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The Potential Effects of the Trans-Atlantic Common Aviation Area on Shannon Airport, Ireland

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Abstract:

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The Trans-Atlantic Common Aviation Area is a proposed liberalization of the air services agreements known as bilateral agreements between the United States of America and the member states of the European Union. The new agreement would replace the restrictive bilateral and Open Skies bilateral agreements between the United States and the EU with a single comprehensive agreement. The emergence of true open skies between the US and EU creates many economic opportunities and some economic threats. One such threat is the situation faced by Shannon Airport, Ireland. Under the current US/Ireland bilateral, Shannon's existence is protected by requiring US carriers to serve Shannon with the same frequency they serve Dublin International Airport. Under TCAA rules, air carriers will be able to serve any destination at any frequency they desire (with the exception of airports such as London Heathrow, where limited slots are allocated). Ireland as a whole will benefit from the opening of the TCAA, as it is expected to increase tourism to the country, bringing in an additional 160,000 tourists annually. Regionally, the west of Ireland will see an economic downturn caused by the opening of the TCAA. The economy of the west is pegged to the success of Shannon Airport and the industries which Shannon supports. The TCAA will have the impact of a dramatic reduction of air services to Shannon, a reduction of direct foreign investment in the west, a loss of jobs in the region, and a reduction in tourism as access to the region is reduced. US carriers are almost certain to relocate all operations from Shannon Airport to Dublin Airport under the TCAA. In the EU countries with which the US has an Open Skies agreement, greater than 95% of US airline traffic enters through a single city. Further complicating the issue is the breakup of the Aer Rianta, the government owned airport management group under which Shannon, Dublin, and Cork Airports were managed. The 2004 State Airports Act separated the Irish components of the company into three new, independent airport authorities, each individually responsible for their financial well being. The Shannon and Cork Airport Authorities will start out debt free, while the Dublin Airport Authority will assume the total debt of the former Aer Rianta group. Research indicated that while the Aer Rianta group was profitable in 2003, Shannon Airport would have posted significant losses if it had been listed separately from the Aer Rianta group. Under the TCAA, Shannon could lose up to €16 million or more a year. A history lesson can be taken from the situation faced by Glasgow Prestwick International Airport, the former sole international gateway to Scotland. As in Ireland, heated debate occurred as to how Prestwick would be affected if international gateway status was granted to Glasgow Abbotsinch Airport. To survive, Prestwick changed its focus from passenger traffic to cargo, enticed a low cost carrier (Ryanair) to hub operations there, and improved the ground infrastructure between the airport and the nearest large city, Glasgow. If Shannon is to survive the post-implementation of the TCAA, its caretakers need to take decisive action to give it a fighting chance in the "no holds-barred" world of open skies.

The Potential Effects of the Trans-Atlantic Common Aviation Area on Shannon Airport, Ireland

1.0 An Introduction to the Paper:

This paper primarily examines how the establishment of the Transatlantic Common Aviation Area (TCAA) will affect Shannon Airport, Ireland. The paper will assume that the reader is uninitiated in the international political and legal background surrounding the TCAA. Therefore, it will provide the reader with information essential to understanding what is the proposed TCAA, historical events that set the precedent for the TCAA, and the open skies and restrictive bilateral agreements the TCAA is meant to replace.

This paper has (9) main sections.

- Section One includes the Introduction and Thesis Statement
- Section Two describes the prime historical events in the US and EU that have made negotiations about the TCAA possible.
- Section Three describes the TCAA itself
- Section Four describes the open skies and restrictive bilateral agreements currently in place
- Section Five describes the potential effects of the TCAA on Shannon Airport
- Section Six explores possible solutions for Shannon
- Section Seven draws final conclusions from the evidence reviewed
- Section Eight is the appendices
- Section Nine is the works cited

Sources and their Limitations

The author relied on many sources in the development of this paper. A complete list of source materials is in the works cited section. The Internet was the primary method of collecting information. Some of the primary sources include the European Union in the United States Website, the Chambers of Commerce Ireland Website, and the 2002 Brattle Group Report. While every effort was made to use the most up-to-date, accurate, reliable, and unbiased information, there may be some discrepancies in information between sources. One challenge the author faced in collecting information was keeping the paper accurate in terms of developments in negotiations. As the issue of the TCAA is current and ongoing, some of the information contained herein may be dated by the time of publication. The information in the paper is also limited to what is freely accessible to the public. The author did not conduct any independent surveys, nor did he purchase market research information from private companies.

Conclusions and their Limitations

All conclusions the author draws are solely from the information sources either directly cited or researched. The author believes that his conclusions are the most likely from the information presented. Actual outcomes may prove to be different. As a general disclaimer, "It is often difficult to distinguish clearly which effects are caused directly by aviation liberalization and which should be attributed to more wide-ranging economic, technological or social change, which would have affected (Shannon Airport) anyway" (Civil Aviation Authority [CAA], 2004, p.2)

Thesis Statement

The TCAA will have severe economic effects on Shannon Airport and the surrounding economy. Under the TCAA, Shannon will maintain its status as an international gateway in name only. Major US commercial traffic will relocate operations to Dublin Airport. Shannon will survive; but will continue to function as a point of entry for business aircraft and as a regional airport, driven by demand for tourism services in the West of Ireland. If Shannon is to thrive in the future, it must begin to restructure its current plan of operations.

2.0 Background to the TCAA

Negotiations between the US and the EU on the TCAA are now (as of May 2004) in their fifth round. Liberalization of aviation on both sides of the Atlantic has led to the belief by many Europeans and Americans that liberalization of the trans-Atlantic market is the next great step forward for global aviation. Changes in the US and EU aviation regulatory structure have made it possible for the current dialogue to occur between the US and the EU. The two most significant historical events setting precedent for the TCAA are the deregulation of the US domestic market and the passing of the "third package" by the EU.

In 1978, the Civil Aviation Board deregulated the US airline industry, allowing any carrier found to be fit, willing, and able to serve the US domestic market to do so. This dramatic change opened the market up to new competition and made air travel available and affordable for the common person. Annually, US consumers save approximately 20 billion dollars in reduced airline fares (Brattle Group, 2002, p. 17). Competition in deregulation also led airlines to improve their operating efficiency. Since deregulation, airlines have reduced their operating costs by 25% (Brattle Group, 2002, p. 17). Deregulation also led to the development of the hub and spoke system used today by airlines to maximize their number of destinations served and their load factors. Since deregulation, average airline load factors have increased from less than 55 percent pre-deregulation to approximately 60 post-deregulation (Brattle Group, 2002, p.17). Overall, deregulation of the US domestic market has been considered successful.

In Europe, the formation of the EU has led to new forms of cooperation on the continent such as the development of a common currency, a multinational aviation authority known as the European Aviation Safety Agency, and a liberalized air transport market (Europa, 1999). The EU air transport market was liberalized in three stages known as the first, second, and third packages (Europa, 2004, Feb 13). Introduced in 1993, the third package was the most influential (Europa, 2004, Feb 13). Its main achievements were introducing cabotage between EU member states, establishing a community air carrier's license, and freeing airlines, rather than governments, to establish fares and rates within the EU (Europa, 2004, Feb 13). Since the third package, the number of scheduled airlines operating in the European Economic Area has increased from 77 in 1992 to 139 in 2000 (Europa, 2004, Feb 13). Many of these carriers are of the "no-frills" low-cost variety. The increase in carriers has also improved service to many secondary, underserved destinations. Since 1993, the number of air routes between EU member states has increased by 30% (Europa, 2004, Feb 13). New competition on routes has made competitive fares on special promotions more available than before. However the average cost for "flexible" (meaning able to change date or time of departure) business and economy class fares has been increasing since 1993 (Europa, 2004, Feb 13). The third package has been relatively successful in making the EU air transport market grow while benefiting the European consumer.

The TCAA is potentially the next step in this process of global aviation deregulation. Combined, the US and EU air transport market would account for 60% of the world's aviation traffic, making it the largest single market for aviation services in the world (Done & Dombey, 2003).

3.0 What is the Transatlantic Common Aviation Area?

The TCAA currently does not exist in any physical or legal sense. Instead it represents not what is, but what may be. The TCAA is a proposed agreement between the United States and the EU that would liberalize trade in aviation services. It would essentially eliminate barriers to competition and investment between US and EU carriers (Brattle Group, 2002, p. 27). From an economic policy perspective, it would include a series of liberalizing legal reforms regarding international trade and investment in aviation services (European Union in the US, 2004, April 2). Expectations of what the TCAA should be and should include are different for the parties involved. Even the name of the proposed agreement has yet to be decided on, as some call it the Transatlantic Common Aviation Area (TCAA), while others prefer to call it the Open Aviation Area (OAA) (Larson, 2002). Regardless of what it is eventually called, the TCAA is very likely to come into existence in some form or another. The Brattle Group insists that four main points of interest will likely be discussed in any agreement that is reached (Brattle Group, 2002, p. 27). The first point involves ownership of and investment in airlines. The TCAA would remove restrictions on US ownership and control of EU airlines and EU ownership and control of US airlines (Brattle Group, 2002, p. 27). An initial step in this process may be to raise the legal foreign ownership percentage above 50% (Kim & Lott, 2004). The second point involves right of establishment (Brattle Group, 2002, p. 27). The TCAA would grant US investors the right to establish airlines in Europe and EU investors the right to establish airlines in the US (Brattle Group, 2002, p. 27). The third point deals with fifth freedom of the air rights, seventh freedom of the air rights, stand alone cabotage, fill-up cabotage, and wet leasing (Brattle Group, 2002, p. 28). The fifth freedom of the air is stated as "the freedom to carry passengers and cargo between two foreign countries" (Hamilton, 2001, p. 17). This freedom, already enjoyed by EU carriers within the European "domestic" market under the third package, would be opened up to allow US carriers the same right. The seventh freedom is defined as the freedom to "carry passengers from one state to a third state without going through (the) home country" (Wells & Wensveen, 2004, p. 545). It would also allow European carriers to continue on to the US from EU countries other than their state of registration. Cabotage is "to carry passengers and cargo between two points within the territory of a foreign nation" (Hamilton, 2001, p. 17). Stand alone cabotage would allow US carriers to operate between two points solely within the borders of an EU country or EU carriers to operate between two points solely within the US. However, stand alone cabotage is highly unlikely to occur because the carrier would still be subject to the laws and regulations of the domestic market within which it is operating. It is far more likely in the TCAA that right of establishment will be exercised rather than stand alone cabotage because of the legal complexities involved. Fill-up cabotage involves carrying passengers between two points in the same foreign country while in the course of providing an international service. For example, British Airways currently may not “fill up” and carry passengers solely between New York and Chicago on its way to Vancouver. Wet leasing involves the leasing of aircraft with crew from one carrier to another (Hamilton, 2001, p. 190). Under FAA regulations, US airlines may wet lease out aircraft and crew to European carriers, but they may not wet lease in European aircraft and crew (Brattle Group, 2002, p. 21). Negotiations will determine what rights, if any, a carrier may exercise in wet leasing an aircraft and crew of another country. The fourth point deals with the government market for air services (Brattle Group, 2002, p. 28). The TCAA would allow any US or EU carrier to provide services for any government of the EU or for the US government (Brattle Group, 2002, p. 28). A point of contention for EU carriers is the “Fly America” policy which states, “a department, agency, or instrumentality of the United States Government shall take necessary steps to ensure that the transportation of passengers and property by air is provided by an air carrier holding a (US) certificate under section 41102 of this title (title 49)” (US House of Representatives, 2002). The Brattle Group explains this as, “commercial movement of military traffic in international markets must be on a US airline if the itinerary begins or ends in the United States” (Brattle Group, 2002, p. 96). EU carriers want an opportunity to cash in on lucrative US government contracts to carry US government and US military traffic. A fifth area mentioned specifically by the EU includes standards for aviation safety and security, an area where the US and EU have had disagreements since the Sept 11 attacks (Europa, 2004, Feb 13). In one instance, the US and EU reached an initial agreement on the use of Passenger Name Records (PNR) of trans-Atlantic airlines. The agreement protects passengers' private information while still allowing the US Bureau of Customs and Border Protection to retain the records for up to 3 ½ years, instead of the 50 years initially proposed by the US (European Union in the US, 2004, May 17).

