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Alexid Wai Kit Lam
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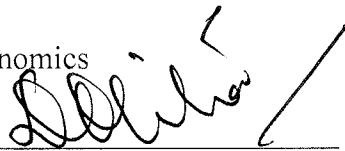
Planet of the Celtic Tiger

A Capstone Project Submitted in Partial Fulfillment of the
Requirements of the Renée Crown University Honors Program at
Syracuse University

Alexid Wai Kit Lam
Candidate for B.S. Degree
and Renée Crown University Honors
May 2015

Honors Capstone Project in Economics

Capstone Project Advisor:



Devashish Mitra, Professor of Economics

Capstone Project Reader:



Dan Zacharia, Professor of Mathematics

Honors Director:

Stephen Kuusisto, Director

Date: May 1, 2015

Abstract

Due to the vast developments in technology and information sharing, developing countries now have instant access to a library full of articles documenting the growth of various developed countries in the world. As these countries are searching for an economic model and hoping to replicate its result, they often come across Ireland's economic success during the Celtic Tiger times. During this period, Ireland transformed from the "poorest of the rich" to "one of Europe's shining lights." Although Ireland's economic growth seems extremely appealing, how likely is it that another country could follow Ireland's success by adopting its economic approach?

This project begins by providing a brief overview of Ireland's economic history to describe Ireland's economic status prior to the growth, followed by the build-up to the Celtic Tiger years and Ireland's success, and it ends by analyzing its eventual slowdown due to the global financial crisis. The paper concludes by answering the question, "Is the Celtic Tiger a replicable success story?"

Executive Summary

Vast developments in technology now allow information to be shared instantly. As globalization happens faster than ever, developing countries now have access to the different approaches that developed countries undertook to reach their success. Among all the successfully economic models, such as the industrialization of Western European countries, the economic development of the Four Asian Tigers (namely, Hong Kong, South Korea, Taiwan and Singapore) and the ongoing transformation of China, developing countries have to decide which of these models are most applicable to them. The case of the Celtic Tiger particularly stands out among all cases. The Celtic Tiger describes a period of high economic growth that Ireland experienced between 1995 and 2000. Unlike most other successful nations, Ireland did not undertake industrialization. Instead, it has relied heavily on exporting high-tech goods and services supported by foreign direct investment. This provides an ideal formula for developing countries, as it does not require a large amount of initial resources; instead, it takes advantage of globalization by attracting foreign resources to help Ireland develop economically. This project examines the feasibility of the economic model for replication by other developing countries.

To fully understand the economic model, we have to first understand the state of Ireland before all of the development occurred. This helps developing countries to compare their current state with the beginning state of Ireland, and figure out whether they have the resources to undergo similar development. To achieve that, this project provides a brief economic history of Ireland, from the year it was founded to the years leading up to the economic boom.

Ireland's economic transformation should be examined through its causes and results. The next portion of the project begins by discussing the series of changes Ireland undertook to trigger the economic boom. These policy changes form the structure of the economic model crucial for

other countries to imitate. The results of the economic boom are then thoroughly analyzed for their impact on the country. Lastly, the project examines the sustainability of this economic growth. Due to the nature of the growth of Ireland, the country entered one of its largest recessions in history following the global financial crisis. The success of the Celtic Tiger largely contributed to this recession, and it is important for developing countries looking to follow this model to fully understand the risk it implies. The project ends with a series of discussions on the recovery attempt Ireland is making to provide solutions to the negative impact of the recession.

To conclude, this economic model provides a number of policies that could and should be followed by developing countries. These policies largely increase the competitiveness of a country, to encourage globalization and a better allocation of resources. However, there are plenty of traits that cannot be imitated. Developing countries need to be aware of this and adapt the model to fit its relative advantage. To evaluate the effectiveness of this model, developing countries should also take into account the implications and sustainability of this economic model. This analysis provides a brief overview of what policies will need to be implemented after development to ensure ongoing economic success. In all, this project provides a thorough evaluation of the Celtic Tiger—what it takes to implement it, as well as what follows such development. By understanding this, developing countries could ultimately decide whether it will be worthwhile to follow the course of the Irish development.

Table of Contents

Abstract.....	ii
Executive Summary.....	iii
Preface.....	vi
Acknowledgements.....	viii
Chapter 1: Introduction.....	1
Chapter 2: Founding of the Celtic Tiger.....	4
Pre-Independence.....	4
Irish War of Independence and Founding of Irish Free State.....	5
Irish Civil War.....	5
Chapter 3: Rise of the Celtic Tiger.....	7
1920's to 1930's and the Economic War	7
1940's to 1950's and the Failed Protectionism.....	10
1960's to 1970's and the First Taste of Success.....	11
1980's and the Economic Reform.....	13
Chapter 4: The Celtic Tiger.....	15
Introduction of the Celtic Tiger.....	15
Buildup of the Celtic Tiger.....	15
Impact of the Celtic Tiger.....	17
Slowdown and Resurgence of the Celtic Tiger.....	18
Symptoms of the Dawn of the Celtic Tiger.....	18
Chapter 5: Dawn of the Celtic Tiger.....	20
Causes of the Dawn.....	20
Slowdown of the Celtic Tiger.....	22
Recovery Attempt.....	23
Chapter 6: Comeback of the Celtic Tiger.....	27
Chapter 7: Conclusion.....	30
Works Cited.....	35

Preface

In the fall of 2013, I stepped foot in Ireland for the first time. I had very little knowledge about the area, other than its beautiful scenery, which often became computer wallpaper. I took a seminar before my study abroad semester officially began, and I could not have asked for a better way to spark my interest in this beautiful country. Other than various sightseeing activities, we took classes about the history of Ireland. As an economics student, the incredible economic transformation immediately captured my attention. We had a brief lecture on Ireland's becoming the Celtic Tiger, as well as its eventual slowdown following the economic boom. As I walked through the streets of Dublin and Belfast, all I saw were two very modernized cities that could compare to some of the most developed ones in the Europe. It made me even more curious about how the development came about, upon learning the initial struggles the country faced in the early years. My interest in the field continued to expand when I enrolled in a globalization class during my abroad semester in London. Through that, I got to explore the policies that Ireland undertook to make it all happen. To say the least, my semester abroad had me admiring the Irish culture incredibly, besides Guinness.

On the other hand, I believe my undergraduate experience through classes has been very divided. I got to take classes on various economics topics, such as globalization, econometrics, structures of financial institutions, etc. Yet there was very little experience where I got to explore how all these topics intertwine. Furthermore, the topics I learned about were mostly the mere results of cause and effect, namely, one action or policy often leads to one or multiple effects. Economic effects, however, are never one-sided, black and white. One thing I learnt through econometrics is that there are always variables that are left out that could affect the regression of linear models. Factors that are generally seen as beneficial to an economy can often lead to some negative effects as well. My study of the Celtic Tiger model reflects just that.

