

UNITED STATES EXPORT POLICY OF FIGHTER JETS TO EAST ASIA

by

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ABSTRACT

What explains fighter jet export policy to East Asia? The decision to export fighter jets from the United States (U.S.) to foreign countries is an important part of domestic and foreign policy. James Rosenau's theory of linkage politics suggests that domestic and international variables may work together in complex ways to develop U.S. export policy of fighter jets. This thesis uses a comparative case study approach to examine the domestic and international factors that are influential in determining U.S. export policy of fighter jets to Japan, South Korea and Taiwan. The political actors involved in making U.S. fighter jet export policy include the Executive Branch (primarily the president and Defense Department), Congress, and interest groups representing defense companies and foreign countries. Decisions regarding U.S. export policy of fighter jets to East Asia are influenced by international factors including the need for defense cooperation and diplomacy to enhance the security of the United States and its allies against the perceived threats posed by China and North Korea. These decisions are also impacted by domestic concerns including the desire of politicians to create high paying jobs for U.S. workers, increase contracts and profits for U.S. companies, and improve their chance for reelection. Overall, domestic concerns seems as important or even more important than international concerns when it comes to making decisions about exporting fighter jets to East Asia.

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CHAPTER ONE – EXPLAINING FIGHTER JET EXPORT POLICY TO EAST ASIA

The export of fighter jets to East Asia is an important part of United States (U.S.) domestic and foreign policy. The U.S. aerospace industry is one of the largest in the world, and the U.S. has some of the most advanced fighter jet technology in the world. As the global market for fighter jets is becoming increasingly competitive, the U.S. Government and U.S. defense companies are looking for ways to extend the reach of its fighter jets through the enactment of government policies regarding exports. On the domestic policy front, defense companies vie for government contracts for advanced fighter jets like the F-22 and F-35. Domestic orders for fighter jets are an important part of the U.S. economy; however, the cost of research and development for new fighter jets is very high. The research and development of new fighter jets is a painstaking and costly process as defense companies compete to build the next generation jets. For example, research and development costs for the F-22 are approximately \$28 billion through 2006 (“Sticker Shock” 2006). Exporting fighter jets appears to be an appealing way for defense companies to offset these costs since the U.S. Government is limited in purchasing new aircraft. An example of the high costs involved with purchasing new aircraft is the Lockheed Martin F-16C/D, which has a unit cost of \$18.8 million (“Factsheet” 2012). Due to the high costs, U.S. defense companies like the Boeing Company and Lockheed Martin are looking overseas to sell its advanced and expensive aircraft. The export of one fighter jet to a foreign country can generate income for U.S. defense companies and maintain jobs for Americans. The defense companies may lobby Washington lawmakers to allow for the export of fighter jet and related technologies to foreign countries. Congressional leaders may debate the

issues in the form of committee hearings or floor debates. The president and the executive offices offer opinions about the issue in terms of national security and economic matters. Congressional leaders and the Executive Branch then develop and implement policies regarding the export of fighter jets to foreign countries.

In addition to domestic policy issues, foreign policy factors enter the topic of U.S. fighter jet export policy. Regional security is one factor that may be especially prevalent within Asia. The continued threat of North Korea and the rise of China are creating security implications for U.S. defense policy in the region. Exporting fighter jets to Japan, South Korea, and Taiwan may reinforce existing diplomatic relations and defense cooperation. U.S. policymakers, especially the Executive Branch, may take into account these international factors when developing and implementing the export policy for fighter jets.

Why focus on the export of fighter jets to East Asia? The short answer is that this region is heavily dependent on U.S. exports, presents serious potential threats to U.S. national security, and has sufficient region-specific conditions to warrant a detailed case study. That being said, the U.S. is also heavily involved in exporting fighter jets to Europe, the Middle East, and South America.

While certain European countries like Norway or the United Kingdom import U.S. fighter jets, Europe has its own defense companies that develop advanced fighter jets that can rival its U.S. counterparts. The European Aeronautic and Defence Space Company (EADS) oversees the manufacturing of fighter jets under its Eurofighter and Dassault Aviation units. In Sweden, Saab develops and manufactures most of the country's fighter jets. Thus, Europe is not

entirely reliant on U.S. fighter jet technology for its respective air forces. Further, since the collapse of the Soviet Union, the threat to U.S. security in Europe is greatly reduced.

The Middle East is another major area that the U.S. defense companies have marketed fighter jets. Egypt, Israel, and Saudi Arabia operate U.S. manufactured fighters along with European-made fighters. The U.S. also has important national security concerns in the region given its reliance on oil, the threat of terrorism, and hostilities with Iran. The intricacies of politics in the region along with instability make the Middle East an important destination for U.S. fighter jets and suggest that this region would need a separate case study in order to provide adequate coverage.

Finally, the U.S. exports fighter jets to South American countries like Brazil, which is currently in a position to place orders for new fighter jets. Although Brazil has a well-established aerospace industry under Embraer, the country does not build a fighter jet with similar capabilities to foreign models. Thus, Brazil relies on foreign imports for its fleet of fighter jets. However, South America presents a relatively low security threat to the U.S.

Each of these world regions has complex factors surrounding the export of U.S. fighter jets; therefore, each region deserves its own research project in the form of case studies. While exporting U.S. fighter jets to other regions is important, East Asia is in a unique situation due to a relative lack of military aerospace industries and the serious security threat posed by China and North Korea. As a result, East Asia is one of the primary customers of foreign-developed fighter jet technology. This provides the U.S. with an opportunity to sell its fighter jet technology to East Asia for a variety of domestic and international reasons.

Literature Review

As with other types of public policy, the policy of exporting fighter jets goes through the traditional U.S. policymaking process. Thomas Dye uses the process model to explain the formation of legislation. The first step is identifying the problem, which would be the export of fighter jets (Dye 2011, 29). The rise of interest groups that lobby legislators for the export of fighter jets may be one way of acknowledging the problem. Most interest groups that lobby for fighter jet exports are the defense companies such as Boeing and Lockheed, which are listed in the top twenty biggest spenders on Capitol Hill (Dye 2011, 39). The next step of the policymaking process is agenda setting, which the president and congressional leaders perform (Dye 2011, 29). Agenda setting goes beyond acknowledging the problem by ensuring it will be discussed in the next step of the process. Then the Executive Branch and congressional committees begin the process of formulating legislation regarding fighter jet exports (Dye 2011, 29). The involvement of the defense companies in the form of interest groups may persuade members of Congress and the President to formulate legislation in favor of fighter jet exports. Within the Executive Branch, the Department of Defense and Department of State must weigh the advantages and disadvantages of the export of fighter jets. The Department of Defense may have reservations about national security issues involving the export of advanced military technologies to foreign countries. The Department of Defense may express its reservations to the president and congressional leaders. Once the decision-makers formulate the policy, it enters what Dye (2011, 29) calls the policy legitimation step. This step involves all parties responsible for the development of policy (executive, Congress, and interest groups) to finalize exact terms and pass legislation about fighter jet exports. Following the passage of legislation, the President

and the executive departments oversee the implementation of the export policy of fighter jets (Dye 2011, 29). Some possible factors would be the costs and timeline involved with exporting the aircraft. If the defense companies face rising costs due to program problems, then it could impact the foreign customers monetarily. Furthermore, program problems may mean delays to the customers of the fighter jets. The Executive Branch helps to ensure the policies are carried out the way the legislation states. Finally, the last step in the policymaking process is the evaluation stage (Dye 2011, 29). What were the benefits of the policy? What were the drawbacks of the policy? How could future policy in the area of fighter jet exports be improved? These are just some of the questions that may arise during the evaluation stage. The effectiveness of the policies depends on who is evaluating the policy. The Executive Branch may view the policy as effective if it was implemented as planned. Congress may view effectiveness as passing legislation that influences America beneficially (in terms of the economy). Interest groups from the defense companies may see the policy's effectiveness as bringing more revenue and jobs from the accumulation of aircraft orders by foreign countries. Dye's process model is a straightforward way of describing the creation, passage, and implementation of public policy, specifically policy relating to fighter jet exports.

The export of fighter jets typically falls under the topic of arms exports. The export of arms from the U.S. to foreign countries has a history dating back to World War I. The Arms Export Control and Neutrality Act passed by Congress in 1935 allowed the U.S. Government, specifically the President, to establish and control arms exports (Molloy 2000, 30). This continued throughout World War II with the Lend-Lease Act, which Congress passed in 1940. The act allowed the President to export arms-related equipment to Allied countries in Europe,

specifically Great Britain. Although fighter jets did not exist at the time, fighter aircraft powered by propellers were a substantial part of the Lend-Lease Act's accomplishments, which included the export of the P-39 Airacobra and P-51 Mustang to Great Britain. The next milestone in the history of arms exports is the passage of the Mutual Security Act in 1951, which appropriated \$7.5 billion of foreign aid to Western Europe ("Mutual Security Act"). The foreign aid included military exports to protect Western Europe from the threat of the Soviet Union. Building upon the Mutual Security Act, the passage of the Arms Export Control Act (AECA) of 1976 was one of the most important acts in terms of arms exports. The AECA allowed the President to not only authorize the sale of arms to foreign countries, it also allowed for the control of arms exports (Molloy 2000, 32). Within the acts pertaining to arms exports, Congress normally deferred decisions to the President as the traditional leader of foreign policy. However, the AECA had a provision calling the President to notify Congress of foreign arms sales 30 days before a final agreement is reached between the U.S. and the foreign buyer (Grimmett 2012, 1). One exception to this rule is arms exports to NATO states, Japan, South Korea, New Zealand, Israel, and Australia. In these cases, the President has 15 days to notify Congress before a final agreement is signed (Grimmett 2012, 1). Due to this provision, Congress retained the right to disapprove of the President's decisions regarding arms exports if it deemed necessary (Molloy 2000, 33). The best example in recent history of Congress opposing foreign arms sales was the case of Saudi Arabia in 1990. The Bush administration was interested in selling Saudi Arabia \$20 billion worth of arms, but Congress disapproved of the sale. As a result, the Bush administration removed a substantial amount of the arms in the original deal and submitted a

new deal to Congress worth \$7 billion. Congress approved of the arms sale to Saudi Arabia in 1991 (Grimmett 2012, 6).

Even without the passage of acts, hearings before congressional committees contain discussions of the nature of U.S. arms sales to foreign countries. For instance, the House Committee on Foreign Affairs holds regular meetings to discuss reforms to foreign arms sales based on U.S. interests (U.S. House 2011). Much of the discussions focus on export controls with the goal of preventing arms transfers from becoming a threat to U.S. national security. This threat may be caused directly from arms exports falling into the wrong hands, but more likely, it is caused by sensitive technologies that fall into the wrong hands. Indeed, fighter jets are particularly vulnerable to breaches in technology that could lead rogue entities to develop technologies that threaten the U.S. The congressional hearings are a part of the policymaking process that includes the actions of the Executive Branch. In spite of the debate surrounding arms exports on Capitol Hill, the U.S. remains the world's largest exporter of arms with global sales reaching \$66 billion (Grimmett 2012, 1).

Historically, decisions by the Executive Branch of government have shown signs of being influential in fighter jet export policy. Some even argue that decisions by the Executive Branch are more influential than congressional decisions about arms exports (Molloy 2000, 33). Nevertheless, the Executive Branch has plenty of power to influence the nature of U.S. arms exports. Throughout history, presidential administrations exported arms to allies as a counterweight to competing powers including the Axis Powers in World War II or the rise of communism in later years (Molloy 2000, 30). With the fall of a major communist stronghold, the Soviet Union, presidential administrations began to shift in strategy from the traditional

notion of containment. In the 1990s, the Clinton administration emphasized the importance of arms exports in its foreign policy strategy (Blanton 1997, 33). Clinton expressed his willingness to “enlarge” democracy around the world, and one way to accomplish this goal was through arms exports. In addition to the pursuit of democracy, another important goal of Clinton’s arms export strategy was economic benefits to America (Blanton 1997, 33). Clinton realized that exporting arms to foreign countries could provide monetary benefits to the U.S. As foreign countries order American-made arms, defense companies can make profit and employ thousands of Americans. Clinton took the democratic and economic aspects of arms sales into account when formulating his foreign policy. In 2000, the Bush administration campaigned for reforms to arms exports (Klamper 2004, 2). While Congress dealt with much of the reforms relating to arms exports, the president had a role with getting the discussion started and setting the agenda. As the years progressed, the Obama administration and the Commerce Department worked together to reform existing export controls on arms (Burke 2012, 49). Presidential administrations also have other ways of influencing the policy of fighter jet exports such as the threat of a veto. In 2009, the Obama administration threatened to veto a military authorization bill if it included additional funding for the F-22 program. The threat of the veto caused the Senate to remove the provision calling for additional funds for the F-22 (Drew 2009, 10). Despite the threat of a veto, the U.S. policymaking process allows Congress to override the president’s veto by a two-thirds majority if it deems necessary.

Congress has shown some signs of influencing policies regarding fighter jet exports. While lobbying and local constituencies may influence congressional decisions, literature in this area of research portrays Congress as taking both pessimistic and optimistic views of exporting

U.S. military technology. Fighter jets, especially stealth fighter jets, are a highly coveted technology by many countries around the world. Some of the past writings emphasize possible negative uses of the technologies and the consequences to U.S. national security. This raises the notion that the U.S. Government has to maintain a certain level of trust in the foreign countries that receive the fighter jet technology. However, this trust can be broken if the foreign countries allow the technology to fall into the wrong hands or modify the technology covertly.

Information leaks from Japan's Ministry of Defense raised concerns among U.S. congressional leaders during debates about exporting the F-22 (Konishi 2009). Due to the nature of information leaks, the U.S. Senate-House Conference Committee convened to discuss solutions surrounding the F-22 export controversy (Wilson and O'Neill 1999, 2728). Shortly after the meeting, Representative David Obey sponsored a bill in Congress calling for the blockage of F-22 exports ("105th Congress"). Members of Congress showed hesitancy regarding the lifting of the F-22 export ban. In addition to congressional leaders, the U.S. Government Accounting Office (GAO) also raised concerns about exporting the F-35 Joint Strike Fighter and the related technologies due to the possibilities of data leaks (Rivers 2003, 31). Much of the writings about congressional matters raise questions concerning national security from a U.S. standpoint.

The lobbying of lawmakers on Capitol Hill may influence decision-making regarding the export policy of fighter jets. Defense companies and foreign governments employ lobbyists to persuade members of Congress and the President to vote in favor of arms sales. The Aerospace Industries Association (AIA), a consortium of aerospace companies including Lockheed Martin, has lobbying power in both the Executive Branch and Congress. In 2004, John Douglass, the president of the AIA, pressured the Bush administration to ease arms exports relating to the

aerospace industry (Klamper 2004, 2). Douglass said the existing arms export controls add obstacles to the aerospace companies in exporting parts to foreign countries. Although the AIA aimed its lobbying on the president, it realized that members of Congress were influential in blocking legislation regarding reforms to arms exports. Nevertheless, the AIA lobbied the president, who in turn would persuade members of Congress to vote in favor of arms export reforms. In addition to consortiums like the AIA, manufacturers of fighter jets also have a key role in lobbying efforts. Lockheed Martin, the manufacturer of the F-35, claims it can decrease the unit cost by selling the aircraft to countries like Japan and South Korea (Sweetman 2011, 29; Butler 2012, 24). The lowering of costs is one of the selling points that it may tell lawmakers through lobbying. In addition to costs, the defense companies may point to the number of jobs that would be maintained by keeping the fighter jet production lines open for export. An example of this is the hotly contested issue of exporting the F-22 Raptor, which is arguably the most advanced fighter jet in U.S. history. The combination of stealth, firepower, and performance make it an attractive aircraft to foreign governments. Lockheed Martin, the F-22's primary manufacturer, may argue that approving the export of the F-22 would allow about 3,351 American assembly line workers and thousands of employees from subcontractors and parts suppliers to maintain their jobs (Bolkom and Chanlett-Avery 2009, 2). Indeed, subcontractors account for the final important part of lobbying lawmakers in favor of arms exports. Pratt & Whitney and Hamilton Sundstrand, two companies with significant stakes in fighter jet programs, have lobbyists in Washington to help persuade members of Congress to vote in favor of exports. One type of lobbying employed by both defense companies and subcontractors is direct campaign contributions to members of Congress. For instance, Lockheed Martin contributed

nearly \$200,000 to the campaign of Howard McKeon, R-CA, since 1993 (“Howard McKeon Campaign Fund” 2012). Rep. McKeon became Chairman of the House Armed Services Committee and has substantial clout on defense-related issues. Therefore, the defense companies lobby lawmakers about the additional revenue and thousands of American jobs if the U.S. Government allows for the export of fighter jets.

The topic of defense cooperation between the U.S. and its East Asia allies is another factor that may influence fighter jet export policy. Both Japan and South Korea face external threats from North Korea, and the two countries are willing to pay for the stealth capabilities of the F-35 (Doyle, Fulghum, and Barrie 2006, 31). On a similar topic, other scholars argue that defense cooperation between the U.S. and its allies in East Asia could improve through the export of advanced fighter jets like the F-22 or F-35 (Fulghum 2009, 39). Fulghum (2009, 39) notes that the United States Air Force has bases in both Japan and South Korea where the new fighter jets could conduct joint training. Scholars from the Congressional Research Service argue that interoperability with foreign militaries is a key advantage with allowing fighter jet exports (Bolkom and Chanlett-Avery 2009, 2).

There is plenty of debate regarding how much of a fighter jet and its onboard technologies to export. One argument calls for exporting the entire aircraft and all related weapons technology, but opposing arguments call for only the export of the aircraft and allowing the foreign countries to develop its own technology (Cook 1996, 43). The latter argument protects vital U.S. technology while providing the foreign country with a base model aircraft to use. Countries like Japan and South Korea are interested in taking the issue a step further by manufacturing aircraft components domestically (Perrett 2010, 53). This is a logical step

because the original aircraft manufacturer in the U.S. will continue producing a substantial portion of the aircraft, but local companies in Japan and South Korea will also get involved in the production process (Perrett 2010, 53). This could strengthen ties between U.S. defense companies and the heavy industries in Japan and South Korea.

