usually ask the bidders to provide three main items: qualifications of the supplier, specifications of the commodity, and price. If these three items are reviewed at the same time, the tender is defined as a "single review" tender. If the item to be procured is expensive and technically complex, the qualifications of the bidders and the specifications of the product(s) they propose to supply are usually reviewed before proposals are opened. The military purchasing agencies (except DPD/TECRO Washington) must publicly announce the invitation-to-bid in both Chinese and local English newspapers, namely the *Youth Daily News* and *Central Daily News* (Chinese), and the *China Post* and the *China News* (English). In case of restricted tenders or negotiated purchases, invitation letters are sent to specific firms. An invitation to bid is attached to the letter. The bidder must have its own copy of the invitation to bid, available at modest cost from PB/Taipei or DPD/Washington, D.C., to tender a bid. A bid bond of 3% of the total bid value in the form of cash, bank draft, certified check, bank guarantee, or letter of credit is required at the time of submission and will be refunded if the bid is unsuccessful. Unless otherwise

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<sup>86</sup> Ministry of National Defense Office (Republic of China). Mar 2007, 24 Apr 2007, <<http://www.globalsecurity.org/military/world/taiwan/mnd.htm>>.

stipulated in the contract, within 18 days after receiving the notification of award, the seller must deposit a performance bond of 5% of the contract value. New-to-market vendors interested in presenting their product line to Taiwan's military branches must first contact the Procurement Bureau within the Ministry of National Defense to schedule a presentation.

The primary function of the Procurement Bureau is the compilation of data and supplier lists which are made available to Taiwan's military branches, so defense contractors are strongly encouraged to submit product literature and promotional material to the bureau, which is also charged with making this information available to the various military service headquarters.

#### **E. DIRECT COMMERCIAL SALES**

In 1980s and 1990s, Taiwan purchased *Mirage* jet fighters and *Lafayette* class frigates from France and *Zwaardvis* class submarines from the Netherlands. However, the procurement of *Lafayette* resulted in an illegal profiteering indictment of government officials and senior military leaders. Captain Yin, Chin-Fong, the chief of the ROC Navy procurement department was murdered and it was thought to be related to this scandal. Surprisingly, it was not until then, that the high percentage of the sales commissions had caught people's attention. One new article explained:

In 2003 the Taiwanese navy filed a suit in the International Chamber of Commerce (ICC), Paris against France Thomson-CSF (now known as Thales), demanding that the firm return U.S. \$99 Million—an amount the Navy claims is equivalent to the kickbacks the company received during the purchase of six frigates from France.”<sup>87</sup>

The French press called it the “scandal of the century” and President Chen stated it was a “Nation Shaking” event and said he would conduct a full investigation until the case was solved. However, because the profiteering involved many people in high power, the case has not yet been resolved. Furthermore, the procurement of the *Lafayette* had upset China—resulting in the termination of all future sales to Taiwan.

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<sup>87</sup> Rich Chang, Shih Hsiu-chuan and Jewel Huang, “Taiwan to offer deal to France on Lafayette case: report,” Taipei Times [Taipei], 13 Jun 2006: 1.

## **F. FACTORS AFFECTING THE FMS PROGRAM IN TAIWAN**

### **1. Political**

The political scene in the ROC is divided into two camps, with the pro-unification and center-right KMT, People First Party (PFP), and New Party forming the Pan-Blue Coalition, and the pro-independence and center-left Democratic Progressive Party (DPP) and centrist Taiwan Solidarity Union (TSU) forming the Pan-Green Coalition.

This research suggests that politics is a major factor affecting FMS as seen in Figure 21. Notice that the FMS agreements drop tremendously after year 2004 due to internal political issues in Taiwan.