As I walk across the stage on the day of graduation, I will begin to build my own career path. My interest largely lies in the financial field, so it would be safe to say my career path will be somewhere in that direction. One thing I found my education in the School of Management lacked was an understanding of the macroeconomic environment. Although my Capstone mainly focused on the Irish economy, plenty of the factors associated with the Irish economic growth could contribute to any economic development. On the other hand, as I explored the effects of the 2008 Financial Crisis on Ireland, I also learned about how economic growth can end up hurting an economy. Even learning about the aftermath of the crisis showed me how an economy could adjust its policies to recover, even though it had been relying on the same policy for over forty years to succeed. I believe this project has vastly expanded my knowledge of the macro economy. It even expanded my knowledge of government policies, which I had absolutely no prior experience with. This experience, on a smaller scale, should be shared by all of the students in the School of Management to gain a broad understanding of the economy.

To sum it all up, this Capstone has provided me an opportunity to explore something that I am interested in, which stemmed from one of my most memorable experiences at Syracuse University. Along the way, I started to see the importance of this topic to developing my personal knowledge base. Many have told me about the possibility that this project will never be read again, or told me that my knowledge of the Irish economy will never be applicable anywhere, unless I pursue a career in government policy. Yet, my biggest take-away from this project was my experience with creating a project of this scale, the thinking that was sparked by my research, and my expanded understanding of the economy. If this project will never be seen

again, or never provide any significance to anyone other than me, I will still have graduated from Syracuse University completing something that I would have never, in my freshman year, have imagined as being achievable. And this feeling is well worth all the coffee, late nights and stress relating to this project. If you have happened to read this, I hope you take away some of my knowledge and experience with you!

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Acknowledgements

A project of this scale could never become a reality if I never received any help and guidance from the scholars in this institution. I would like to give thanks to Professor Devashish Mitra for his invaluable knowledge on the field of Economics, in particular the topic of globalization, Professor Dan Zacharia for his indispensable feedback on ensuring the quality of my work, and Professor Will Geoghegan for the sharing of his unique experience and understanding of the Irish culture and economy. Lastly, I would like to thank my family for supporting my journey to grow personally and academically.

Chapter 1

Introduction

The Republic of Ireland is one of the youngest countries in Europe, as it did not gain independence from the United Kingdom until 1922. Immediately after gaining independence, an internal dispute led to the Irish Civil War, which tore the nation apart. The civil war also left the newly established state hugely in debt. The economic conditions worsened when Ireland sparked a trade war with the United Kingdom, its largest trade partner at the time. Stagnated economic growth, along with a global recession, had the Irish government turning to a protectionist economic policy. This strategy failed, due to the lack of resources in Ireland. The failing economic condition continued through the 1940s and 1950s, during which Ireland saw a large amount of its population emigrate from the state.

No signs of improvement showed until late 1950s. The Irish government finally realized economic protectionism was unsustainable. Large economic policy reforms took place. This paved way for a series of open economic policies. The Irish government began to lower its tariffs to allow more trade activity. Later inclusion of Ireland in GATT and EEC allowed the country to expand the amount of its trade partners exponentially. To further encourage trade, the government decided to exempt tax on sales generated from exports. The government also decided to loosen its control over foreign businesses. This policy attracted many foreign businesses to invest in Ireland.

Even though Ireland was attracting foreign capital, the Irish economy was still largely composed of agriculture. The country then decided to exponentially increase its public expenditure, particularly for infrastructure and education, in order to create jobs and increase the employment rate. At the time, the world was facing a high inflation, due to the oil crisis. The large public expenditure was proving to be unsustainable, as the public deficit skyrocketed. Economic instability led to political instability. This internal environment of Ireland discouraged some foreign investment, which proved to hurt the economy even more.

A second wave of policy reform came in near the end of 1980s. At the time, two opposing political parties decided to vote in agreement on policies, as long as they were in the national economic interest. A series of economic and welfare reforms, tax cuts, increased competition and a reduction in borrowing to fund current spending were implemented. This change proved to be a great recipe for sustainable economic success. An economic miracle known as the “Celtic Tiger” then began to take flight.

Through this period of growth, Ireland emerged from being the “poorest of the rich” in the 1980s to being one of “Europe’s shining lights” in the 2000s. Before the rise of the Celtic Tiger, the unemployment rate had reached 20%, and more than 1% of the Irish population was moving out of the country for better opportunities. In order to turn the country’s economy around, the government reduced public spending and cut taxes, especially corporate taxes. Furthermore, Ireland had little intervention in the activity of foreign businesses. These friendly policies towards foreign corporations attracted them to set up headquarters in Dublin. On the other hand, Ireland has the strategic location of being in between the U.S. and the rest of Europe. Therefore, by setting up headquarters in Ireland, lots of corporations found a common ground to better monitor their business in both the U.S. and Europe. At the same time, a well-developed

education system had trained a young and skillful work force to complement the high-tech companies setting up headquarters in Ireland. The English-speaking nature of the country also proved to be crucial in attracting foreign businesses.

As its economy enjoyed between 7.8% and 11.5% annual GDP growth between 1995 and 2000, Ireland became an extremely attractive place to relocate to. Housing prices skyrocketed, as foreign investment remained strong within the country. Furthermore, the Irish economy became largely dependent on foreign investment to stimulate growth. All of Ireland's previous attractiveness then turned into the fueling of the Irish financial crisis that spun from the global economic crisis.

Ultimately, the story of the Celtic Tiger, despite its eventual slowdown, has provided an intriguing model many developing countries look to replicate. By understanding the years that led up to the economic boom, the pieces that created the Celtic Tiger, and the causes of the slowdown of the economic miracle, we can then understand how realistic it is for other developing countries to try to adopt this model for their own development. A question should be answered at the end of this paper: "Is this success story replicable?"

Chapter 2

Founding of the Celtic Tiger

Pre-Independence

Prior to December 6, 1922, the island of Ireland was part of the United Kingdom of Great Britain and Ireland. As the Irish Parliamentary Party slowly gained influence, it successfully achieved home rule for Ireland after the passing of the Third Home Rule Act 1914. This served as the first stepping-stone towards Irish independence. Due to World War I, the implementation of the Third Home Rule Act was suspended. The unsuccessful implementation of the bill to provide home rule for Ireland then led to animosity towards Britain. As a result, the Irish Volunteers and the Irish Citizen Army launched the 1916 Easter Rising. The uprising began on April 24, 1916, with a declaration of independence. However, the British army soon put down the fight. While the majority of the rebels were imprisoned, fifteen of them were executed as traitors to Britain. Although the uprising was largely unsuccessful, it had a profound influence on the Irish population, which was crucial to Ireland's later gaining of independence. After the 1918 general election, 73 of Ireland's 106 elected Members of Parliaments belonged to the political party, Sinn Féin, and they refused to take their seats in the British House of Commons. In turn, they went on to set up an Irish parliament, Dáil Éireann, and issued a Declaration of Independence in 1919 to proclaim an Irish Republic. However, this new Irish Republic was recognized only by the Russian Soviet Republic.