The existing literature also acknowledges the competitive international environment of fighter jet exports. With U.S. budget cuts looming, defense companies are looking overseas for other sources of revenue due to a decline in domestic orders. However, the fighter jet market is becoming increasingly competitive with companies from Europe and Russia competing with U.S. defense companies for new aircraft orders (Wall 2012, 102). With the exception of Taiwan that operates Dassault fighter jets, the remaining two case studies in this thesis tend to purchase mostly American-made fighter jets. However, it is important to note that European companies are competing for new aircraft orders in South Korea and Japan (Wall 2012, 102). Thus, competition in the aerospace industry is an emerging aspect of U.S. fighter jet export policy.

Research Questions and Hypotheses

The thesis attempts to answer several questions regarding the state of U.S. fighter jet export policy since 1990. The main research question states: What explains U.S. export policy of fighter jets to East Asia? This question is analyzed in terms of the dependent and independent variables listed in the next section. Once the basis for the first research question is set, other relevant research questions arise. Are domestic factors important in the export of fighter jets, if so, which ones? Are international factors important in the export of fighter jets, if so, which ones? The final research question is whether domestic factors are more important than international factors in terms of explaining U.S. policy of fighter jet exports. In order to answer

each of the research questions, evidence from academic journal articles, government sources, newspapers, and books will be presented.

The thesis tests several hypotheses relating to the U.S. policy of exporting fighter jets. The theory of linkage politics by Rosenau serves as an inspiration for the thesis, but the theory is not tested in the thesis. Rather, in the spirit of linkage politics, the hypotheses are divided between domestic and international factors. The first three hypotheses focus on the domestic issues facing the export policy of fighter jets, while the remaining three hypotheses focus on international factors. The final hypothesis is a general hypothesis based on determining whether domestic factors are more important than international factors in the development of fighter jet export policy.

The first hypothesis states that the decisions of the Executive Branch, specifically those of the President and executive departments, influences U.S. policy of fighter jet exports. Presidential administrations, whether Democratic or Republican, have an important say in the development of foreign policy. The extent of the implications on fighter jet export policy is examined in the three case studies.

The second hypothesis states that decisions by members of Congress impact U.S. policy of fighter jet exports. Congressional committees like the House and Senate Armed Services Committees may have a role in developing the export policy of fighter jets. Individual members of Congress may also have interests in pursuing the development of fighter jet export policy. Whether a legislator lives in a district with a large constituency in the defense industry may also play a role in the development of policy.

The third hypothesis states that defense company lobbying impacts U.S. policy of fighter jet exports. Defense companies spend large amounts of money to lobby the government regarding their goals. The goals of the defense company lobbyists may be to continue exporting fighter jets because of the revenue and jobs it brings to America.

The fourth hypothesis states that the rise of China increases U.S. fighter jet exports to Japan and Taiwan. China's increasing economic and military power coupled with long standing tensions with Japan make the country a logical place for U.S. fighter jet exports. The U.S. already has a long-term alliance with Japan, and fighter jet exports would reinforce this notion. A possible explanation for Taiwan's case would be the U.S. de-emphasizing the traditional one-China policy, which states there is only a single country of China. Therefore, the one-China policy does not recognize Taiwan as a sovereign government, but the U.S. is careful not to legitimize China's sovereignty over Taiwan either. By exporting fighter jets to Taiwan, the U.S. Government may be recognizing Taiwan's role in Asia as increasingly independent of China.

The fifth hypothesis states that the perceived threat of North Korea increases U.S. fighter jet exports to South Korea and Japan. North Korea's close proximity to South Korea creates an immediate threat as military forces from both countries stand guard along the Demilitarized Zone (DMZ). Tensions between the two countries remain high, and any skirmishes have a risk of escalation. North Korea is also a threat to the island nation of Japan for several reasons. North Korea tests short-range ballistic missiles by aiming it into the Sea of Japan, and long-range or intercontinental ballistic missiles pass over Japan during tests. This signifies that Japan is in the immediate sphere of North Korea's military influence. North Korea's development of a nuclear

program also plays a factor in the threat to both Japan and South Korea. Whether the military threats have a role in U.S. fighter jet export policy are examined in the Japan and South Korea case studies.

The sixth hypothesis states that the desire for defense cooperation with Japan, South Korea, and Taiwan encourages U.S. fighter jet exports. This hypothesis requires an examination of the relationship between the U.S. Government and the foreign governments. Military cooperation, especially in terms of air force cooperation, is one factor that is important in determining the extent that it affects the export policy of fighter jets. A presentation and analysis of joint military exercises between U.S. and foreign air forces is used to show its relevance to U.S. policy.

The seventh and final hypothesis states that domestic factors are more influential than international factors in determining U.S. export policy of fighter jets. To examine this hypothesis, an overall understanding of the outcome from the dependent and independent variables is necessary. The analysis of the previous six hypotheses will shed light on the differences, if any, between domestic and international factors in terms of U.S. fighter jet export policy.

Methodology

This thesis uses comparative case studies and theories of international relations as the bases for the methodology. During the analysis of U.S. policies, case studies of Japan, South Korea, and Taiwan are used to highlight the significance of policies relating to the export of fighter jets since 1990. The complex issues involving fighter jet exports on the domestic and foreign policy levels make it a good candidate for a case study. Case studies provide a useful

way of describing the intricate nature of U.S. fighter jet exports to the three Asian countries. A comparative examination of each country will be conducted with possibly different results. However, each case study contributes to the overall conclusion of the thesis by determining whether domestic or international factors are more important in the development fighter jet export policy.

The dependent variable is U.S. export policy of fighter jets to East Asia. The independent variables consist of domestic and external factors. Domestic factors include decisions by the Executive Branch, which comprises the President and the executive offices such as the Department of Defense and Department of State. Decisions by Congress and its committees may be another important domestic factor in the policymaking process. Lobbying by U.S. defense companies like Boeing and Lockheed Martin is a possible domestic factor that aims at persuading government leaders to formulate legislation in the companies' favor. External factors may include international issues such as China and North Korea's role in East Asia. The rise of China may influence Taiwan in terms of defense policy and Japan in terms of diplomacy and regional security. North Korea, although a small power within East Asia, is a regional security threat to both Japan and South Korea. Other external factors may consist of defense cooperation, which refers to joint training programs with foreign countries. Having identical or similar military equipment, especially fighter jets, may allow better integration in terms of international defense cooperation among the U.S. and its partners in East Asia.

The data collection consists of mostly qualitative sources including books, journal articles, newspaper articles, and government documents. The thesis relies on books written by prominent authors in the field like Eric Bloch. Some journal titles include the following: *Aviation Week &*

Space Technology, CQ Weekly, Jane's Defence Weekly, and the National Journal. Information about aircraft orders may come directly from the manufacturer in terms of press releases or newspaper articles. Where applicable, small portions of statistics are presented to give the reader a clear overview of the numbers of exports and the costs involved. Nevertheless, qualitative sources comprise the majority of the thesis. Peer-reviewed political science journals, defense policy journals, and military journals are the main sources for journal articles.

The thesis applies theories from international relations such as the theory of linkage politics. James N. Rosenau developed the linkage theory to describe the interaction between foreign and domestic policies in the field of international relations (Rosenau 1969, 2). The organization of the thesis lends itself to incorporating linkage to demonstrate how domestic policy and foreign policy relate to each other. Fighter jet exports influence domestic policy through interactions between the federal government and the defense companies. Lobbyists from the defense companies may tell federal lawmakers that the export of fighter jets contributes to the economy of the U.S. through increasing revenue and maintaining American jobs. As lawmakers hear from the lobbyists and contemplate decisions regarding the export policy of fighter jets, they may also take into account international factors ranging from foreign threats to defense cooperation. Therefore, policymakers may take into account both domestic and international factors in the development of fighter jet export policy. Once the policy is developed, it may influence both domestic policy in terms of revenue and American jobs as well as foreign policy issues like regional defense in Asia.

Before analyzing the export policies, there must be a clear understanding of the terminology used in this thesis. Fighter jets are a type of aircraft used by the military for

defending a country's airspace or attacking hostile aircraft primarily in the air, but sometimes on the ground (Bloch 1994, 2). These types of aircraft are commonly known as multirole fighter jets because of the combination of air and ground-based targets. The F-35 is the latest example of a multirole fighter because its primary roles are air-to-ground attacks, aerial observation, and air-to-air defense. In some cases, a particular fighter jet may be designed with primarily one type of target in mind, such as the F-22's emphasis on air-to-air combat. The F-16 also serves a role as an interceptor along with the F-22. Although it can be argued that these aircraft serve different roles, for simplicity the thesis uses a generalized view of fighter aircraft regardless of its primary mission. In contrast to fighter jets, bombers tend to be larger aircraft with larger payloads than fighter jets and target ground-based forces within foreign countries. Foreign countries are sovereign states, other than the U.S., with established governments that are recognized as legitimate by other states.

Limitations

The thesis limits itself to only U.S. export policy of fighter jets to East Asia. In contrast to other regions in the world, East Asia faces unique international factors that may influence U.S. export policy of fighter jets. The rise of China in the past decade raises implications to U.S. defense policy in the region. Therefore, any decisions to export fighter jets to East Asia face the rising influence of China in the region. Furthermore, East Asia is growing in importance as the U.S. refocuses military forces from the Middle East to Asia. Asia's relevance in the world deserves a complete, independent study of the influences on the export policy of fighter jets even though some of the factors could apply to other regions of the world.

The thesis limits itself to only policies dating back to 1990, which leaves an approximately two-decade period for study. It can be argued that the export policy of fighter jets dates back to the 1950s following World War II and the Korean War, but the time period would be difficult to manage. A large period of study may cause other world events such as the Vietnam War and Cold War to affect the outcome of the case studies. The policies from the last twenty years offer enough historical insight about previous U.S. policy in the area of fighter jet exports. Furthermore, 1990 provides a convenient starting point following the end of the Cold War and the collapse of the Soviet Union in 1991. Thus, the Cold War would no longer be an external factor influencing the export policy of fighter jets.

This thesis focuses solely on the export of fighter jets and not other military aircraft like helicopters, transport jets, or aerial refueling tankers. Although the other forms of aircraft are important militarily and economically, there are too many complexities involved with analyzing different types of aircraft exports. Other types of aircraft provide crucial support to a military, but the aircraft are often not equipped with advanced weaponry and capabilities like fighter jets. Fighter jets contain some of the most up-to-date technology with a clear armament that serves defensive and offensive roles. Some may ask about the inclusion of bombers with its substantially larger arsenal compared to fighter jets. While it is true that some bombers like the B-2 offer advanced stealth capabilities along with a substantial onboard arsenal, bombers generally do not get exported to foreign countries for a variety of reasons. A topic regarding the lack of bomber exports would be a good research project, but this thesis only analyzes the role of fighter jets because of its defensive and offensive capabilities to the U.S. and its East Asian allies.

Due to the implications of a fighter jet's onboard arsenal, the aircraft may carry more political and military connotations than other aircraft.

The variables pertaining to decisions made by the Executive Branch and members of Congress are examined as collective entities in this thesis. Some may point out that the Executive Branch could be studied separately in terms of the President and the executive departments. In order to simplify the division between domestic and international factors, the thesis treats the President and the executive departments as a single element of the domestic factors influencing U.S. policy. Additionally, it can be argued that the body of Congress could be divided between the House, Senate, and the accompanying committees. Congressional decisions, whether made by the House, Senate, or committees, are viewed collectively in this thesis in order to simplify the domestic factors.

Findings

The first hypothesis states that the decisions of the Executive Branch, specifically those of the President and executive departments, influences U.S. policy of fighter jet exports. In Japan and Taiwan's cases, this hypothesis exhibited significance. In South Korea's case, there is not enough evidence to prove the hypothesis as significant.

The second hypothesis states that decisions by members of Congress impact U.S. policy of fighter jet exports. In all three cases, there was enough evidence to conclude the significance of congressional decisions in the outcome of U.S. fighter jet export policy.

The third hypothesis states that defense company lobbying impacts U.S. policy of fighter jet exports. Once again, all three cases showed significant monetary contributions from interest groups representing defense companies to members of Congress.

The fourth hypothesis states that the rise of China increases U.S. fighter jet exports to Japan and Taiwan. China's rise in both economic and military power provides an impetus for the U.S. to export fighter jets to Japan and Taiwan. In Japan's case, fighter jet exports continue at high levels, but in Taiwan's case, there is only a limited amount of fighter jet exports since 1990. There is not enough evidence to conclude that China's rise increases fighter jet exports to Taiwan.

The fifth hypothesis states that the perceived threat of North Korea increases U.S. fighter jet exports to South Korea and Japan. In both cases, fighter jet exports to South Korea and Japan continue at high levels since 1990 as a part of U.S. defense interests in East Asia.

The sixth hypothesis states that the desire for defense cooperation with Japan, South Korea, and Taiwan encourages U.S. fighter jet exports. In Japan and South Korea's cases, the desire for defense cooperation was an important factor in fighter jet export policy. This was exhibited through regular joint military exercises between the U.S., Japan, and South Korea. However, there was no evidence for defense cooperation with Taiwan in terms of joint military exercises.

The seventh and final hypothesis states that domestic factors are more influential than international factors in determining U.S. export policy of fighter jets. In the cases of Japan and South Korea, the results show that domestic factors are more important than international factors. On the other hand, international factors proved to be more influential than domestic factors in the development of fighter jet export policy to Taiwan. The main concern of exporting fighter jets to Taiwan was a possible backlash from mainland China.

CHAPTER TWO – FIGHTER JET EXPORTS TO JAPAN

Japan is one of the closest U.S. allies in East Asia with the world's third largest economy and a well-established industrial base. The economic and defense relationship between the U.S. and Japan has a foundation dating back to the end of World War II. Since then, the U.S. and Japan have developed a bilateral security relationship that ensures the protection of Japan. While Japan is technically limited by its constitution in terms of military power, the rise of China and the existing threat of the North Korea provide motivation for the country to maintain a strong defense force. Following the end of World War II, Japan's aerospace companies began redeveloping its own aerospace industry. The main companies involved with producing fighter jets in Japan are Mitsubishi Heavy Industries (MHI), Fuji Heavy Industries (FHI), and Kawasaki Heavy Industries (KHI). The first few aircraft were not major players in terms of performance and armament. Therefore, Japan's homegrown fighter jets following World War II initially provided mainly training support for pilots, most notably the Fuji T-1. The first indigenously developed fighter jet with onboard armament was the Mitsubishi F-1 in 1975. Meanwhile, Japan looked to other ways to obtain a strong air force for defensive purposes and to supplement its own aircraft in later years.

Deep pocket books and the performance of U.S. fighter jets have contributed to a longstanding relationship of importing jets from the U.S. Historically, the U.S. has been relatively open in terms of fighter jet export policy to Japan. One indication of this openness is the fact that the U.S. has not only allowed fighter jet exports in the form of preassembled aircraft, but it has also allowed Japan to license the technology and assemble the fighters within Japan. The first example is the North American F-86 Sabre aircraft in the 1950s which the U.S. allowed

Japanese company Mitsubishi Heavy to assemble within Japan (Bloch 1994, 16). Other aircraft that received licenses for production within Japan include the Lockheed Martin F-104, McDonnell Douglas F-4, and the McDonnell Douglas F-15 (Bloch 1994, 16). Another unique case is the export of Lockheed Martin's F-16 technologies for Japan to modify and manufacture its own fighter derivative, the Mitsubishi F-2. The sharing of aircraft designs and technologies between the U.S. and Japan is a cornerstone of U.S. fighter jet export policy. The licensing of production gives Japanese aerospace companies experience with assembling the fighter jets, and the U.S. defense companies gain partnerships that could contribute to future aircraft designs.

A major topic within the export policy of fighter jets after 1990 is the question of the F-22 Raptor. The Japan Air Self Defense Force (JASDF) has lobbied the U.S. Government for the F-22, but the U.S. Government has never allowed the export of the F-22 due to national security reasons. Meanwhile, the JASDF still operates the F-4 and F-15, and it has plans to replace its aging fleet of F-4s with new F-35 aircraft. The JASDF continues to rely on U.S. fighter jets as the main source of its air power.

Historical Background

In order to understand the nature behind U.S. fighter jet export policy to Japan, an acknowledgement of Japan's defense history is necessary because of connections with U.S. policy. Following the end of World War II, Japan entered a period of extensive reconstruction guided by the U.S. Government. In order to ensure the country's defense, Japan established a self-defense force on July 1, 1954. The JASDF needed aircraft in the midst of the country's loss in the war. Japan had well-established industries during the war to manufacture aircraft like the Mitsubishi Zero, but the destruction of the industries and the negative connotations with

rebuilding a military prevented Japan from manufacturing aircraft for its new self-defense force. With the outbreak of the Korean War, U.S. policy continued to change in favor of Japan. Japan was allowed to redevelop its own aircraft manufacturing industry to produce military aircraft. The first jet it produced was the T-1 manufactured by Fuji Heavy Industries. The aircraft served mainly as a trainer for new JASDF pilots, but the country still needed fighter jets with onboard armaments. Responding to this need for fighter jets, the U.S. policy during this era was to allow Japan's government to purchase American-made fighters as a part of the 1960 Treaty of Mutual Cooperation and Security. Not only did the U.S. export fighter jets to Japan, it also allowed the local production of some aircraft under licensing agreements. Japan's growing aerospace industry proved to be a good way to utilize licensing agreements between U.S. companies and Japanese companies.

The first aircraft to be exported to Japan was the North American F-86 in 1955 (Bloch 1994, 16). North American Aviation manufactured the first batch of F-86F in the U.S., but North American allowed Mitsubishi to manufacture later versions of the F-86D under a licensing agreement. The licensing agreement was intriguing because it involved the export of the aircraft's design so local manufacturers could build and assemble portions of the aircraft. This goes beyond exporting preassembled aircraft because the U.S. Government and defense companies must trust Japan and its defense companies with the aircraft's manufacturing. The licensing agreements will become a pillar of U.S. export policy of fighter jets to Japan.

Following the F-86, the Lockheed Martin F-104J was the next major fighter jet to be exported to Japan in 1966 (Block 1994, 16). As with the F-86 licensing between North American and Mitsubishi, the F-104J was licensed between Lockheed and Mitsubishi. Lockheed

manufactured and exported only a few of the initial aircraft to Japan, while some later aircraft contained parts manufactured by Lockheed and assembled by Mitsubishi within Japan. The U.S. foreign military sales program (FMS) comprised 20 preassembled F-104J exports to Japan (Bloch 1994, 16). Mitsubishi manufactured the majority of the F-104J models using Japan-made components. The F-104J remained an essential aircraft within the JASDF until its phase out in the late 1980s.