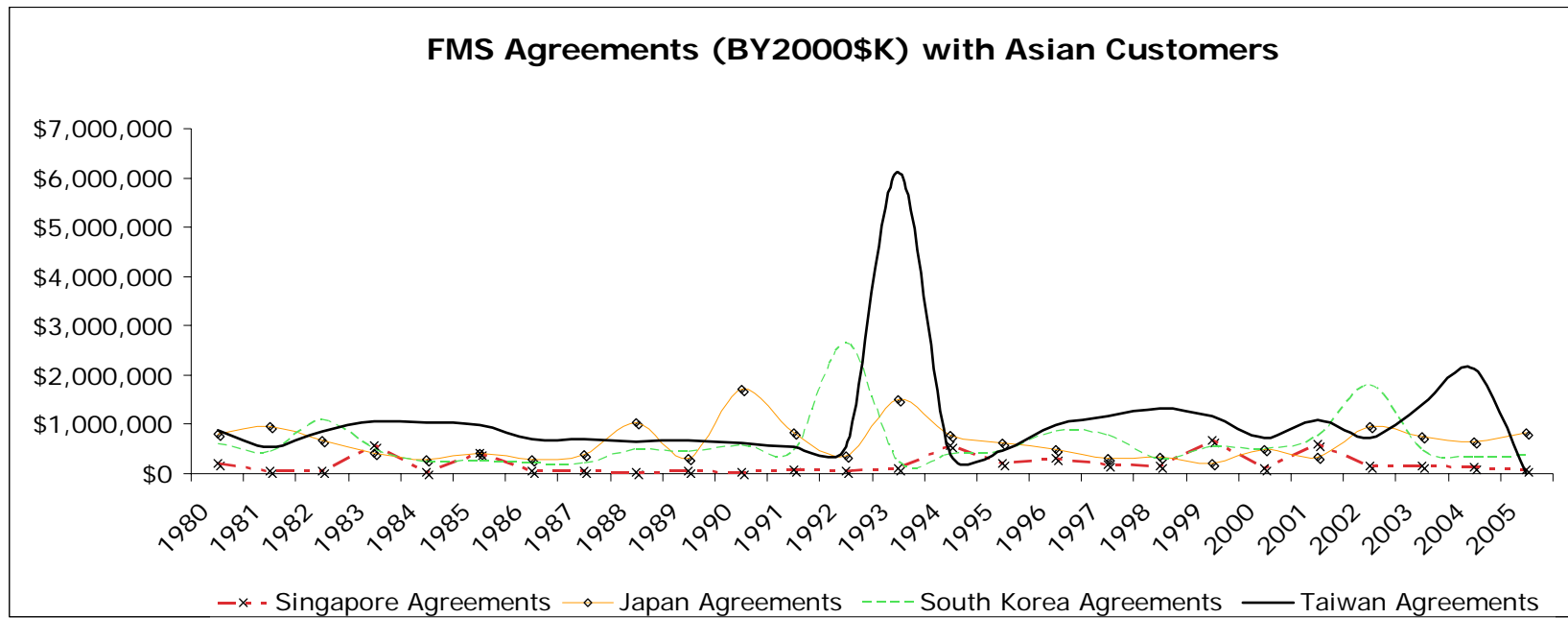


Figure 21. Foreign Military Sales Agreements with Regional Asian Customers<sup>88</sup>

<sup>88</sup> FMS figures are drawn from The Department of Defense Security Assistance Agency annual facts books at the Federation of American Scientists website, 20 Feb 2007, 28 Apr 2007 < <http://www.fas.org/main/home.jsp> >.

The dominant political issue in the Republic of China (Taiwan) is its relationship with the People's Republic of China. Many people in the Republic of China (Taiwan) desire the opening of direct transportation links with the Mainland, including direct flights. This would aid many Republic of China (Taiwan) businesses that have opened factories or branches on the Mainland. Taiwan's current Democratic Progress Party administration fears that such links will lead to tighter economic and political integration with the PRC.

The Pan-Blue camp claims that it is not necessary to proclaim independence because Taiwan is already "an independent, sovereign country" and the Republic of China is the same as Taiwan. To the contrary, the Pan-Green camp tends to favor emphasizing Taiwan as being distinct from China and seeks formal Taiwanese independence and the dropping of the title Republic of China. Some members of the coalition, include the current President Chen, Shui-Bian, have moderated their views and claim that the ROC is nonexistent and call for the establishment of an independent Republic of Taiwan.

The politicians and their parties have themselves become major political issues. Corruption among some DPP administration officials has been exposed. "The first lady had been accused of misusing state funds and the President's son-in-law had been accused of inside trading."<sup>89</sup> The KMT was once the richest political party in the world and their assets continue to be an issue. The merger of the KMT and PFP was thought to be a done deal; however, a string of defections from the PFP to the KMT has increased tensions within the Pan-Blue camp.

Many U.S. observers are disappointed that Taiwan's government has moved slowly in their purchase of weapons systems from the United States offerings in 2001. Taiwan's inability so far to take full advantage of a substantial U.S. military support package approved for sale in 2001 has become an increasing irritant in Taiwan-U.S. relations. To date, political infighting has blocked legislative consideration of the arms procurement budget for purchasing much of the U.S. arms package. In particular, members of the opposition coalition (the KMT/PFP "Pan-Blue") in Taiwan's Legislative Yuan (LY) have lodged

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<sup>89</sup> United States, Foreign Affairs, Defense and Trade Division, CRS Report to Congress – Taiwan: Recent Developments and U.S. Policy Choices, (Washington: CRS, 9 Oct 2006) 8.



objections over: the multibillion (U.S.) dollar cost of the package (which the Taiwan government has pared back on several occasions in an effort to win support); whether the types of weapons in the package meet Taiwan's defense needs; the compatibility of the proposed purchases with Taiwan's military; and whether Taiwan companies can benefit or participate. In addition, some members in the "Pan-Blue" opposition object to Taipei's decision to keep submitting the procurement budget as a free-standing "special defense" budget rather than as part of Taiwan's overall annual defense budget. Commenting on the stalemate on October 20, 2005, Taiwan's President Chen Shui-bian said that the LY's continued boycott of the special defense budget was jeopardizing Taiwan's future.<sup>90</sup>

Taiwan's explanation for the procurement delays is that the process of funding arms acquisitions takes longer since Taiwan's political system is more democratic and transparent. Some defense analysts in Taiwan also have raised what they insist are legitimate questions about the cost, quality, and suitability of the weapons systems the United States has offered to sell. Taiwan's domestic political climate, including the antagonism between the ruling party and the opposition and the divisive issue of Taiwan's future relationship with China, has politicized the discussion of the proposed arms sales.

Since President Chen took power in 2000, his intention to seek the independence of Taiwan was obvious, and several attempts to change the status quo had intensified the relationship between Taiwan and U.S. The U.S. government would prefer the relationships between Taiwan and China remain status quo and worries that China will be provoked to take action against Chen's attempts. Chen, on the other hand, tried to use arms sales as a bargaining chip to ensure an elevated relationship with the U.S. However, even though the Democratic Progress Party has the political advantage of holding the executive branch, the Pan-Blue coalition has the advantage of occupying the majority of the Legislative Yuan and was considered the major hurdle for the approval of the defense budget. Some analysts claimed that the sole reason is that the Pan-Blue coalition is against the defense budget and that they felt President Chen is leading the country in the wrong direction. Indeed, more arms sales would enhance the capability of Taiwan's military forces but would also intensify and degrade their relationship with China.

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<sup>90</sup> United States, Foreign Affairs, Defense and Trade Division, CRS Report to Congress – Taiwan: Recent Developments and U.S. Policy Choices, (Washington: CRS, 9 Oct 2006) 8.

Though many observers have claimed that Pan-Blue should take full responsibility for delaying the budget, it is questionable if the Pan-Blue coalition is really the problem.

In the past, when the Kuomintang (Nationalist Party; KMT) dominated Taiwan's government, the parliament swiftly approved weapons acquisition requests submitted by the Ministry of Defense with little argument. Increased democratization, however, has changed this. The process is now more institutionalized and transparent, and the legislature demands greater input. This has at least two effects that directly bear on American perceptions. First, the time between the supplier's proposal of an arms sale and the legislature's allocation of funds to make the purchase has grown to about two years—much longer than in the past. Second, the objections of Taiwan lawmakers or analysts to particular proposed purchases are now aired in the press....To American complaints that the process of approving the proposed sales is taking too long and generating too many objections, analysts and officials in Taiwan respond that transparency, sharp debate, and an often frustrating lack of speed in policymaking are hallmarks of democracy that Americans should recognize and respect.<sup>91</sup>

As a result of these political tensions, FMS agreements with Taiwan dropped after 2004, as can be seen in Figure 21.

