MASTER THESIS

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A comparative study on the effects on economic growth in Norway and New Zealand

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Preface

This thesis is the final part of the Master of Science in Business Administration at North University. The thesis is written on behalf of the specialization in International Business and Marketing and constitutes 30 credits. As a part of my exchange to New Zealand, I realized how similar the country was to my home country of Norway. This inspired me to compare the two countries to see if there were any major differences. Through the guidance of my supervisor, I landed on the topics of international trade and education.

The act of writing a master's thesis can be compared to nothing less than a roller coaster ride. The process of this thesis has been interesting and educational, at the same time, as it has been challenging. The research project offered a number of challenges, especially considering the enormous amount of literature available on the matter. I end my studies at Nord universities with better knowledge and understanding of specific macroeconomic aspects and their impact on economic growth in Norway and New Zealand.

I would like to thank my supervisor Pål Pedersen for constructive and inspiring feedback throughout the entire process. His enthusiasm and support has been a great motivation for me and has without a doubt positively contributed to the quality of the study. I would also like to thank Tor Korneliussen for his guidance. Additionally, I would like to thank my family and friends, especially everyone at the master's office, for sharing both the joys and the frustrations over the past year. Thank you for encouraging words, wise conversations, and rewarding discussions. I am forever grateful.

The content of this thesis is ascribed on the author's account.

Date 12.06.2017, Bodø

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Sandra Wiik

Abstract

Economic growth is a contemporary topic in which involves the development of a nation. Higher education and international trade has made an increasingly contribution to economic growth. The thesis examines role of these two aspects in the context of economic growth in two nations Norway and New Zealand. The thesis attempts to answer the research question:

How does higher education and international trade contributes to sustainable economic growth in Norway and New Zealand?

To answer the research question, I conducted a comparative study based on document reviews. The main findings of the thesis were related to differences in higher education, competitive advantages in the resource bases, and the trade barriers Norway and New Zealand faces. Firstly, the exist a huge division in educational expenditure as the education in Norway is almost fully funded by the state whereas New Zealand's expenditure is divided about half and half between public and private funding. There is a high tendency to study and to internationalize during the course of study in both nations. However, New Zealand attracts many more international students partly due to their high quality of education programs. Higher education can be considered as a portion of the countries' trade patterns due to the student mobility. Educational development promotes the formation of human capital and long-term productivity. The natural resource bases of the two nations are different as Norway depends mainly on petroleum and New Zealand depends mainly on agriculture. Their proximity to their most important trading partners gives them a competitive advantage. Although the both promote free trade, Norway faces some trade barriers with respect to agriculture and processed fish.

Increased internationalization in higher education and trade is of significant importance as competition from other nations is increasing. By investing in measures within these two factors, Norway and New Zealand can make themselves more attractive to either offer education to or trade with.

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1 Introduction

The chapter presents the theme and purpose of the thesis. It begins with a short introduction to the main topics where the thesis is put into context, followed by the reasoning behind the choice of topic. Afterward, the research model is presented, and the research questions are eventually revealed. Finally, the last section explains further structure and content of the thesis.

1.1 Background

Since World War II, many industrialized countries worldwide have entered into committed international collaboration aimed at extracting benefits from international trade. Hence, these countries have invested abundantly in national higher education systems and recently strengthened the international cooperation in education and research. Thus, economic growth is considered a key motive to expand trade internationally and invest in higher education.

Understanding economic growth is essential to understand the economic challenges facing a country and how resources should be managed to maintain sustainable development at regional, national and international levels. In general economic growth is often expressed through gross domestic product or a similar measurement of total revenue (Fell & Greenfield, 1983). However, the weakness with this target unit is that economic growth only refers to the amount of goods and services produced in a nation. It does not take into account important aspects, such as working conditions, education, innovation and research and development activities, economic policies, geography, demographics, political and social-cultural conditions, the exhaustion of non-renewable resources or environmental degradation, in today's economy. All these are considered determinants to sources of economic growth (Petrakos & Arvanitidis, 2008).