The McDonnell Douglas F-4EJ was the next major aircraft to be exported to Japan beginning in 1968 and continued through 1980 (Bloch 1994, 16). Mitsubishi Heavy received a license to produce a portion of the F-4EJ within Japan. A total of 138 aircraft were produced under licensing agreements in Japan, although two aircraft were produced in the U.S. as a part of the FMS program (Bloch 1994, 16). The F-4EJ plays an important role within the JASDF to this day, although the aircraft is showing signs of its age. Maintenance costs, support, and performance may not match the standards of more modern aircraft, so Japan's government began looking for a suitable F-4EJ replacement.

The next major American fighter jet that the JASDF acquired was the McDonnell Douglas F-15J/DJ in 1977 (Bloch 1994, 16). Direct F-15 exports under the U.S. FMS program comprised of 14 aircraft (Bloch 1994, 16). There are currently over 250 F-15 aircraft in operation by the JASDF, most of which were manufactured under licensing agreements in Japan by Mitsubishi. The F-15 is the current backbone of the JASDF's fleet of fighter jets for aerial defense roles.

1990-2000

The 1990s marked a period of gradual build-up in terms of new aircraft deliveries. The F-15 remained the mainstay of the JASDF, and it continued to receive new F-15s throughout the 1990s. Mitsubishi was busy manufacturing most of the new F-15s under the licensing program agreed upon in the 1980s. Since the F-15 aircraft manufacturing was already taking place, Japan began looking at the next generation of fighter jets.

During the 1990s, work also continued on the FS-X program to supplement the F-15s and replace older Mitsubishi F-1 aircraft. In the late 1980s, the U.S. Government allowed Lockheed Martin to begin working with Mitsubishi Heavy on the FS-X program (Lorell 1995, 319). The goal of the program was to develop and produce a fighter jet based on the F-16, which Mitsubishi will call the F-2. The research and development continued throughout the 1990s, with the first flight in 1995. While not necessarily a complete aircraft export, the Mitsubishi F-2 uses the same basic design as Lockheed's F-16 with special modifications. The F-2 uses the same structure as the F-16, but a larger wing and changes in materials account for the main differences. Japanese manufacturers supplied the onboard technologies for the F-2. Despite the aircraft's modifications, Lockheed Martin manufactured about 40 percent of the F-2 within the U.S., while Mitsubishi manufactured the remainder in Japan (Lorell 1995, 358). In its Texas facility, Lockheed manufactured portions of the fuselage and wing boxes for the F-2 and shipped the parts to Mitsubishi's facility in Nagoya, Japan for final assembly. Production of the F-2 began in 1998 and continued through the next decade. Ultimately, a total of 94 aircraft were built by Mitsubishi and Lockheed. As a result of the project, Lockheed received a total of twelve

contracts amounting to \$1.2 billion from Japan to supply components for the F-2 (Lorell 1995, 403).

2000-Present

Following 2000, the JASDF began looking for a next generation fighter jet to replace its older fleet of fighter jets such as the McDonnell Douglas F-4. Japan expressed interest in the advanced F-22 fighter jet manufactured by Lockheed Martin. The stealth capabilities, supercruise, and interoperability were features that appealed to Japan's Ministry of Defense ("Defense" 2012, 152). The U.S. defense companies expressed interest in exporting the F-22 to Japan, but many questions remained pertaining to the aircraft's top-secret technologies and ultimate capabilities. Lawmakers showed divided opinions on the issue ranging from support of the F-22's export to a complete ban on F-22 exports. Eventually, the U.S. Government decided that the F-22 would not be exported to foreign countries in order to ensure national security.

Because of the prohibition against F-22 exports, Japan began evaluating other aircraft from the U.S. and Europe. The main contenders for the purchase were the Lockheed Martin F-35, Boeing F/A-18E/F Super Hornet, Eurofighter Typhoon, and Dassault Rafale ("Defense" 2012, 152). The F-35 and F/A-18 are the U.S. aircraft, while the Eurofighter Typhoon and Dassault Rafale are the primary offerings from Europe. After evaluating the contenders for the next-generation fighter jet, Japan chose the F-35. Since the development and financial backers of the F-35 program include the United Kingdom, Italy, the Netherlands, and Turkey, the aircraft was designed with an export version in mind. Although Japan was not directly involved in the F-35's development process, there were few if any questions regarding its export to Japan. In 2011, Japan agreed to purchase 42 F-35A Lightning II from Lockheed Martin for a price tag of \$10

billion (“F-35 order” 2012). The deal includes a firm order for 4 aircraft, while the remaining 38 are options. The initial aircraft will be exported from Lockheed’s U.S. facility along with engines from Pratt & Whitney. Later models have the possibility of licensed production by Japanese companies. How does the F-35 fit into the JASDF? One of the main requirements for the next-generation fighter jet was interoperability with U.S. and other regional air forces (Burgdorfer 2011). This aspect removed the European-manufactured Eurofighter Typhoon and Dassault Rafale from the list of top contenders because of the lack of interoperability with other forces in East Asia. The remaining two contenders were based in the U.S. The F/A-18E/F is a proven design with extensive operation by the U.S. Navy on its fleet of aircraft carriers in the Pacific Fleet. This would provide compatibility with Japanese forces despite the slight differences between the naval-based aircraft and ground-based aircraft. The F-35, which is still under development, has superior performance and specifications that appealed to Japan’s government. Furthermore, the U.S. Navy, U.S. Air Force, and U.S. Marine Corps will operate the F-35 in East Asia. The possibility for interoperability between U.S. and Japanese forces is very high. Furthermore, neighboring countries like South Korea watched Japan’s decision of a next-generation fighter jet to develop its own decision. The F-35 appeared to be the best-suited aircraft for the JASDF based on the options available.

The Case for Sales to Japan

With an established history of exporting fighter jets to Japan, U.S. policy continues to adapt with every new generation of fighter jets. From 1990, the main debates within U.S. policy pertained to the F-22 and F-35 programs. Examining the decisions surrounding these aircraft

programs provides insight into the domestic and international factors that may influence the development of U.S. fighter jet export policy to Japan.

Domestic Factors

Decisions by the Executive Branch

Presidential administrations have traditionally taken an open view on the issue of fighter jet exports. President Clinton favored the export of the F-22 to foreign countries, specifically citing the case of Israel (“F-22 Raptor” 2001). Although the Clinton administration did not make remarks about exporting the aircraft to Japan, the administration left the door open for exports of the F-22 based on the Israel comments. In contrast, the subsequent Bush administration had more reserved views on the F-22 program. President Bush and Secretary of Defense Donald Rumsfeld supported the F-35 program over the F-22 due to lower costs and similar capabilities. Secretary Rumsfeld pushed for the cutting of the F-22 program in favor of F-35. Therefore, the Bush administration kept the F-35 exports to Japan on the table of discussion despite Japan’s primary interest in the F-22.

President Obama reiterated the importance of the U.S.-Japan relationship by calling it the “cornerstone of East Asian security” (Bolkom and Chanlett-Avery 2009, 1). However, the Obama administration remained uncertain about F-22 exports to Japan. As a part of the president’s efforts to cut federal spending by focusing on the defense budget, Secretary of Defense Robert Gates made a recommendation in April 2009 to terminate the F-22 program. Although this decision stopped production of the aircraft for domestic usage, the question about exporting the aircraft was still open to congressional approval. The Obama administration was

steadfast that the F-22 was not necessary for the future of the U.S., and he threatened to veto any measures to continue funding for the program. Once the funding for the F-22 program ended, the future of the program and its export possibilities began fading away.

The offices of the Executive Branch often conduct reviews of policies pertaining to fighter jet exports. On March 31, 1992, the U.S. Department of State amended an agreement concerning the F-15 exports to Japan (U.S. Department of State 1992). Although the original agreement about F-15 exports was signed in 1978, the amended agreement pertained to the acquisition and production of aircraft from 1992 onward. These actions show that the State Department can act somewhat independently in terms of agreements about fighter jet exports.

In addition to the State Department, the Defense Department also had roles in fighter jet export policy. Pete Aldridge, the Defense Department's acquisition chief, sent a letter to the Senate Armed Services Committee on September 25, 2001, which showed signs that the Bush administration may approve of the F-22 and F-35 exports (Wolfe 2001, 1). The letter emphasized a "winner-take-all" strategy specifically regarding the sale of the F-35. As the years proceeded, presidential administrations changed as a result of the normal election cycle. Debate continued about exporting the F-22 and F-35 to Japan, but no firm decisions were made.

Despite some of the openness to F-22 exports within the Executive Branch, several officials also had opposing opinions. Members of the National Security Council (NSC) had reservations about selling Japan the F-22. Dennis Wilder, the NSC China specialist, expressed his verbal opposition to the sale of the F-22, but he did not express specific reasons why he opposed the decision (Gertz 2007). Wilder did comment that the decision about the specific aircraft type to sell to Japan will be determined by another set of defense and foreign policy

analysts (Gertz 2007). It appeared that officials with China-leanings opposed the F-22 exports to Japan. Some officials within the Defense Department also opposed the sale of the F-22 to Japan due to concerns about angering China (Gertz 2007). China's government opposed the outright sale of the F-22 to Japan because of the aircraft's offensive capabilities. Therefore, these Executive Branch officials acknowledge foreign policy concerns about China believing that the F-22 is too capable of an aircraft to sell to Japan.

Despite the problems with exporting the F-22, the F-35 was much easier to gain export approval. On April 30, 2012, officials from the Defense Department's Defense Security Cooperation Agency notified Congress that a sale of 42 F-35 aircraft to Japan was underway (U.S. Department of Defense 2012). There was no other major opposition from within the Executive Branch concerning the sale of the F-35 to Japan.

Decisions by Congress

Members of Congress had mixed opinions about the export of fighter jets to Japan, especially concerning the F-22 program. Congressman David Obey (R-WI), a member of the House Appropriations Committee, opposed the sale of the F-22 to foreign countries because of concerns to U.S. aerial superiority (Wolfe 2001, 1). He feared that selling the F-22 to countries such as Japan would undermine U.S. air prowess and cause defense companies to develop aircraft that are even more advanced and costly (Wolfe 2001, 1). Disregarding the diplomatic and defensive relationship with Japan, Rep. Obey pushed for the continuation of U.S. fighter jet superiority without supplying it to allies. He was the sponsor of the Obey Amendment of 1997 that would prohibit the export of the F-22 to foreign countries (H.AMDT.295). The Obey Amendment passed successfully and amended the Defense Appropriations Act of 1997. With

the amendment's passage, other lawmakers expressed support for appealing the amendment in light of North Korea's ballistic missile and nuclear tests. U.S. Senator Daniel Inouye (D-HI), chair of the Senate Appropriations Committee, favored the sale of the F-22 to Japan in his letters to the Secretary of Defense and Japanese Ambassador (Rogin 2009). He and other lawmakers wanted to repeal the amendment in order to open the door for exporting the F-22 to countries such as Japan. By the next year, Congress passed the 1998 Defense Appropriations Act that included the Obey Amendment's clause of prohibiting the sale and subsequent licensing of the F-22 and its technologies to foreign buyers (Wolfe 2001, 1). Thus far, efforts within Congress to allow the export of the F-22 have been blocked.

On June 20, 2006, the House Appropriations Committee voted in favor of lifting the ban on F-22 exports (Matthews 2006, 8). This was one step in allowing Japan to purchase the F-22. Even with the approval of exports, the Senate and Executive Branch had to approve of the F-22 sales to Japan. However, lawmakers in the Senate had opposing thoughts on the repeal of the ban. The Senate Appropriations Committee refused to lift the ban on F-22 exports citing the preservation of U.S. air power superiority (Matthews 2006, 8). U.S. Senator Byron Dorgan (D-ND) and Senator Christopher Bond (R-MO) claimed the U.S. would have the best air force in the world because of the F-22's capabilities, but exporting the aircraft to other countries would undermine its advantages.

In July 2009, the U.S. Senate voted to cut funding for additional manufacturing of F-22 jets (Drew 2009, 10). The decision coincided with President Obama's wishes to cut funding for the aircraft. If the Senate had voted in favor of funding the F-22, then President Obama

threatened to veto the authorization bill. The F-22 program appeared to be on the last leg, but the debate about exports to Japan continued to give hope that the program would remain in operation.

The congressional decisions about the F-22 program put an end to the program and the possibility of export. Nevertheless, Congress dealt with policymaking surrounding the export of another new and advanced fighter jet to Japan, the F-35 Joint Strike Fighter. From the beginning, members of Congress desired to allow the export of the F-35, especially to Japan. The F-35 was an export-developed aircraft, and very few congressional representatives were in opposition to its sale to Japan.

Lobbying

U.S. defense companies like Boeing, Lockheed Martin, and Northrop Grumman have influential lobbying power within the federal government. In particular, Lockheed Martin vocally acknowledged the lowering of the unit cost of fighter jets if sold to foreign countries such as Japan. As Lockheed saw it, the more aircraft the company produced, the lower the costs will become. Lockheed also emphasized the benefits of keeping Americans employed by exporting fighter jets to Japan. By exporting the F-35 to Japan, Lockheed specifically cited the securing of 6,000 jobs at its Texas manufacturing facility (Cox 2011b). As the debate surrounding the future of the F-22 program continued on Capitol Hill, Lockheed was busy lobbying government officials to increase sales of its F-35 aircraft.

According to official lobbying reports submitted by Lockheed's vice president of legislative affairs, the company spent \$3.9 million lobbying the House and Senate in quarter one of 2012 alone (Walters 2012, 2). Moreover, the company spent over \$15 million to lobby congressional representatives in 2011 (Walters 2012, 3). Individual representatives also received

significant contributions from Lockheed in terms of employee and political action committee (PAC) contributions. The Chairman of the House Armed Services Committee, Howard McKeon (R-CA) received significant financial support during his campaign from Lockheed. Since assuming office in 1993, Rep. McKeon received nearly \$200,000 of support from Lockheed (“Howard McKeon” 2012). Lockheed was also the largest contributor to Sen. Daniel Inouye of Hawaii because of his position as Chairman of the Appropriations Committee (Rogin 2009). In addition to appropriating money for defense companies, Sen. Inouye favored the export of the F-22 to Japan. It appears that lobbying through campaign contributions can offer sway in the policymaking process.

In addition to defense companies, parts and components suppliers also had interests in lobbying for export of the jets. Engines, one of the most expensive components of an aircraft, are a vital part to the success of an aircraft’s performance. Pratt & Whitney, the manufacturer of the F-22’s engines, is headquartered in East Hartford, Connecticut. Hamilton Sundstrand is another Connecticut company with vested interests in the F-22 program. Hamilton manufactures advanced electronics components for the F-22 in Windsor Locks. The suppliers of the F-22 agreed that exporting the aircraft will save jobs and help the local economy. Members of Congress from Connecticut were the primary target of Pratt & Whitney and Hamilton’s lobbying efforts. U.S. Rep. John Larson (D-CT) expressed his interest in exporting the F-22 to Japan due to the fact it would secure jobs in his state (French 2009). Rep. Larson, along with 200 other members of the House and 44 senators, told President Obama that the continuation of the F-22 program through foreign exports would maintain American jobs within their districts (French 2009).

International Factors

What type of external factors influence the U.S. policy of exporting fighter jets to Japan? First and foremost is the close relationship that the U.S. and Japan have developed since the end of World War II. Japan is now seen as one of America's strongest allies in not only Asia, but also globally. In 1960, the U.S. and Japan signed the Treaty of Mutual Cooperation and Security that ensures Japan's protection in an event of an attack. As of December 2009, the U.S. has 35,688 active duty service personnel stationed in Japan, of which 12,398 are air force personnel stationed at Kadena, Misawa, and Yokota Air Bases ("Active Duty" 2009). The U.S. assistance in defense matters usually pertains to the perceived foreign threats from North Korea and China. Opportunities for defense cooperation arise as fighter jets operate from air bases within short distance from each other. In some cases, fighter jets operate from the same air base, as is the case with Misawa Air Base and its joint USAF and JASDF operations. Hence, selling fighter jets to Japan may strengthen ties by assuring cooperation on defense-related issues.

Foreign Threats

Foreign threats remain one of the most influential international factors in the export policy of fighter jets to Japan. One of the main threats is the Democratic People's Republic of Korea (DPRK), or North Korea. The threats from North Korea stem mainly from ballistic missile and nuclear tests, and Japan has already worked with the U.S. to deploy the Aegis missile defense system in its ground and sea forces.

The other main threat to Japan is the rising power and influence of China. Historical animosity between the two countries is heightened due to territorial disputes concerning the

Senkaku or Diaoyu Islands. Incursions from Chinese ships, submarines, and aircraft in recent years are of particular concern for the Japanese government. The JASDF has approximately 20 F-15 fighter jets based in Okinawa to protect Japan's airspace from unauthorized foreign aircraft. From October to December 2012, the JASDF reported 91 instances of airspace incursions requiring the scrambling of fighter jets, which is the highest quarterly amount ever reported (Hayashi 2013). One of the higher profile incursion occurred on December 12, 2012, by a Chinese maritime surveillance aircraft which flew over the disputed Senkaku or Diaoyu Islands (Wakatsuki and Mullen 2012). The incident prompted the scrambling of four JASDF F-15 aircraft, but no hostile activity followed.

Further questions about Japan's defense are raised as China begins testing its first aircraft carrier. The U.S. Pacific Fleet, which operates the Seventh Fleet based in Yokosuka, Japan, has a carrier strike group responsible for defensive tasks in East Asia. The Boeing F/A-18 is the main type of fighter jet that operates from the U.S. aircraft carriers such as the USS *George Washington*. China may have a feeling of encroachment as U.S. carriers sail in the Western Pacific Ocean. In order to counter the U.S. carriers, China is hard at work testing its own aircraft carrier. While it will take time for China to perfect takeoffs, landings, and other aviation operations on an aircraft carrier, the fact that it is pursuing aircraft carriers makes it a possible threat to U.S. interests in Japan.

Another threat from China is the development of the Chengdu J-20 stealth fighter jet. Although exact details of the J-20 are not available, the aircraft is meant to be a direct competitor to the U.S. F-22 Raptor in terms of stealth capabilities and performance. If the development is successful, observers suggest that the J-20 would outperform all other fighter jets other than the

F-22 (Kopp and Goon 2011). This means the J-20 would have superior capabilities than the F-35, which the U.S. and Japan will operate extensively in the region. However, this assertion takes into account a J-20 program that does not run into any production issues. For instance, there are many intricacies in the exact shape and materials used that alter its effectiveness in terms of stealth, maneuverability, and overall capability. Other defense observers see it as difficult for China to produce an aircraft that matches the capabilities of the F-22 and F-35 (Thompson 2011). Nevertheless, China's stealth aircraft program threatens U.S. interests in East Asia if it gains the capability to exert its influence in the Western Pacific and possibly strike U.S. and Japanese military bases. This is another reason to export fighter jets to Japan.