The TCAA framework may also be defined by what the TCAA will not include (Brattle Group, 2002, p. 29). The TCAA will not require the harmonization of FAA and EASA regulation, nor will it involve the creation of a new agency to oversee air traffic regulation (Brattle Group 2002, p. 29). Second, the TCAA will not require the creation of a common anti-trust policy, as countries will continue to apply their respective anti-trust laws as necessary (Brattle Group, 2002, p. 29).

Both the EU and the US believe that the TCAA will bring to airlines the same international commercial freedom that other, less regulated industries enjoy. The TCAA would give airlines and investors the freedom to establish new airlines, restructure old airlines, merge, and obtain financing as other industries do. From a purely economic perspective, liberalization of industry usually results in increased competition and the growth of the market as a whole. The same is expected of a liberalized US-EU market for air services. As put by Rod Eddington, chief executive of British Airways, "If it were left to the market, there can be little doubt that international airlines would follow in the steps of other industries, and would seek the scale and scope that are currently denied them" (Eddington, 2003).

4.0 Open Skies and Restrictive Bilateral Agreements

To understand why the TCAA has been proposed, it is necessary to understand the system it is meant to replace. The current structure governing trans-Atlantic traffic is a complex framework of bilateral agreements between the US Department of State and the individual governments of European Union countries. Two general types of bilateral agreements are in existence between the United States and individual European countries. Open skies bilateral agreements are the most common. Open skies agreements "entail a full exchange of the five basic freedoms of flight (plus acknowledgement of sixth freedom services) as well as pricing, capacity freedom and unlimited designation of airlines" (Dolan, 2002). Restrictive bilateral agreements are less common, but may include fifth and sixth freedom restrictions, restrictions on capacity, and restrictions on which airlines may serve which airports.

Open Skies Bilateral Agreements

The essence of open skies is a "market based approach to global aviation" (Byerly, 2004). It is the belief that heavy handed government economic regulation of aviation is not in the public's nor the industry's best interest. The US first expressed its stance on open skies in the 1978 document entitled, "Policy for the Conduct of International Air Transportation" (Toh, 1998). This document decreed, "America (would) endeavor to 'trade competitive opportunities, rather than restrictions…and pursue our interests in expanded air transportation and reduced prices…'" (Toh, 1998). The first open skies agreement was signed in 1992 between the US government and the Netherlands during the senior Bush administration (Byerly, 2004). The establishment of

Open skies agreements has met with bipartisan support as both the Clinton and the junior Bush administrations have continued support of the open skies policy (Byerly, 2004). The United States' policy of pursing open skies bilateral agreements has resulted in 11 open skies agreements with European countries and 60 total worldwide (EU Committee, 2002). Currently Austria, Belgium, Denmark, Finland, Germany, Italy, Luxembourg, Sweden, Portugal, Italy, and France have signed open skies agreements with the US (EU Committee, 2002). However, the European Union has opposed these bilateral agreements as it claims they are contrary to European Community law. In November of 2002, the European Court of Justice (ECJ) ruled against Austria, Belgium, Denmark, Finland, Germany, Luxembourg, Sweden, and the UK concerning their bilateral agreements with the US (Europa, 2004, Feb 13). The European Community Treaty of 1957 governs the rights of establishment in EU countries (EU Committee, 2002). The ECJ maintained that because the bilateral agreements violated the "principle of non-discrimination" stated in the Treaty of 1957, they were in violation of EU law (Europa, 2004, Feb 13). The court argued that the bilateral agreements had two legal faults (European Union in the US, 2003, June 5). First, they restrict access to the air transport market through nationality clauses. Second, they contained commitments in areas that are covered by European Community law, and thus are the jurisdiction of the European Community, not the individual member states (European Union in the US, 2003, June 5). The ECJ found that the bilateral agreements discriminated against other EU nations through nationality clauses (Europa, 2004, Feb 13). Nationality clauses limit access to routes to carriers who are "owned and controlled in majority by nationals of the contracting states" (EU Committee, 2002). For example, in the Belgian agreement with the United States:

> "The clause on the ownership and control of airlines does, amongst other things, permit the United States of America to withdraw, suspend or limit the operating licenses or technical authorizations of an airline designated by the Kingdom of Belgium but of which a substantial part of the ownership and effective control is not vested in that Member State or Belgian nationals" (Europa, 2004, Feb 13).

This statement could effectively prevent air carriers not substantially owned and controlled by Belgian nationals from operating from Belgium to the United States. All of the bilateral agreements contested by the ECJ contained similar statements. These nationality restrictions place pressures on EU carriers not felt by US carriers. Routes designated by the bilateral agreements can only be used by carriers owned and controlled by nationals of the member state. Many European countries only operate one flag carrier, which is state owned. The restriction on ownership also prevents foreign investment into the airline and prevents mergers or acquisitions that would involve cross border deals. If a carrier loses its status as nationally owned, it also risks losing its access to the routes agreed upon in the bilateral. This has prevented some failing European carriers from securing foreign investment or pursuing a form of restructuring such as merging with a foreign airline (European Union in the US, 2003, June 5).

The ECJ also considered that these Member States have made commitments in areas of "computerized reservation systems, intra-community fares and rates, and airport slots"(Europa, 2004, Feb 13). These are all areas of competence that had been transferred from the Member States to the European Union. In response to the decision of the court, the European Community has placed an onus on the Member States in violation to bring their agreements with the US in line with Community policy (Europa, 2004, Feb 13). The ruling achieved two goals. First it cleared up the question of who has jurisdiction over international aviation policy, individual member states or the European Community. Second, it created a proposal for a mandate for the EU to start negotiations with the US and with third parties regarding air transportation (Europa, 2004, Feb 13).

In June of 2003, the Transport Council of the European Commission passed a mandate that transferred responsibility for air transport negotiations to the European Commission (European Union in the US, 2003, June 5). The mandate was part of a three part package. First, the mandate authorized the European Commission to open negotiations with the United States concerning air transport. Second, the mandate authorized the EC to open negotiations with third countries to replace existing bilateral agreements with a Community agreement. Third, the mandate issued a proposal for a "Regulation of the European Parliament and of the Council on the negotiation and implementation of air service agreements between member states and third countries" (European Union in the US, 2003, June 5). The first part of the mandate will allow representatives from the United States and the European Union to discuss opening up their markets and ownership rules for the first time directly. They will be able to discuss issues such as "traffic rights, routes, capacity, frequency, slots, fares, application of competition rules, safety, and aviation security" (European Union in the US, 2003, June 5). The second part of the mandate allows the EC to open negotiations with any foreign country to secure market access for all European Community airlines on a "non-discriminatory" basis (European Union in the US, 2003, June 5). This non-discriminatory clause is specifically directed to prevent any new bilateral agreements from being signed which discriminate on the basis of nationality. The third part of the mandate sets the legal framework for a document that will outline the EC's rules and procedures for negotiations and amendments. The mandate, while affecting the open skies agreements currently in place, also affects the restrictive bilateral agreements maintained by several European countries with the United States.

Restrictive US- EU Bilateral agreements

EU

Four European countries maintain restrictive bilateral agreements with the United States. These countries are Ireland, United Kingdom, Spain, and Greece. These bilateral agreements remain in place to protect domestic interests while limiting or controlling access of foreign carriers. There are several ways that countries protect their national interests through bilateral agreements. Access to an airport may be restricted to a set number of airlines operating a set number of daily flights. Access may be only granted to a desirable airport if an airline chooses to serve a second, less desirable airport. Such are the cases of London Heathrow, and Dublin/Shannon respectively.

The Bermuda II Agreement

The most visible example of a restrictive bilateral agreement is the Bermuda II agreement between the United States and the United Kingdom. The Bermuda II agreement was signed in 1977 after the UK scrapped its previous agreement with the US (United States General Accounting Office (USGAO), 1997, p.4). The Bermuda II agreement limits competition between the US and the UK in three main ways. The focus of the Bermuda II agreement is to control access to London Heathrow Airport (Tardy, 2003, June 6). First, it limits the amount of service airlines can provide between the US and the UK. Second, it limits access to London Heathrow to American Airlines, United Airlines, British Airways, and Virgin Atlantic. Third, it dictates American and United's access to Heathrow from their respective primary hubs. American is not allowed to serve Heathrow from Dallas/Fort Worth. United is allowed to serve Heathrow from Chicago O'Hare, but only on a limited basis (USGAO, 1997, p 4). An agreement reached in 1997 limits United to two flights per day from Chicago O'Hare to Heathrow (USGAO, 1997, 6).

Because access to the market is limited, market share is dominated by a few key players. American and British Airways account for the largest shares of the US-UK market. As of 1996, these airlines combined accounted for 60% of the total scheduled traffic between the US and the UK (USGAO, 1997, p. 7). Of the 55 total daily roundtrip flights between the US and Heathrow, American operated 14 and British Airways operated 24 of them. American Airlines and British Airways also provide 70% of the service between London Heathrow and key US cities including New York, Boston, Chicago, Miami, Seattle, and Philadelphia (USGAO, 1997, p. 8). Through Bermuda II, the UK's access to the United States has grown, while the US's access to the UK has remained limited.