Irish War of Independence and the Founding of the Irish Free State

Theoretically, the island of Ireland still belonged to Britain at the time of the issuance of the Declaration of Independence by Sinn Féin on January 21, 1919. Later on the same day, two members of the Royal Irish Constabulary were shot dead, and this marked the beginning of the conflict known as the Irish War of Independence, or Anglo-Irish War. The conflict was largely fought between the Irish Republican Army and the British security forces in Ireland over the independence of Ireland. The war lasted for about two and a half years and ended in a ceasefire, agreed to on July 11, 1921. This conflict and the ceasefire eventually led to the signing of the Anglo-Irish Treaty on December 6, 1922. This treaty ended British rule in most of Ireland and granted independence to the Republic of Ireland. However, Northern Ireland, a polity consisting of six Northern Ireland counties, created in May of 1922 by the British Parliament, was given the right to opt out of the new state and return to the United Kingdom, which it exercised. This has created a rather unique situation in Northern Ireland, in which part of the population, represented by republicans and mostly Catholics, prefers to be part of the Republic of Ireland, while the other, represented by loyalists and mostly Protestant, would like to remain part of the United Kingdom. This disagreement between the two opinions has escalated and resulted in violent incidents. On the other hand, disagreements over the terms and conditions of the Anglo-Irish Treaty among republicans in the Republic of Ireland led to the Irish Civil War.

The Irish Civil War

The two opposing sides among the Irish republicans in the conflicts were the new Irish Free State forces, which were pro-Anglo Irish Treaty, and the Anti-Treaty forces, which were against the treaty and saw it as a betrayal of the Irish Republic. The treaty established the Irish Free State as an autonomous dominion of the British Empire, headed by the British monarch,

much like Canada and Australia. Furthermore, the members of the new Irish parliament would have to take an Oath of Allegiance laid down by Britain, which further enforced the idea of a dominion rather than a truly free and independent state. Other disagreements included the disestablishment of the Irish Republic declared in 1919, the abandonment of the First Dáil, which was the first Irish parliament, and the continuing occupation of the Treaty Ports on Ireland's south coast by the Royal Navy. The Irish Free State forces saw this treaty as the first step to achieving full Irish independence, but the opposing forces saw it differently. After eleven months of conflict, the Civil War was won by the Irish Free State forces, which were largely supported by the British Government with resources, along with the threat of a return of the Crown forces. The war resulted in the enforcement of the Anglo-Irish Treaty.

After the War of Independence and the Irish Civil War, the Irish Free State was finally established. The freedom, however, came at a great economic cost that largely hurt this new country's economic ability. The war destroyed countless administrative buildings and businesses, railway infrastructure and roads, accounting for over £30 million, which is equivalent to \$1.9 billion in today's value. On top of this, the Irish Civil War cost another £17 million, approximately \$1.1 billion today. All these expenses resulted in a budget deficit of over £4 million in 1923 for the Irish Free State, which can be translated to \$250 million in today's value. This financial situation led to the State's inability to pay its share of Imperial debt to Britain under the treaty, and ultimately to the loss of power to negotiate its border with Northern Ireland.

Chapter 3

Rise of the Celtic Tiger

1920's to 1930's and the Economic War

Prior to the establishment of the Irish Free State, most industrialization happened in the northeast part of Ireland, in particular, Belfast. This newfound independence allowed Ireland to attempt to industrialize the south of the island. However, the attempts never took flight, largely due to a lack of resources. Instead, the country remained focusing on agriculture. Ireland then increasingly focused on exporting agricultural and processed goods, such as beer and dairy products. This movement also gave rise to state-owned factories.

Although Ireland finally gained independence from Britain, the country's influence on its former state has remained strong. One of the ways Britain established its power over Ireland's policies was through trade barriers. Britain remained one of the biggest trade partners of Ireland. Furthermore, the trade barriers were particularly impactful, due to the weak economic status of Ireland after the Irish Civil War. This then served as the basis for a trade war between the Irish Free State and Britain when a later dispute happened.

Beginning in the late 1920's, the Great Depression caused the most drastic economic downturn the world had seen at the time. Worldwide GDP fell by 15% from 1929 to 1932. This naturally caused a drastic fall in demand for Irish exports on the international market. The new Fianna Fáil government in 1932 decided to adopt a protectionist policy, in hopes of slowing

down the economic downturn. Ireland had a large imbalance of trade on top of a mountain of national debt that was only magnified by the recession. The new policies encouraged the Irish population to buy Irish goods, as opposed to imported goods, by setting numerous tariffs for a wide range of imported goods, mainly from Britain. The ultimate goal of this change in policy was to make Ireland agriculturally and industrially self-sufficient. However, due to a lack of resources, the attempt was hardly a success. In turn, the state had to take control of private interest, which led to nationalization and the creation of monopolies.

Aside from the protective policy against imports, particularly those from Britain, the Irish government decided to stop the repayment to Britain of land annuities. These payments came from government loans made by Britain, which allowed Irish farmers to purchase lands from their landlords under the Irish Land Act from the 1880's, which was further introduced in 1922 after the Irish Free State was established. The end of payments stemmed from a series of miscommunicated agreements. First, the W. T. Cosgrave government assured that the Irish Free State would honor its debts, including land annuities and other financial liabilities, after the establishment of the Free State. The United Kingdom and the Irish Free State jointly signed the London Agreement in 1925, which stated that the Irish Free State no longer had to contribute to the public debt payments of the United Kingdom agreed upon in the 1921 Anglo-Irish Treaty, given the condition that the Irish Free State boundary would stay as it was determined in 1920. However, the land annuity payments were never addressed. The Irish Head of Government, Éamon de Valera, then went on to interpret the land annuities as part of the public debts stated previously and decided the payments would no longer be made. The Land Act of 1933 was then passed to allow the annuity money to be spent on local government projects. Multiple talks occurred. However, the discussion broke down on whether the annuity payment liabilities should

be decided by a panel composed of experts from the British Empire or from the whole world. To further deepen the conflict, De Valera claimed that Britain should return the £30 million in previously paid annuities, along with a £400 million compensation for Britain's alleged over-taxation of Ireland between 1801 and 1922.

Since the British could not obtain the land annuities as expected, the British government decided to impose a 20% duty on Irish agricultural products imported into the UK. Given the nature of Irish exports, composed mainly of such goods, the import duty ended up being imposed on 90% of all Irish exports. Ireland responded by imposing a similar duty on all British imports. However, the Irish economy was badly affected, while the effect on the British economy happened in a much smaller scale.