## **2. Economic**

In the latter half of the twentieth century, Taiwan's rapid industrialization and growth has been called the "Taiwan Economic Miracle"; as Taiwan developed alongside Singapore, South Korea and Hong Kong, Taiwan was known as one of the "East Asian Tigers." However, many Taiwan officials and scholars fear that Taiwan's era of robust economic growth may be coming to an end. With Taiwan in a serious recession, a certain degree of economic pessimism is expected. Many Taiwan elites express concerns about structural, long-term economic weakness beyond the expected recovery from the present recession. Taiwan is at risk of losing its international competitiveness since China has opened its door to the world. Much of Taiwan's assessment of the future is based on the economic challenge posed by China. Taiwan had long enjoyed a qualitative edge over China's relatively less-developed economy. But the combination of a vast range of economic activities and a rapid rate of development fuels the expectation that China's

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<sup>91</sup> Denny Roy, "U.S. – Taiwan Arm Sales: The Peril of Doing Business with Friend," Asia-Pacific Center for Security Studies Cambridge: MIT Press. 3 Apr 2003: 3.

firms will soon outperform foreign competitors in a variety of sectors, including those in which Taiwan presently excels. Many of Taiwan's industries have already moved to the mainland to take advantage of cheaper labor and overhead costs. This migration of Taiwan's economy to China might reach dangerous levels unless Taiwan's economy is restructured.

Economic weakness has obvious negative implication for Taiwan's security. A less prosperous Taiwan is less able to support a strong military force, either through indigenous development and production or purchases from abroad. An economically weak Taiwan has less bargaining leverage with China. If Taiwan were economically marginalized, the international community would be less likely to support Taiwan in the event of military pressure or attack from China. As one analyst said, "Saudi Arabia has oil. Japan makes computer chips. If an attack on Taiwan would not have a great impact on the world economy, the world would be less responsive."<sup>92</sup>

Due to the economic recession, Taiwan's ability of procuring weapons abroad has been weakening. In Taiwan's parliament, legislators are delaying the defense budget because they think the money should be well spent. As seen in Figure 21, it is crystal clear that a weaker economy in Taiwan would directly affect its purchasing power.

## **G. CUSTOMERS' PERSPECTIVE**

Taiwan, as a FMS customer, was generally satisfied with the FMS program; however, there were a number of specific projects which created difficulties in dealing with the U.S. In order to identify these problems, we arranged a site visit to Taiwan Army Headquarters and interviewed officers in charge of the FMS purchases. Due to confidentiality reasons, such as sensitivity of the systems and the political sensitivity of the budget process for FMS, the names of the programs below have been sanitized to prevent any issues or concerns arising.

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<sup>92</sup> Denny Roy, Taiwan's Threat Perception: The Enemy Within, Asia-Pacific Center for Security Study, Cambridge: MIT Press. Mar 2003. 4.

## **1. Program X**

This program involves the delivery of a certain equipment package. The contractor delivered all the agreed-upon items of the system except the key launcher component prior to its filing for bankruptcy. Taiwan's Army was still able to use the delivered items but the expected value of the purchase was considered ineffective since it failed to meet the agreed-upon contract and requirements. The program had cost Taiwan roughly 25 million dollars and the Taiwan Government is in the process of litigation with the U.S. government in hopes of reimbursement for the failed delivery of the item.

## **2. Program Y**

This program concerns a lease of equipment. Taiwan had indicated the specification of the equipments in the Letter of Request; however, the U.S. contractor changed the specification twice before making the delivery. The Taiwan Army had no other option but to accept the deal. The lease for this equipment was set for five years, but after field testing and evaluation for nearly two years, the leased equipment did not meet the expectation and requirements outlined by the Taiwan Army and therefore resulted in passive termination of the lease. However, since the lease was set for five years, the Taiwan Army had to pay for the administrative costs, including the warehouse and training facilities in the U.S. The total cost for the lease is approximately 50 million dollars. Before the termination of the program, Taiwan had already spent 3.8 million dollars. Again, Taiwan is seeking litigation against the U.S. government for reimbursement of funds due to default by the contractor. As of this date, the issue has not been resolved.

## **H. OTHER ISSUES IDENTIFIED**

### **1. Letters of Acceptance**

The programs listed above raised several issues concerning the same problem, which is the format of the Letter of Acceptance. In the *Security Assistance Management Manual (SAMM)*, under Letter of Acceptance Standard Terms and Conditions, Section

1.2 explains, “the Purchaser agrees that the U.S. DoD is solely responsible for negotiating the terms and conditions of contracts necessary to fulfill the requirements in this LOA.”<sup>93</sup> However, in section 7.2 it states, “The United States Government and the Purchaser agree to resolve any disagreement regarding this Letter of Acceptance by consultations between the United States Government and the Purchaser and not to refer any such disagreement to any international tribunal or third party for settlement.”<sup>94</sup> The question arises, what if the issue can not be solved through consultation? Which department and who should Taiwan go to in order to settle this issue? Taiwan Army’s only window regarding FMS to the U.S. is through United States Army Security Assistance Command (USASAC). The way Taiwan perceives these terms is that it views the U.S. government’s willingness to resolve such issues as not as aggressive as it should be. “The balance is tilted toward the U.S. and its contractors which could create a low level of customer satisfaction for Taiwan. Some Taiwan analysts claim this was one of the reasons why Taiwan went seeking European contractors in the 1980s and 1990s.”<sup>95</sup> However, the purchase of French jet fighters and frigates involved serious profiteering and scandals—which currently prevent Taiwan from conducting more Direct Commercial Sales.