In 1991, Bermuda II was revised to allow United and American to replace Pan Am and TWA as the US carriers allowed to serve Heathrow (USGAO, 1997, p. 5). As part of the agreement, British Airways was allowed to code share with a US airline. ~~It chose to code share with a US airline~~. It chose to code share with USAir. The 1991 agreement also removed Virgin Atlantic's restriction from using Heathrow. As a result of the changes, UK carriers have steadily increased their market share of the trans-Atlantic traffic between the US and the UK. Between 1992 and 1996, UK carriers' share of the market increase from 49 to 59 percent (USGAO, 1997, p. 4). The gain came largely at the expense of US carriers who were not allowed to serve Heathrow (USGAO, 1997, p. 4). Those other carriers are relegated to serving Gatwick Airport. The problem with Gatwick is that it is not as attractive to business travelers as it is located farther from downtown London. It also has fewer connecting flights to Europe, the Middle East, and Africa (USGAO, 1997, p. 4). Carriers serving Gatwick include Delta, Northwest, and Continental. Delta serves it from New York and Atlanta. Northwest flies from Detroit and Minneapolis. Continental serves Gatwick from Newark and Houston. Potentially, under an open skies agreement, these carriers could move part of their operations to London Heathrow.

While some of the restrictions on access to Heathrow are political, many of the restrictions are in place for physical reasons. First, as Heathrow is a very busy airport, it allocates takeoff and landing slots to manage the flow of traffic into and out of the airport. There are a limited number of these slots available to the airlines serving Heathrow. To allow new carriers to access Heathrow, carriers currently serving Heathrow would have to give up some of their slots (USGAO, 1997, p. 2). American Airlines and British Airways both have insisted that if under open skies they are required to relinquish some of their slots, they should be paid fair market value for them (USGAO, 1997, p. 2). Because the new carriers would be required to purchase the slots, a new barrier to entry would be created by the buying and selling of slots. In 1985, the US DOT adopted a buy-sell approach for slots at Chicago O'Hare, JFK, LaGuardia, and Washington National. A 1996 report on domestic competition found that competition actually decreased at three of the four airports (USGAO, 1997, p. 14). Even if American and United agree to sell some of their slots, the EU maintains that EU regulations prohibit the buying and selling of slots. Some sort of agreement would have to be reached to fairly compensate these airlines for the loss of major revenue generating slots at Heathrow under an open skies regime. Second, the physical capacity of London Heathrow for growth is limited. New competitors would need access to gates, ticket counters, terminal space, and baggage facilities (USGAO, 1997, p. 3). Community and environmental concerns delayed approval of London Heathrow's fifth terminal. The new $3.19 billion USD terminal will not open in its first phase until 2007 and will not be fully operational until 2015 (Airwise Airport Guide, 2003). The timeline of development on the fifth terminal will limit access to Heathrow even if an open skies agreement is reached before that time.

Relaxing bilateral restrictions between the US and the UK is of particular significance to the US, and is one of the US's main goals in establishing the TCAA. The US-UK transatlantic market is the largest US-European market. It carried approximately 12 million passengers in 1996, making it more than twice the size of the US-Germany market and three times the size of the US-France market (USGAO, 1997, p. 4). Additionally, the restrictions on the market greatly increase the cost to travelers from Heathrow. Business travelers flying from Heathrow pay approximately 200% of the price travelers pay from Amsterdam or Frankfurt (Brattle Group, 2002, p. 23). This results in UK travelers paying €2 billion more per year for trans-Atlantic travel than travelers from other European countries (Brattle Group, 2002, p. 23).

US/Ireland Air Services Bilateral Agreement

The bilateral agreement concerning air services between the United States and Ireland was signed February 3, 1945 and took effect on February 15, 1945. (United States Department of State (USDOS), 1945). It was negotiated as a result of the International Civil Aviation Conference in Chicago, 1944. The document is known as the "Agreement Between the United States of America and Ireland Relating to Air Transport Services" (USDOS, 1945). The document contains 11 Articles and an Annex. It contains the basic three "R"s of an air services agreement; recognitions, routes, and rights. Several important provisions are made in the articles, but the Annex contains the most important information of the agreement. Article 1 refers to the traffic rights agreed upon in the Annex (USDOS, 1945). Article 2 requires Ireland and the US to start serving the routes they have agreed upon as soon as practical (USDOS, 1945). Article 3 prevents discriminatory service fees against the foreign carriers at public airports and exempts air carriers of customs fees on fuel, lubricating oils, spare parts, and regular equipment that they may bring into the country. Article 4 is recognition of the certification of aircraft and airmen of both countries (USDOS, 1945). Article 5 requires air carriers to comply with the air laws and regulation of the country they are entering or departing. It also requires the air carrier to comply with the entry, customs, clearance, immigration, cargo, and quarantine laws of the country they are entering or departing (USDOS, 1945). Article 6 should be noted, as it is the nationality clause.

It reads:

"Each contracting party reserves the right to withhold or revoke a certificate or permit to an airline of the other party in any case where it is not satisfied that substantial ownership and effective control are vested in nationals of either party to this agreement, or in case of failure of an airline to comply with the laws of the State over which it operates as described in Article 5 hereof, or to perform its obligations under this agreement" (USDOS, 1945).

Interestingly, while the nationality clause gives a contracting state the power to revoke the rights of an airline not owned or controlled by a majority of nationals, it does not require the contracting state to do so. Therefore, it is possible for an airline that is not controlled by nationals to apply to the rights in this agreement if the other contracting state does not object. Article 7 recognizes that the agreement will be registered with ICAO (USDOS, 1945). Article 8 recognizes operating rights granted previously between the two countries (USDOS, 1945). Article 9 requires the contracting parties to give one year's notice if they intend to terminate the agreement or any of the rights in the agreement (USDOS, 1945). Article 10 recognizes that the air navigation agreements signed in 1937 will remain in force until superseded by a new agreement (USDOS, 1945). Article 11 describes the process for amending the terms set forth in the annex (USDOS 1945). The Annex is the most important part of the document, as it outlines the traffic rights of the contracting states. Some refer to a stipulation in this section of the document as the "Shannon Stop-Over" (Thompstone, 2003).

It reads:

"It is agreed that in view of the long transoceanic flight necessary on the above routes, and considering the still limited development of aeronautical science, all eastbound aircraft on routes covered in this Annex shall stop at Shannon Airport as first European port of call and all westbound aircraft on the same routes shall stop at Shannon Airport." (USDOS, 1945).

It is important to understand the historical reasons for this stipulation. In 1945, aviation was still developing, and commercial aircraft generally did not have the capability to go beyond Shannon Airport after a trans-Atlantic flight, thus it was a practical stipulation, not simply an economic one. Jet aircraft were just beginning to be developed, and at the time, only for military use. This stipulation marked the importance of Shannon Airport as an international airport of entry. The Annex was amended in 1947 to designate the points of entry to the United States by Irish air carriers. The Annex was amended to allow Irish air carriers to enter the United States at Boston, New York, and Chicago. In 1973, the agreement was amended to allow a single US air carrier to continue beyond Shannon to Dublin (Aer Rianta, 2004, p. 2).

In 1990, the Agreement was given a major overhaul. The "Agreement amending the agreement of February 3, 1945, as amended" was signed September 6, 1990. Two major changes to the Agreement occurred. First, the Annex to the 1945 agreement was deleted in its entirety (Office of the Minister for Foreign Affairs (OMFA), 1990). In its place, a new Annex was written and attached to the Agreement. Second, sections were added to Article 6. The new Annex included a significant change, the right of United States air carriers to access Dublin. However, it was stipulated that "all scheduled flights on this route, in either direction, shall serve Shannon" (OMFA, 1990). The amendments to the Annex also granted United States air carriers to code share with an Irish or British air carrier operating services between London and Dublin. This amendment stipulated that the United States carrier may offer a flight number between a US gateway and London through Dublin, but the total number of flights must not be greater than the total number of US-Shannon flights in the same week. It also stipulated that the US carrier must offer a minimum of four code-shared flights per week in each direction (OMFA, 1990). In respect to Irish air carriers, the Annex was amended to include Los Angeles as an airport of entry. The new Annex also addressed air charter rights. In short, unless a charter operator enters or leaves through Cork or Connaught Regional Airport, it must make a required traffic stop at Shannon (OMFA 1990). The first section added to Article 6 gives designated airlines the "right to provide ground handling services for their own operations" (OMFA 1990). The second section allows airlines, instead of governments, to set the prices for air travel between the contracting states. It also sets limits on reasons for state intervention concerning prices. The limits relate to protecting passengers and airlines from discriminatory, predatory, or monopolistic practices and prices. It also sets out a way for the states to resolve differences regarding prices (OMFA 1990). In 1993, the Annex of the Agreement was further amended to allow direct flights by Irish and United States air carriers to Dublin while requiring them to serve Shannon with equal frequency (Aer Rianta, 2004, p. 2). This stipulation is the source of contention between groups with vested interest in aviation in Ireland. Without it, ~~they~~ some fear for the "very existence" of Shannon (Tardy, 2003, June 5). They feel that the Shannon Gateway Policy is a key factor in maintaining balanced regional development, direct foreign investment (DFI), healthy tourism, and regular trans-Atlantic services (Shannon Development, 2003, June 6 "Forthcoming"). Those opposed to it believe that it strangles growth in aviation in

Ireland. The direct impact of the cessitation of this stipulation under TCAA rules would have the greatest impact on the future course of aviation in Ireland.

5.0 The Potential Effects of the TCAA on Shannon Airport

As the US and the EU continue negotiations on the opening of the TCAA, Ireland remains particularly divided on the issue. Ireland currently maintains a bilateral agreement with the United States. The terms of the agreement include Shannon Airport service equal to the service provided to Dublin, the limitation to four US gateways for Irish registered airlines, and restrictions on code share agreements (Failte, 2004). The bilateral agreement is unique in that it protects Shannon Airport through its dual gateway policy. For every non-stop flight a US registered airline makes to Dublin, it must fly a non-stop flight to Shannon (Failte, 2004). Under the TCAA, US airlines could choose to serve any city in Ireland at any frequency. EU "domestic" cabotage between Ireland and mainland Europe would also be allowed. Further, the TCAA would open up airlines on both sides of the Atlantic to foreign ownership.