Although the Irish government stopped the land annuity payments, it did not stop the collection of annuities of over £4 million annually from its farmers. This created a difficult time for the Irish population, as agriculture was the main industry of the country. To further the hardship, the unemployment rate was extremely high, while the Great Depression had made it difficult for the Irish population to emigrate from Ireland. The global economic downturn also led to lesser remittances from citizens abroad.

The tension began to ease off in 1935 with the Coal-Cattle Pact, which allowed Ireland to import more British coal and Britain to import more Irish beef. A series of talks followed, in search of a resolution between the two countries. Finally in 1938, Ireland and the United Kingdom came to an agreement to end the trade war, by signing the Anglo-Irish Trade Agreement on April 25, 1938. This agreement lifted the 20% import tariffs that had been imposed by both the United Kingdom and Ireland on each other's imports. Ireland was also required to make a £10 million payment to the United Kingdom to compensate for the

outstanding land annuities. This sum was made in favor of the Irish Free State because the remaining land annuity liability was estimated to be £11.75 million, indicated by sixty annual payments of £250,000 each year. On the other hand, although it seems the United Kingdom was losing £1.75 million with this sum, the value of this payment was greater than the value of the sum of all the discounted annuities it would receive over forty-seven years. An additional term on this agreement was the end of use of the Treaty Ports in Ireland by the United Kingdom.

1940's to 1950's and Failed Protectionism

Protectionism remained the primary economic policy of Ireland during the 1940's and 1950's. As the Irish economy remained stagnant during the two decades, much of the population turned to emigration to search for new opportunities. During the 1950's alone, 400,000 people left Ireland, and that was one-seventh of the population in a single decade.

While Ireland was suffering economic stagnation and emigration, the rest of Europe was enjoying fast growth and post-war recovery with open trade policies. It soon became evident that economic nationalism was not sustainable. Radical policy changes were drawn together in *Economic Development*, “an official paper published in 1958 that overturned much previous policy thinking by advocating free trade, foreign investment, productive (rather than mainly social) investment, and growth rather than fiscal restraint as the prime objective of economic management” (Dorgan, 2006). To further accompany the policy changes, the Irish government offered tax relief on profit generated from export sales in 1956 and eliminated all controls on foreign ownership on businesses in 1958. The transition to openness set the tone for the future economic success of Ireland.

1960's to 1970's and the First Taste of Success

The change in policy proved to be a success throughout 1960's. Ireland unilaterally lowered its import tariffs and negotiated a free trade agreement with the United Kingdom in the early 1960's. Ireland later joined the General Agreement on Tariffs and Trade in 1967. On the other hand, Ireland expressed interest in joining the newly founded European Economic Community (EEC), which was later absorbed by the European Union, and it finally became a member in 1973.

By the 1970's, the Irish economy had improved significantly. The population increased by 15% over the decade, while the national income increased at 4% annually. The employment rate also increased, by about 1% per year. The public sector greatly contributed to this increase, due to the rapid expansion in public expenditures. By 1980, a third of the total workforce was employed by the public sector. On the other hand, the improvements in 1970 gave Ireland much needed recognition and a confidence boost. Ever since the inclusion of Ireland in the EEC and GATT, the state has had free direct access to the international market. Meanwhile, it has its own negotiating power without the indirect influence of its former identity as a colony. Most important, its exports can now be sent out internationally, further minimizing the over-dependence on the United Kingdom's market.

The open policies produced a significant increase in overseas corporations establishing plants in Ireland. This was largely driven by the new policy, which provided tax exemptions on all profits generated from exports, along with the abundance of English-speaking and low-cost labor. Over 350 overseas companies had set up businesses in Ireland by 1970 as a result.

To further cultivate foreign investment attraction, the Irish government expanded the role of the Industrial Development Authority. It was given its own operating freedoms, while still

being funded by the state in 1970. The IDA set its primary focus on highly technological companies that were quickly developing. These companies required highly skilled labor, while generating a high output. Some of these industries included the computer industry, pharmaceuticals, and medical technology, and they were soon followed by international services such as the banking industry. Leading companies from these industries, such as Amdahl, Baxter Travenol, Digital, Merck Sharpe, Wang, and Warner Lambert, soon provided a dose of capital investment.

Other than the open policies the Irish government was executing, which can be easily replicated by other countries, Ireland's location provided the most unique trait that was crucial to foreign investment. As Ireland is located right in between the United States and the rest of Europe, it immediately became an ideal location as American corporations' gateway to the European markets. By 1975, two-thirds of Ireland's total industrial output was generated from over 450 foreign-owned industrial projects.

Although Ireland was enjoying economic improvements by bringing in foreign investments and imports, this also provided unprecedented competition to local companies. Since the government supported protectionism prior to the policy changes, many companies that were set up to serve only the Irish market had lost competitiveness against the foreign companies and goods, due to free trade. Furthermore, Ireland still had not fully transitioned out of an agricultural economy, signified by its low output and income levels. On the other hand, new job creation was not fast enough to keep people from migrating from Ireland.

In order to accommodate the increasing presence of foreign establishments, as well as new job creation, the state had to increase its public expenditures in order to improve infrastructure, social welfare, telecommunications and education. This improvement in education

in particular would provide a more competitive workforce to attract foreign investment. More important, a better education would provide numerous benefits to the state as a whole. As a result, the state began paying for all secondary schooling, resulting in a higher education level among the younger population. At the same time, a Regional Technical College system was developed, followed later by two National Institutes for Higher Education. Both systems greatly expanded the Irish education system, in particular technical education. This reform has allowed Ireland to refocus on developing the high technology industry.

As the living and overall condition of Ireland increased, so did the costs of achieving this. Public expenditures increased by 10% of GNP between 1960 and 1973. International factors such as a couple of oil crises, along with high domestic demand and an expansionary fiscal policy, had caused high inflation during the 1970's. In order to deal with such economic conditions, public budget deficits often led to high public borrowing near the end of the decade.

1980's and Economic Reform

The above-mentioned economic problems from the 1970's, such as high inflation, public budget deficits and borrowing, had accumulated to a crisis in the 1980's. Constant industrial labor strikes; a high inflation rate, tax rates and unemployment rate; high emigration; and poor government management of the economy were some of the underlying economic problems. Although the IDA was still able to attract foreign investors, such as IBM, Lotus, Microsoft, and Bausch & Lomb, there were a couple of high-profile investment failures that raised red flags for foreign investment. This, along with the worsening economic conditions and political instability, discouraged some foreign investments.

To quantify some of the problematic economic conditions of Ireland during the 1980's: the unemployment rate rose to 20%, public deficits reached 15% of GDP, and marginal income

tax reached 60%. In particular, the emigration of the young work force from Ireland magnified the frustration faced by the nation. At one point, annual overseas emigration reached over 1% of population. A total of 200,000 people left Ireland in the period between 1981 and 1990. This was largely due to the slow creation of new jobs with respect to the increase in the work force.