While not necessary a foreign threat, diplomatic relations between South Korea and Japan have not been particularly strong due to historical concerns and territorial disputes. If the U.S. exports the best fighter jets in its arsenal to Japan, then South Korea could feel left out of the game. In particular to the F-22 program, South Korea's government was not particularly interested in the aircraft due to the high costs. However, a Japanese purchase of the F-22 would put pressure on South Korea to obtain the best fighter jets available. Nonetheless, the close relations between the U.S. and South Korea provide opportunities to sell a similar type of aircraft and cooperate on defense against North Korea. Therefore, South Korea cannot be considered a threat to Japan despite sour diplomatic relations. The main threat to Japan (and South Korea) remains North Korea. Japan's possession of capable fighter jets from the U.S. would provide another means of defense against North Korea.

Defense Cooperation

Regional threats make it crucial for the U.S. and Japan to cooperate closely in terms of defense issues. The two countries conduct joint military exercises regularly using ground, naval, and air forces. The USAF and U.S. Navy conduct drills with F-15, F-16, F/A-18, and F-22 fighter jets throughout air bases in Japan and Guam. The JASDF joins the drills using a variety of F-2, F-4, and F-15 aircraft. In Misawa Air Base in Northern Japan, a USAF squadron of F-16 jets operates alongside a JASDF squadron of F-2 jets. Because the F-16 and F-2 share many similarities, it allows for interoperability in terms of daily operations and training.

Additionally, both the USAF and JASDF operate the F-15 on air force bases throughout Japan.

In April 2007, the USAF and JASDF conducted joint drills in Okinawa using the F-22 for the first time in Japanese airspace (“Japan, US” 2007). The USAF F-22 aircraft were based temporarily in Okinawa for testing purposes, and it marked the first time the F-22 was deployed at a base in a foreign country. By basing the F-22’s in Japan, the U.S. Government reemphasized the importance of Japan and East Asia in U.S. defense policy. The joint military drills also provided a good opportunity for officials from Japan’s Ministry of Defense to evaluate the performance of the F-22 as a candidate for replacing older JASDF fighter jets (“Japan, US” 2007). Displaying the performance of the F-22 to officials in Japan’s government may have sent implied messages about U.S. policy in the region. The U.S. Government was still debating the possibility of exporting the F-22 to Japan, and the training exercises showed Japan’s government that the F-22 was still on the table of options for future purchases. At the very least, the F-22 deployment highlighted the U.S. commitment to Japan’s defense. In addition to showcasing the

F-22's performance, the joint drills in Okinawa improved interoperability since the JASDF sent F-4 and F-15 aircraft to participate alongside the USAF counterparts.

Since local Japanese residents living near air force bases complain of noise issues and other disturbances, the U.S. Government has agreed to transition some of the joint military exercises to Guam. The move shows that the USAF and JASDF remain committed to conducting the exercises regularly. In January 2012, the JASDF and USAF held joint military exercises at Anderson Air Force Base in Guam using F-2 and F-15 fighter jets ("Japan Air Force" 2012). The drill consisted of aerial defense drills as well as electronic warfare drills. This exercise was expanded to allow for the participation of the Australian Air Force, which is another important U.S. ally in the Pacific region. Therefore, the joint exercises provide a way for the U.S. Government to improve defense cooperation with its Asia-Pacific allies. The exercises also provide a way for Japan and Australia to build defense ties as well.

In addition to joint military exercises, exporting advanced U.S. technology to Japan can offer other benefits to the defense relationship between the two countries. Unlike other countries, Japan is viewed as a low risk country for pilfering or leaking classified technology that could negatively influence U.S. national security (Bloch 1994, 59). However, Japan is not without breaches involving sensitive technology. A primary example is a Japanese company selling ring laser gyros used in F-15s to Iran despite close monitoring of its sales (Bloch 1994, 59). The sale of the laser gyros was promptly halted after its discovery. Cyber leaks are another threat to the security and integrity of classified U.S. technologies. For example, an official within Japan's Ministry of Defense leaked classified information about U.S. Aegis missile defense system technology in 2008 (Konishi 2009). Lieutenant Commander Sumitaka Matsuuchi, a member of

the Japan Maritime Self Defense Force (JMSDF), sent classified information about the Aegis system to an instructor at a naval college in Japan (Konishi 2009). Matsuuchi was found guilty and sentenced to two years in prison for his mishandling of classified information. Incidents involving data leaks raise questions among U.S. Government officials since it is one of the negative consequences to defense cooperation. Nevertheless, data leaks remain rare, and there is plenty of opportunity for defense cooperation through the export of fighter jets and related technologies.

Conclusion

The export of fighter jets to Japan reveals the importance of the linkage theory of politics in the policymaking process. While domestic factors such as economic benefits and national security issues may affect fighter jet export policy, international factors proved to be relevant in the policymaking process as well. President Obama's acknowledgement of the U.S.-Japan security and diplomatic relationship is a way of approaching the topic of fighter jet exports. This shows that the diplomatic relationship between the two countries is certainly on the minds of leaders in Washington D.C. Even in Congress, Senator Inoue of Hawaii reached out to Japan's ambassador to support the export of the F-22. Other congressional leaders may not reach out directly to foreign officials, but they may be concerned about domestic factors such as national security issues relating to the advanced technology on the jets. Many congressional leaders also looked at the domestic and economic benefits of exporting fighter jets to Japan. For this reason, fighter jet export policy is a culmination of domestic and international factors.

Findings

Each of the domestic factors showed significant impact on the formation and implementation of U.S. policy regarding fighter jet exports to Japan. Beginning with decisions by the Executive Branch, the impact on fighter jet export policy was felt in several ways. First, the vocal opinions by presidential administrations since 1990 showed differing views on the export of fighter jets to Japan. Generally, the most controversial program was the F-22, which the Bush administration and Obama administration aimed to cut funding. The Obama administration ultimately used the threat of a veto to cut funding for future U.S. F-22 purchases, which darkened the outlook on an export version. Secondly, the offices of the Executive Branch showed a direct impact on fighter jet export policy as well. Defense Department and State Department officials expressed negative views of exporting the F-22 to Japan. In spite of the actions of the president, the topic of fighter jet exports remained open for Congress to debate.

Congressional decisions also had a prominent role in the debate concerning fighter jet exports to Japan. Linkage was clearly visible in the decision-making surrounding the Obey Amendment of 1997. The amendment specifically cited the threats of North Korea along with the national security risks of selling technology to Japan (H.AMDT.295). Despite the consideration of foreign threats like North Korea, most of the congressional decisions revolved around the notion of economic benefits and national security. Jobs within constituencies were the main reason that many lawmakers wanted to allow F-22 exports to Japan. On the other hand, other lawmakers including Rep. Obey viewed the risks to U.S. national security through the export of the F-22.

Lobbying showed its role in the development of the F-22 and F-35 export policies. The deep pocketbooks of defense companies such as Lockheed allowed it to lobby lawmakers in Washington. Campaign contributions to congressional representatives revealed positive attitudes toward U.S. fighter jet export policy to Japan. Sen. Inouye, Rep. McKeon, and Rep. Larson all argued in favor of exporting the F-22 to Japan after receiving large contributions from companies involved with the manufacturing of the aircraft. Furthermore, the sponsors of bills pertaining to the export of fighter jets to Japan included representatives with constituencies comprising of defense company suppliers. Even the parts suppliers such as Pratt & Whitney pressured Congress to export fighter jets because it means more engine orders for the company.

International factors such as the threats from North Korea and China also showed signs of being influential in determining U.S. export policy. Linkage is important because these foreign threats play a role in the development of U.S. policy, as stated in the Obey Amendment of 1997. Any threats on Japan would directly influence U.S. interests in the region. U.S. defense policy in East Asia centers to Japan due to the numerous military bases and service personnel in the country. Since the signing of the 1960 Treaty of Mutual Security and Cooperation, the U.S. and Japan have maintained close military ties, especially in regards to the air force. Thus, exporting fighter jets to an ally such as Japan provides additional military power against regional threats to U.S. interests.

Defense cooperation with Japan is a factor in the export of fighter jets, but it is regarded as a secondary and beneficial factor. Operating the same aircraft is a pivotal part of U.S. military exercises with Japan's self-defense force. The military planners in both countries see the

benefits of operating the same aircraft, but the U.S. lawmakers do not focus on interoperability during the policymaking process.

The results demonstrate that domestic factors show more influence in determining the export policy of fighter jets to Japan. Although presidential administrations emphasize the need for the U.S.-Japan relationship, most of the debate about fighter jet export policy centers on the American economic benefits or risks to classified technology. Many lawmakers on Capitol Hill see the number of jobs that they may bring to their districts by allowing the export of fighter jets to Japan. Other lawmakers such as Rep. Obey see the national security problems of exporting top-secret technology from the F-22 program. The F-22 program was never exported to Japan due to the risks to U.S. aerial superiority even though lawmakers emphasized the jobs it would create. On the other hand, foreign threats such as North Korea and China certainly impact U.S. interests in East Asia, while defense cooperation acts as a side benefit to exporting the jets to Japan. It appears that the international factors are of secondary importance to the development of fighter jet export policy.

Future Policy Considerations

The U.S. fighter jet export policy to Japan continues on a positive note with Japan's purchase of the F-35 in 2012. Although Japan's preference was the F-22, lawmakers on Capitol Hill felt it was necessary to prohibit the sale of any F-22 and related technologies to all foreign nations. Nevertheless, the export of the F-35 to Japan will continue the tradition of American fighter jets as a part of the JASDF's fleet.

Looking to the future, will the U.S. continue selling fighter jets to Japan? There are few if any signs that the trend of U.S. fighter jet exports to Japan will decline in the future. The

lobbying of lawmakers by the defense companies helps to ensure a positive outlook on fighter jet exports. Furthermore, the Executive Branch and members of Congress see the economic and defense opportunities of selling fighter jets to close allies such as Japan. The threat of North Korea and the rise of China are also factors that contribute to the need for Japan to maintain capable defensive abilities. Despite the positive signs that the export of fighter jets to Japan will continue in future years, there are some signs that exports may decrease in the future. Japan's domestic manufacturers are developing fighter jet technology that may lower the need for importing U.S. fighter jets. One factor that contributes to Japan's development of a homegrown fighter jet is the ban on F-22 exports. Japan wanted a highly capable, stealth fighter jet that offers unmatched performance. This is why the F-22 was a prime candidate for Japan's next-generation fighter jet. Even though Japan purchased the F-35 from Lockheed Martin, the country is still interested in the tier above the F-35 in terms of aerial capabilities. As a response, Mitsubishi is developing the ATD-X stealth fighter with a planned first flight in 2014 (Waldron 2011). Japan's plan is for the ATD-X to become the next-generation F-3 fighter jet, which will succeed the F-2 that Mitsubishi produced from the F-16's blueprint. Some see the F-3 program as a way of convincing the U.S. Congress to allow the export of the F-22, but development of the aircraft continues despite Congress's refusal to budge on the issue of F-22 exports. Some aviation policy observers envision the F-3 program will be merged with the U.S. next-generation fighter program (Waldron 2011). If this is the case, then the existing fighter jet export policy can be taken to a completely different level. Joint development of a fighter jet demonstrates trust and cooperation that goes beyond the existing export-licensing programs with the F-15.

Due to the foreign threats in East Asia, there will be a need for capable fighter jets in Japan's future to ensure the country's defense. U.S. interests in East Asia provide an opportunity to sell Japan advanced fighter jets and related technologies to ensure regional security. The U.S. remains a strong supplier of fighter jets throughout contemporary history, and with the exception of the F-22, domestic policies remain open for future aircraft exports to Japan. However, the question of Japan's homegrown aviation industry may cause an evolution from fighter jet exports to joint development programs.

CHAPTER THREE – FIGHTER JET EXPORTS TO SOUTH KOREA

The Republic of Korea (ROK), commonly called South Korea, faces a constant threat from its closest neighbor, the Democratic People's Republic of Korea (DPRK) or more commonly known as North Korea. Therefore, maintaining a strong military is imperative for the defense of the country. Following the armistice of the Korean War, the U.S. provided defense support to the country in terms of service personnel and equipment. To this day, the U.S. has army and air force bases throughout the country to strengthen its defenses. The U.S. military also works closely with South Korea's army and air force in terms of joint training programs. Having compatible military equipment is important in terms of joint military cooperation, and fighter jets would certainly fit this case.

As in the case of Japan, the U.S. has historically allowed generous leeway in terms of fighter jet exports to the Republic of Korea Air Force (ROKAF). Like the Japanese examples of the Mitsubishi F-2, South Korean companies were also allowed to manufacture fighter jets under special licensing granted from the U.S. and its defense companies. Korean Aerospace Industries (KAI) built a version of the Lockheed Martin F-16 for the ROKAF. The ROKAF also currently flies the McDonnell Douglas F-4 II, Northrop F-5E, and McDonnell Douglas F-15K aircraft. The F-15K is based on the U.S. version of the F-15E, but a substantial portion of the aircraft is manufactured by South Korean companies. The remainder of the manufacturing is conducted in the U.S. by Boeing, which now owns McDonnell Douglas. As time progresses, there is a need to retire the older aircraft due to higher maintenance costs and technological advances in newer aircraft. U.S. defense companies are willing to place bids for the replacement of the ROKAF's

older fighter jets, and the U.S. Government appears willing to continue the export of the jets to South Korea.

Historical Background

Since the signing of the Korean Armistice Agreement in 1953, South Korea remains in the shadow of the heavily armed North Korea. Although hostilities generally subsided, the two sides remain on heightened alert along the Demilitarized Zone. In an effort to support South Korean stability, the U.S. pledged to maintain forces within the country as a part of the Mutual Security Agreement of 1954. In later years, the Combined Forces Command (CFC) was established and comprised of South Korean and U.S. military forces on the Korean Peninsula. The CFC is responsible for joint air force operations between the ROKAF and USAF within South Korea.

Historically, the ROKAF received its first fighter aircraft as a part of the Korean War. In 1950, the first fighter aircraft to be exported was the North American P-51 Mustang, a propeller-driven fighter aircraft. At its peak, the ROKAF operated over 200 P-51 Mustangs before the armistice agreement. With the introduction of jet-powered fighter aircraft, the U.S. began exporting the North American F-86 to South Korea. The ROKAF operated over 100 American-built F-86 aircraft from 1955 (Budiansky 2006, 1104). With the USAF and ROKAF operating the F-86 alongside each other, the aircraft was able to counter the capabilities of the Soviet-built MiG-15 fighter jets. In addition to the original F-86, the U.S. also exported a more advanced version of the aircraft, the F-86D. The F-86D had slightly different dimensions, an upgraded engine, and other improvements to give it a higher capability against other fighter jets. The U.S. exported a total of 40 F-86D to South Korea during the 1950s (Budiansky 2006, 1104). The F-

86 remained a mainstay in the ROKAF until its retirement in 1990, and this aircraft served as a foundation for fighter jets in South Korea.

Around 1965, the next U.S exports to South Korea included the Northrop F-5, and many of these aircraft remained in service until 2005. The ROKAF operated two versions of the aircraft, the KF-5E and KF-5F. This aircraft is notable because it was the first U.S. fighter jet to be manufactured in South Korea under licensing agreements. With the agreement of the U.S. Government and Northrop, Korean Aerospace Industries (KAI) received a license to build the majority of the F-5 aircraft in South Korea (“South Korea to Retire” 2010). The licensing agreements would become notable in future fighter jet exports to South Korea.

By 1970, the next major U.S. fighter jet export to South Korea was the McDonnell Douglas F-4D and F-4E. The main differences between the two variants pertain to the onboard technologies and weapons systems. Unlike the previous F-5 licensing agreement, the F-4 was a manufactured in the U.S. before being delivered to the ROKAF. McDonnell Douglas built a total of 92 F-4D aircraft for the ROKAF, although the aircraft have been phased out for the newer F-4E model. There are still nearly 70 F-4E models in service today, but the aircraft are quickly becoming old and need upgrades or replacements.

1990-2000

The 1990s were a period of change for the ROKAF in terms of acquiring replacements for its aging fleet. The 1990s also brought uncertainty in the deals to acquire new fighter jets from the U.S. South Korea’s government announced its intentions to purchase the McDonnell Douglas (now Boeing) F/A-18 in 1989. However, the government quickly canceled its order for the F/A-18 in 1991 and ordered the General Dynamics (now Lockheed) F-16 (Sanger 1993).

South Korea's Board of Audit and Inspection discovered large money transfers to South Korean officials responsible for the order (Sanger 1993). Did the money come from General Dynamics? The investigation did not disclose where the money originated, but the official South Korea government response to the F-16 order was a reevaluation of the contractual terms of the 1989 F/A-18 agreement (U.S. General 1991, 1). There were apparent misunderstandings concerning the exact terms and payments of the original F/A-18 deal, and South Korea thought it would be better to look at other options such as the F-16.

On July 8, 1991, the U.S. Government approved an agreement to sell 120 F-16C/D fighter jets to South Korea. The aircraft were purchased to provide direct support to the ROKAF's existing fleet of F-4 and F-5 aircraft. The deal was worth a total of \$5 billion, but only the first 12 aircraft would be built and exported from General Dynamics's manufacturing facility in Texas (Towle 1992, B1). Subsequent F-16 purchases would have a stipulation for local production by South Korean companies. Lockheed licensed the production of later aircraft to KAI in South Korea, which were called the KF-16. Although the aircraft's design was the same as the U.S. F-16C/D, KAI made significant changes to the onboard weapons systems, software, and other parts of the aircraft. The 1990s were known for a constant stream of new F-16 deliveries to the ROKAF.

2000-Present

Since 2000, South Korea entered another period of renewal for its air force. The ROKAF operated the aging McDonnell Douglas F-4 and Northrop F-5, and it was in a position to renew its fleet with newer fighter jets. The South Korean government purchased 20 F-16 aircraft from Lockheed in mid-2000 to provide immediate replacements for the oldest aircraft in the fleet.