Those in favor of the change see overall economic growth for Ireland. The liberalization of trans-Atlantic trade is a top concern of the Chambers of Commerce Ireland (2004, June 22). Supporters argue that the bilateral restricts growth that would otherwise occur in a less regulated environment. Since the 1990's, the 11 countries that have signed open skies bilateral agreements with the US have seen a 10 percent increase in trans-Atlantic traffic (Brattle Group, 2002, p.7). Extrapolating that information, the Brattle Group hypothesized that under the TCAA. traffic to the UK, Ireland, Spain, and Greece could increase by 2.2 millions passengers a year (Brattle Group, 2002, p. 7).

Ireland itself would see an increase of approximately 161,000 passengers per year (Brattle Group, 2002, p. 8). Supporting the opinion that the TCAA will prove to be a successful change, growth occurred in the aviation sector when it was liberalized by the EU. The UK experienced an increase in airline revenue as a percentage of gross domestic product (GDP) from 1.2% of GDP prior to liberalization to 1.5% of GDP post liberalization (CAA, 2004, p. 4). Increase in the number of passengers carried could also fuel airline expansion and competition in Ireland. Past experience with the liberalization of the EU market has proven positive for Ireland's air carriers. Liberalization of the EU market removed restrictions on intra-EU activity, granted airlines freedom to choose which routes they served and at what frequency, and removed many barriers to entry and competition (CAA, 2004, p. 5). These market conditions are the fertilizers of low cost carrier start up (CAA, 2004, p. 5). One direct impact the liberalized environment has had is the growth of the low cost Irish airline Ryanair. Ryanair, though registered as an Irish airline, conducts much of its business in the UK. Ryanair has successfully competed with established European carriers on existing routes and has created new markets to destinations that were previously not served and or were underserved (CAA, 2004, p.13). Ryanair's birth increased employment in the aviation industry, adding approximately 2000 jobs at Dublin and Standsted (CAA, 2004, p.13). While some carriers could reduce employment in an effort to cut costs to compete within the TCAA, employment across the industry in Ireland should grow. Airlines and other interested parties in Ireland see not a just a bigger share of the market, but a bigger market in sum.

Other parties see their share of the market acutely threatened by the TCAA proposal, despite the potential for net growth. Economic and social development in

Ireland has traditionally focused on Dublin, in the east of Ireland. Further regional imbalance between the west and east could result as international traffic to Dublin Airport grows. There is just concern about the viability of Shannon Airport under the TCAA. Currently, Shannon accounts for 44% market share of the transatlantic traffic to and from Ireland, making it Ireland's second most important airport and the most important airport in the west of Ireland (Failte 2004). Unfortunately for Shannon, it will be unable to maintain this market share under the TCAA. While Shannon will maintain its status as an international gateway, most major US commercial traffic will relocate operations to Dublin. Shannon will survive, but will continue to function mainly as a regional airport, supporting business aircraft and some commercial traffic driven by demand for tourism services in the west of Ireland.

Why does Shannon hold such great regional importance to the west of Ireland? Shannon is the economic flagship of the region. The local economy is tied to the health and success of the airport. Its presence has a distinct impact on local jobs, direct foreign investment, tourism, and air services. Shannon is the counterweight to Dublin's booming development. A change in the status quo regarding Shannon's dual gateway status will result in a loss of jobs in the region, a reduction in foreign investment, a reduction in services to tourists and travelers to and from the region, and an increase in regional imbalance between the east and west of Ireland.

Why will Shannon Lose Traffic to Dublin under the TCAA?

Shannon International Airport will lose traffic to Dublin not because people do not want to travel there, but because the airlines won't serve it. A free, "open" market does not dictate where services will be provided. In the case of Ireland, travelers currently have a choice between flying into Shannon or Dublin Airport. Presented with that choice, 44% of travelers choose to fly into Shannon while 56% choose to fly to Dublin (Thompstone, 2003). Open skies will give the airlines the option to serve the cities they choose, at the frequency they desire. An example of the schedule of airlines currently serving Shannon is found in Appendix A. Determining the fate of Shannon, the airlines will downplay the demands of consumers. For the airlines, the decision equates to a simple economy of scale. If an airline concentrates its services at one airport in a small country such as Ireland, it will save money. As such operational requirements drive airlines' decision on where to locate core staff, consolidation in a single city makes the most sense. By basing the majority of staff in a single city the airline develops an operational "center of gravity" (CAA, 2004, p.10). Of the countries that have open skies agreements with the US, the majority of US traffic is concentrated in the capital city.

Traffic By City in Countries with open skies agreements with the US
Source: Thompstone 2003, from Official Airline Guide 2003.

Country	Main City Served	% Share City Recieves
Austria	Vienna	100%
Belgium	Brussels	100%
Denmark	Copenhagen	100%
Finland	Helsinki	100%
France	Paris	98%
Germany	Frankfurt	96%
Italy	Rome	90%
Luxemburg	Luxembourg	100%
Netherlands	Amsterdam	100%
Norway	Oslo	100%
Portugal	Lisbon	100%
Sweden	Stockholm	100%

Austria, Belgium, Denmark, Finland, Germany, Italy, Luxembourg, Sweden, Portugal, Italy, and France have all signed open skies agreements with the US. Ireland, UK, Spain, and Greece do not have open skies agreements with the US. It can be inferred that demand for travel to other secondary cities in these open skies countries exits, but is ignored by the airlines because of the cost involved in maintaining more than one base of operations. In open skies, the market determines airline destinations, services, and prices (United States of America Department of Transportation (USDOT), 2004). Size of the population of Ireland is another compelling reason for not retaining services at Shannon. Even Germany, with a population nearly 21 times the size of Ireland, realizes greater than 90% of its international traffic entering through a single city (See figure below).

Source: Central Intelligence Agency , 2004.

Country	pop (www.odci.gov)	X's the size of Ireland's Population
Germany	82,424,609	20.76
France	60,424,213	15.22
UK	60,270,708	15.18
Italy	58,057,477	14.63
Spain	40,280,780	10.15
Netherlands	16,318,199	4.11
Greece	10,647,529	2.68
Portugal	10,524,145	2.65
Belgium	10,348,276	2.61
Sweden	8,986,400	2.26
Austria	8,174,762	2.06
Denmark	5,413,392	1.36
Finland	5,214,512	1.31
Norway	4,574,560	1.15
Ireland	**3,969,558**	**1.00**
Luxemburg	462,690	0.12

Most if not all US international carriers will move services to Dublin exclusively (Shannon Development, 2003, June 6, "Consultation"). Dublin is the cultural, industrial, and political center of the country and will support the largest traffic base. In a best case scenario, Shannon will retain one daily round trip nonstop flight to North America, most likely provided by Aer Lingus (Shannon Development, 2003, June 6, "Consultation"). The opening of the TCAA will not result in more choices for passengers traveling to and from Shannon (SIGNAL, 2004).

Those who oppose the TCAA also point to the increasing airside and landside congestion at Dublin. Dublin has experienced rapid growth in traffic over the last decade. From 2002 to 2003, passenger numbers increased 5% to 15.1 million per year (Dublin Airport Authority, 2004). Passenger numbers at Dublin are expected to continue to increase by approximately one million passengers per year (Dublin Airport Authority, 2004).

Impact on Jobs, Tourism, DFI, Aer Rianta, IALPA, and Aer Lingus

Jobs

Many groups concerned about the Shannon region's future have attempted to estimate the number of jobs that will be impacted if the Shannon airport loses its status as a dual gateway airport. An economic impact study conducted in 1997 by Alistair Tucker found that 2,500 jobs are created directly by Shannon airport, 5,000 jobs are created in tourism to support tourists entering Ireland through Shannon, and another 29,000 jobs are directly and indirectly supported by firms using the air services at Shannon (Aer Rianta, 2004, p.6). The 2,500 jobs directly created by the airport generated 35 million Irish pounds a year for the region (Aer Rianta, 2004, p. 6). Other groups such as the Irish Congress of Trade Unions (ICTU) believe that Shannon holds even greater economic weight than the Alistair study indicates. The ICTU estimates that nearly 100,000 jobs in commercial aviation and tourism depend directly and indirectly on Shannon (ICTU, 2004). Among those jobs that would be affected by a change at Shannon would be passenger and cargo handlers, refuelers, car hire (rental) providers, financial service providers, hotel and hostel employees, golf course employees, and many others (Aer Rianta, 2004, p. 6). Aer Rianta, the Irish State owned airport management company, indicated that it will not be able to maintain the current terms and conditions for workers at Shannon if the dual gateway policy changes (Services Industries Professional Trade Union (SIPTU), 2004). An additional 7,500 jobs depend on the continued existence of the Shannon Free Zone, located next to Shannon International Airport (Shannon Development, 2004).

Conversely, the Dublin Area and Ireland considered as a whole seeks to gain jobs under the TCAA. Currently, the 15.1 million passengers traveling to Dublin Airport in Fingal County support approximately 14,500 jobs associated with the airport (Fingal, 2004). These jobs created €300 million in income for the Dublin region (Fingal, 2004). The Dublin airport plays a huge economic role in the country. The top 100 companies surrounding Dublin airport engaged in airport-related economic activity account for 2.1% of the Gross National Product of Ireland (Fingal, 2004). Under the TCAA, traffic at Dublin could blossom to 30 million passengers a year by 2015 (Fingal 2004). A doubling in traffic leads one to believe that new jobs will be created to handle the demand. Thus, those tied to the Dublin region support the TCAA as it will likely create many more jobs and economic growth in the region.

Tourism

Ireland is the second largest destination for US travelers going abroad (Irish Hotels Federation (IHF), 2004). On average, Ireland receives between 400,000 and 1 million US visitors annually. These US visitors generate an estimated €637.6 million per year. The Brattle Group estimates that the opening of the TCAA will increase transatlantic traffic by between 9 and 24 percent (Brattle Group, 2002, p. 72). The Irish Hotels Federation assumes a conservative estimate of 10% growth. Assuming 10% growth under the TCAA, Ireland could expect to welcome an additional 79,000 tourists annually, generating an additional €63.7 million for the country (IHF, 2004). US tourists are considered particularly desirable to Ireland because their average expenditure per person is much higher than that of visitors from other countries. The average US tourist party spends €840 per person on a vacation to Ireland. US tourists tend to travel extensively and prefer to stay in more expensive hotels, avoiding the cheaper hostels (IHF, 2004). North American tourists purchased 18% of the total Irish hotel bednights in 2000 (IHF, 2004). Regional dispersion of demand for hotel bednights by these North American tourists varied greatly however. While the Dublin area supplied 20% of its total hotel bednights to North American tourists, the Shannon region supplied 43% of its hotel bednights to North American tourists (IHF, 2004). A negative change in the number of tourists arriving in the region will have a strong effect on the financial stability of the hotels in the west of Ireland.