The government attempted to battle the economic downturn by increasing public spending to create new jobs. However, this also led to a tax increase and deficit financing through borrowing. Total government expenditures increased by 8% of GNP from 1980 to 1986. Public debt increased to 120% of GNP from 87%. Annual budget deficits even exceeded 10% of GNP. A high rate of borrowing led to over one-third of tax revenues being spent on debt services. Meanwhile, the currency was overvalued after Ireland joined the ERM in 1979, and this was not reflected until the devaluation in 1986. Conversely, none of this spending helped lower the unemployment rate, as it remained at 15%.

The political conditions were largely affected by the economic problems as well. The party in power was constantly changing, as opposing parties, Fianna Fáil and Fine Gael, were alternating in leading the country. At one point, three elections were held in eighteen months, and some governments lasted less than a year. The political conditions eventually stabilized in 1987, when a minority Fianna Fáil government was formed with help from the opposition party, Fine Gael, under the "Tallaght Strategy." The strategy exhorted the Fine Gael opposition party to not oppose economic reforms proposed by the Fianna Fáil government, in the national interest. This was a rare occurrence, due to the historically divided opinions between the two main parties. However, the strategy succeeded with economic and welfare reform, tax cuts, increased competition and a reduction in borrowing to fund current spending. This strategy was followed

by succeeding parties. As economic conditions improved, technology companies like Intel, Microsoft and Google established their presence.

Chapter 4

The Celtic Tiger

Introduction of the Celtic Tiger

After an economically disastrous decade, the Irish economy experienced accelerated growth between the years of 1995 and 2000, a period during which Ireland was known as the “Celtic Tiger.” During this period, GDP growth rate was between 7.8% and 11.5%. At one point, Ireland caught up to the rest of the European countries, to become one of the wealthiest countries in the world, as the Irish GDP per capita rose to surpass all but one state in Western Europe. Meanwhile, its unemployment rate dropped to 4%. Moreover, human migration also indicates the creation of more job opportunities, because people are prompted to move, especially those who have roots somewhere. “In less than a generation, export-led economic growth changed Ireland from a country from which about 40,000 people were emigrating yearly, to a country that last year took in a net 30,000 people. About 100,000 Irish returned from abroad” (O’Neil, 2003). Ireland not only secured its young talent to stay within the country, but also attracted young talent who had received foreign high-level educations, mainly in the United States and the United Kingdom, to return and contribute to the high-level economic growth.

Build-Up of the Celtic Tiger

Multiple sources contributed to this economic miracle. A low corporate taxation rate, between 10% and 12.5% throughout the late 1990s, was crucial in drawing foreign direct

investment. The Irish government also provided several other incentives to make Ireland an attractive place. The Irish government provided different subsidies and investment capital, along with relatively low wages. State organizations, such as the IDA and Enterprise Ireland, provided financial, technical, and social support to different businesses. The Irish government also provided very limited intervention to foreign businesses to encourage prosperity, particularly compared to Eastern European countries. As a result, foreign-owned companies' exports accounted for 93% of Ireland's total exports.

The European Union membership also contributed significantly to Irish economic improvement. The EU provided over €17 billion in funding, composed of the European Regional Development Fund and the European Social Fund, to Ireland to improve its education system and physical infrastructure. These funds contributed to as high as 4% of Ireland's GNP. Meanwhile, the effect of the investment was reflected in an increased productive capacity of the work force, which presented an attractive attribute for high technology businesses.

Other than the European Union Structural and Cohesion Funds, Ireland's membership within the European Union also helped the country expand its trade partners to the rest of the world.

Ireland also became the most ideal location for foreign investment demographically. Since Irish workers could communicate effectively in English, they proved to be the perfect workforce to accompany American enterprises. They edged out the low-wage work forces from other non-English speaking EU countries, such as Portugal and Spain. Furthermore, the wide support of technical education by the Irish government transformed the Irish work force into skillful workers who excelled at jobs provided by high-tech foreign companies, such as Intel, Dell and Microsoft. Geographically, Ireland also provided an advantage to the rest of the world.

Since its time zone difference with the United States is five hours, this allowed the Irish employees to work the first half of the day, before American employees entered the office.

Impact of the Celtic Tiger

The Irish economy prospered during the Celtic Tiger times. Ireland transformed from the “poorest of the rich” before the economic transformation in the late 1980s into one of “Europe’s shining lights” in the 2000s, during which period, the Irish GDP grew at a rate between 7.8% and 11.5%. A large increase in disposable income led to a rise in consumer spending. The unemployment rate decreased from nearly 20% in the late 1980s to a mere 4%. Meanwhile, wages grew at one of the highest rates in Europe. The national debt remained constant throughout the period. Meanwhile, the GDP-to-debt ratio increased as GDP soared. The Irish government wisely used the new income to make large investments in infrastructure and other components of national welfare. Roads were improved, while new transport services were developed. The Luas light rail lines, the Dublin Port Tunnel, and the extension of the Cork Suburban are some of the products of the infrastructure improvements.

As the Irish economy soared, the country’s historic trend of emigration was reversed. Improved infrastructure and new job opportunities, along with the traditionally beautiful scenery, now made Ireland one of the most popular destinations. This trend diversified the demographics of major cities in Ireland, such as Dublin, Cork, Limerick and Galway. Migration was observed even within Ireland, as the young population moved from rural areas to live and work in cities, promoting urbanism. The quality of life improvement in Ireland was further indicated by its ranking first in *The Economist’s* 2005 Quality of Life Index.

Slowdown and Resurgence of the Celtic Tiger

After several years of strong economic growth, the Irish economy faced a slowdown in 2002. This was largely due to the collapse of the Internet Bubble in 2001, as most of the foreign investment in Ireland came from companies in the information technology industry, and the Irish exports were composed largely of computer services and computer-related products, including software and hardware. Given its nature as an export-heavy economy, Ireland took a hit during the period.

On the other hand, Ireland's agricultural exports were negatively affected by the foot-and-mouth outbreak in the United Kingdom in 2001. Moreover, the September 11 terrorist attack in 2001 largely affected tourism internationally. These incidents were accompanied a global economic slowdown during the period, particularly in the United States and the European Union.

As the global economy began to recover, the Irish economy regained momentum in late 2003. In 2005, the Irish economic growth rate was the highest within the European Union, at 4.5%, compared to 1% to 3% for other European countries. Furthermore, as the financial service industry expanded internationally, a rush in foreign direct investment entered Ireland. The previously declining tourism and agricultural exports recovered, as well as the information technology companies' exports. Both Intel and Google increased their presence in Ireland.