Even though Lockheed and KAI worked together on the production of the F-16, the order would still bring \$800 million to Lockheed. The 20 F-16 orders would be the last batch of the aircraft's production in South Korea (Fairbank 2000, 1D). However, South Korea began looking at upgrades for its fleet of older F-16 aircraft from the 1991 deal. U.S. defense companies had interest in selling upgrades to South Korea, most notably Northrop Grumman and Raytheon (Trimble 2011a). In 2011, the two U.S. companies submitted bids for delivering upgraded radars to the ROKAF F-16s. Lockheed is interested in providing overall upgrades to the ROKAF's 134 F-16 aircraft, but BAE Systems of United Kingdom aims to compete against Lockheed for the upgrades (Sung-ki and Minnick 2012, W1). Usually, Lockheed and the U.S. Government get an upper hand on arms exports to South Korea, but the South Korean government is looking to drive the price down by making the contracts more competitive.

In addition to aircraft upgrades to the F-16 fleet, South Korea's government and the ROKAF narrowed down its search for a next generation fighter jet, preliminarily called the FX-I program, during this period. The Boeing F-15 was a top contender, but there were also European contenders such as the Eurofighter Typhoon and Dassault Rafale Mk 2 (Tae-hoon 2012). South Korea's government also considered Russia's Sukhoi Su-35 (Tae-hoon 2012). In 2002, South Korea made the final decision for its FX-I program by ordering 40 F-15K with an estimated total price of \$3.6 billion. South Korea then looked at the next stage of its fighter jet purchases, the FX-II program. Instead of choosing an entirely new type of fighter jet, South Korea would later order an additional 20 F-15K in 2008 (Wallace 2002, C1). Boeing agreed to split the production of the F-15K with KAI on a percentage-based scale, with 40% of the parts and 20% of the

assembly process belonging to KAI (“Trade Offsets” 2011). Boeing would conduct the majority of the F-15K’s manufacturing in the U.S. at its St. Louis factory.

With the F-15K assembly underway, South Korea began looking at stealth fighter jets for the next stage of its air power, the FX-III program. The main U.S. contenders are the Lockheed F-35 and the Boeing F-15SE. Korea’s Defense Acquisition Program Administration (DAPA) also listed the Eurofighter Typhoon and Sukhoi T-50 PAK-FA as contenders. Russia’s Sukhoi pulled its T-50 out of contention by not submitting a bid for the request (Tae-hoon 2012). Lockheed’s F-35 is still under development with the assistance of several foreign countries such as Great Britain. The F-35 would offer compatibility with USAF and JASDF F-35 aircraft in the region. Boeing’s F-15SE, also under development, is touted as an upgrade to the existing F-15 platform. The F-15SE features the prominent addition of stealth technologies along with the proven performance of the existing F-15. The F-15SE would also offer some compatibility with existing F-15 models in the region. The European Eurofighter Typhoon and Russian Sukhoi T-50 PAK-FA proved to be the largest non-U.S. contenders. A downside to the European and Russian contenders is a lack of compatibility with the U.S. and other regional forces that do not operate European and Russian fighter jets. South Korea is still evaluating the different options for its FX-III fighter jet, but the most likely contender is the U.S. F-35. If chosen, the F-35 deal for 60 jets would be worth \$7 billion (Sung-ki 2012, 16).

The Case for Sales to South Korea

As witnessed by the history of fighter jet exports to South Korea, the U.S. policy toward the issue is open to a range of fighter jet types and manufacturing agreements. Generally, U.S. policy allowed South Korea to purchase what it wanted from U.S. defense companies. South

Korea was not highly interested in the controversial F-22 program, and it opted to examine less controversial programs for its next generation fighter jet. Since 1990, U.S. policymaking concerning fighter jet exports to South Korea revolved around the F-15, F-16, F-35, and F-15SE programs. These programs did not stir up heated debate as with the F-22, but the debates within the U.S. Government remain important parts of U.S. policy in East Asia.

Domestic Factors

Decisions by the Executive Branch

The F-16 exports to South Korea in 1991 did not conjure any large presidential actions. The presidential administration kept a low profile in the discussions of policy and did not take a public stance on the issue. Prior to 2002, there were also no signs of the Executive Branch visibly pressuring South Korea to order the Boeing F-15 (Dine 2002, C1). The Clinton administration had initially cut all new domestic orders for F-15s from the U.S. federal budget in 2000 (Dine 2000, A1). This action raised concern within Boeing and Congress due to the jobs that could be lost from a lack of purchases. As the Bush administration came into office in 2001, the president did not take a public position on the issue of F-15 exports to South Korea. The issue of fighter jets was a touchy subject among South Korean government officials, and the Bush administration was careful to avoid putting public pressure on South Korea to choose the F-15. Discussions about the subject were kept behind closed doors, and officials from the White House declined to answer questions about the nature of the issue (Dine 2002, C1). Thus, it is difficult to evaluate the viewpoints of the Executive Branch regarding the F-15, but assumptions about the administration's approval of the sale are possible since the deal received approval.

While the Obama administration has not made any official statements regarding the export of the F-35 to South Korea, the Defense Department has already begun discussing details of the F-35 with the South Korean government. The discussion is a routine event that involves the Defense Department sharing specific details of an aircraft's performance and capabilities that are typically not shared publicly. The Defense Department ensures the information does not compromise U.S. national security, but at the same time, it wants to provide relevant information to prospective buyers such as South Korea. Although a routine process, the sharing of information was a sign of the Executive Branch's interest in the F-35 deal. It marked a first step toward the possible export of F-35 aircraft to South Korea.

Decisions by Congress

In 1991, the House Foreign Affairs Subcommittee convened to discuss the terms of F-16 exports to South Korea. Some legislators raised questions about the benefits to the U.S. in terms of the economy and national defense. Rep. Richard Gephardt (D-MO), the House Majority Leader, criticized the agreement because it would allow South Korean companies to manufacture major components of the F-16 at the expense of American jobs (Koenig 1991, 9D). He was also concerned that allowing foreign manufacturing of the F-16 would compromise confidential information and technologies (Koenig 1991, 9D). An official from the Pentagon rebuffed Rep. Gephardt's statement by claiming the U.S. Government did everything necessary to protect American jobs and technological secrets (Koenig 1991, 9D). Congress continued to debate the issue of aircraft production, and some members rejected the proposal to build only the first 12 F-16s in the U.S. Despite the objections to the terms of the agreement, there were also many supports of the sale. Representative Pete Geren (D-TX) argued in favor of selling the aircraft to

South Korea. Since Rep. Geren was from Texas, General Dynamics had a significant presence in the state and operated the F-16 manufacturing facility in Fort Worth, Texas. Therefore, Rep. Geren may have developed his argument in favor of his constituents in the defense industry. After the back and forth debating, Congress approved of the deal to sell 120 F-16 fighter jets to South Korea in 1992 (Towle 1992, B1).

With the settlement of the F-16 agreement, Congress held discussions about possible Boeing F-15 exports to South Korea in 2002. The F-15 deal had strong support in Congress from the Missouri delegation. Senator Christopher Bond (R-MO) and Senator Jean Carnahan (D-MO) were the most vocal supporters of F-15 exports within Congress (Dine 2001, C1). Both Sen. Bond and Sen. Carnahan pressured the Bush administration to work on a deal amid a South Korean government delegation visit to Washington D.C. The Missouri Senators were especially concerned about maintaining jobs at Boeing's F-15 manufacturing facility in St. Louis. As domestic orders for the F-15 were nearing an end, an order from South Korea would keep 5,000 people employed (Dine 2001, C1). In addition to the strong support from Missouri's U.S. Senators, other members of Congress pledged to support a deal to export the F-15 to Korea. Senator Durbin (D-Ill), Representative Akin (R-MO), Representative Clay (D-MO), Representative Gephardt (D-MO), and Representative Blunt (R-MO) were among the other vocal supports of the deal (Dine 2001, C1). On January 18, 2002, Rep. Blunt made an official trip to South Korea along with the House Speaker Dennis Hastert and U.S. Ambassador Thomas Hubbard to meet with top officials from South Korea's government (Quaid 2002). In contrast to the Executive Branch's unwillingness to put pressure on the South Korean government regarding the F-15 purchase, the congressional delegation discussed the issue openly with South Korea

President Kim Dae-jung and officials from South Korea's Ministry of Defense. Following the meeting, Rep. Blunt commented on positive reactions about the F-15 deal from the South Korean government (Quaid 2002). In April 2002, Congress approved of the deal to export 40 F-15 fighter jets to South Korea.

In 2012, Congress began debating the next generation fighter jet exports to South Korea. The F-35 was the top contender discussed among U.S. officials. Domestic funding for the F-35 brought mixed opinions among members of Congress due to its rising costs and program delays. Exports to foreign countries carry much debate depending on the country, but in South Korea's case, Congress appears ready to approve of a deal if the South Korean government decides to buy the F-35.

Lobbying

Before Lockheed acquired General Dynamic's fighter jet programs in 1993, General Dynamics lobbied members of Congress for the sale of F-16s to South Korea. General Dynamics contributed \$13,000 to Representative Pete Geren (D-TX) in 1990, which makes him the largest congressional receiver of contributions from the company ("General Dynamics: Recipients"). Fellow Texas Congressman Charles Wilson (D) received \$10,000 from General Dynamics in 1990 ("General Dynamics: Recipients"). Since Texas was the home of General Dynamics' F-16 assembly line, it was prudent for the company to contribute the most money to the home-state candidates. In addition to specific members of Congress, General Dynamics contributed to several key congressional committees. Both the House and Senate Armed Services Committees and Appropriations Committees were the two largest receivers of money from the General Dynamics political action committee in 1990 ("General Dynamics:

Congressional”). While most of the money to these committees relates to domestic defense initiatives, the House Committee on Foreign Affairs and the Senate Committee on Foreign Relations deal with the exports of arms. The House Foreign Affairs Committee ranked as the seventh largest committee recipient, while the Senate Foreign Relations Committee ranked as the thirteenth largest committee recipient from General Dynamics in 1990 (“General Dynamics: Congressional”). The committees dealing with foreign relations did not receive as large contributions compared to the domestic appropriations and defense-related committees. Nevertheless, General Dynamics was a large contributor to Congress and it may have influenced Congress to approve of the 1992 deal to export 120 F-16 fighter jets to South Korea.

Since the approval of F-16 purchases, the next major source of lobbying involves the F-15 export agreement in 2002. The Boeing Company, the producer of the F-15, took stage in its efforts to persuade U.S. officials on exporting the F-15 to South Korea. During the 2002 election cycle, Senator Ted Stevens (R-AK) received \$34,000 in contributions, making him Boeing’s largest recipient of campaign funds (“Boeing Co”). Sen. Stevens was a ranking member of the Appropriations Committee, which made him a prime person to assist Boeing’s efforts for domestic orders. Missouri’s congressional delegation also received large amounts of money from Boeing. Boeing’s F-15 manufacturing is located in St. Louis, Missouri, and the company emphasized the need for exporting the aircraft to countries like South Korea. Any exports of the F-15 would allow Boeing to employ 5,000 employees at its St. Louis facility and draw funding into the area. Therefore, Rep. Gephardt received \$26,400 from Boeing in 2002, making him the third largest recipient of campaign funding from Boeing (“Boeing Co”). Sen. Carnahan, Rep Akin, and Rep. Blunt each received about \$10,000 worth of campaign contributions from Boeing

in 2002 (“Boeing Co”). The congressional delegates from Missouri were the strongest supporters of exporting the F-15 to South Korea. Each of the candidates met with officials from the White House to discuss the export plan. Some of the congressional delegates even made overseas trips to South Korea in 2002 to discuss the F-15 program with South Korea’s president and officials from the Defense Ministry (Quaid 2002). Boeing’s contributions to federal lawmakers have been influential in getting the F-15 export deal approved.

The latest form of lobbying involves South Korea’s search for a next generation fighter jet. U.S. defense companies have shown interest in selling the latest fighter jets to South Korea. Lockheed Martin set a goal of selling 500 F-35 fighter jets to Asia, and South Korea was one of the prime candidates to help the company meet its goals (“Lockheed Martin Aims” 2008). Following Japan’s purchase of the F-35 in 2012, Lockheed set its sights on selling the aircraft to South Korea. While selling more aircraft certainly generates revenue for the company, one key reason for Lockheed’s ambitions to sell the aircraft to foreign customers is the fact that the unit cost per aircraft will decrease. The F-35 in particular is plagued with rising costs and program problems, and exports will help offset these rising costs. Lockheed is using the cost issue as a selling point to congressional leaders who are concerned about the U.S. budget for the F-35. Lockheed also provides significant financial support to members of Congress involved with arms exports to South Korea. Lockheed contributed over \$200,000 to the campaigns of U.S. Representative Kay Granger (R-TX) since 1997 (“Kay Granger Campaign”). Lockheed has a significant presence in Texas with the F-16 and F-35 assembly lines. Rep. Granger is a strong supporter of the F-35 in spite of the program’s difficulties. As South Korea seriously considers the F-35 for its next generation fighter jet, Rep. Granger has an established track record of

supporting legislation that favors Lockheed's interests. Rep. Granger has already sponsored legislation in favor of F-16 sales to Taiwan, and she appears willing to support fighter jet sales to South Korea.

International Factors

Since the outbreak of the Korean War, the main foreign threat to South Korea is North Korea. South Korea has remained a close ally to the U.S. in terms of diplomatic and defense ties. The U.S. shows its commitment to South Korea by stationing 28,500 service personnel stationed in the country, and the U.S. also operates several large air force bases in Kunsan and Osan. Fighter jets from both the USAF and ROKAF operate from Kunsan Air Base in Gunsan, South Korea. Kunsan Air Force Base is home to the ROKAF's 38th Fighter Group that flies mainly F-16 aircraft. While it does not contain a ROKAF fighter group, Osan Air Force Base is used by the USAF and it is the home of the ROKAF Operations Command.

U.S. fighter jets play a vital role in defending South Korea from the threat of North Korea. North Korea's air force has roughly twice as many aircraft as the ROKAF, but the aircraft are not as capable as the ROKAF. Most of North Korea's fighter jets were imported from its allies, Russia and China, and tend to be considerably older than ROKAF fighter jets. North Korea possesses newer versions of the Russian MiG-29, which protect the country's most vital areas in Pyongyang. Generally, North Korea's air force has a quantitative advantage, but South Korea's air force has a qualitative advantage when operating alongside the USAF.

Foreign Threats

Ever since the Korean War, South Korea faces the persistent threat of its closest neighbor, North Korea. With the division of the Korean peninsula, the two countries share a border that is highly fortified, and even little incursions have the risk of escalating. Moreover, the capital of South Korea, Seoul, is located within range of North Korean artillery fire. Since Seoul is the economic hub of South Korea, any type of attack on the city has the risk of damaging the country's economy. For the most part, fighting between the two countries remain scarce despite both sides having a hair trigger. Isolated incidents such as defections from the North into the South have raised tensions, but no outbreak of war has occurred since the signing of the armistice in 1953. One of the highest points of tension was the Yeonpyeong Island shelling in November 2010. The attack caused the deaths of two South Korean civilians and two members of the military. Under a United Nations agreement, the U.S. is obliged to assist South Korea in the event of an attack by North Korea. Therefore, the U.S. responded with a show of military power off the coast of Korea. This show of force focused on naval power, but the U.S. aircraft carriers provided aerial support in the region.

While incidents such as defections and the Yeonpyeong shelling are threats to South Korea, the largest threat is North Korea's testing of ballistic missiles and nuclear weapons. While the threat to South Korea had always threatened U.S. interests, this announcement made the threat to the U.S. official. The threat of ballistic missiles and nuclear weapons is also important to South Korea since it does not possess nuclear weapons. South Korea traditionally falls under the U.S. nuclear umbrella in the case of a retaliatory strike. Nevertheless, South Korea aims to have a strong defense against possible attacks by North Korea. This includes the

mandatory military service of all male citizens as well as investment in the latest military technology including high-tech fighter jets from U.S. defense companies. The U.S. can export the jets to South Korea to provide a deterrent against North Korea and build up East Asia's defenses.

On the air force level, North Korea maintains an air force with fighter jets manufactured by the former Soviet Union and China. The most advanced fighter jet that North Korea operates is the Russian MiG-29, which is roughly equivalent to the U.S. F-15 or F-16 in terms of capabilities. The MiG-29 is limited in number and is responsible for primary air defense around country's capital of Pyongyang. Otherwise, North Korea's fleet of fighter jets is relatively old compared to South Korea's fighter jets. The nature of North Korea's air force gives an impetus for South Korea to continue updating its fleet of fighter jets. However, U.S. policymakers do not put as much thought about North Korea's air force power when compared to North Korea's ballistic missile and nuclear threat. Nonetheless, South Korea has many reasons to purchase U.S. fighter jets, and the U.S. allows the export of its jets to the country.

While not necessarily a threat to U.S. interests in East Asia, South Korea may view Japan's military buildup as a threat to the country (Minnick and Sung-ki 2010, 16). Historic tensions between South Korea and Japan cause leaders in Seoul to remain cautious about Japan's military power. Japan's purchase of F-35 aircraft from the U.S. in 2012 may be a motivating factor for South Korea to purchase a plane with similar capabilities. Therefore, Japan's air force would not outshine South Korea's air force in terms of military power. From a clearly U.S. perspective, leaders and defense companies may not acknowledge the historical tensions between

South Korea and Japan when constructing fighter jet export policy. The main foreign threat in the minds of U.S. policymakers is clearly North Korea and not Japan.

Defense Cooperation

The U.S. and South Korea conduct regular joint military drills to keep their forces ready for any threatening actions from North Korea. In regards to air force cooperation, the two countries operate similar types of aircraft that allow for greater interoperability in joint exercises. Both the USAF and ROKAF operate versions of the F-15 and F-16. These aircraft participate in joint drills, often times in response to a North Korean act aggression such as a missile test or nuclear test. For instance, the U.S. and South Korea held a joint military exercise in the wake of the Yeonpyeong Island shelling in 2010.

In addition to responding to acts of aggression, the USAF and ROKAF hold annual joint military drills called Operation Ulchi Freedom Guardian. In 2011, the joint military exercise lasted from August 16 to August 26 (Glover 2011). The latest drill on May 7, 2012, comprised of fighter jets from both air forces. The joint operation of F-15 and F-16 aircraft in the drills was an opportunity for the USAF and ROKAF to get experience in aerial defense roles. USAF refueling tanker aircraft provided support to the fighter jets, and it allowed the ROKAF pilots to become accustomed to aerial refueling.