The distribution of tourists throughout Ireland is also an important issue when considering the TCAA. The national distribution of tourists has shifted slightly in

Dublin's favor since 1995. Following 1995, tourism in the Shannon and Cork-Kerry regions has countered Dublin's increase with a nearly equal decrease in tourism (IHF, 2004). If the TCAA is approved, it is not likely that the 10% increase in tourism will be distributed equally between the east and west. While the IHF believes that the current distribution of US tourists will be maintained, most tourists will have to go out of their way to visit the Shannon region. Even now, the majority of access to the west of Ireland is through Dublin. Less than 15% of tourists to the west are able to access Ireland through the west coast (Ennis, 2004). Still, the Shannon airport itself is heavily dependent on tourist traffic. Approximately 32% of Shannon's terminal traffic in 2002 was on international routes (Shannon Development, 2003, June 6, "Consultation"). If the TCAA is approved, tourism in the west of Ireland will see a swift, dramatic decrease as access to the region is further reduced.

Direct Foreign Investment

The United States and Europe are each other's most important source of direct foreign investment. In 2002, European companies invested €889 billion in direct foreign investment into United States and US companies invested €650 billion in direct foreign investment into Europe (Europa, 2003, June 25, "US-EU"). Exports of goods in 2003 from the EU to the US totaled €220 billion, 22.6% of all EU exports. In services, exports from the EU to the US totaled €115 billion in 2003 (2003, June 25, "US-EU"). Ireland has played an important role in attracting direct foreign investment from US firms. Likewise, Shannon Airport has played a key role in attracting direct foreign investment to the west of Ireland.

Shannon provides the logistical backbone for the corporations located in the Shannon Airport region. Shannon Airport has been the catalyst for industrial development in a region that once primarily depended on agriculture (Shannon Development, 2003, June 6, "Consultation"). Because of the impact Shannon has had on industrial development, the Ennis Chamber of Commerce has campaigned aggressively to the Irish government to maintain the dual gateway status of Shannon. Foreign investment into the west of Ireland is significant and vital to its economy.

The Shannon Free Zone was established in 1958 to attract more direct foreign investment into the region (Shannon Development, 2004). It is a 2.43 square kilometer industrial park located next to the Shannon Airport (See Appendix E). It was created to drive a "virtuous cycle" of investment and growth in the west of Ireland (Shannon Development, 2003, June 6, "Consultation"). Thus far a successful concept, the "virtuous cycle" is that of air services driving economic investment, which in turn creates a demand for more air services. 120 multinational companies conduct business at the Shannon Free Zone (Shannon Development, 2004). This special economic area has attracted the largest concentration of North American investment in the country (Shannon Development 2004). The Shannon Free Zone has been so successful, that by 2004, the goods exported from it valued over €2.5 billion (Shannon Development, 2004).

Part of the reason so many North American companies have invested into the Shannon Free Zone is the relatively favorable legislation governing the zone. It is regulated by Section 39A of Ireland's 1980 Finance Act (Park, 1998). The companies who qualified for the 10% (now 12.5%) corporate tax rate are "trading operations which contribute to the use and development of the airport and which are undertaken with qualified persons, not ordinarily resident in the State" (Park, 1998). The intentionally broad wording of the legislation allows the Shannon Free Zone to accept companies engaged in international logistics, product distribution, multilingual customer support, manufacturing and assembly, technical support, and product customization (Park,1998). Tax incentives for companies in the Shannon Free Zone go beyond the 12.5% corporate tax, which is the lowest in the EU (Shannon Development, 2004). Companies are not levied a withholding tax on profits made at Shannon. They also benefit from a network of double taxation agreements with key countries and tax free income on products developed and patented in Ireland (Shannon Development, 1998). The Shannon Free Zone offers extensive cash flow savings to companies, who pay no Value Added Tax (VAT) on goods and capital equipment imported to the Shannon Free Zone. These companies pay no custom duties on goods imported from non-EU countries for storage, handling, and processing. Additionally, there is not a time limit for these goods to be moved through the Shannon Free Zone. They do not pay duties on goods exported to non-EU countries (Shannon Development 1999). Shannon Development also offers grants to companies for site acquisition, building construction, and equipment (capital) purchases. It offers grants for research and development programs. It offers employment grants and grants for workforce training and management development. It also offers rent reduction grants (Shannon Development 1999).

Shannon Development further outlines some of the attraction to the Shannon Free Zone. Primarily, the companies attracted to the Shannon Free Zone enjoy the benefits of the zone's low corporate taxation rate of 12.5%. The Shannon Free Zone has direct proximity to Shannon international airport, making shipping logistics intuitive. Globally, Shannon's location is well positioned between the United States, Europe, Africa, and the Middle East. It has an on-site development agency to help new companies set up in the zone. The Shannon Free Zone is also suited to handle technology companies as the local work force is well educated through the University of Limerick and the Limerick Institute of Technology (Shannon Development, 2004).

The Shannon Free Zone has proven to be very successful in drawing foreign investment. Some of the companies trading out of the Shannon Free Zone include: Avocent, Cabletron Systems, Element Six, Enterasys, GE, Gymboree, Halifax, Intel, Lufthansa Technik, Mentor Graphics, Molex, RSA Security, and Thermo King (Shannon Development, 2004).

One multinational company that has been particularly successful operating out of Shannon discussed its reasons for choosing the Shannon Free Zone. When Gymboree, a US based upscale children's clothing retailer, decided to extend its operations into Europe, it studied locations in the UK and Shannon. One requirement Gymboree had was to be able to provide inventory cycle times of 48 hours or less (Park, 1998). This involves receiving an order from a Gymboree store and then delivering that order from the distribution center by truck and ferry. Shannon is well suited for the distribution center. Gymboree can receive an order in the mid-afternoon from a store in Manchester (UK) and deliver that order by store opening the next morning (Park, 1998). Shannon also provides access to the major cities of Ireland. Shannon is a half hour by air or 2.5 hours by truck from Dublin (Park, 1998). The Shannon Free Zone site has also allowed Gymboree to pursue expansion and development. When Gymboree opened their distribution center at Shannon in 1997, they were only utilizing about 17,000 square feet of a 26,000 square foot building originally developed for manufacturing (Park, 1998). At the time the article was written, Gymboree was looking to develop a fully automated 50,000-60,000 square foot facility at Shannon (Park, 1998).

In exchange for reduced corporate tax and the Services of Shannon Development, Gymboree and other companies must meet specific requirements. Two of the most important are the requirement for the creation of jobs and the generation of passenger or freight traffic for Shannon Airport. For companies to qualify for the reduced tax rate, they must create a minimum of 15 new jobs over a three year period (Park, 1998). Gymboree's agreement with Shannon Development commits them to creating 40 jobs over a 5 year period (Park, 1998). To aid in creating those jobs, Shannon Development provided a 10,000 Irish pound grant per job created. The grant was used by Gymboree to offset rent costs, provide training for new employees, and to purchase capital (Park, 1998). In meeting their requirement to generate air traffic, Gymboree receives approximately 10 percent of their product through Shannon Airport while the other 90 percent arrives by container ship (Park, 1998).

Another company that has found success at Shannon is Cabletron Systems, a New Hampshire based manufacturing company of computer networking systems (Park, 1998). Cabletron opened a 55,000 square foot distribution facility at Shannon in 1997 (Park, 1998). The distribution facility supports its manufacturing facility located in Limerick, Ireland, which produces approximately 60% of its product worldwide (Park, 1998). Cabletron Systems has taken full advantage of the proximity of Shannon Airport. It moves approximately 25% of its products by air through Shannon Airport (Park, 1998). Any of its products weighing under six kilos and rush shipments are shipped out of

Shannon Airport by DHL (Park, 1998). Shannon Airport is also critical in helping Cabletron receive products. Cabletron receives 40 to 50 tons of cargo per month from the United States by air (Park, 1998). Shannon's proximity and ease of customs access makes receiving goods extremely efficient. Brendon Connors, distribution manager of Cabletron at the Shannon facility, reports, "From the time a plane lands until a shipment hits our back door is no more than two hours. That would be days in the U.S" (Park, 1998).

Overall, the Shannon Free Zone has been extremely successful in encouraging direct foreign investment in the west of Ireland. The arrangement has been profitable for both Ireland and for the companies participating in the Shannon Free Zone. US manufacturing companies have realized a 25% rate of return on investment in Ireland, the highest in Europe (See Appendix F). The Shannon region has benefited through the creation of new jobs and industries. There are approximately 7,500 people directly employed by companies participating in the Shannon Free Zone (Shannon Development, 2004). Multinational companies employ 53% of all people employed in manufacturing in the West of Ireland (Ennis, 2004).

The opening of the TCAA could threaten the future viability of the Shannon Free Zone. As indicated, the companies engaged in commerce through the Shannon Free Zone depend on air services through Shannon to move their products throughout Europe as quickly as possible. This requires frequent, daily, reliable air service. As Shannon Development states it, "Access is a prerequisite of economic success" (Shannon Development, 2003, June 6, "Consultation"). Under the TCAA, most air traffic is expected to relocate to Dublin. Inbound logistics would be particularly affected as goods would have to be unloaded, clear customs in Dublin, and then reloaded onto trucks to be shipped to Shannon. All unloading, customs work, and delivery can currently be done in the same day from the Shannon Airport to companies at the Shannon Free Zone Facility (Park, 1998). The shipping of goods by truck from Dublin to Shannon alone would add a minimum 2.5 hours (drive time) to the time goods arrive in Ireland to the time they reach the Shannon Free Zone. The time would further be increased by what should be longer unloading and customs times at the busier Dublin airport. To maintain access and competitiveness, it can be expected that fewer multinational companies will choose to relocate to the Shannon Free Zone if air access is reduced. The reduction in air services will have the effect of reversing the "virtuous cycle" (Shannon Development, 2003, June 6, "Consultation"). Fewer companies will choose the Shannon Free Zone because of reduced air services. In turn, air services will be further reduced by the drop in demand for them. However, if companies relocate to the Dublin region, they will have greater, more frequent air access to Europe as Dublin accounts for 84% of all European traffic from Ireland (Shannon Development, 2003, June 6, "Consultation"). Thus, the demand for air services in Dublin will increase both direct foreign investment and air services to Dublin, signaling the shift in demand from the Shannon Region.

Aer Lingus, IALPA, and Aer Rianta

The opening of the TCAA will have significant effects on Aer Lingus, Ireland's flag carrier. In turn, the way in which Aer Lingus serves Shannon Airport will be affected. Aer Lingus stands to achieve financial and market share gain under the TCAA regime. The Irish Air Line Pilots Association (IALPA) also supports the TCAA, as their membership should benefit from any gain Aer Lingus realizes. Aer Rianta, the Irish State owned airport management company, opposes the TCAA because of the damaging effects it will likely have on Shannon Airport and the Shannon Region.