## **2. The Package Deal**

Another issue being brought by the Taiwan Army staff is that in the history of FMS purchases with U.S., there have been times that the Taiwan Army was compelled to purchase weapons or equipment which were not the most important priorities in the initial proposal. For instance, if the Taiwan Army plans to purchase system A, it has to be bought along with system B or system C. Some military officials claim that it is because such deals serve the purpose for the U.S. to retire second-tier weapons and equipments. Further, the recipient would have to purchase logistics and supplies from the U.S. defense contractors which would also benefit the U.S. defense industry. “Some Taiwan

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<sup>93</sup> United States, Department of Defense, DoD 5105.38-M Security Assistance Management Manual (SAMM), (Washington D.C.: DoD, 2003) 138.

<sup>94</sup> United States, Department of Defense, DoD 5105.38-M Security Assistance Management Manual (SAMM), (Washington D.C.: DoD, 2003) 140.

<sup>95</sup> COL Shiao, Ten-liu, Personal Interview, 10 Apr 2007.

journalists and politicians have accused the Americans of profiteering, arguing that the United States' position as Taiwan's most powerful friend and almost sole weapons supplier allows America to practically dictate the terms of arms sales to Taipei. As one Taiwan newspaper editorial headline bemoaned in July 2003, "Our nation's been picked clean by arms dealers." Some Taiwan defense analysts complain that the process of formulating the list of weapons to be offered for sale to Taiwan is less institutionalized than in the past, and that it has become more common for self-interested arms manufacturers to intervene with the U.S. government to shape the list."<sup>96</sup>

### **3. Overpricing**

Another issue is the overpriced cost estimation for the procurement. The U.S. government played the roll of selecting and awarding the contractors who would make the delivery of the defense articles. However, the cost estimations often exceed the international market price. The most recent example is the budget provided by the U.S. in 2001. The budget includes diesel-electric submarines, Patriot III air defense missiles, P-3C maritime search/anti-submarine aircraft and other defense-related articles. The main issue is the cost estimation provided by the U.S. The submarine program was very difficult in this regard because there was no American diesel submarine in existence. The U.S. had to provide Taiwan with a cost estimate based on a notional design. There was no existing system to point to in order to gain the support of legislators in Taiwan. This was also a slow and arduous process in which even good pricing data was not available until 2003. In addition, a Taiwan defense official argued "the price the United States was quoting for the eight submarines, now more than \$12 Billion, was outrageously high."<sup>97</sup> In contrast, "South Korea, Pakistan and India reportedly built submarines based on a German design for \$367 Million, \$317 Million and \$323 Million a piece,

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<sup>96</sup> Denny Roy, "U.S. – Taiwan Arm Sales: The Peril of Doing Business with Friend," Asia-Pacific Center for Security Studies, Cambridge: MIT Press. 3 Apr 2003: 3.

<sup>97</sup> Senior Official, Personal Interview, 10 Apr 2007.

respectively. ”<sup>98</sup> Further, there was no certainty that any European partner that owned the design for diesel submarines would agree to team with an U.S. contractor.

#### **4. Conclusion**

Taiwan, due to limited defense capabilities, will continue purchasing defense articles from abroad. However, with the unpleasant experience with the *Lafayette* and the political pressure from China to European countries, Taiwan can only count on the support from U.S. Despite the inflexibility of the LOA and the unreasonable overpricing of the cost, Taiwan may have no option but to accept deals offered by the U.S. Also, the U.S. needs to understand the importance of maintaining the status quo between Taiwan and China. A large amount of FMS deliveries would provoke China and may result in detrimental actions against Taiwan. This might mean unbundling package deals to just what is needed. The U.S. should be more sensitive to the cost and quality elements of the FMS program in regard to the overall satisfaction of foreign allies (customers), thus ensuring the defense industrial base remains viable while at the same time ensuring effective foreign security assistance.

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<sup>98</sup> Denny Roy, “U.S. – Taiwan Arm Sales: The Peril of Doing Business with Friend,” [Asia-Pacific Center for Security Studies](#). Cambridge: MIT Press. 3 Apr 2003: 3.

## **V. CONCLUSIONS, RECOMMENDATIONS AND AREAS OF FUTURE RESEARCH**

### **A. INTRODUCTION**

This Chapter answers the research questions on what factors affect the FMS program and identify the use of the FMS program by Taiwan. The chapter will also make recommendations as to what issues and concerns within the FMS program need to be addressed in order to continue to provide a high degree of customer satisfaction to foreign countries and at the same time to properly secure U.S. national interests abroad. This chapter will also suggest areas for future research in the field of FMS.

### **B. CONCLUSION**

The U.S. Foreign Military Sales program is vital to the security of not just the foreign customers, but also to the national interests of the United States abroad. The scope of this research has led to several in general conclusions concerning the factors that affect FMS and what effect FMS has on Taiwan. These specific conclusions address the factors outlined, and identify additional concerns and issues from recipients of FMS.

#### **1. Conclusion 1**

**The socio/political factors that affect the FMS program are not differentiated by a particular party in power or any particular key players, but are influenced by the current threat outlined in each current administration's National Security Strategy**

Based on the research conducted, there is a strong correlation between the amount of FMS given to a region based upon the current National Security Strategy. Research has found that there is no evidence that one certain party in power influences the FMS program either in funding or cutbacks, however, each administration's policy for FMS and security assistance is tied to the inherent current threat. Based off of Figure 11 in Chapter III, the region given the most FMS funding, coincided with the priority of threat



to U.S. National Interests abroad. The prevailing trend is as U.S perceives a threat, FMS activity is tied directly to the priority the current administration gives to that threat.

## **2. Conclusion 2**

**The U.S. military expenditures and manpower levels do not affect the total FMS spending by foreign countries.**

Based on the analysis of the U.S. Defense budget figures and amount of total FMS agreements for the period from 1980 to 2005, no correlation was found between the U.S. total and sub-category military expenditures and the amount of FMS spending by the foreign countries. Analysis of the U.S. military manpower levels also did not show any correlation with respect to the amount of FMS spending during the time period from 1980 to 2005.