In addition to the annual Operation Ulchi Freedom Guardian exercises, the USAF and ROKAF conduct other joint training exercises such as Max Thunder (Herndon 2009). Max Thunder began in 2008 to improve interoperability between the USAF and ROKAF and lower the risk of combat losses (Herndon 2009). These exercises allow airmen from both air forces to cooperate in terms of strategy and tactics. Maintenance training programs are also a part of the

joint exercises, and it helps when the same types of fighter jets are used. In 2012, the USAF allowed the ROKAF to participate in the Red Flag multinational air force exercises for the first time (Herndon 2009). Red Flag, which is conducted in the U.S., is a larger version of the Max Thunder exercises held in Korea. The goal of the exercise is the same - improve interoperability. The USAF will invite the ROKAF for Red Flag again in 2013, and ROKAF fighter jets will fly to Alaska with USAF tankers providing refueling support. ROKAF's participation in Red Flag shows the advancement of defense cooperation with the USAF. Continuing the export of fighter jets to South Korea would ensure interoperability into the future.

Conclusion

The U.S. policy of exporting fighter jets to South Korea since 1990 has been focused on the 1991 F-16 sale, the 2002 F-15 sale, and the ongoing search for a next-generation fighter jet. The linkage theory of politics was witnessed in each of these cases, but the original usage dates back to the Korean War and the mutual defense agreements between the U.S. and South Korea. While the Executive Branch, Congress, and defense companies focused on domestic issues such as jobs, an underlying notion of defense cooperation between the countries continues to this day. U.S. lawmakers do not have any large reservations about fighter jet exports to South Korea because of the trust that has grown throughout the years. Most of the U.S. concerns deal with percentages of domestic manufacturing which contributes to the U.S. economy. As with all types of arms sales, U.S. lawmakers also remain cautious of the proliferation of technology.

Findings

Although the Executive Branch has the leading role in arms sales to foreign countries, the examined period showed a scarce amount of decisions from the Executive Branch in terms of fighter jet exports to South Korea. The Defense Department had roles in providing information to the South Korean government about fighter jet capabilities, but otherwise the presidents did not take strong public positions on fighter jet exports to South Korea.

In spite of the relative lack of visible presidential decisions, congressional decisions were a significant factor in the policymaking of fighter jet exports to South Korea. The topic of American jobs was on the minds of members of Congress. While an order by a foreign country usually brings jobs and money to the country, a few members were concerned about the percentage of domestic and international manufacturing in the 1991 F-16 deal. Thus, some members of Congress such as Rep. Gephardt opposed the F-16 deal because of its provisions for high percentages of South Korean manufacturing that would reduce the need for American jobs. Regardless of the opposition, Congress voted to authorize the export of F-16 aircraft to South Korea in 1992. By 2002, Congress was on the verge of approving a deal for F-15 exports to South Korea. Congressional leaders from the F-15's home state, Missouri, were the key supporters of exporting the F-15. After debate, Congress approved of the F-15 deal in 2002. In more recent years, the discussion has turned to the potential export of the F-35 to South Korea. Congress has not made any final decisions yet, and South Korea continues evaluating its options.

Lobbying by defense companies had a role in the development of fighter jet export policy to South Korea. General Dynamics contributed large amounts of money to key congressional officials, and Congress approved of the deal to sell the company's F-16 fighter jets to the

ROKAF in 1991. Around 2002, Boeing made significant campaign contributions to congressional leaders from Missouri, the state in which the F-15 is manufactured. In recent times, Lockheed has stepped up its lobbying in an effort to sell its F-35 to South Korea. The company contributed large amounts of money to key congressional representatives who vote in favor of the company, including Rep. Granger from the F-35's home state of Texas. While none of the members of Congress has publically commented on the issue of F-35 fighter jet exports to South Korea, Congress has substantial support from defense companies that could sway decisions.

Foreign threats impacted U.S. fighter jet export policy due to North Korea's acts of aggression throughout the years. The two countries maintain close diplomatic and defense ties in the light of North Korea's ballistic missile and nuclear tests. These tests directly threaten U.S. interests in East Asia. The fighter jet exports to South Korea cements the relationship against North Korea's threat.

Building upon the threat from North Korea, the need for defense cooperation and interoperability was significant to leaders in the USAF and ROKAF. Operating the same types of fighter jets allow the two air forces to conduct joint training exercises to simulate a variety of threats and prepare for an attack. Maintenance support and refueling exercises become much easier due to similar types of fighter jets.

Future Policy Considerations

Although the U.S. export policy of fighter jets to South Korea remains open, South Korea appears to be moving toward a more independent direction in terms of fighter jet technology. U.S. and South Korean manufacturing companies have worked closely together with the licensed

production of fighter jets in South Korea. This sharing of technology and manufacturing capabilities has helped with the progression of South Korea's aerospace industry. KAI, with assistance from Lockheed, is developing the T-50 jet trainer aircraft for the ROKAF and is planning to export the aircraft to foreign air forces. While jet trainer aircraft are not as advanced as modern fighter jets such as the F-35 and F-22, Lockheed's assistance is helping the company gain knowledge that could help it in future fighter jet development. The current homegrown fighter jet project in South Korea is the KF-X program. KAI is leading the development of the KF-X stealth fighter jet with hopes of completing the design by 2020 (Trimble 2011b). The KF-X would be a breakthrough in the realm of fighter jets for South Korea, and it indicates a more independent path in the future.

In spite of South Korea's development of homegrown fighter jets, the U.S. policy toward South Korea could be shaped in two different ways. As long as North Korea remains a threat, the U.S. is ready and willing to export future fighter jets to the country as a part of regional defense. Thus, fighter jet exports to South Korea could remain as important as today. The other possibility is that future versions of U.S. fighter jets could provide supplementary support to homegrown fighter jets while maintaining interoperability with the USAF. Even with the development of the KF-X, it is too early to determine whether the aircraft will meet its planned specifications in terms of stealth and performance. In conclusion, U.S. fighter jet exports to South Korea should remain important well into the future.

CHAPTER FOUR – FIGHTER JET EXPORTS TO TAIWAN

The Republic of China (ROC), commonly called Taiwan, is the third and final country highlighted in this thesis. Of the three countries, Taiwan has the most policy controversy surrounding it because of China's claims on the island of Taiwan. Therefore, selling military equipment, especially fighter jets, carries inherent political messages regarding U.S. diplomatic relations in Eastern Asia. The U.S. has a history of allowing the Republic of China Air Force (ROCAF) to purchase fighter jets, but on a much more restricted scale compared to the other two case studies. Recently, the ROCAF's aircraft are aging and posing a potential risk from mainland China. The ROCAF operates older models of the Lockheed Martin F-16, and Taiwan's government is urging the U.S. to allow the export of brand new F-16s. The U.S. remains in a position of selling more fighters to Taiwan, but there remains a hesitancy not found in the cases of Japan and South Korea. However, the rising confidence of the People's Republic of China (PRC) threatens to hamper diplomacy with the United States. Nevertheless, the U.S. government may continue to allow the export of fighter jets to Taiwan as a counterweight of China's growing power in Asia.

Historical Background

U.S. fighter jet exports to Taiwan date back to the development of the first generation of fighter jets following the end of World War II. At the time, China was in a state of civil war between the Communists and Nationalists. The leader of the Nationalists, Chiang Kai-Shek, fled mainland China with his supporters and sought refuge in what is now Taiwan. In 1950,

President Truman did not seek to get the U.S. involved militarily in the civil war (Staaveren 1962, 3). However, U.S. policy toward Taiwan changed with the start of the Korean War in East Asia. Truman, with the guidance of the Joint Chiefs of Staff (JCS), realized the threat to U.S. interests in the region and decided to defend Chiang Kai-shek's government in Taiwan from the Communists (Staaveren 1962, 3). Following the end of the Chinese Civil War in 1950, there was a lull between China and Taiwan. In 1954, there was an outbreak of fighting between the Chinese Communists and Chinese Nationalists in the islands near Taiwan, which would later be called the First Taiwan Strait Crisis. As a result of America's commitment to Taiwan, the USAF sent a squadron of North American F-86 Sabre aircraft from the 15th Fighter Wing to Taiwan. The USAF F-86 would conduct the bulk of the air defense with support from the ROCAF's American-made F-84 fighter-bombers. As the First Taiwan Crisis ended, the U.S. and Taiwan evacuated the Tachen Islands ahead of an imminent threat of Chinese Communist invasion. With the setback, improvements to U.S. defense policy, especially in terms strengthening Taiwan's defensive capabilities, were necessary.

One of the immediate results of the First Taiwan Crisis was the export of 60 F-86 aircraft to the ROCAF in August 1958 (Staaveren 1962, 14). The F-86 aircraft would accompany the ROCAF's existing fleet of F-84 fighter-bombers. By 1958, the ROCAF operated approximately 500 American-made fighter jets (Staaveren 1962, 10). Around the same time, mainland China was building up the country's air force using MiG-17 aircraft. The ROCAF felt it needed more aircraft and asked the U.S. for the North American F-100 Super Sabre to help counter China's growing air force power. In August 1958, the U.S. Department of Defense quickly approved of a plan to export six F-100 aircraft to the ROCAF (Staaveren 1962, 15).

The export of the F-86 and F-100 were the first two U.S. fighter jet types exported to Taiwan. The export of these aircraft was crucial for Taiwan's defensive buildup against the threat of Chinese aggression. The aircraft were quickly put to the test in September 1958 when China fired shells at two islands that were under the control of Taiwan. The incident, referred to as the Second Taiwan Strait Crisis, increased tensions in Taiwan and sparked a U.S. response to the incident. The USAF sent F-86, F-100, F-101, and F-104 fighter jets to support the ROCAF efforts against China (Staaveren 1962, 15). The USAF and ROCAF F-86 and F-100 operated alongside each other, although the USAF took a lead role in any planned attacks.

Under an official U.S. Military Assistance Program (MAP), the U.S. continued to export F-86 and F-100 aircraft to the ROCAF as a part of a U.S. military build-up plan to ensure Taiwan's defense (Staaveren 1962, 16). Some of the ROCAF F-86 aircraft were converted for reconnaissance usage near mainland China. The U.S. also exported the McDonnell F-101 and Lockheed F-104 to the ROCAF. Some of the aircraft sent to the ROCAF were not direct U.S. exports. Mitsubishi in Japan manufactured some of the F-104J aircraft exported to Taiwan. The U.S. allowed for the transfer of several refurbished and surplus F-104 to the ROCAF (Staaveren 1962, 16). Although Japan manufactured the jets, the aircraft remained U.S. designs and technology.

In 1978, the next fighter jet sold to Taiwan was the Northrop F-5E/F. The U.S. exported the first 48 F-5 aircraft to Taiwan, but what makes this aircraft important in U.S. policy is the licensing of local production (Minnick 2006). The U.S. Government and Northrop agreed to sell Taiwan the license to manufacture 250 of the F-5 aircraft locally. The Taiwanese company responsible for the F-5's manufacturing was Aerospace Industrial Development Corporation

(AIDC). This licensing agreement between the U.S. and Taiwan was another step closer in defense cooperation. AIDC would use the manufacturing experience it gained from the F-5 program to develop its own fighter jets in future years.

After reaching agreement on the F-5 in 1978, the nature of U.S. fighter jet exports to Taiwan came to a standstill until 1992. During this period, there were no new agreements for exporting fighter jets to Taiwan. Furthermore, the Reagan administration blocked the export of arms and fighter jets to Taiwan due to concerns over mainland China (Richardson 1992). The U.S. Government policy seemed to go against Taiwan's requests for fighter jets from the U.S.

The ROCAF currently operates the American-made Lockheed F-16A/B and Northrop F-5E/F. In addition to the U.S. fighter jet models, the ROCAF also operates France's Dassault Mirage 2000-5 fighter jet along with a domestically manufactured AIDC F-CK-1 Ching-kuo. Therefore, the nature of ROCAF's fighter jet fleet makes it a competitive environment for the U.S. and other countries.

1990-2000

In 1992, the Bush administration approved of the sale of 150 Lockheed Martin F-16A/B fighter jets to Taiwan. The F-16 aircraft would allow for the modernization of the ROCAF's fleet of fighter jets. Taiwan had hoped to obtain the F-16C/D, the latest and most advanced variant of the F-16 family. However, the U.S. Government had doubts about exporting the F-16C/D and opted for the older and less advanced variant. Nevertheless, the 1992 agreement to export F-16s to Taiwan was a major milestone in U.S. fighter jet export policy since the F-5 agreement in 1978.

In 1995 and 1996, China conducted a series of ballistic missile tests near the coast of Taiwan that raised tensions in the region. China also conducted military exercises comprising of live ammunition drills from its ground-based forces. These series of incidents over a two-year period would be called the Third Taiwan Strait Crisis. Based on the Taiwan Relations Act of 1979, the U.S. was in a position to assist Taiwan against China. The Clinton administration responded to the incident by ordering an aircraft carrier, the USS *Nimitz*, to the region (Scobell 1999, 10). The crisis did not have direct affects on the U.S. policy of exporting fighter jets, but some observers say the U.S. sale of 150 F-16s to Taiwan in 1992 may have been one of the contributing factors in China's show of aggression (Scobell 1999, 13). Nevertheless, the Third Taiwan Strait Crisis indicated the U.S. willingness to assist Taiwan defensively.

2000-Present

From 2000, U.S. policy toward Taiwan was a continued willingness to help the country with its existing fleet of F-16 aircraft. Taiwan also began looking for replacements for its older fleet of F-5 and Dassault Mirage 2000 aircraft. Taiwan submitted requests for new-build F-16C/D or F-35 aircraft from Lockheed, but the U.S. Government had reservations about the request ("Taiwan Covets" 2009). In addition to the U.S. requests, ROCAF Lt. Gen. Wu Chien-hsing confirmed that Taiwan also considered the Eurofighter Typhoon, Dassault Rafale, or a locally produced aircraft by AIDC ("Taiwan Covets" 2009). The Rafale was one of the top non-U.S. options since the ROKAF already operated the Dassault Mirage. However, Taiwan never seriously considered the European choices when compared to the U.S. aircraft. Taiwan was strongly in favor of purchasing U.S. fighter jets for its air force despite operating some European-made aircraft. Of the two U.S.-made aircraft, Taiwan was more interested in the F-35

due to its stealth technology and vertical take-off/landing capabilities (“Taiwan Covets” 2009). If China were to attack Taiwan, then some of the first targets would be the ROCAF bases. The vertical take-off capabilities of the F-35 would allow it to operate in the event of the runway being damaged or destroyed. The F-35’s stealth technology would also provide an advantage over China’s fighter jets. The F-16C/D, on the other hand, was also a suitable option for supplementing Taiwan’s older fleet of F-16A/D. In April 2006, Taiwan submitted a formal request to the U.S. Government and Lockheed for a \$5.5 billion purchase of 66 F-16C/D (Minnick 2006). Ultimately, the U.S. Government refused to grant Taiwan’s wishes for new F-16 and F-35 aircraft. Both the F-16 and F-35 are not controversial aircraft loaded with top-secret technologies such as the F-22. Furthermore, both the F-16 and F-35 are widely sold to foreign countries as exports models. As with any case of exporting fighter jets to Taiwan, the question of China’s reaction is important in formulating policy. Indeed, this may have been the most important factor in determining fighter jet export policy to Taiwan. The bottom line is that a combination of domestic and international factors worked against Taiwan’s latest requests for new fighter jets from the U.S.

During this period, Taiwan also asked the U.S. for upgrades to its older fleet of F-16A/B. John Giese, Lockheed’s Senior Manager for International Communications, was eager to assist Taiwan in upgrading its F-16A/B fleet (Minnick and Sung-ki 2010, 16). Officials in the U.S. Government, however, must approve of the upgrades before Lockheed makes a commitment to Taiwan. While the debates concerning the export of new F-16C/D or F-35 ended unsuccessfully, the U.S. Government approved Taiwan’s request for upgrades to its F-16A/B fleet.

The Case for Sales to Taiwan

Unlike fighter jet sales to Japan and South Korea, sales to Taiwan bring several important U.S. foreign policy implications in East Asia. The U.S. domestic and economic factors resemble those of the Japan and South Korea case studies. An increase in fighter jet exports can bring increased revenue for defense companies and keep Americans employed. The source of the controversy about exporting fighter jets to Taiwan remains the political issue of mainland China. Beijing's government claims that Taiwan falls under the sovereignty of mainland China. Therefore, the U.S. policy of exporting fighter jets to Taiwan carries heavy implications on this triangular relationship. By selling new aircraft to Taiwan, the U.S. and Taiwan could strengthen diplomatic and defensive ties. However, the act of selling aircraft to Taiwan could anger China's government and weaken diplomatic relations between the U.S. and China.

Domestic Factors

Decisions by the Executive Branch

In 1992, the Bush administration was directly involved with the decision to export 150 F-16A/B fighter jets to Taiwan. However, a Reagan administration ban on exporting arms to Taiwan remained a key part of U.S. policy at the time (Richardson 1992). The Bush administration reversed the policy and announced the expansion of arms exports to Taiwan. The presidential election of 1992 may have been a contributing factor for the timing of this announcement (Towle 1992, B1). By announcing the purchase before the election, the Bush campaign could gain last-minute votes from employees and other supporters of Lockheed who benefit from the announcement and more generally reassure foreign policy hawks who may have

doubted Bush's conservative credentials. It is difficult to say if the announcement made an impact on the election since the president lost his reelection bid. Another factor contributing to the timing of the announcement was China's purchase of 70 Russian-made Sukhoi Su-27 fighter jets (Richardson 1992). Thus, selling fighter jets to Taiwan would boost its defense against China's latest efforts to modernize its air force. Even though the F-16 sale went smoothly, the Bush administration chose to export the F-16A/B rather than the more advanced F-16C/D as Taiwan hoped. The F-16A/B were cheaper and less controversial to export to Taiwan. The President stated the fighter jets would "help maintain peace and stability in an area of great concern for us - the Asia-Pacific region" ("Bush Announces Sale" 1992).

In 2003, officials from the Defense Department expressed concern about Taiwan's defense capabilities amid China's growing military budget. One suggestion was getting Taiwan to join the F-35 Joint Strike Fighter program as a Security Cooperative Partner (SCP) ("Taiwan Must Get" 2003). The SCP program allows a country with limited access to the cooperative development process of the F-35. Taiwan could obtain firsthand details of the program with the option of purchasing the aircraft. As with any country joining the F-35 as a SCP, Taiwan would have to pay \$75 million to join the program. Despite the Pentagon's interest in getting Taiwan to join the F-35 program as a SCP, Taiwan did not join ("Taiwan Must Get" 2003). The president remained hesitant to get Taiwan involved in a program that would anger China. Taiwan maintained its interest in the F-35 program despite the hesitant U.S. presidential administrations, and Taiwan would continue to request new fighter jets from the president in future years.