The key to increased production is new technology and more efficient labor, which has been evident in recent years. As new technology develops, labor has been generated through training and recruitment (Stocker et al., 2015). Furthermore, it has helped improve productivity in which includes the production of goods and services with fewer inputs of labor, capital, energy, and materials per unit produced. Other components of growth include demand and working hours. Although new technology and more efficient labor may derive

from many sources, there are other sources that have made significant improvements in productivity through labor (Stocker et al., 2015).

Education is one of the most important factors that have helped to make labor more productive in the labor market. This has led to more production per unit of work, which in turn has led to more production for the given labor a company has available. Human capital and education are both considered important factors of economic growth, as human capital shows the value of human knowledge and competence in society (Hægeland, 2003).

Nations invest in education to help foster economic growth, enhance productivity, and contribute to social and personal development (OECD, 2016a). Numerous resources are spent on investing in the education sector, both by individuals who pay for teaching resources and lose employment income during the study period, and by public authorities through various types of financial support for education, such as school buildings, teacher salaries, and student grants (Hægeland, 2003). According to the World Bank (UNESCO, n.d.), the Scandinavian countries spend some of the most money on education as a percentage of their GDP, as they all lie above the OECD-average (OECD, 2016a). As a result of this investment, Norway has acquired an education system that is among the best in the world (Gerzema, Blender, Reibstein, & U.S. News & World Report, 2017; Pearson, 2014).

As mentioned above, Norway has an education system in the upper percentile. Another country that has obtained a great education system is New Zealand (Gerzema, Blender, Reibstein, & U.S. News & World Report, 2017; Pearson, 2014). Although these countries are geographically located as far away from each other as possible, they appear quite similar in numerous ways. They are both high-income countries that have become modern industrial nations that originate back to the Industrial Revolution. New Zealand is inspired by the western culture as they are still connected to Great Britain. Historically, there have been few controversies between the countries when they see eye-to-eye on most international issue with the exception of the commercial harvesting of whales (Eden, 2004).

Norway is a long and narrow country located in northern Europe, with a total area of 385 178 km^2 (Globalis, n.d. a). Characterized by narrow fjords, deep-forested valleys, mountains, woodlands, and low-lying plain areas, stunning landscapes and scenery can be found throughout Norway. It is one of the least populous countries in the world with a population of 5 142 842 people (Globalis, n.d. a). Most residents of Norway are predominantly ethnic Norwegians of North Germanic descent. The Sami are an indigenous people who live customarily in the northern parts of Norway known for their semi-nomadic reindeer herding (Statistics Norway, 2010). 16,3% of the Norwegian population are immigrants, mainly from Poland, Lithuania, Somalia, Sweden, Pakistan, and Iraq, while it has been estimated to be only about 60 000 (almost 1,2%) Sami people (Statistics Norway, 2010).

Norway has a constitutional monarchy, although the king has primarily symbolic duties and rights. The state power is divided between the Government, the Parliament, and the Supreme Court. Like the other Scandinavian countries, Norway has a strong social-democratic tradition. However, the right-winged parties have received greater support in the last election. The standard of living in Norway is among the highest in the world, with very high living costs and a comprehensive taxation system. The country has a well-developed welfare system, including free education, good health care and social benefits (Globalis, n.d. a).

New Zealand is made up of two main islands in addition to around 600 smaller islands consisting of a total area of 267 710 km^2. The South Island is the largest in size of the two, although only a quarter of the population lives there and the remaining is settled on the North Island with a total population of 4 596 396 people. New Zealand is located east of Australia across the Tasman Sea, as a part of Oceania (Globalis, n.d. b). It is part of the island belt with volcanoes around the Pacific Ocean. Volcanoes, hot lakes and geysers can be found on the North Island, which indicates that there are still movements in the Earth's crust. Consequently, New Zealand experiences about 14 000 earthquakes annually, some of which are quite powerful. Similar to Norway, New Zealand has steep mountains and deep fjords, which can be found on the South Island (Globalis, n.d. b).