## **3. Conclusion 3**

**The FMS program can not only be affected by technology and the defense industrial base, but can also influence the strength of the industrial base and encourage the need for great technological innovation.**

Based on the research conducted, the defense industry and the FMS program are dependant upon each other. The U.S. government uses the FMS program not only as means for national security interests abroad but also as a means to provide current forces with procurement items at a lower unit cost, while at the same time keeping the defense industrial base employed, strong, and profitable. FMS budget increases may help to offset U.S. procurement budget decreases and keep the defense industrial base employed. In conclusion, as new technology is developed and incorporated into new weapon systems, the need to rid the defense industrial base of second-tier technology systems is important to the strength of our industrial base. By using the FMS program, the U.S. is not only helping foreign customers, but is also helping the U.S. defense industrial base and its national interests abroad. However, with the rise of foreign defense industries concerns with customer satisfaction and the increased use of Direct Commercial Sales, the ability

of the U.S. to stay technologically superior as outlined in President Clinton's foreign policy goal (referenced in Chapter II) is key to the vitality of the FMS program.

#### **4. Conclusion 4**

**The FMS program, from a customer's perspective as applied to Taiwan, is shaped by internal political policy, security threat, customer satisfaction and the recipient's economy of scale.**

We concluded that internal politics within Taiwan and its view of its security needs play a vital role in funding for U.S. FMS to Taiwan. The U.S. Government needs to take into account the changing of power within Taiwan's government in order to facilitate procurement of defense-related articles by the Taiwan government. The security threat from China continues to drive the country's defense and need for procurement from FMS. However, the current GDP of Taiwan is too small for Taiwan to effectively protect itself in a defense posture, therefore the need for FMS from the U.S. is vital to its ability to deter possible attacks on the country. Based on the U.S. National Security Strategy, research also continues to show a stable and significant amount of funding through FMS that is given to Taiwan annually. However, overcost, underperformance and schedule overruns have had a detrimental effect on customer satisfaction.

### **C. RECOMMENDATIONS**

Based on the conclusion of this research, the following recommendations are made:

#### **1. Recommendation 1**

**Conduct a survey to be completed by both the defense industrial base and the foreign recipients as to their satisfaction with the FMS program.**

As a result of this research, we suggest that the U.S. Government examine what areas of concern are surfacing from not only the customer, but also from the industrial base. A survey would be helpful in understanding a road map ahead—especially in the

area of remaining technologically superior to foreign nations, and also to identify the market conditions for competition from other defense industrial bases abroad. By understanding the strengths, weaknesses, and the issues and concerns from the major players within the FMS program, identifying, adjusting and moving forward will ultimately allow the U.S. to keep a higher tier of technology and a strong, prosperous defense industrial base.

## **2. Recommendation 2**

**The US should provide a more accurate cost estimation for procurement by foreign customers (Taiwan).**

Based on this research, we believe the U.S. may have over-priced defense-related articles to foreign customers (Taiwan). The U.S. should take appropriate steps in analyzing their cost accounting standards when reaching agreements with recipients to better reflect market conditions and customer satisfaction levels.

## **3. Recommendation 3**

**The US should strive to better fulfill the customers (Taiwan) primary requirements for defense related articles.**

Through interviews with Taiwanese FMS officials, our research revealed that Taiwan, in its efforts to procure defense articles, the U.S. in lieu of providing their centerpiece proposal, opted for secondary-tier substitutes which did not meet their requirements fully. The U.S., in the absence of technology transfer, should make serious attempts to meet foreign customers' requirements for defense-related articles to the utmost of its ability to ensure customer satisfaction and efficient security assistance.

#### **4. Recommendation 4**

##### **The LOA should provide more flexibility in order to meet customer needs.**

Based on research and regulations outlined in the *Security Assistance Management Manual*, the current format of the Letter of Acceptance creates an imbalance between the U.S. and recipients. In reviewing the LOA, the U.S. does not take ownership or responsibility for any issues or concerns that may arise from the outcome of the procurement process. To better encourage stronger relationships from the recipient, the U.S. should review the current LOA and make appropriate adjustments to ensure equity is provided to both parties.

#### **D. FUTURE RESEARCH AREAS**

This project analyzed the factors that affect the FMS program and took an in-depth look into the workings of the FMS program as applied to Taiwan. As such, this study only scratches the surface of the entire FMS program and the use of Security Assistance to foreign nations. The following areas are highly recommended for further research.

- Investigate methods to ensure customers are receiving defense-related articles that meet their security assistance requirements, are delivered on time and are given correct cost estimations.
- Research and analyze the “value” of the FMS program. This analysis could develop a model which assigns a non-monetary value to aspects of the FMS program in an effort to determine if the FMS program adds value.
- Evaluate the ramifications of customer dissatisfaction with the FMS program. This research could identify the possible outcomes that may result from lack of customer satisfaction from recipients of the FMS.
- Research and analyze whether FMS makes for a safer world. This analysis could develop and apply a model to evaluate and answer this question.

- Investigate whether direct commercial sales should take the place of the FMS program, or whether DCS should be absorbed by the FMS program.

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## APPENDIX A. DATA ANALYSIS TABLES