The US-Ireland Bilateral restricts the routes Aer Lingus can operate to the United States. Currently, Aer Lingus may only operate from Ireland to JFK, BOS, ORD, LAX, and BWI (IALPA, 2004). Aer Lingus, restricted by the bilateral, has indicated that it may expand its routes if allowed to do so (Swords Fingal Chamber of Commerce, 2004). Awareness of the Aer Lingus brand is considered strong even in the United States (IALPA, 2004). Potential new markets for Aer Lingus include the Pacific Northwest, Florida, and various other parts of the South (IALPA, 2004). The biggest prize for Aer Lingus is the potential to break into the US market. The TCAA could allow Aer Lingus to perform cabotage in the United States domestic market, the largest market for air services in the world. Pilots at Aer Lingus could also see a financial benefit from the opening of the TCAA. As the international aviation markets converge, pilot wages in Ireland should begin to converge with wages of their US counterparts. Pilots of major EU carriers earn approximately 15% less than pilots of major US airlines (Brattle Group, 2002, p. 104). Pilots of smaller EU carriers earn noticeably less than that of major EU carriers. Ireland's Aer Lingus is a smaller EU carrier. Pilots at Aer Lingus earn approximately €67,000-123,000 per year compared to pilots of British Airways who earn between £54,000-120,000 (€77,000-172,000) (Future Airline Pilot, 2004).

Currently, the Irish Government owns 85% of the Aer Lingus' stock (SIPTU, 2004). The Irish Government has made it clear that it intends to privatize the airline (SIPTU, 2004). In the TCAA, ownership of airlines would not need to be majority controlled by national investors. It is therefore possible that Aer Lingus could be sold to foreign investors (Chambers of Commerce Ireland, 2004, July 6). Competition in Ireland is an issue. While Aer Lingus operates as an independent carrier currently, it is possible that it could be purchased by one of its American competitors (BMI, 2004). However, this could strengthen the airline. In the event that Aer Lingus finds itself in dire financial conditions, a foreign investor could provide much needed capital to support operations. European liberalization provides an excellent example of this in the sale of EuroBelgian Airlines to Virgin Atlantic, who renamed it Virgin Express(CAA, 2004, p. 9). Had Virgin Atlantic been restricted from purchasing the airline, EuroBelgian would have been liquidated (CAA, 2004, p. 9). Thus, the airline and the jobs it supported were saved. Airlines separated by the Atlantic are currently prevented from taking this course of action because of nationality clauses. While airlines are part of a global industry, such laws prevent them from acting as a global industry (BMI, 2004).

To further complicate matters for the future of Shannon, Aer Rianta is in the midst of a major restructuring. Until recently, Aer Rianta managed the airports of Dublin, Shannon, and Cork in Ireland. On July 14, 2004 legislation passed by Seanad Eireann began the process of restructuring the company into three independent state-owned authorities (Chambers of Commerce Ireland (CCI), 2004, July 14). The State Airports Act 2004 establishes the framework for reestablishing Aer Rianta as the Dublin Airport Authority and separating Shannon and Cork from Aer Rianta as the Shannon Airport Authority and the Cork Airport Authority respectively (Houses of the Oireachtas, 2004, p. 4).

The designated days Shannon and Cork will be separated are known as Shannon Appointed Day and Cork Appointed Day (Houses of the Oireachtas, 2004, p. 6). The legislation stipulates that these days can not occur before the 30th of April, 2005 (Houses of the Oireachtas, 2004, p. 6). Shannon, Cork, and Dublin airports will each be managed by these independent authorities. The intended purpose of the new structure is to give each authority the freedom to develop a business model that is adaptive to each airport's needs. Tadig Kearney, Chairperson of the Air Transport User's council, expresses the new boards' goal as, "to have more airlines offering more flights to more destinations at ever more competitive prices, all the time increasing consumer choice. This will promote tourism, enhance balanced regional development and underpin investment by international companies in Ireland" (CCI, 2004, July 14). Both the Shannon Airport Authority and Cork Airport Authority will start fresh with zero debt under the new legislation, while the Dublin Airport Authority will assume the total debt of Aer Rianta, which stands at €377 million (Aer Rianta Annual Report (ARAR), 2003, p. 25). The financial obligations of the new companies are listed under section 9.4.a of the State Airport Act. The duties of each airport authority are as follows:

> (4) (*a*) It shall be the general duty of each company from its
> appointed day—
> i) to conduct its affairs so as to ensure that the revenues
> of the company are not less than sufficient
> taking one year with another to—
> (I) meet all charges which are properly chargeable
> to its revenue account,
> (II) generate a reasonable proportion of the capital
> it requires, and
> (III) remunerate its capital and pay interest on and
> repay its borrowings. (Houses of the Oireachtas, 2004, p.11).

Essentially, each airport authority must operate in such a manner that it can pay its bills, purchase the capital equipment it requires, and repay the debts and interest it incurs in acquiring capital and conducting business. While this may seem to be a sound mandate for a new organization, it is unlikely that the Shannon Airport Authority will be able to meet its financial obligations unless the Irish government actively intervenes. In its 2003 Annual Report, Aer Rianta reported a healthy profit of €20.2 million. However, Aer Rianta's Annual Report 2003 does not individually list the profitability of each airport (SIPTU, 2004). In accounts provided to the Irish government, Shannon Airport reportedly lost approximately €6 million in 2003 (SIPTU, 2004).

Under the new legislation, the Shannon Airport would lose the cross subsidization from Dublin Airport that the Aer Rianta management group provides. The Shannon Airport Authority faces great challenges to meet its financial obligations without this subsidization. The Shannon Airport Authorty will face even greater financial stress under the conditions that the TCAA will bring. The SIPTU's members in Shannon believe that under a two aircraft for one (Dublin/Shannon) bilateral, Shannon Airport will lose approximately €9 million a year (SIPTU, 2004). However, even a two for one bilateral scenario provides a generous outlook compared to pure open skies as proposed in the TCAA. Under the TCAA, the SIPTU's members at Shannon expect the Airport to lose €16 million or more a year (SIPTU, 2004).

6.0 What Are Possible Solutions for Shannon?

Perhaps if the bilateral status quo is allowed to be temporarily maintained, the separation of Aer Rianta will give the Shannon Airport Authority a chance to expand its traffic base, while still receiving one US international arrival for every US international arrival at Dublin. New traffic and a new management plan might make the Shannon Airport a profitable venture. Some suggestions to stimulate growth at Shannon:

1. Change Shannon's focus from passenger operations to cargo operations.
2. Entice a low cost carrier to hub operations at Shannon.
3. Improve the ground infrastructure between Shannon and Dublin.

These are suggestions that face difficult implementation and would require the unwavering commitment of the Irish Government and the support of the EU. These suggestions may also seem to be idealistic. However, to prepare for the future, it is important not to forget the lessons of the past. To prepare for Shannon's future, one should consider the case of Glasgow Prestwick International Airport, the former sole international gateway to Scotland. As in Ireland, heated debate occurred as to how Prestwick would be affected if international gateway status was grated to Glasgow Abbotsinch Airport. In a parliamentary debate, one parliamentarian stated,

> "No one denies that Glasgow airport should have more direct flights to Europe and more European holiday flights, but it should not take away the transatlantic flights with sustain Prestwick airport. That would be the death knell of Prestwick, and Glasgow does not have the runway capacity or terminal and ground facilities to deal with such traffic" (Parliament, 1989).

The argument for Shannon sounds very similar to this one. Yet, Prestwick did lose its sole gateway status in 1989 and is now a prosperous airport. How did it manage to overcome the great challenge it faced in losing its major source of income? It did initially lose international passenger traffic and charter flights as expected (Parliament, 1993). In 1988 more than 162,000 passengers arrived at Prestwick. By 1992, the number had declined to fewer than 10,000, of which 7,000 were European Community nationals (Parliament, 1993). How did Prestwick manage not only to survive, but to turn a profit? First, the government divested Prestwick from the British Airport Authority. It was sold to PIK Holdings Ltd, a private enterprise. Second, it followed its own version of the three suggestions above. Early on BAA recognized the potential to increase freight traffic at Prestwick, however it did not aggressively pursue growth in freight. PIK Holdings Ltd aggressively worked for the transformation of the airport into a major cargo hub. PIK later sold the airport in 2001 to Infratil, a management company from New Zealand. Over the past 10 years Prestwick's freight business has increased by over 400% (GPIA, 2004). Infratil's experience has been that air freight grows as multiples of around 3x GDP, with special express freight growing around 6x GDP (Infratil, 2004). Infratil also speculates that the growth of the passenger aircraft fleet and its belly-hold capacity has not kept up with freight demand (Infratil, 2004). Prestwick is the only Scottish airport capable of providing services to large dedicated freight aircraft such as B747 freightliners. Prestwick handles freight aircraft 24 hours a day, receiving 23 weekly B747 freight services, more than any other airport in the UK (Infratil, 2004). It provides these freight companies with uncongested skies, fast turnaround times, and competitive prices (Infratil, 2004). Prestwick's freight handling facilities are attractive. It built a new 1,500 square meter freight building to handle cargo and a new maintenance hangar for Polar Air in 1998 (Infratil, 2004).

Infratil has also revitalized passenger traffic at Prestwick. In 2004, Prestwick handled 1,969,458 passengers, making it the UK's third largest growing regional airport. A close relationship with low cost carrier Ryanair has helped Prestwick tremendously. The companies enjoy a mutually beneficial relationship (Infratil, 2004). Prestwick benefits from the revenue it generates from providing services to Ryanair, and Ryanair benefits from the highly cost competitive services that Prestwick provides it.

Another step that Prestwick has taken is improving the rail infrastructure between it and Glasgow. Highly developed ground infrastructure is vital to Prestwick's success as it makes it easy for passengers to fly in to Prestwick and then link by rail to the major city of Glasgow. Prestwick is connected to downtown Glasgow by a direct rail link. The link is integrated with a rail stop built into Prestwick's airport terminal. Passengers can travel to downtown Glasgow on the rail link services which run every 30 minutes with a travel time of 40 minutes enroute (Infratil, 2004). Also, passengers who choose Prestwick benefit from a 50% discount on their rail fare anywhere in Scotland.