In 2006, Taiwan submitted a request to the U.S. Government for 66 F-16C/D fighter jets. Officials from the State Department and the National Security Council had qualms about the

issue and pressured the president to refuse Taiwan's request (Minnick 2006). The Defense Department was keenly aware of the impacts to the U.S.-China relationship in the case of exporting new F-16s. On the other hand, the State Department did not overtly oppose Taiwan's request, but it alluded to future discussions with Congress before final decisions were made (Minnick 2006). Debates within the Bush administration came to a standstill without any approval of Taiwan's request for new-build F-16C/D models.

In 2010, the Defense Department conducted a full assessment of Taiwan's military capabilities. The report submitted to Congress claimed that not all of Taiwan's approximately 400 fighter jets are "operationally capable" against China (House "Why Taiwan" 2011). Furthermore, Taiwan was preparing to retire its older fleet of F-5 and Mirage aircraft, which would lower its overall fleet size to below 400 aircraft. This would certainly mean an overall reduction in Taiwan's air power, and this could provide a basis for exporting new fighter jets to Taiwan.

With the release of the Defense Department report, the Obama administration brought up the topic of F-16C/D exports in late 2011. The debate within the White House was whether to sell new F-16C/D aircraft or upgrade the existing aircraft. Congressional supporters urged the president to approve of the sale of F-16s to Taiwan, but the administration was hesitant to approve of Taiwan's request. The administration initially opposed selling new fighters to Taiwan due to concerns about angering mainland China. In 2011, the Obama administration decided to provide upgrades to Taiwan's existing fleet of F-16A/B aircraft (Bogardus and Level 2011, 16). The president authorized the USAF to make the final decisions regarding upgrades to Taiwan's F-16 fleet, which brought some outrage from Taiwanese government officials who

thought the country should choose what upgrades it wants (Minnick 2012, 21). According to the deal, the USAF will choose which systems get upgrades and submit the proposals to Taiwan's government.

Decisions by Congress

The Bush administration sent a notification to Congress in 1992 concerning the imminent agreement to export the F-16A/B to Taiwan. Since the president was traditionally responsible for arms exports, Congress maintained its power to provide oversight of arms deals. The F-16 sale to Taiwan did not draw disapproval in Congress since many thought the deal would bring jobs to states such as Texas, the home of the F-16's manufacturing facility.

On June 26, 2011, the U.S. House Committee on Foreign Affairs convened to discuss the issue of exporting new fighter jets to Taiwan. The meeting, entitled "Why Taiwan Matters," focused on the U.S. commitment to defending Taiwan under the Taiwan Relations Act of 1979 (H.R. 2479). U.S. Rep. Ileana Ros-Lehtinen (R-FL) articulated the need for exporting F-16C/D fighter jets to Taiwan as a means of defense against China's 1,600 ballistic missiles pointing toward Taiwan (House "Why Taiwan" 2011). Congressman Eni Faleomavaega, a Democrat representing American Samoa, supported Taiwan's request for any number of F-16 fighter jets it needs as deterrence against China (House "Why Taiwan" 2011). University of Miami Political Science Professor June Dreyer testified at the hearing and thought the F-16C/D aircraft were not enough to match the capabilities of China's next-generation fighter jets (House "Why Taiwan" 2011). Prof. Dreyer thought the U.S. should pursue further ways of enhancing Taiwan's defense, although specific types of fighter jets were not mentioned. Another expert witness to testify at the hearing was Randall Schriver, President of the 2049 Institute. He remarked that the F-16C/D

exports to Taiwan would provide no deterrence against China's ballistic missiles, but he thought the gesture of exporting the aircraft would highlight the U.S. commitment to Taiwan (House "Why Taiwan" 2011). He told the congressional representatives serving on the committee that Taiwan needs an updated aircraft like the F-16C/D or F-35 to ensure a high capability of responding to Chinese attacks. As the hearing ended, most of the comments regarding the export of fighter jets to Taiwan were positive. Congressional and expert opinions coincided with support for exporting the F-16C/D to Taiwan.

The Taiwan Airpower Modernization Act of 2011 (S. 1539 and H.R. 2992) called the president to export at least 66 F-16C/D fighter jets to Taiwan. The act acknowledged the threat from China and the economic benefits of exporting the jets. The sponsor of the Senate bill was Senator John Cornyn (R-TX) while the sponsor of the House version was Representative Kay Granger (R-TX). Both of the sponsors represent the state of Texas, which is the home of a large manufacturing facility for Lockheed's F-35 and F-16 programs. In August 2011, Sen. Cornyn, along with 45 Senators and 181 Members of the House, called on President Obama and Secretary of State Clinton to approve of the sale of F-16 jets to Taiwan (Cox 2011a). Sen. Cornyn's actions reflect the time-honored role of the president conducting major arms sales to foreign countries as reflected in the Arms Export Control Act of 1976. As the leader of foreign policy, the president has the authority to sell the F-16 to Taiwan, but the president did not make an immediate decision. Sen. Cornyn used another tool of leverage by stalling the nomination of President Obama's deputy secretary of state (Cox 2011). In the event of the president's denial of selling F-16 fighter jets to Taiwan, Sen. Cornyn was ready for the next step of sponsoring the

Taiwan Airpower Modernization Act. He believed the bill had enough supporters in Congress to authorize the sale without the president's approval (Cox 2011).

Since 2012 was an election year, a congressional decision to approve exporting new fighter jets to Taiwan might have affected voters in two key battleground states by bringing additional defense jobs to Florida and Ohio (Mozur 2012). However, neither Congress nor the president announced new fighter jet exports to Taiwan before or after the election.

Lobbying

Lockheed Martin, the manufacturer of the F-16 and F-35, is naturally the strongest supporter of exporting fighter jets to Taiwan. Following the Bush administration rejection of Taiwan's request to purchase 66 F-16C/D aircraft in 2006, Lockheed remained devoted to obtaining approval for the aircraft's export to Taiwan. The company claimed that 11,000 jobs (including suppliers) throughout the U.S. could be maintained through the export of the F-16 (Minnick 2006). Lockheed began its work convincing members of Congress to vote in favor of exporting the F-16C/D or F-35 to Taiwan. During the 122th U.S. Congress, Lockheed officially supported the passage of the Taiwan Airpower Modernization Act of 2011 (S. 1539 and H.R. 2992) calling for the export of a brand new multirole fighter jet to Taiwan (Walters 2012, 16). The fighter jet, most likely the F-16C/D, would allow Lockheed to keep 2,300 employees at its Fort Worth, Texas manufacturing facility (Cox 2011). As of 2011, Lockheed was looking for sales of its F-16 because it only had enough orders to keep the assembly line open until 2013, and the sale of aircraft to Taiwan would keep the line open much longer (Cox 2011).

Campaign contributions from defense companies were one way of influencing congressional votes on the issue of fighter jet exports to Taiwan. One of the largest recipients,

Rep. Granger received over \$200,000 worth of campaign contributions from Lockheed since entering office in 1997 (“Kay Granger Campaign”). Rep. Granger happens to be a large proponent for the F-35 program, and she fully supports legislation that benefits Lockheed. The close relationship between Lockheed and Rep. Granger paid off in the case proposed F-16C/D exports to Taiwan. Rep. Granger was the sponsor of the Taiwan Airpower Modernization Act of 2011 that proposed selling 66 F-16C/D aircraft to Taiwan (H.R. 2992). Although no aircraft were exported, Lockheed has remained influential in Congress through its lobbying efforts.

In addition to lobbying by defense companies and parts suppliers, Taiwan has hired several former U.S. congressional staffers and legislators to lobby on behalf of the country on Capitol Hill (Bogardus and Leven 2011, 16). This lobbying group, Park Strategies, received \$250,000 from Taiwan’s government to lobby for the export of the F-16C/D fighter jet (Bogardus and Leven 2011, 16). The lobbyists reached out to congressional leaders who were responsible for the export policy of the jet, including Rep. Ros-Lehtinen who introduced a provision calling for the sale of F-16s to Taiwan (Bogardus and Leven 2011, 16). President Obama turned down this provision due to concerns about increasing tensions with mainland China (Mark 2011, 10).

International Factors

Foreign Threats

Because of the political situation surrounding Taiwan’s existence, the main foreign threat throughout contemporary history is China. A total of three different crises occurred between China and Taiwan since 1954. In the Second Taiwan Strait Crisis, the ROCAF used American-

built F-86 fighter jets to counter the air power from Chinese MiGs. Most recently, tensions rose to a high during the 1995 and 1996 Third Taiwan Strait Crisis as China tested ballistic missiles near the Taiwan Strait. The U.S. felt it was within its sphere of influence and responded in favor of Taiwan by sending aircraft carriers to the region. Congress's passage of the Taiwan Relations Act in 1979 showed a commitment to Taiwan in the event of an attack by China. Although the act does not explicitly state the use of military force in Taiwan's aid, it leaves the door open to U.S. military involvement. Therefore, the U.S. Government has shown its willingness to aid Taiwan in the event of an attack.

China's recent developments of an aircraft carrier and stealth fighter pose a threat to Taiwan. China's navy has begun landing and take-off tests using Shenyang J-15 fighter jets on a modified former-Soviet ship (Majumdar 2012). While it will be years before China has perfected the technology involved with aircraft carriers, the whole idea of developing an aircraft carrier shows China's resolve to expand its influence in the Western Pacific. Even though China has ballistic missiles within short range of Taiwan, the aircraft carrier could supplement the ballistic missiles in secondary attacks. Taiwan has no plans of developing its own aircraft carrier, but China's development of an aircraft carrier would put more pressure on U.S. naval and air forces in the Western Pacific.

The development and testing of the Chengdu J-20 stealth fighter jet also places high risks on the political situation in East Asia. Defense policy observers suggest that the J-20 would outperform most fighter jets other than the F-22 (Kopp and Goon 2011). Taiwan, on the other hand, possesses no stealth fighter jets to counter China's increasingly advanced air force. This may be a reason for the U.S. to export a fighter jet with stealth technology to Taiwan, such as the

F-35 or F-15SE. However, the likelihood of F-35 exports to Taiwan remains low as the White House does not want to heighten tensions with China. Congress has supporters of F-35 exports to Taiwan, but the actions have been unsuccessful thus far.

Defense Cooperation

The U.S. has a history of assisting Taiwan in the event of attacks from China, as witnessed in the three Taiwan Strait Crises. Despite the close ties between the U.S. and Taiwan, the USAF and ROCAF do not hold regular joint military exercises as with other neighboring U.S. allies, Japan and South Korea. The ROCAF's fighter jet fleet has some commonalities with the USAF, but it is limited to the F-16. A key difference between ROCAF and USAF versions of the F-16 is the age and onboard technology. The ROCAF operates only older versions of the F-16A/B, while the USAF operates newer F-16C/D versions. The ROCAF also operates aging F-5 aircraft which the USAF retired many years prior. The remaining aircraft in the ROCAF fleet are the European Mirage 2000 and an indigenous AIDC F-CK-1 fighter jet. While there is some commonality in terms of the F-16, the USAF and ROCAF have different fleets and technologies that make joint military exercises difficult. Since 1990, the USAF and ROCAF operate independently of each other with no examples of joint training.

Conclusion

The U.S. export policy of fighter jets to Taiwan since 1990 has taken a more cautious approach than the previous years. While the U.S. exported fighter jets to Taiwan since the 1950s, the past two decades reveal a different approach to policy. The Bush administration authorized the last major sale of fighter jets to Taiwan in 1992, but no authorizations for new sales have

occurred since then. Discussions about the F-16C/D and F-35 were held in Congress and the Executive Branch, yet the two branches of government have not agreed on new fighter jet sales. Congress has taken an optimistic approach to fighter jet exports because of the jobs and revenue involved for the home states, but the Executive Branch weighs international concerns about the issue.

Why has the U.S. Government chosen to block Taiwan's requests for new fighter jets such as the F-16C/D and F-35? The answer is simple, China. While the U.S. recognizes China as a threat to Taiwan's existence, the act of exporting an advanced fighter jet, such as the F-35, would heighten tensions in a volatile region. Both China and the U.S. possess nuclear weapons, and any escalation in tensions resulting from fighter jet exports carries an inherent risk. From a rational theory perspective, Professor Charles Glaser (2011) agrees that a conflict over Taiwan's sovereignty would lead to a nuclear war. Glaser's views coincide with the Bush and Obama administrations' actions of blocking new fighter jet exports to Taiwan in order to lessen U.S. involvement and prevent a future escalation. Thus, China was the key reason for the Bush and Obama administrations to block fighter jet exports to Taiwan based on rational choice.

Findings

Decisions by the Executive Branch showed significant impacts on the development of U.S. fighter jet export policy to Taiwan. From the Bush administration's sale of F-16A/B aircraft to Taiwan in 1992, to the later debates about the F-16/CD and F-35 programs, presidents had influential opinions on the topic. Linkage was apparent in the timing of the 1992 sale, which coincided with a domestic factor (election year votes) and an international factor (China's purchase of Russian fighter jets). Since 2001, the Bush and Obama administrations showed

remarkable hesitancy toward exporting new fighter jets to Taiwan. Both presidents refused to approve of exporting new fighter jets to Taiwan citing an unnecessary rise in diplomatic tensions with China. The only recent agreement that a presidential administration approved of was the upgrade of Taiwan's F-16A/B with newer technologies. Otherwise, the presidents do not want to raise tensions with China for the sake of exporting new fighter jets to Taiwan.

Decisions by Congress also showed impacts on the development of fighter jet export policy. Generally, members of Congress had poignant opinions about exporting fighter jets to Taiwan. Members such as Rep. Granger live in states with a substantial defense industry, and the sale of fighter jets to Taiwan would bring economic benefits to the state in the form of jobs and revenue. Other members of Congress also cited the Taiwan Relations Act and the need for the U.S. to support Taiwan in the event of an attack from China. The theory of linkage politics is visible within the bill text for the Taiwan Airpower Modernization Act. Linkage showed its relevance when Congress specifically acknowledged both domestic factors (economic benefits from jobs) and international factors (threat from China) in the bill's text.

The issue of lobbying proved to be influential in congressional decisions, although it did not influence presidential decisions. The linkage theory of politics is witnessed when Lockheed claimed that the export of fighter jets would bring revenue and jobs to the U.S. as well as aiding Taiwan in its defense. Lockheed used a variety of lobbying methods from discussions with congressional representatives to campaign contributions. Indeed, campaign contributions to members of Congress coincided with the sponsoring of bills in favor of exporting fighter jets to Taiwan. Rep. Granger, the vocal supporter of Lockheed's F-35 program, was one of the largest receivers of campaign contributions from Lockheed. Lockheed's lobbying efforts toward Rep.

Granger may have paid off when she sponsored a House bill to sell 66 new F-16C/D fighter jets to Taiwan. Therefore, lobbying members of Congress was important in getting legislation on the agenda, but the overall success of selling fighter jets to Taiwan remains unclear.

International factors had mixed impacts on U.S. fighter jet export policy to Taiwan. The threat of China was a strong factor in shaping U.S. policy. The results showed two opposing views of the Chinese threat. The first view recognized the growing military power of China and its threat to Taiwan's defense. This view emphasizes U.S. interests in Taiwan's survival and the need to export fighter jets. Members of Congress and defense companies took this view toward exporting fighter jets to Taiwan. The opposing view looked at the Chinese threat from a diplomatic perspective. By exporting fighter jets to Taiwan, the threat of China on the U.S. would increase in military, diplomatic, and economic matters. Mainly officials in the Executive Branch expressed this view by rejecting Taiwan's requests for new fighter jets.

The topic of defense cooperation did not show any influence in U.S. fighter jet export policy to Taiwan since 1990. While the U.S. generally supported the defense of Taiwan through the Taiwan Relations Act, there was a lack of joint military exercises between the USAF and ROCAF. A key reason for the lack of military exercises is the makeup of the ROCAF's fighter jet fleet. The ROCAF operates a mixture of fighter jets from the U.S., Europe, and Taiwan. Therefore, defense cooperation is not a substantial factor in U.S. policymaking.

Future Policy Considerations

The U.S. export policy of fighter jets to Taiwan remains a contested topic among policymakers. Since the time of President Truman, U.S. policy has wavered between remaining neutral in the China-Taiwan debate and assisting Taiwan militarily. Nevertheless, the U.S. has

remained committed to ensuring Taiwan's defense against China as a pillar of U.S. policy in East Asia. Since 1990, a series of debates regarding whether to export brand new fighter jets to Taiwan has been a hotly debated topic. From the export of the F-16, to a denial of F-35 and additional F-16s shapes the current nature of U.S. policy toward Taiwan. U.S. fighter jets remain important, but hesitancy by the U.S. to export aircraft that Taiwan wants will shape future policies. In its own national interests, Taiwan may begin relying on its local industrial base for future defense needs. This need for Taiwan's defense spurs three possibilities for future U.S. policy toward Taiwan. The U.S. may choose to step back and allow Taiwan to build its own defense industry with less reliance on U.S. aircraft. This method reduces the risk of angering mainland China, but it poses risks to the security of Taiwan. Nevertheless, the U.S. appears committed to Taiwan's defense even without exporting fighter jets to the country. In the event of another Taiwan Strait Crisis, the U.S. would likely send military forces to protect Taiwan. The second option for the U.S. is a middle road of assisting Taiwan with the development of locally produced fighter jets while also exporting limited numbers of U.S.-manufactured fighter jets. Finally, the rising threat of China may push the U.S. to export additional advanced fighter jets to Taiwan. This action may resemble the time prior to 1978 when the U.S. exported steady amounts of fighter jets. Depending on the external circumstances, U.S. policy may fall into any of these three categories in the future.

CHAPTER FIVE – ANALYSIS AND CONCLUSIONS

Japan, South Korea, and Taiwan were similar, yet dynamic cases in terms of U.S. export policy of fighter jets. Based on the analysis of information since 1990, the results offer support for several of the original hypotheses, but in other cases, the results provided evidence rejecting some of the hypotheses. In addition to offering insight regarding the hypotheses, it is also possible to present assumptions of the future of U.S. fighter jet export policy to East Asia. Will U.S. policy continue as it is? On the other hand, will U.S. policy change due to emerging factors? After an overview of the future directions that U.S. policy may take, a presentation of future research possibilities in the fields of political science and international relations is provided as a basis for researchers to conduct further work in the field of fighter jet export policy.