### US Defense Budget Data

Year	Total US GDP (BY 2000\$Bn)	Total US Federal Outlays (BY 2000\$M)	US Defense Outlays (BY 2000\$M)	Defense as a % of Total	Defense as a % of GDP	Military Personnel (\$M)	Operation and Maintenance (\$M)	Procurement (\$M)	Research, Development, Test, and Evaluation (\$M)	US Military Manpower
1980	2,726.7	590,941	133,995	22.67%	4.91%	40,897	44,788	29,021	13,127	2,050,826
1981	3,054.7	678,241	157,513	23.22%	5.16%	47,941	51,878	35,191	15,278	2,082,897
1982	3,227.6	745,743	185,309	24.85%	5.74%	55,170	59,673	43,271	17,729	2,108,612
1983	3,440.7	808,364	209,903	25.97%	6.10%	60,886	64,881	53,624	20,552	2,123,349
1984	3,840.2	851,853	227,413	26.70%	5.92%	64,158	67,329	61,879	23,113	2,138,157
1985	4,141.5	946,396	252,748	26.71%	6.10%	67,842	72,336	70,381	27,099	2,151,032
1986	4,412.4	990,441	273,375	27.60%	6.20%	71,511	75,255	76,517	32,279	2,169,112
1987	4,647.1	1,004,083	281,999	28.09%	6.07%	72,020	76,167	80,743	33,592	2,174,217
1988	5,008.6	1,064,481	290,361	27.28%	5.80%	76,337	84,436	77,164	34,788	2,138,213
1989	5,400.5	1,143,829	303,559	26.54%	5.62%	80,676	86,960	81,619	36,997	2,130,229
1990	5,735.4	1,253,130	299,331	23.89%	5.22%	75,622	88,294	80,972	37,454	2,046,144
1991	5,935.1	1,324,331	273,292	20.64%	4.60%	83,439	101,715	82,028	34,585	1,986,259
1992	6,239.9	1,381,649	298,350	21.59%	4.78%	81,171	91,939	74,880	34,628	1,807,177
1993	6,575.5	1,409,522	291,086	20.65%	4.43%	75,904	94,036	69,935	36,964	1,705,103
1994	6,961.3	1,461,907	281,642	19.27%	4.05%	73,137	87,868	61,768	34,759	1,610,490
1995	7,325.8	1,515,884	272,066	17.95%	3.71%	70,809	91,017	54,981	34,590	1,518,224
1996	7,694.1	1,560,608	265,753	17.03%	3.45%	66,669	88,711	48,913	36,490	1,471,722
1997	8,182.4	1,601,307	270,505	16.89%	3.31%	69,724	92,408	47,690	37,011	1,438,562
1998	8,627.9	1,652,685	268,207	16.23%	3.11%	68,976	93,412	48,206	37,416	1,406,830
1999	9,125.3	1,702,035	274,785	16.14%	3.01%	69,503	96,344	48,826	37,359	1,385,703
2000	9,709.8	1,789,216	294,394	16.45%	3.03%	75,950	105,812	51,696	37,602	1,420,084
2001	10,057.9	1,863,190	304,759	16.36%	3.03%	73,977	111,964	54,986	40,455	1,421,056
2002	10,377.4	2,011,153	348,482	17.33%	3.36%	86,799	130,005	62,515	44,389	1,451,635
2003	10,808.6	2,160,117	404,778	18.74%	3.74%	106,744	151,408	67,926	53,098	1,434,377
2004	11,517.5	2,293,006	455,847	19.88%	3.96%	113,576	174,045	76,216	60,759	1,426,836
2005	12,265.8	2,472,205	495,326	20.04%	4.04%	127,463	188,118	82,294	65,694	1,389,394

FMS Agreement and Delivery Data for Selected East Asian and Middle Eastern Countries in BY200K\$

Year	Saudi Arabia Agreements	Saudi Arabia Deliveries	Singapore Agreements	Singapore Deliveries	Japan Agreements	Japan Deliveries	South Korea Agreements	South Korea Deliveries	Taiwan Agreements	Taiwan Deliveries	Total Agreements	Total Deliveries
1980	\$5,287,977	\$2,162,188	\$214,013	\$33,853	\$807,290	\$161,476	\$609,198	\$567,034	\$879,631	\$403,766	\$24,009,453	\$11,103,982
1981	\$1,786,353	\$2,496,410	\$60,387	\$82,643	\$964,253	\$530,426	\$438,914	\$513,702	\$540,387	\$652,096	\$11,250,129	\$13,299,005
1982	\$8,121,310	\$3,498,841	\$44,005	\$38,033	\$667,065	\$535,723	\$1,080,050	\$346,153	\$851,303	\$627,232	\$26,650,681	\$14,224,485
1983	\$1,190,650	\$5,663,518	\$568,599	\$129,102	\$423,874	\$596,334	\$495,766	\$460,644	\$1,066,291	\$600,792	\$22,118,531	\$16,409,753
1984	\$3,880,365	\$3,132,102	\$14,508	\$48,489	\$272,268	\$495,636	\$228,511	\$370,950	\$1,049,125	\$444,645	\$18,418,682	\$12,198,697
1985	\$3,527,443	\$1,959,578	\$403,456	\$31,736	\$414,223	\$558,000	\$260,591	\$373,337	\$992,857	\$486,534	\$14,818,844	\$10,823,069
1986	\$956,909	\$3,079,042	\$57,265	\$189,160	\$289,540	\$211,321	\$218,638	\$480,295	\$709,829	\$341,454	\$8,499,428	\$10,081,806
1987	\$866,971	\$3,920,772	\$42,350	\$195,302	\$384,976	\$326,977	\$203,229	\$469,855	\$689,929	\$487,798	\$8,081,990	\$14,327,624
1988	\$2,105,675	\$1,242,821	\$19,201	\$252,442	\$1,046,043	\$288,538	\$499,467	\$431,562	\$660,809	\$666,897	\$14,282,330	\$11,564,494
1989	\$1,409,168	\$784,562	\$57,658	\$45,354	\$323,991	\$262,509	\$443,106	\$401,563	\$663,661	\$500,582	\$11,173,461	\$9,152,303
1990	\$11,155,120	\$1,068,984	\$34,329	\$54,057	\$1,722,389	\$332,201	\$572,351	\$400,646	\$611,951	\$556,284	\$20,322,236	\$9,423,947
1991	\$10,487,508	\$3,215,557	\$90,165	\$73,037	\$840,750	\$607,137	\$460,717	\$265,999	\$555,437	\$643,286	\$19,687,861	\$10,232,346
1992	\$1,008,132	\$2,717,308	\$40,234	\$27,659	\$371,839	\$651,326	\$2,641,740	\$352,439	\$545,207	\$811,592	\$14,306,391	\$11,490,781
1993	\$11,707,317	\$3,819,308	\$104,471	\$87,053	\$1,491,030	\$420,699	\$241,210	\$336,411	\$6,124,006	\$905,182	\$31,680,516	\$12,452,286
1994	\$1,711,069	\$2,063,200	\$583,012	\$94,522	\$782,935	\$848,801	\$378,668	\$413,223	\$389,728	\$920,014	\$13,679,905	\$10,661,243
1995	\$465,586	\$3,812,039	\$194,649	\$62,584	\$615,738	\$740,426	\$463,008	\$472,030	\$470,998	\$1,423,558	\$9,079,234	\$12,931,370
1996	\$1,251,040	\$2,970,826	\$316,964	\$84,075	\$498,660	\$788,851	\$847,702	\$356,086	\$991,137	\$868,990	\$9,412,086	\$12,314,342
1997	\$542,301	\$4,736,131	\$183,392	\$136,561	\$310,924	\$637,854	\$769,871	\$524,082	\$1,170,681	\$2,438,148	\$8,408,943	\$16,294,591
1998	\$2,121,356	\$4,288,293	\$166,258	\$236,859	\$334,875	\$418,356	\$293,583	\$903,103	\$1,334,927	\$1,451,036	\$8,689,600	\$14,040,551
1999	\$793,334	\$4,383,584	\$672,866	\$556,605	\$210,939	\$443,684	\$533,589	\$592,919	\$1,165,140	\$2,512,709	\$11,201,155	\$16,927,384
2000	\$656,444	\$1,987,467	\$102,962	\$131,039	\$491,166	\$460,230	\$500,290	\$1,399,002	\$717,531	\$783,767	\$10,820,154	\$10,671,734
2001	\$668,476	\$1,857,457	\$597,421	\$239,949	\$343,820	\$484,630	\$745,128	\$722,299	\$1,094,775	\$1,139,135	\$12,456,912	\$12,059,194
2002	\$829,859	\$1,274,501	\$143,001	\$410,377	\$950,736	\$454,838	\$1,791,434	\$512,147	\$715,809	\$1,374,172	\$11,839,264	\$10,168,512
2003	\$630,348	\$977,404	\$155,640	\$162,693	\$741,804	\$415,888	\$468,287	\$534,604	\$1,394,999	\$625,342	\$12,202,560	\$8,899,950
2004	\$1,688,649	\$1,157,730	\$133,886	\$193,895	\$642,902	\$374,308	\$327,141	\$560,727	\$2,117,314	\$862,800	\$12,388,689	\$10,219,646
2005	\$688,236	\$928,435	\$82,982	\$193,549	\$821,236	\$382,946	\$370,345	\$561,532	\$225	\$1,318,341	\$8,758,534	\$10,256,474