Symptoms of the Dawn of the Celtic Tiger

Ireland is known internationally for its beautiful scenery, thus attracting people to invest in vacation homes there. In 2005, Ireland earned the title "Best Place to Live in 2005," according to *The Economist*: "Ireland wins because it successfully combines the most desirable elements of the new (the fourth-highest GDP per head in the world in 2005, low unemployment, political liberties) with the preservation of certain cozy elements of the old, such as stable family and

community life” (Kekic, 2004). A large increase in housing demand resulted in a large construction sector, representing nearly 12% of GDP, which employed a large portion of unskilled young men. In particular, 80,000 new homes were constructed in Ireland, while only 160,000 were constructed in the United Kingdom in 2004. As cities, especially Dublin, became increasingly populated, the housing prices of the area also began to rise. The fast growth and reputation built up confidence in the country’s housing market, where housing prices were widely considered to be over-valued. Other than an increase in confidence in the housing market, there was also an increase in confidence in risk-taking in Ireland. As a result, the Irish government founded Enterprise Ireland to promote entrepreneurship.

As economic and living conditions improved substantially, Ireland began to lose its competitiveness. During the boom period, Irish wages rose above the European Union average, especially in major cities like Dublin. This directly led to a competitive disadvantage in unskilled, semi-skilled and manufacturing jobs. With the help of technology, foreign companies were able to outsource a larger proportion of professional jobs to countries with cheaper wages, like India.

Chapter 5

Dawn of the Celtic Tiger

Causes of the Dawn

When the financial crisis hit Europe in 2008, Ireland took one of the biggest hits among European countries. Effects from years of a fast economic boom and the policies responsible for the growth ended up causing a domino effect, leading to one of the largest economic recessions Ireland has seen. Various factors that fed into the success of the Celtic Tiger then became factors that furthered the recession.

Foreign Direct Investment

As a direct result of the open policies, most of Ireland's economic output relied heavily on the well-being of investments by foreign corporations. When corporations took a hit, they would cut down on their foreign investment to protect their operations at home. This, in turn, largely hurt Ireland's economy, as it relied heavily on exports by these foreign companies. On the other hand, the employment rate was also largely affected, as the country relied on these foreign corporations to create new jobs. Suddenly, Ireland had a surplus in the educated workforce, which demanded high wages as a result of the high-tech nature of these foreign companies. Ultimately, the cut in foreign investment directly affected the creation of new job opportunities and salary stability, as well as exports and the Irish GDP as a whole.

Property Bubble

Up to the recession, with the promising economic growth and the rising population in Ireland, housing price expectations were overly optimistic. This led to low interest rates for loans. Foreign capital was pumped into Ireland in the form of property investments. Foreign borrowings from Irish banks also rose from €15 billion in 2004 to €10 billion in 2008. Along with the government's tax incentives for the Irish to purchase properties, all of these new demands for properties contributed to the property market's booming at an exponential rate. Similar to the housing crisis that occurred in the United States, which started the chain reaction, the financial institutions were overly confident about the housing prices. This led to loans' being made more loosely, based on a lower lending standard, while relying more on three-month interbank loans, instead of their deposit capital. Therefore, the banks were profiting from their credit and borrowings, instead of their capital. The government did very little to intervene in banking operations, due to the open policies that had attracted foreign banks to Ireland in the first place. Quickly, a credit bubble formed. Meanwhile, building projects would not be sold for several years. When the properties hit the market in a few years, the properties remained unsold due to oversupply, resulting in an asset-liability mismatch.

Uncollectable Home Loans

In addition, as jobs become unstable, unemployment rates rose. Meanwhile, the housing prices were not as sensitive to the economy as jobs and salary stability. Properties became unaffordable all of a sudden. More important, all of the house owners who purchased property before the recession, and whose jobs and salaries were now affected, had a hard time repaying their debts. Lots of home purchasing loans that the banks had made then become uncollectable at

once. This significantly affected the Irish banks' profitability, as they had been heavily investing in the housing market, using both their own capital and borrowings.

Frozen Liquidity

As loans and interests became uncollectable, the banks lost a huge part of their expected constant cash flow, which supported their cash liquidity. The loose intervention of the Irish government allowed various Irish banks to maintain very little cash in hand, with a majority of cash going to create housing loans to generate profit. When the news about the financial crisis broke out, everyone rushed to banks to liquidate their accounts before they lost all of their savings. Furthermore, the breakout of the financial crisis also led to a freezing of international money, which made it difficult for Irish banks to find funding from international borrowing.

Both the actions of account holders' liquidating their assets and the banks' losing their constant cash flow led to a shortage in liquid assets. The banks could no longer reinvest to make more loans, or to repay their short-term borrowings from those now uncollectable loans during the housing boom. The Irish banks all of a sudden fell into a slump of debt. Their struggle then became the Irish Banking Crisis, which shortly followed the Financial Crisis, and this played an important role in the slowdown of the Celtic Tiger.

Slowdown of the Celtic Tiger

The recession became clear during 2008. Beginning that year, government deficits, business failures, emigration, and the unemployment rate all increased. Meanwhile, the Irish Banking Crisis exposed many of the incompetencies of the Irish financial institutions.

The most appealing statistics of the Irish economy previously now became the least favorable ones. The Irish GDP decreased by 8.5% from the first quarter of 2008 to the first quarter of 2009, while the GNP decreased by 12%. A slight uptick was seen in 2009, when the

GDP rose by 0.3% in the third quarter of 2009, although the GNP still contracted by 1.4%. During the same period, the unemployment rate rose from 8.75% to 11.4%. Overall, the unemployment rate rose from 4.2% in 2007 to 14.6% in 2012, matching the high unemployment rate in the 1980's before the Celtic Tiger began.

Besides the statistics, the housing market in Ireland collapsed. Property value and sales dropped significantly as demand evaporated overnight, along with the capital required to purchase property. The collapse of the housing market also contributed to the rise in the unemployment rate. The construction industry composed a large segment of employment in Ireland, especially during the time of the economic boom. Now, with an oversupply of real estates and a lack of capital, lots of construction projects came to a halt, and a number of construction workers found themselves unemployed. The significant loss of jobs and opportunities then provided the same reasons that immigrants moved to Ireland in the first place. An estimated 34,500 people left Ireland from April 2009 to 2010, the largest net emigration since 1989, before the time of the Celtic Tiger.