Polynesians who developed a distinctive Maori culture settled the islands of New Zealand sometime between 950 and 1130 AD. The first European settlers sailed into New Zealand waters in 1642. Due to a rather bloody encounter, it would take over one hundred years until the next Europeans arrived. In 1840, British sovereignty was declared over the islands and became a colony of the British Empire within the next year. Today, the majority of the population is of European descent (74%), while the indigenous Maori (14,9%) are the largest minority group followed by Asians (11,8%) and Pacific Islanders (7,4%) (Statistics New Zealand, 2014). Consequently, the culture mainly derived from Maori and early British settlers, but increased immigration have influenced their culture (Whitmore, n.d.). New Zealand is still a member of the British Commonwealth, and recognizes the British Queen as the country's head of state. The country has a parliamentary regime. The Prime Minister is the country's real political leader and is the leader of the majority party in parliament. The National Party and the Social Democratic Labor Party have traditionally dominated politics in New Zealand (Globalis, n.d. b).

1.2 Purpose and motivation

In general, there is a modest amount of literature that only examines explicitly trade patterns and the economics of education concerning economic growth, since many factors influence it. There are few studies if any, that compares Norway and New Zealand with each other regarding economic growth in this context. Therefore, the purpose of this study is to carefully examine education and international trade and how they affect economic growth. Since these topics are interrelated, it is, therefore, interesting to see how they affect each other in a particular context. In this case, the chosen context of my study is understandably the countries of Norway and New Zealand.

The governments of Norway and New Zealand have a good relationship, and contacts between the nations have existed since the early stages of European settlement in New Zealand. They cooperate on international security, disarmament, human rights, and the many aspects of the global environment including climate change and bottom trawling (New Zealand Foreign Affairs & Trade, n.d.). Due to their similar viewpoints and general similarities, it is interesting comparing these particular countries.

International trade cannot be the engine of growth nor serve as the most significant force in economic development. However, it remains a necessary condition for development (Salvatore, 2005). Every nation is concerned with progress, education, research, and trade because it promotes development. Based on economic theory, the education system is an important part of achieving sustainable development in a country (OECD, 2016a). Accordingly, international trade and education are good indicators of economic growth. These indicators are interlinked towards the economic conditions of the countries, which trigger the interest to carefully examine what nations invests in to promote development.

Based on the underlying theoretical assumptions, my study applies trade theories to examine trade patterns. Additionally, the theory of economics of education is used to describe the pattern of education of the countries and depict the differences in the education system. Appendix 1 and 2 illustrates the different setup of the education system in Norway and New Zealand.

1.2.1 Personal motivation

An additional reason behind the choice of topic for my thesis, more precisely the context, is my personal background. As a part of my master degree, I completed a semester abroad in New Zealand. The majority of my adolescence was spent in Norway, and therefore I have a relation to both school systems as I have experienced it first hand. The many common features of Norway and New Zealand fascinate me, and it inspired me to use the two nations as the context in my thesis and study them more closely. It gives me an extra incentive to write this thesis since nothing similar has been done before in this specific context.

1.3 Contribution to research

My thesis possesses a contemporary topic, as economic growth will continuously be on the agenda in the future. The development of a nation as a whole depends on how trade promotes economic development. This is significantly influenced by how the nations interact in the international market. Furthermore, the aim of this study is to examine the impact of a nation's investment in international trade and education on economic growth.

By comparing and contrasting these dimensions in Norway and New Zealand, it gives the opportunity for the two nations to adopt the best economic evolvement from the other. If the state invests in education, it provides the youth incentives to invest in education individually. It has become more and more important and crucial for nations to cooperate concerning education as it fosters increasing the level of knowledge.

Also, my study provides a literature review of trade theory. This field of research is comprehensive and complex, and could thus be the main topic of my thesis. Nonetheless, I wish to elucidate additional topics. This field of research is carefully reviewed and comprised a pragmatic approach to the subject. There are mainly two theoretical fields examined, namely the economics of education and the theory of international trade. This forms the theoretical framework that provides the basis for analysis and structuring of the data, which in turn provides the foundation for the discussion.

1.3.1   Research question

Norway and New Zealand are both considered small countries and dependent on trade and higher education seems to be influenced by international development. It gives me the opportunity to look at the differences and similarities between the nations. Based on the above mentioned and in light of the purpose, the main research question is formulated as following:

How does higher education and international trade contribute to

sustainable economic growth in Norway and New Zealand?