Prestwick also competes with the larger Glasgow Abbotsinch by offering the ability to handle all types of aircraft at all hours of the day. While Glasgow Abbotsinch handles around 7.2 million passengers per year and 40 airlines, it is restricted in the types of aircraft it can accept because its longest runway is only 2650 meters compared to Prestwick's runway of 2987 meters (Infratil, 2004). Glasgow Abbotsinch has nighttime curfews due to noise issues. Prestwick is able to operate 24 hours a day unrestricted because it has sparsely populated runway approaches (Infratil, 2004). Prestwick is able to offer airlines significant pricing advantages and no runway, apron, or terminal congestion issues that delay aircraft and cost airlines money (Infratil, 2004). The potential for growth at Prestwick is also greater than that of Glasgow Abbotsinch. Glasgow Abbotsinch has physical and operational capacity constraints that it may not be able to significantly overcome in the future. This leaves the excess capacity of Prestwick open for expansion both in traffic and facilities.

How can Shannon benefit from and apply the lessons that have been learned by Glasgow Prestwick International Airport? In a sense, the Irish government has already taken the first step by separating Aer Rianta into three independent government organizations. This will give Shannon some of the freedom it needs to make tough decisions, and will determine the success or failure of the Aer Rianta separation for Shannon. While Shannon does currently cater to freight carriers, it could work to market Shannon as a cargo hub. Initial research by Shannon Development indicates that Shannon could be used to move freight anywhere in Europe within 24 to 48 hours (Clare County Development Board, 2004). This could involve expanding facilities for interested cargo carriers. It would also most likely involve making pricing of services extremely competitive compared to prices of cargo handling at Dublin. If cargo carriers could operate at an economy of scale at Shannon, the idea may be practical. Second, Shannon may attempt to attract a low cost carrier to hub operations at Shannon rather than Dublin. The idea of attempting to attract a carrier to hub operations at Shannon has even been discussed in the Irish Parliament (Houses of the Oireachtas, 2003, May 21). The carrier would not currently have significant investment in facilities in Ireland, especially at Dublin Airport. Thus, any growth would be new growth rather than the shifting of operations. Any flight operations that are to be shifted under the TCAA will go toDublin, not Shannon. Third, and most importantly, the ground infrastructure connecting Shannon

Airport with Dublin, Cork, and other major industrial centers must be improved (See appendix C). In appendix B, the rail infrastructure of Ireland is pictured. Currently, there is no direct rail link between Shannon and Dublin. In the Glasgow Prestwick case, fast rail access to the major city of Glasgow was a prerequisite for success of the new plan. A high speed passenger rail link or at least a direct freight rail link with Dublin is necessary, and would aid in the balanced spatial development of Ireland (See Appendix D). To be competitive and acceptable to passengers, a high speed rail link should move passengers from Shannon to Dublin in an hour's time (Murphy, 2004). Without a link directly connecting Shannon with Dublin, the first two suggestions may be impractical and ineffective (Murphy, 2004). Once again, "Access is a prerequisite of economic success" (Shannon Development, 2003, June 6, "Consultation").

7.0 Conclusions

The negotiations between the United States and the European Union over the details of the TCAA will take time, but will eventually replace the current structure of bilateral agreements. A free market can and will change the way the aviation industry operates in the United States and Europe. Passengers and airlines will both benefit from reduced costs and improved opportunities that the TCAA will bring.

The TCAA is likely to be adopted, and the bilateral between the US and Ireland to be nullified. Ireland is not likely to oppose the TCAA strongly because the TCAA will mean net growth of aviation services in Ireland, increase in tourism, and creation of jobs.

The TCAA is expected to increase international passenger traffic between 9 and 24 percent. Overall, that means more money for Ireland.

Shannon will lose the international traffic that keeps it alive under its current plan of operations. The Shannon region faces a loss of jobs, tourism, and direct foreign investment when a full open sky policy is put in place. US airlines will not continue serving Shannon, because an economy of scale can be realized by concentrating services at Dublin. The separation of Aer Rianta into separate Airport Authorities will place the Shannon Airport Authority at a financial disadvantage. The Shannon Airport Authority will not be able to meet its goal of more flights and increased consumer choice as it will no longer be able to use access to Dublin as a bargaining chip. Instead, it will struggle to maintain Shannon as a choice at all. Without a radical change in operating philosophy, Shannon's future will be compromised. Those charged with the care of Shannon should take decisive action now to secure its continuing place as the economic flagship of the west of Ireland.

Appendix A: Winter and Summer Service Schedules at Shannon Airport

Source: Aer Rianta Shannon 2004, January.

Appendix A: Winter and Summer Service Schedules at Shannon Airport
"The tables below show the Winter and Summer schedules at Shannon Airport, and illustrate the continuing importance of transatlantic service" (Aer Rianta 2004, Jan).

PASSENGER SERVICES- WINTER 03/04				
Route	**Airline**	**Category**	**Weekly Frequency**	**Equipment**
Amsterdam	Skynet	Sched.	6	Boeing 737
Atlanta	Delta	Sched	3 direct, 4 via Dublin	Boeing 767
Birmingham	Flybe	Sched	6	DH 8
Boston	Aer Lingus	Sched.	7	Airbus 330
Brussels	Ryanair	Sched.	7	Boeing 737
Chicago	Aer Lingus	Sched.	6 via Dublin	Airbus 330
Dublin	Aer Lingus	Sched.	20	Airbus 330
Frankfurt	Ryanair	Sched.	1	Boeing 737
London LHR	Aer Lingus	Sched.	21	Airbus 320
London STN	Ryanair	Sched.	26	Boeing 737
Manchester	British Airways	Sched.	7	Bae 146
Minsk	Belavia	Sched.	2	Tupolev 154
Moscow	Skynet	Sched.	6 via AMS	Boeing 737
Newark	Continental	Sched.	7	Boeing 757
New York	Aer Lingus	Sched.	7	Airbus 330
Paris	Ryanair	Sched.	7	Boeing 737

FREIGHTER SERVICES- WINTER 03/04				
Chicago	Air France Lufthansa Polar Air	Sched. Sched. Sched.	1 1 2 via JFK	Boeing 747 Boeing 747 Boeing 747
Cologne	DHL	Sched.	6 via Dublin	Airbus 300
Cork	TNT	Sched.	6	BAe 146
Dublin	DHL UPS	Sched. Sched.	6 6	Airbus 300 Airbus 300
East Midlands	DHL	Sched.	6	Airbus 300
Frankfurt	Lufthansa	Sched.	1	Boeing 747
Liege	TNT	Sched.	6	BAe 146
Luxembourg	Cargolux	Sched.	1	Boeing 747
New York	Polar Air	Sched.	2	Boeing 747
Paris	Air France	Sched.	1	Boeing 747
San Francisco	Cargolux	Sched.	1	Boeing 747

PASSENGER SERVICES- SUMMER 03				
Route	**Airline**	**Category**	**Weekly Frequency**	**Equipment**
Amsterdam	Skynet	Sched.	6	Boeing 737
Atlanta	Delta	Sched	3 direct, 4 via Dublin	MD 11
Baltimore	Aer Lingus	Sched.	5	Airbus 330
Birmingham	Flybe	Sched	8	DH 8
Boston	Aer Lingus	Sched.	14	Airbus 330
Brussels	Ryanair	Sched.	7	Boeing 737
Chicago	Aer Lingus	Sched.	7 via Dublin	Airbus 330
Dublin	Aer Lingus Skynet	Sched. Sched.	16 2	Airbus 330 Boeing 737
Frankfurt	Ryanair	Sched.	1	Boeing 737
London LHR	Aer Lingus	Sched.	27	Airbus 320
London STN	Ryanair	Sched.	28	Boeing 737
Manchester	British Airways	Sched.	7	Bae 146
Minsk	Belavia	Sched.	2	Tupolev 154
Moscow	Skynet	Sched.	6 via AMS	Boeing 737
Newark	Continental	Sched.	7	Boeing 767
New York	Aer Lingus	Sched.	9	Airbus 330
Paris	Ryanair	Sched.	7	Boeing 737
Philadelphia	US Air	Sched.	7	Boeing 767
Toronto	Air Canada	Sched.	7	Boeing 767

FREIGHTER SERVICES- SUMMER 03				
Chicago	Air France Lufthansa Polar Air	Sched. Sched. Sched.	1 1 2 via JFK	Boeing 747 Boeing 747 Boeing 747
Cologne	DHL	Sched.	6 via Dublin	Airbus 300
Cork	TNT	Sched.	6	BAe 146
Dublin	DHL UPS	Sched. Sched.	6 6	Airbus 300 Airbus 300
East Midlands	DHL	Sched.	6	Airbus 300
Frankfurt	Lufthansa	Sched.	1	Boeing 747
Liege	TNT	Sched.	6	BAe 146
Luxembourg	Cargolux	Sched.	1	Boeing 747
New York	Polar Air	Sched.	2	Boeing 747
Paris	Air France	Sched.	1	Boeing 747
San Francisco	Cargolux	Sched.	1	Boeing 747