Recovery Attempt

Government Buyout

As Irish banks and financial institutions suffered without cash inflow or international borrowing, their liabilities became greater than their assets and hence required recapitalization. Government interventions began to provide stability to the banking system. The government provided guarantees for six Irish banks that covered liabilities between September 2008 and September 2010. In 2009, the third largest Irish bank, the Anglo Irish Bank, was even nationalized after a scandal revealed that the bank had falsified its accounts and that simple recapitalization would not be enough to save it. About a month later, the two largest banks of

Ireland, the Allied Irish Bank and the Bank of Ireland, required a bailout of €3.5 billion Euro each. However, since Ireland was suffering an economic downturn with an economy that was heavily based on the financial sector and foreign investment, the negative effects of the bailout fund was quickly shown in the government's budget deficit of more than 30 percent in 2010, of which more than 20 percent was for the bailout of the banking system (Pisani-Ferry, Sapir and Wolff, 2013, p. 63). The bailout, in turn, put Ireland into an even deeper downturn.

An Aidless Recovery Attempt

Between 2008 and 2010, Ireland tried to recover from the recession without the aid of the EU, the IMF or other countries. However, the EU had been pressuring Ireland to receive a bailout package, mainly in order to protect the Euro's purchasing power. If the Irish economy continued to plunge into a deep recession, it would lose its competitiveness for foreign investment, which was the primary factor in the Celtic Tiger economic miracle. Moreover, a huge budget deficit due to the banking guarantees would require the government to cut down on spending and raise taxes on normal citizens, which would further impair Ireland's competitiveness, as well as its economic recovery. Therefore, the EU urged the Irish to accept economic assistance to keep the EU remain competitive as a whole. On the other hand, the UK also had a huge interest in helping the Irish, because "both states share[d] close historical, social and economic ties and maintain[ed] a joint interest in the stability of Northern Ireland. Both governments also [had] a long record of political co-operation enshrined in several international treaties" (Breen, 2012, pp. 10-11) Moreover, about 80% of the foreign capital investment in Irish banks was from the UK. For both political and economical reasons, the EU/IMF package was almost forced upon Ireland.

Economic Assistance

Later on in 2010, the Irish government officially requested economic assistance from the European Union's European Financial Stability Facility and the International Monetary Fund. "The Economic Adjustment Programme for Ireland was formally agreed in December 2010. It include[d] a joint financing package of €85 billion for 2010-2013 with contribution from the EU/EFSM (€22.5 billion), euro-area member states/EFSF (€17.7 billion), bilateral contributions from the United Kingdom (€3.8 billion), Sweden (€0.6 billion) and Denmark (€0.4 billion) and funding from the IMF (€22.5 billion). Moreover, there was an Irish contribution of €7.5 billion through the Treasury cash buffer and National pension Reserve Fund investment" (Pisani-Ferry, Sapir and Wolff, 2013, p. 61) Among the total of €85 billion in aid, €50 billion went to fund the government, while €35 billion went to support the Irish banking system and its reformation. In negotiations to receive the aid, the Irish government agreed to two key conditions: fiscal policy and structural reform, and financial sector reform through banking restructuring and reorganizing.

The fiscal reform was to mainly bring the government's fiscal deficit to below 3% by 2015. This condition would force the Irish government to significantly cut expenditures overall, while maintaining expenditures that were pivotal to Ireland's competitiveness. Moreover, an adjustment was rather important, because the percentage of the Irish government revenue from real estate dropped from 5% to below 1% of GDP (Pisani-Ferry, Sapir and Wolff, 2013, p. 64). Hence, Ireland needed to find new sources to make up for the loss in revenue through the new adjustment.

The financial sector reform first included a significant capital injection into banks and a transfer to the National Asset Management Agency, which was established to absorb bad bank

assets. Second, a stress test was to be used to assess banks' balance sheets. Third, an element was aimed to deleverage the banks, as well as lower their loan-to-deposit ratios. The conditions were mainly to downsize the banking sector to a size proportionate to the size of the economy, while capitalizing the sector to the higher international standards.

Chapter 6

The Comeback of the Celtic Tiger

The Irish government not only met, but also in some occasions exceeded, the targets set in the programme when the reforms were well under way. According to the most recent “Economic Adjustment Programme for Ireland Summer 2013 Review” (European Commission, 2013), all of the quantitative performance criteria and indicative targets were met with a comfortable margin. Since the first review in December 2011, the cumulative exchequer primary balance target was met every quarter. The most recent review in June 2013 was set with a target of -4.0 and Ireland achieved it with an outcome of -2.2. The ceiling on the accumulation of new external payments arrears on external debt contracted or guaranteed by the central government target was 0 for every quarter, and Ireland had been meeting it since the first review. The ceiling on the stock of central government net debt has also been well above target since the first review, with the most recent indicator in June 2013 being 171.1, above the target of 164.6

Just recently, the Irish government has exited the three-year bailout programme as planned. In the “Statement by the Taoiseach to Dail Eireann on Exiting the EU-IMF Bailout Programme” (MerrionStreet.ie, 2013) and in “Ireland to exit the EU/IMF Programme without further supports” (MerrionStreet.ie, 2013), multiple reasons are offered in support of the belief that Ireland could exit the programme comfortably, without the need of any further aid. At the end of 2013, the Irish government held over €20 billion in cash reserve, which was sufficient for

the government to meet its maturing committee and funding costs until early 2015. Also, the Irish sovereign bond yielded at a low and affordable level. Ireland aimed for a deficit of 4.8% in 2014, which was under the 5.1% EDP target, a goal that would provide Ireland with a primary balance, or even a small surplus. The government is also dedicated to further reducing its deficit to below 3.0% in 2015. On top of the Irish government's performance, both domestic and international economic conditions are improving. Particularly, the Irish economy has regained its competitiveness, with high exports and a strong surplus on its balance of payments.

Since Ireland shares a common currency with the EU, it cannot simply adjust its currency exchange rate to regain competitiveness. Instead, "Ireland has engineered a more than 20% drop in unit labor costs in manufacturing since 2008 – which boosts its competitiveness equivalent to a 20% currency depreciation" (Hasenstab, 2011). Along with the drop in unit labor costs, wages were also severely cut. These two changes resulted in a doubling of Ireland's trade surplus, which then ran at more than 20% of GDP. Due to the strong shift in exports, Ireland's GDP growth is quickly recovering, back to an annual rate of 2.3%. On top of exports, Ireland has also maintained the low corporate tax rate that ensured its early success before the financial crisis. This policy has continued to attract foreign investment as Ireland recovers from the crisis. Strong performances on both exports and foreign investment further ensure Ireland's exit from the EU/IMF's economic assistance.

Among the four countries in the Euro zone that experienced an economic downturn—Portugal, Ireland, Greece and Spain—Ireland is the first country to exit from the EU/IMF's economic assistance, while meeting or exceeding all of the targets set for it. It was also the only country to employ a strict fiscal policy by cutting government spending and lowering the budget deficit. Most important, it successfully shifted its main GDP contribution from real estate to

exports. The comeback of the Irish should not be ignored, but instead should be studied by other countries in crisis. Eventually, Ireland will regain its title of one of the best places to live.