In order to cover the extent of my study, the research question is quite comprehensive. Although it is a broad topic, it derives from personal interest and experience and is the core of what I wish to study. To answer the research question, I base my theoretical research on trade theory and the economics of education. By combining two fields of research, I have created a collective chapter to look at what is important when comparing the economy of two countries in this scenario. As to the purpose of writing a comparative analysis, I will examine the differences and similarities between Norway and New Zealand. Therefore, I have formulated three subordinate research questions that will help me answer the main research question.

1. What characterizes tertiary education in Norway and New Zealand?

2. What competitive advantages does Norway and New Zealand occupy?

3. What trade barriers does Norway and New Zealand face?

The similarities and differences observed in tertiary education, resource allocation, and international trade will be seen in accordance to the observations of similarities and differences in the growth rate in the national economies of Norway and New Zealand. By doing so, it will further elucidate the opportunities of persistent and sustainable economic growth in these two nations in the future. By answering these subordinate research questions first, it will help guide the research and thus suitably answer the main research question. The illustration in figure 1 attempts to explain how the remainder of my thesis is connected and how to interpret the research question visually. The figure represents a broader view of the depiction of what factors leads to economic growth. This includes political and economic systems, the industry sector technology, natural resources, and human capital in the university sector and education and research. These factors are further affected by educational and international trade policy.
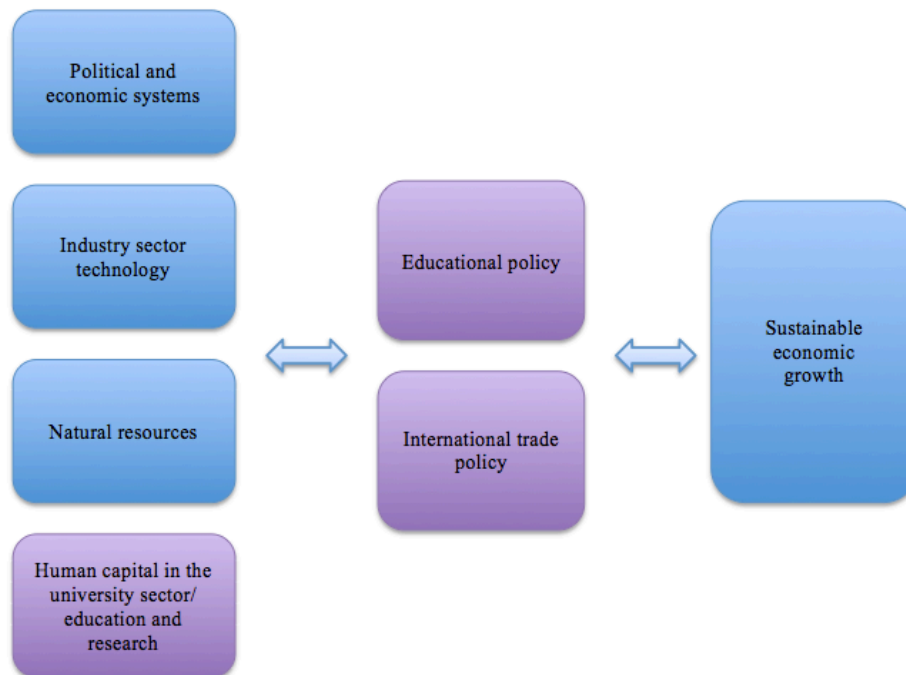
FIGURE 1 VISUAL ILLUSTRATION OF THE MAIN CONTENTS OF THE THESIS

The figure is based on contemporary issues that are quite applicable in the respective countries. To delineate the study, I will focus on the purple boxes that includes human capital formation and the policies that influences it.