Appendix B: Rail Infrastructure of Ireland

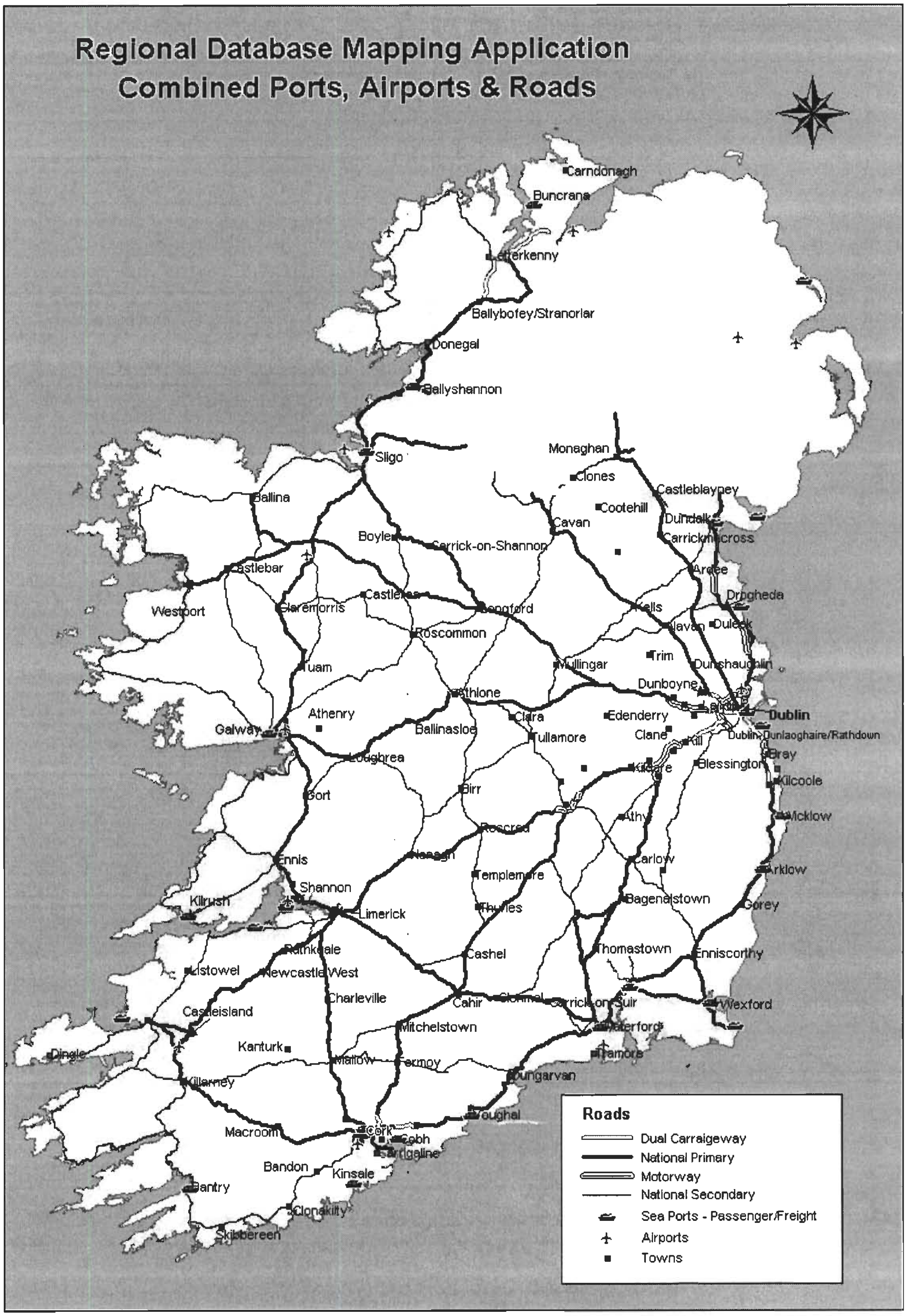
Source: Infrastructure Ireland 2004

Appendix B: Rail Infrastructure of Ireland

Appendix C: Ports, Airports, and Roads Infrastructure of Ireland

Source: Infrastructure Ireland 2004

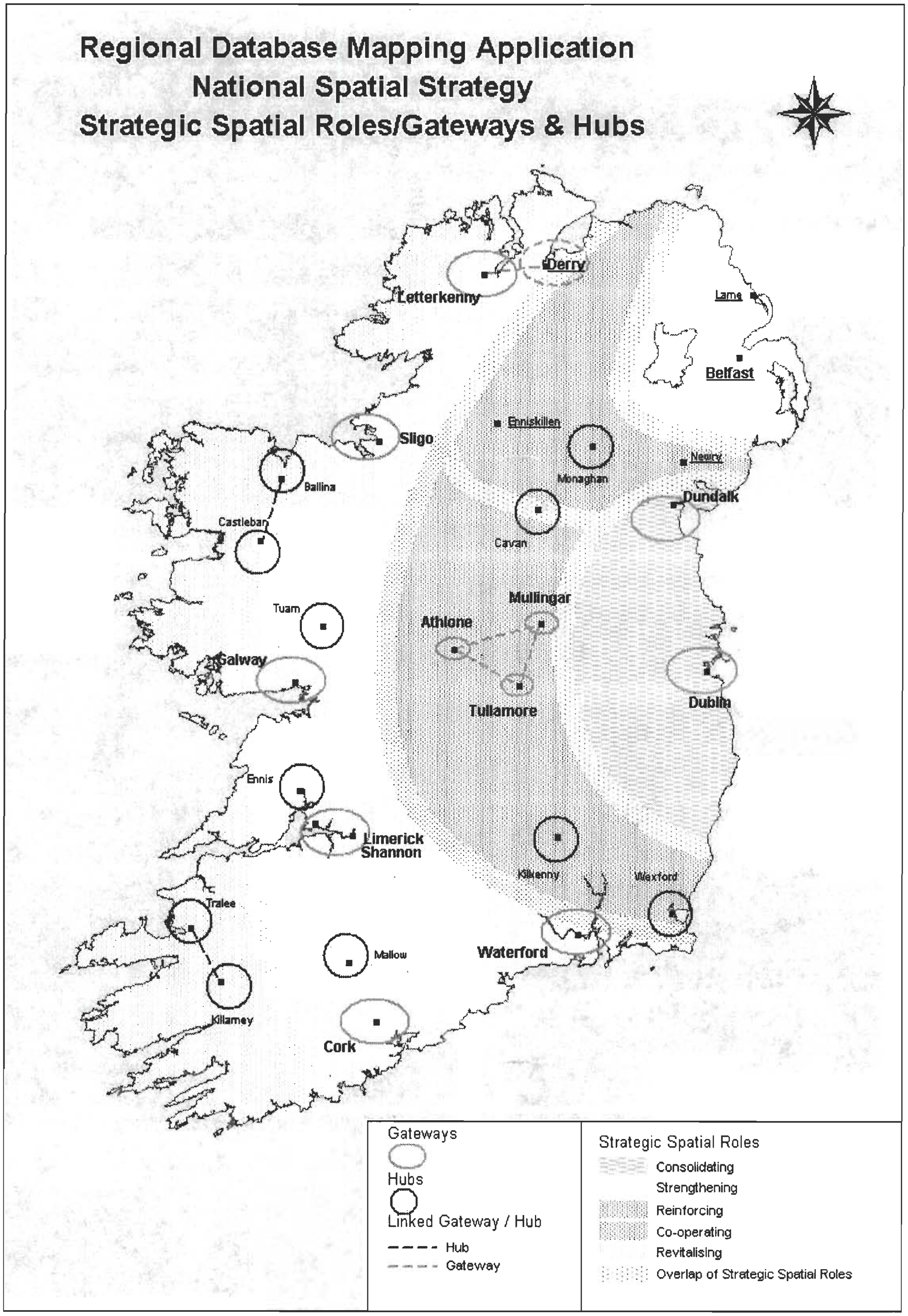
Appendix C: Ports, Airports, and Roads Infrastructure of Ireland



Appendix D: Ireland's National Spatial Strategy

Source: Infrastructure Ireland 2004

Appendix D: Ireland's National Spatial Strategy



Appendix E: Map of the Shannon Free Zone

Source: Shannon Development, 2004


Shannon Development
Shannon Town Centre,
Shannon, Co. Clare, Ireland.
Tel: 061 361555 Fax: 061 361903
Email: info@shannondev.ie
URL: www.shannonireland.com
SHANNON DEVELOPMENT
Shannon offers
• A competitive cost base
• Modern infrastructure
• Ready-to-occupy office and industrial accommodation options
• Availability of young and well educated workforce
• A competitive corporation tax rate
Shannon Free Zone Location Map
Main Runway
Runway System
Shannon Free Zone - West
Shannon Free Zone - East
Brookvale Plaza (Elsevier - Veritas - Contact Partners)
Flextronics Logistics
Irish Aviation Authority
Dromore House
Intel
Buffalo Technology
AR
N18
To Galway
To Limerick
Air Atlanta
Aer Lingus
CHC Ireland
Links Helicopters
Element Six
PCC Unbrako
GE Insurance Services
PCC Hi-Life Tools
Thermac Engineering
FAS
Tyco Electronics - Raychem International
Distribution Centre
Schwarz Pharma
Westpark Future Development
GE Panametrics
ITW
Molex
Thermo King Europe
John Crane Sealol
EI Electronics
Mohawk Europa
G.E. Aviation House
Gymboree
Tecnomen
Avocent House
Exel Freight Management
Shannon Business Park
debis Air Finance House
Universal House
Shannon Airport House
Partners in Europe
Westair
Bank
Footbridge
N19
Shannon International Airport Entrance
Shannon International Airport & Knockbeg/Warehousing
Shannon Town Roundabout
To Shannon Aerospace
To Galway/ Limerick/ Ennis
To Shannon Town Centre (500m) Shannon Development Head Office (500m)
To Shannon Free Zone East
Note:
While every effort has been made to ensure accuracy in this

Appendix F: Charts

Sources: Figure A: Shannon Development 1999

Figure B: Shannon Development 2004

Appendix F: Charts

Figure A: Rate of Return on Investment in Manufacturing in EU Countries

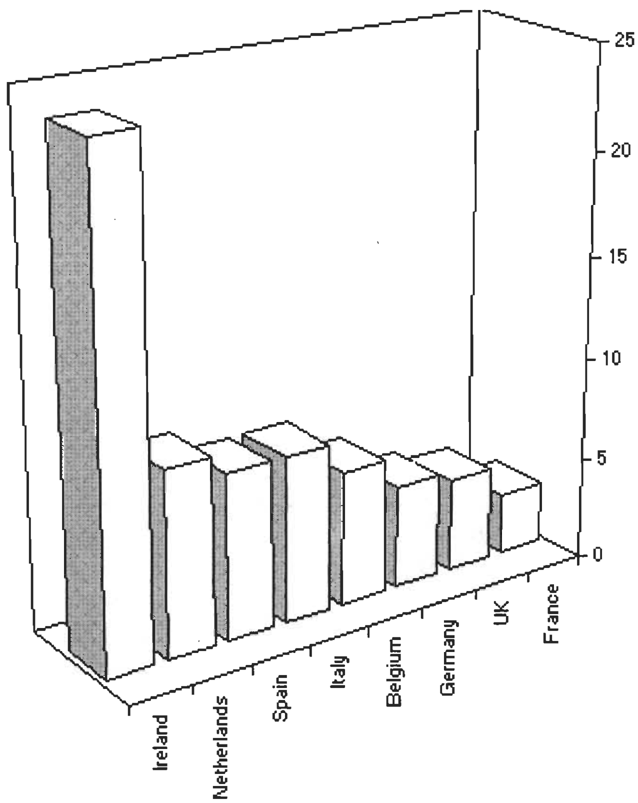
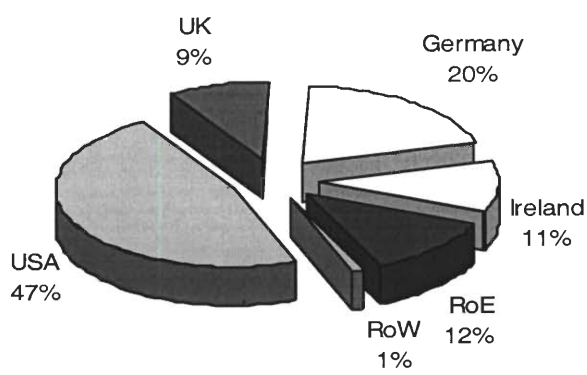


Figure B : Employment in the Shannon Free Zone by Origin of Parent Company:



RoE = Rest of Europe
RoW = Rest of World

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