Analysis of Hypotheses

The first hypothesis states that the decisions of the Executive Branch, specifically those of the President and executive departments, influences U.S. policy of fighter jet exports. The hypothesis was significant in both Japan and Taiwan's cases. The presidential administrations traditionally take charge in the field of arms exports, and the decisions were influential in the overall outcome of the policy. In the case of proposed F-22 exports to Japan, there were mixed opinions from within the Executive Branch, but most of the opinions were negative. Officials in the Defense Department had reservations about selling the F-22 to Japan because of concerns about China. Other concerns pertained to the proliferation of sensitive technologies within the F-22. Ultimately, the president chose to cut funding for the F-22 program. This action contributed to the ending of the F-22's production. In the case of F-16 exports to Taiwan, the Bush

administration made the original agreement in 1992 to sell F-16s as a move to gain votes prior to the election. As the years progressed to the Obama administration, the president opted against selling new F-16s to Taiwan. There was not enough evidence to prove the significance of the hypothesis in South Korea's case. The presidential administrations did not take a public position on the issue, and the actions of the Executive Branch did not indicate any significant impacts on fighter jet export policy to South Korea.

The second hypothesis states that decisions by members of Congress impact U.S. policy of fighter jet exports. There was enough evidence in all three cases to conclude the significance of congressional decisions in the development of U.S. fighter jet export policy. Members of Congress who lived in areas with a large defense industry presence tended to side in favor of the companies. Lockheed has a large presence in the state of Texas with the F-16 and F-35 assembly lines. Therefore, the federal legislators from Texas were also some of the largest supporters of exporting fighter jets to East Asia.

The third hypothesis states that defense company lobbying impacts U.S. policy of fighter jet exports. In all three cases, there is significant evidence to conclude the influence of defense company contributions to members of Congress. Lockheed, in particular, contributed large sums of money to congressional representatives who live within the same district or state as the company. Lockheed's financial contributions were one of the factors contributing to vocal congressional support of exporting the F-16 to South Korea and the F-35 to Japan. Other prominent legislators such as Sen. Inouye received large sums of money due to the influential position the person holds in Congress. In addition to defense companies, suppliers of fighter jet components also joined the lobbying efforts. Pratt & Whitney, the engine supplier for the F-22,

contributed money to members of Congress who were interested in lifting the ban on F-22 exports to Japan.

The fourth hypothesis states that the rise of China increases U.S. fighter jet exports to Japan and Taiwan and it receives mixed support. In the case of Japan, U.S. fighter jet exports continued at high levels since 1990. China's growing economic and military power threatens both U.S. and Japanese interests in East Asia. As China begins to become more assertive in the Senkaku/Diaoyu Island dispute, the need for fighter jets and U.S. assistance is evident. The recent deal to sell F-35 aircraft to Japan capped off the latest accomplishments in U.S. policy. Compared to Japan, Taiwan faces an even larger threat to its existence. As China claims sovereignty over the island of Taiwan, Taiwan has become increasingly independent throughout the years. The U.S. has officially supported the one-China policy, but historically the U.S. has supported Taiwan's side in the dispute. The U.S. support of Taiwan comes with a cautious attitude compared to Japan. Since 1990, the U.S. Government fears repercussions from mainland China, and it remains unwilling to export large amounts of fighter jets to Taiwan. Therefore, there is no visible increase in U.S fighter jet exports to Taiwan since 1990.

The fifth hypothesis states that the perceived threat of North Korea increases U.S. fighter jet exports to South Korea and Japan. This hypothesis receives support. In Japan and South Korea's cases, fighter jet exports to South Korea and Japan continue at high levels since 1990. North Korea's regular testing of ballistic missiles and nuclear technology threaten U.S. interests in the region, and the fighter jet exports help with overall U.S. defense policy by strengthening ties with allies.

The sixth hypothesis states that the desire for defense cooperation with Japan, South Korea, and Taiwan encourages U.S. fighter jet exports. Defense cooperation involving Japan and South Korea is a significant factor in fighter jet export policy. As evidenced by the regular joint military exercises between the U.S., Japan, and South Korea, the air forces operate similar types of fighter jets. The USAF and JASDF share commonalities with the F-15 fleet, while the F-16 and F-2 share some similarities as well. In the future, the USAF and JASDF will operate the F-35 when it officially enters service. Meanwhile, the USAF and ROKAF both operate fleets of F-15 and F-16 aircraft. The fleet commonalities make joint military exercises productive for all parties involved. Despite Japan and South Korea's strong cases of defense cooperation with the U.S., there was no evidence for defense cooperation between the U.S. and Taiwan in terms of joint military exercises. The USAF and ROCAF do not conduct joint military exercises even though the U.S. military may assist the Taiwan military in an event of an attack from China. Furthermore, the ROCAF fleet of fighter jets differs substantially from the USAF fleet. Other than the F-16, the ROCAF operates a mixture of older U.S.-made fighter jets, European fighter jets, and locally developed fighter jets. The differences between the fighter jet fleets make it difficult to conduct joint military exercises.

The seventh and final hypothesis states that domestic factors are more influential than international factors in determining U.S. export policy of fighter jets. The results suggest that domestic factors are more important than international factors in both Japan and South Korea's cases. The Executive Branch, Congress, and defense companies examine policy based on mostly national interests. Congressional leaders often cite the economic benefits of sustaining jobs within the aerospace industry as a result of exporting fighter jets. Additionally, lobbyists

contribute money to lawmakers in order to influence votes supporting the defense companies' goals. While foreign threats and defense cooperation were also factors in the determination of fighter jet export policy, the domestic factors were clearly at the forefront during policymaking discussions concerning Japan and South Korea. Conversely, international factors seem more influential than domestic factors in the development of fighter jet export policy to Taiwan. The same domestic factors played a role in discussions concerning fighter jet exports to Taiwan, but the international factors were most prominent in determining the final outcome. The main international concern of exporting fighter jets to Taiwan was a possible backlash from mainland China. Whereas China may threaten Taiwan and U.S. interests in the region, the U.S. policymakers see the export of fighter jets as increasing rather than lowering the threat due to backlash from the Chinese government. Thus, the U.S. Government refused to export the newest and most advanced models of its fighter jets to Taiwan. Even when the U.S. exported fighter jets to Taiwan, it was an older model such as the F-16A/B rather than the F-16C/D.

Overall Conclusions

After conducting the three case studies of Eastern Asian nations, the U.S. export policy of fighter jets becomes clearer than before. Several similarities exist between the U.S. export policies toward Japan and South Korea. Both countries face similar foreign threats from North Korea, and both countries have a history of cooperating closely with the U.S. on diplomatic and defensive issues. Historically, the export policies to Japan and South Korea have been relatively open with the exception of the F-22 program. The key difference between fighter jet exports to Japan and South Korea pertains to the type of aircraft. Japan was most interested in the advanced F-22 in spite of the high costs involved with procuring the aircraft. It was argued that

only Japan, Israel, and possibly Australia were the only real contenders in the debate about F-22 exports. With these three contenders in mind, the decision regarding the export of the F-22 turned into a long-drawn debate through different presidential administrations and meetings of Congress. Ultimately, the U.S. Government prohibited all foreign sales of the F-22 aircraft. As a result, the U.S. offered the F-35 as the next generation fighter jet for Japan. Conversely, South Korea was not as interested in the F-22 due to the high costs involved with procuring the aircraft. Instead, it was interested in a cheaper, yet capable fighter jet for its future source of air power. Japan's purchase of the F-35 may have influenced South Korea to purchase the best aircraft available. While South Korea has not yet decided to purchase the F-35, it remains a top contender. The F-35 was designed with exports in mind, so there was little debate about exporting the aircraft to Japan and South Korea.

In contrast to Japan and South Korea, Taiwan exhibits the most concern in terms of developing a successful policy for exporting fighter jets. The looming topic of mainland China threatens to restrict U.S. export policy significantly when compared to the other two case studies. The 1992 sale of F-16A/B aircraft to Taiwan shows a continued, yet hesitant policy of fighter jet exports to the country. As Taiwan searches for new fighter jets, the U.S. Government showed its hesitance by denying a larger F-16C/D purchase in late 2011. Instead, the Obama administration called for the upgrade of Taiwan's existing fleet of F-16A/B fighter jets. This action was a middle ground response that seeks to reinforce relations with Taiwan while not harming relations with China.

Despite the differences between the three case studies, applications of Rosenau's linkage theory of politics became evident throughout each of the studies. As policy passes through

Dye's process model of legislation, leaders in different levels of the government debate the issue of fighter jet exports. The Executive Branch, which sets the agenda for U.S. domestic and foreign policy, looks at all sides of fighter jet exports. The State Department may focus on the impact on diplomatic relations, such as the tensions between Taiwan and China. The Defense Department looks at primarily the impacts to U.S. national security from several standpoints. One national security standpoint is the concern over the proliferation of classified technologies on the F-22. This was most prominently noted during the debates about exporting the F-22 to Japan. Another national security aspect is regional security interests in East Asia. Threats from North Korea may highlight the need for defense cooperation with Japan and South Korea. Therefore, the Defense Department and the USAF examine ways that fighter jet exports would enhance regional security. In addition to advice by the executive offices, the president looks at domestic issues of fighter jet exports such as the creation of jobs. This was noted during the election period of 1992. The Bush administration's announcement to export 150 F-16A/B to Taiwan may have been a way to garner votes prior to the election. Just as with the Executive Branch, Congress debates the issue of fighter jet exports from a variety of perspectives. All three cases show evidence of domestic economic factors that influence congressional decisions. Defense company lobbying and the composition of local constituencies in the defense industry influence Congress to vote in favor of fighter jet exports. Lockheed contributed large amounts of money to congressional representatives from Texas, which is the home of its F-16 and F-35 assembly lines. In addition to economic factors, members of Congress also expressed international concerns of exporting fighter jets to East Asia. In the case of the proposed F-22 export to Japan, representatives pointed to national security concerns about the proliferation of

classified technologies. In the case of Taiwan, Rep. Granger of Texas showed immense interest in exporting the F-16 to Taiwan by sponsoring the Taiwan Airpower Modernization Act of 2011 aimed at strengthening Taiwan's defense against China. While Rep. Granger lived in Texas and received significant funding from Lockheed, she used international factors (Taiwan's defense) to justify her position regarding F-16 exports to Taiwan. Rep. Granger's case showed that domestic and international factors play a role in congressional debates about the export policy of fighter jets. Even though the act did not pass, the presidential administration made the final decision to block F-16 exports to Taiwan based on an international factor (China). As witnessed during the policymaking process, U.S. fighter jet export policy to East Asia comprises both domestic and international factors. An examination of just domestic factors or international factors would not provide a thorough view of the policy's development. Therefore, it is necessary to use the theory of linkage politics to analyze the formation of U.S. fighter jet export policy.

Future of Fighter Jet Export Policy

Based on the past and current state of fighter jet exports to East Asia, the policy appears to have worked well from a U.S. perspective. The three case studies had a series of high and low points in terms of the policy's outcome. Consequently, the U.S. Government had to adjust its fighter jet export policy in response to the phases in history. The two lowest points since 1990 include the blocking of F-22 exports to Japan and new-build F-16C/D to Taiwan. Each of the cases had legitimate concerns for the blockage, and an alternative solution was offered in both cases. The U.S. Government offered the F-35 to Japan, and the country purchased 42 of the new aircraft from Lockheed. Instead of selling new F-16s to Taiwan, the U.S. Government offered to upgrade the country's existing fleet of F-16 aircraft. Otherwise, the U.S. had finalized deals for

exporting the F-15 and F-16 to South Korea and the F-16 derivative, the Mitsubishi F-2, to Japan since 1990.

How does the future of U.S. export policy look for these three countries? The global fighter jet market is becoming increasingly competitive with manufacturers from the U.S., Europe, and Russia. With the exception of Taiwan, the three case studies operate mostly American-designed fighter jets in the respective air forces. Recent sales of fighter jets to Japan and South Korea reinforce the notion of a strong economic and defense relationship with the U.S. Consequently, the export relationships with the three East Asian countries do not have any signs of weakening from a U.S. policy perspective. The domestic benefits of securing American jobs and bringing profits to American companies are two factors in favor of fighter jet exports. As long as there are foreign threats from China and North Korea, there will be a need for Japan, South Korea, and Taiwan to maintain strong air forces. The U.S. appears willing to continue selling future generations of fighter jets to allies in Asia, but international factors within the three Asian countries may lead to a decreased need for U.S.-made fighter jets. Japan, South Korea, and Taiwan all have growing aerospace industries with goals of developing fighter jets in the future. In Japan's case, the ATD-X program has a goal of becoming the future F-3 fighter jet. There remains the possibility of U.S. cooperation in later stages of the aircraft's development, and the sharing of technologies between the U.S. and Japan is also likely. South Korea's aerospace industry is also emerging with plans for a homegrown fighter jet. The KAI's KF-X program aims to build a stealth fighter jet by 2020. Once developed, the KF-X could supplement South Korea's fleet of U.S. fighter jets. Taiwan already has a mixed fleet of U.S. and domestic aircraft in its air force because of the questions surrounding fighter jet exports. Although there

are congressional supporters of exporting fighter jets to Taiwan, the U.S. Government remains hesitant of directly exporting large numbers of advanced fighter jets to Taiwan due to concerns over mainland China. Taiwan's difficulties with purchasing new aircraft from the U.S. may cause the country to pursue a more independent path in terms of fighter jet development.

Contribution to Political Science

The interaction between U.S. domestic policy and U.S. foreign policy is one aspect that plays a significant role in the study of political science. Through the examination of U.S. policies of exporting fighter jets to East Asia, Rosenau's theory of linkage politics becomes evident in a real-world example of its usage. Furthermore, the case studies offer insight into the interactions between the U.S. Executive Branch, U.S. Congress, and the defense company interest groups. Traditionally called the Iron-Triangle, these three groups work closely together in terms of defense policy, but the topic of fighter jet exports may show additional defense policy and foreign policy connections between the groups.

Based on the existing literature, most journal articles are published in defense policy or military aviation journals. While many of the existing articles acknowledge political issues like congressional decision-making and lobbying, the presence of political science journal articles about the issue of fighter jet exports is scarce. The complexity of exporting fighter jets to foreign countries involves debates within the defense policy community, defense companies, federal government, and foreign governments. Therefore, political scientists can gain a greater understanding of the interaction between U.S. defense contractors, the federal government, and foreign governments.

Future Research

Because this thesis focused only on Japan, South Korea, and Taiwan, there are numerous other regions in the world open to future political science research. As stated in the limitations, the factors influencing the U.S. policy of exporting fighter jets may differ according to the region being examined. Why is this? External factors including unstable political situations or foreign threats enter the analysis and may lead to different conclusions when compared to Eastern Asia. Therefore, it would be relevant to conduct separate research projects on the U.S. policy of exporting fighter jets to Middle East, Europe, and South America. The studies could be in the form of case studies such as this thesis. Conducting case studies of different regions around the world can offer a broader understanding of the complexities of exporting fighter jets. Each region has different external factors that influence the decision-making process, and conducting case studies of the other regions would contribute significantly to future political science research.

Another area for future research relates to the general topic of arms exports. Because this thesis focuses only on the export policy of fighter jets, other topics within the aerospace industry could also be examined in future research. Case studies about the export of aerial refueling tankers to countries like Italy and Japan would be a good place to start. The international competition surrounding aerial refueling tankers is much less than fighter jets, but it still represents an important arms export. Boeing and Airbus compete for the sale of refueling tankers to foreign countries, and it would seem viable to conduct case studies about the export policy of refueling tankers. On a related note, the export policy of aerial transports like the Lockheed C-130 Hercules and the Airbus A400M Atlas is another aerospace topic that could be

useful for future research. In both cases, the aerial refueling tankers and aerial transport aircraft do not carry as much controversy as the fighter jets due to the lack of onboard weaponry, but the basic question about exporting other forms of aircraft would be a good topic for future political science journal articles.

Final Thoughts

U.S. export policy of fighter jets to East Asia experienced a series of high and low points within the three case studies. In Japan's case, the mutual security agreement ensures U.S. support in the event of a foreign attack. The U.S. Government has considered the close diplomatic and defense relationship in its development of fighter jet export policy to Japan. Throughout the years, the policy of exporting fighter jets to Japan has been relatively liberal. Agreements regarding local production are a keystone depicting the closeness between the U.S. and Japan. However, the blockage of F-22 exports to Japan was the lowest point in the case study. The reasons for blocking F-22 exports were based primarily on domestic factors relating to decisions by U.S. leaders and concerns about national security. In spite of the F-22's blockage, the U.S. will continue to export new fighter jets such as the F-35 to Japan.

South Korea's case showed similar evidence to Japan's case because of the perceived threat of North Korea. Ever since the Korean War, the U.S. has strongly supported South Korea in military matters. As with Japan, the local production of fighter jet components is an aspect showing the close cooperation between the U.S. and South Korea. In recent times, South Korea has not yet made a decision about purchasing a next generation fighter jet. The F-22, which was on South Korea's wish list, was not a serious contender in U.S. fighter jet export policy when

compared to Japan's case. Despite the blockage of F-22 exports, the U.S. appears willing to offer South Korea new fighter jets such as the F-35 or F/A-18.

Debates about exporting fighter jets to Taiwan drew the most controversy among U.S. policymakers. The rise of China in economic and military power sends a cautious signal to the U.S. about exporting military equipment to Taiwan. While the U.S. has historically sided with Taiwan in times of conflict with China, the one-China policy remains the official position of the U.S. China's growth poses a threat to future U.S. decisions of exporting fighter jets to Taiwan. Instead of selling new fighter jets, the U.S. has opted for a safer solution of providing upgrades to Taiwan's present fleet of fighter jets.

All three cases show the importance of East Asia in terms of U.S. fighter jet exports. All three countries face perceived external threats, and all three countries are key markets for U.S. fighter jets. U.S. defense companies remain steadfast in lobbying U.S. policymakers to develop policies in favor of fighter jet exports. Therefore, the U.S. appears willing to export fighter jets to East Asia, but some obstacles regarding the protection of classified technologies and the growth of China remain on the minds of U.S. policymakers.

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