FMS Agreement and Delivery Data by Regions in BY2000K\$

Year	East Asia and Pacific Agreements	East Asia and Pacific Deliveries	Near East and South Asia Agreements	Near East and South Asia Deliveries	Europe Agreements	Europe Deliveries	Africa Agreements	Africa Deliveries	Western Hemisphere Agreements	Western Hemisphere Deliveries	Intl Organizations Agreements	Intl Organizations Deliveries
1980	\$3,803,554	\$2,061,910	\$11,362,205	\$4,533,620	\$8,354,956	\$4,062,365	\$66,892	\$86,820	\$279,238	\$256,981	\$142,605	\$102,286
1981	\$3,116,881	\$3,273,249	\$3,397,704	\$5,425,968	\$3,796,377	\$4,042,142	\$161,975	\$125,290	\$556,985	\$233,513	\$220,205	\$198,843
1982	\$7,680,633	\$2,063,411	\$14,348,821	\$7,216,961	\$3,082,087	\$4,014,013	\$240,487	\$200,244	\$1,110,439	\$436,326	\$184,969	\$293,532
1983	\$3,146,590	\$2,649,966	\$7,595,602	\$8,953,608	\$10,868,631	\$4,133,916	\$78,274	\$110,950	\$378,504	\$388,848	\$50,620	\$172,467
1984	\$2,293,038	\$2,255,484	\$5,857,843	\$5,319,752	\$9,274,694	\$3,591,469	\$161,032	\$115,444	\$731,108	\$605,790	\$100,967	\$310,758
1985	\$3,422,477	\$2,428,969	\$5,213,483	\$4,524,325	\$5,068,535	\$2,934,401	\$160,131	\$111,394	\$874,638	\$646,481	\$79,584	\$177,500
1986	\$2,482,284	\$2,026,676	\$2,522,739	\$4,712,204	\$2,708,842	\$2,549,166	\$151,343	\$104,748	\$515,599	\$581,089	\$118,620	\$107,924
1987	\$2,364,623	\$2,507,685	\$2,462,419	\$7,715,017	\$2,473,511	\$3,438,829	\$76,836	\$91,327	\$587,426	\$492,892	\$117,172	\$81,875
1988	\$2,899,374	\$3,355,293	\$8,919,314	\$3,428,078	\$1,705,229	\$3,973,061	\$67,898	\$110,202	\$624,437	\$611,667	\$66,079	\$86,196
1989	\$1,934,338	\$2,596,272	\$6,646,103	\$2,045,571	\$1,847,629	\$3,860,974	\$41,684	\$99,177	\$618,553	\$476,993	\$85,153	\$73,318
1990	\$3,623,384	\$2,344,593	\$13,339,189	\$3,046,272	\$2,830,896	\$3,452,814	\$33,534	\$57,711	\$411,844	\$441,538	\$83,389	\$81,024
1991	\$2,543,960	\$2,201,903	\$13,044,215	\$4,682,919	\$2,546,882	\$2,795,531	\$19,011	\$39,755	\$456,673	\$413,544	\$84,638	\$98,695
1992	\$4,214,243	\$2,288,184	\$2,839,030	\$6,070,927	\$5,635,484	\$2,579,443	\$18,038	\$31,469	\$416,713	\$458,894	\$65,488	\$61,864
1993	\$8,774,589	\$2,266,571	\$15,557,791	\$7,235,139	\$6,243,521	\$2,415,788	\$20,041	\$17,255	\$319,000	\$462,355	\$165,823	\$55,179
1994	\$3,435,789	\$2,933,123	\$5,019,966	\$3,929,727	\$4,387,257	\$3,351,147	\$12,916	\$18,917	\$348,314	\$368,743	\$76,932	\$59,587
1995	\$2,160,613	\$3,507,204	\$2,429,383	\$6,809,958	\$3,640,661	\$2,235,589	\$4,928	\$14,871	\$335,175	\$304,349	\$64,880	\$59,399
1996	\$3,084,757	\$2,770,952	\$3,923,641	\$5,702,162	\$2,118,544	\$3,371,396	\$8,958	\$26,394	\$237,084	\$358,911	\$38,086	\$84,519
1997	\$2,953,992	\$4,170,700	\$2,098,991	\$7,821,097	\$2,950,407	\$3,949,438	\$10,634	\$10,632	\$304,859	\$212,637	\$45,247	\$68,323
1998	\$2,383,795	\$3,497,212	\$4,300,374	\$6,708,508	\$1,700,299	\$3,481,613	\$12,805	\$12,813	\$186,849	\$298,889	\$35,219	\$102,432
1999	\$3,086,048	\$4,618,899	\$5,316,994	\$6,692,908	\$2,572,023	\$5,331,806	\$10,519	\$10,384	\$151,216	\$218,518	\$64,910	\$54,789
2000	\$2,515,240	\$3,662,365	\$3,676,507	\$4,050,694	\$4,134,308	\$2,664,066	\$11,219	\$11,959	\$429,833	\$221,410	\$56,722	\$61,313
2001	\$3,056,658	\$3,118,773	\$5,649,053	\$4,413,252	\$3,508,357	\$3,934,528	\$16,244	\$9,027	\$189,980	\$453,412	\$36,583	\$51,010
2002	\$3,887,824	\$3,205,224	\$4,864,676	\$4,103,849	\$2,263,215	\$2,625,615	\$19,727	\$7,683	\$763,739	\$188,686	\$39,596	\$37,447
2003	\$3,267,992	\$2,117,120	\$2,991,183	\$3,077,246	\$5,521,042	\$3,383,648	\$40,144	\$10,205	\$332,606	\$225,289	\$48,642	\$84,509
2004	\$3,783,820	\$2,479,780	\$5,570,821	\$3,959,841	\$2,654,600	\$3,594,385	\$22,944	\$21,883	\$308,483	\$222,836	\$48,007	\$35,517
2005	\$1,727,656	\$2,991,228	\$3,372,930	\$4,555,001	\$2,822,759	\$2,229,438	\$20,148	\$25,401	\$636,967	\$398,504	\$51,832	\$56,904