Chapter 7

Conclusion

When hearing about Ireland, most would immediately associate the country with pub culture, particularly the iconic Guinness, St Patrick's Day, or the beautiful scenery, as portrayed by the media like the TV series *Game of Thrones*. Yet one of the most studied and observed part of the Irish culture is its economic evolution over the years, in particular the Celtic Tiger years. During its time of growth, many countries looked to the Irish success for guidance in improving their own economies. Ultimately, is this success story replicable? If at all, at what cost does it come?

A key ingredient in the success of the Celtic Tiger was its prophetic identification of the future of the high-tech industry. The whole nation, from the government to the citizens, worked together to gear the workforce to better take advantage of opportunities that came with direct investment from foreign high-tech companies. This sector, however, also generally required a workforce with the highest productivity. As the whole nation's workforce became more technologically educated, their productivity improved tremendously. On the other hand, automation often played an integral part within the operation as well. The improvement in productivity then became problematic for the sustainability of Ireland's economic growth, when the factors that fostered the initial growth are considered. The increase in jobs and the workforce was crucial for economic growth, due to the increased output generated by a larger population.

As unemployment dropped in the few years before the Celtic Tiger times, the workforce began to grow. This is resulted not only from an increase in the birth rate, but also from the immigration of Irish citizens from all over the world and citizens of other nationalities, noticeably Eastern Europeans, along with large number of women entering the workforce for new opportunities. These two opposing environments created a conflicting situation, where increases in productivity decreased the growth in job creation, while the workforce continued to grow. The nature of the Celtic Tiger's growth ended up biting its tail.

Even though targeting foreign direct investment in the high-tech sector ended up slowing down growth, the strategy still provided the initial spark required to stimulate growth. More important, this strategy can be replicated by other economies. Many steps undertaken by Ireland to target high-tech industry investment could, in fact, also be borrowed. The recipe begins with a series of open policies that draw free trade, to increase competitiveness in the global setting. The government then creates government agencies, much like the Industrial Development Authority in Ireland, and policies, like exempting exports from sales taxes, which aggressively attract foreign investment. A social partnership would then be formed to create a stable and constructive environment among the workforce, the industry, and trade unions. Lastly, investments devoted to the country's education system would provide a crucial piece to attracting the high-tech sector: a technologically educated workforce. All of the abovementioned policies could be replicated to create development to a certain level.

However, the Celtic Tiger's success was not simply attained through the abovementioned attributes. There are plenty of unique advantages that Ireland enjoyed in transforming the nation that are not easily replicable, if at all. The common first language between Ireland and the United States, Europe's largest foreign investor, provided an environment of error-free communication

for American corporations setting up businesses in Ireland. Ireland's unique location as the middle ground between the United States and the rest of Europe also created a geographic advantage, as it is the closest European country to America. To expand on Ireland's geographic advantage, Ireland's inclusion in the European Union allowed it to receive significant funds to improve its infrastructure, particularly education. On the other hand, the new membership provided Ireland with a newly accessible market for all its exports. Importantly, the scattered population of Irish citizens, or people of Irish heritage all around the world, provided a strong source of capital. This unique attribute has only been seen with the Chinese population. The Irish around the world provided countless investments, remittance, expertise, and even tourism to the motherland. On a smaller scale, Ireland enjoyed much success in its policy implementation because of its relatively small population. Lastly, the Celtic Tiger's success did not happen overnight. From the change from protectionism in late 1950's to the beginning of the economic boom in mid 1990's, Ireland took almost forty years of following the same direction in open policies before benefiting from it. The process even went through a couple of bumps during the 1980's, which are often considered the darkest times in the Irish economy. Countries that are looking for economic development might not have the patience or political stability to follow the same policies for such a long period. All of the abovementioned attributes contributed greatly to making the Celtic Tiger happen, and yet they are unique to Ireland.

Should other countries replicate the Celtic Tiger's economic model, their government should also consider the sustainability of this type of growth. Often, considerations of economic growth are simplified to statistics. The most impressive statistic regarding the Celtic Tiger perhaps was the 7.8% to 11.5% yearly growth during the period. It is, however, noteworthy that Ireland was a relatively small economy when the growth began, and it would be much more

difficult to sustain a similar statistical amount of growth as an economy expands. Moreover, many of the abovementioned causes of growth are not renewable. The European Union fund for infrastructure improvement is an example of that. Most important, the economic boom led to rising prices and wages, which created a domino effect. First off, rising wages slowly took away Ireland's competitiveness, especially when the cheap workforces in areas like China and India started to become more educated. Technology advancement also allowed outsourcing to take place at farther locations. In addition, rising prices, along with explosive population growth, created a housing bubble that ultimately collapsed during the financial crisis in 2008. A large portion of the jobs created beyond the initial Celtic Tiger years, namely 2000 and beyond, was part of the construction sector. This was due to the high demand for housing due to population growth, as well as the seeming investment value in real estate in Ireland. A booming economy, indicated by a high growth rate and low unemployment rate, and high demand for real estate led banks' loosely giving out construction loans. This loosely monitored use of funds became bad debt when the housing bubble exploded and liquidity dried up. The residue of the economic boom ultimately caused an economic recession.

To answer the initial question, "Is the Celtic Tiger a replicable formula for economic success?," a country must evaluate its internal strengths. The Celtic Tiger's success was a combination of doing the right things in the right place at the right time. The right things were the open policies that promoted free trade. As indicated by the early years of the Irish economy, a protectionist economy can only provide limited growth, while free trade can provide international competitiveness and allow a country to discover and develop its competitive advantage relative to the rest of the world. Other right things to do would include promoting social partnerships and improving infrastructure and education. The right time and right place,

however, are factors that should be adjusted based on each country. Ireland caught the beginning of the trend of technological advancement by changing its policies at the right time and geared its target foreign investment towards it. Ireland's unique location in between Europe and the United States, as well as its new membership in the European Union, were significant advantages the country obtained by being in the right place. If properly adjusted with respect to time and place, the Celtic Tiger's model can be adopted loosely, but never perfectly.

Ultimately, a model's success should also be evaluated over the long run. Based on the deep recession caused by the financial crisis, the Celtic Tiger model did not position the economy well against risk. The government exercised too little control in order to promote growth. Risk-taking was largely promoted, due to the excess of capital, for a larger return. Although the Irish economic model could be effective, the country looking to adopt it needs to monitor growth closely, to ensure that it is a healthy and real growth. Lastly, even though Ireland took a huge economic hit during the financial crisis, much of the development that came along the economic boom, such as a developed infrastructure and educated workforce, have positioned Ireland very well for an ongoing come back.

On that note, if you are a country looking to replicate the Celtic Tiger, just remember, the first step is always the hardest. Once you have a clear, well-thought-out vision, begin to work towards it. More important, be patient. Applying a certain level of control over growth, while maintaining flexibility for growth is crucial for sustaining growth in the long run! Good luck!

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