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## APPENDIX B. VARIABLE DEFINITIONS AND DATA SOURCES

### Dependent Variable

Credible annual FMS figures are not easily available—either through the common research channels (databases, search engines, scientific publications, etc.), or through direct contact with the US government agencies (such as the Defense Institute of Security Assistance Management) that are responsible for implementing and conducting FMS.

The following method was used to generate a FMS data column. First, all annual FMS figures from 1980 to 2005 were extracted from the Department of Defense Security Assistance Agency annual fact books in PDF format found on the Federation of American Scientists website<sup>99</sup>. The assumption was made that the data for the given years was not normalized to the common base year and was provided in current year dollars; for example, the total value of FMS agreements in 1983 was provided in CY83 dollars. FMS data was then normalized to the base year 2000 using Defense Wide Procurement inflation indices (BY2007)<sup>100</sup>. Normalization of FMS data took out inflation effects and allowed comparisons of FMS spending from one year to another. The described method of compiling FMS data was verified by Mr. Frank Campanell from the Defense Institute of Security Assistance Management<sup>101</sup>.

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<sup>99</sup> FMS figures are drawn from The Department of Defense Security Assistance Agency annual facts books at the Federation of American Scientists website, 20 Feb 2007, 28 Apr 2007 <<http://www.fas.org/main/home.jsp>>.

<sup>100</sup> Naval Center of Cost Analysis website, 18 Feb 2007 <<http://www.ncca.navy.mil/services/inflation.cfm>>.

<sup>101</sup> Telephone interview 12 Mar 2007, DSN 785-5639, email: [fcampanell@disam.wpafb.af.mil](mailto:fcampanell@disam.wpafb.af.mil).



FMS data included figures for annual dollar value of FMS deliveries and annual dollar value of FMS agreements. For the purpose of the regression analysis, the annual dollar value of FMS agreements was used. The dependent variable is called “Total FMS Agreements.”

### **Independent Variables**

Regression analysis used US budget data from the US Government Printing Office<sup>102</sup>. US budget data was provided in millions of BY2000 dollars.

US military manpower strength figures were taken from US Department of Defense Personnel and Procurement Statistics<sup>103</sup>.

In some cases, various data series were multiplied or divided by a factor of 10 or 100 to allow for better comparison in graphical representation.

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<sup>102</sup> Defense outlays are drawn from the US Government Printing Office website, 21 Feb 2007 <[www.gpoaccess.gov/usbudget/fy06/sheets/hist02z1.xls](http://www.gpoaccess.gov/usbudget/fy06/sheets/hist02z1.xls)>.

<sup>103</sup> US Department of Defense Personnel and Procurement Statistics website, 14 March 2007 <<http://siadapp.dior.whs.mil/personnel/MILITARY/Miltop.htm>>.

## APPENDIX C. LIST OF FREQUENTLY USED ACRONYMS

- *AECA* *Arms Export Control Act*
- *CAS* *Cost Accounting Standards*
- *DCS* *Defense Commercial Sales*
- *DSCA* *Defense Security and Cooperation Agency*
- *FAR* *Federal Acquisition Regulation*
- *FARA* *Federal Acquisition Reform Act*
- *FMS* *Foreign Military Sales*
- *LOA* *Letter of Offer and Acceptance*
- *LOR* *Letter of Requirement*
- *SARA* *Service Acquisition Reform Act*
- *TINA* *Truth in Negotiation Act*

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