In this thesis, the terms higher and tertiary education are used interchangeably. They refer to all education after the secondary level. Also, there is a further division between undergraduates and postgraduates. Undergraduates include students with a bachelor degree or equivalent while students with a master's degree, a doctorate degree or equivalent are considered postgraduates. Additionally, the figures that compare the countries that are not comprised into one single figure are in different colors to represent each country. Norway is represented in red and New Zealand in blue according to the focal color of their flags. To make it easier for the reader to follow along and retain consistency, information, facts, or statistics are presented on behalf of Norway first and then New Zealand.

1.3.2 Limitations

The basis of this study has an open and explorative research question. There are many factors that affect economic growth in developed countries such as productive fiscal expenditure (Bleaney, Gemmell, and Kneller, 2001), human capital development (Freire-Seren. 2002), property rights (Besley & Ghatak, 2009), technological progress (Stocker et al., 2015), exports and government size (Anaman, 2004), government debt (Checherita-Westphal & Rother, 2012), public infrastructure (Agénor & Moreno-Dodson, 2006; Canning & Pedroni, 2008), democracy, rule of law, and international openness (Barro, 1999; Barro, 2003), and terms of trade (Barro, 2003). Due to the vast extent of factors associated with economic growth, this study limits to international trade and higher education.

The extent of the task indicates that there are additional limitations regarding time and other resources. It implies the need for clear parameters to be able to realize my thesis properly. Due to a vast and multifaceted topic, the research question focus on only two aspects as abovementioned since the extent of my study indicates that the timeframe is too narrow to explore more factors. This is a weakness of my thesis since economic growth can be viewed in light of other factors. Since international trade and education are both broad terms, the

paper will explore them in light of the political and economic system, natural resources, and human capital specifically in the university sector and education and research.

1.4 Roadmap

My thesis consists of six main parts and the overall structure is presented in figure 2. It portrays the content of every chapter.

FIGURE 2 STRUCTURE OF THE THESIS

Based on the research question, the theories and topics that are relevant for the research question are presented in chapter two. I will go into depth in the previous literature of trade theory and economics of education, as the empirical findings will be seen in light of the literature review. Chapter three addresses the choices made in terms of methodology. The research design, the research method, and data collection are all accounted for. I will provide an insight into the choice of topic for my thesis as well as the structuring of the research question. The challenges and reflections of the research process in addition to the quality of the research are discussed at the end of the chapter.

The next chapter sets out the results found in the data collection through official reports, statistics, and government websites. Chapter five discusses the findings of the empirical presentation from chapter four against relevant theory of what appears to have relevant connections from the second chapter. Both chapter four and five are structured accordingly to the three subordinate research questions. Lastly, chapter six summarizes and concludes the entire thesis. The chapter ends with limitations and ideas for future research.

2 Theoretical concepts

This chapter presents the theoretical framework of the thesis. The purpose is to present theory that highlights the research question. The chapter addresses the economics of education for developed countries regarding the economics contributions and the economic aspects. The next section provides a chronological review of both traditional and modern trade theory that features the aspect of international trade.

2.1 The economics of education

In 1960, Theodore Schultz stated that education could be viewed as an investment in human capital, analogous to an investment in physical capital. Similarly, as companies decide to invest in machinery and supplies, individuals decide to invest in their education. Both of these investments entail current costs while yielding future benefits. Additionally, an internal rate of return can be calculated in both cases (Johnes & Johnes, 2007).

Although Schultz introduced the idea of human capital as an investment, it is Gary Becker who is considered as the founding father of the economics of education as a distinct research field. Becker presented an analytical framework explaining why individuals invest in education and training, which in turn resulted in the human-capital theory. The theory is still used as the basis for most research in the field of economics of education (Machin & Vignoles, 2005). The human-capital theory remains the dominant paradigm although challenged and amended considerably at times (Arrow, 1973, Blaug, 1976; Mincer, 1974; Spence, 1973).

The study of the economics of education extends over five decades as the wide range of material has increased to cover most areas with linkages to education since the 1960s (Johnes & Johnes, 2007). The field of economics of education centers round several questions. How much should a country spend on education? How should education be financed? Is education mainly investment or mainly consumption? What is the optimum combination of inputs employed? What is the most suitable structure of the educational system? What contribution does education make to the overall development of human resources and how far can we control the expansion of education through systematic planning? These are questions asked by Blaug (1966) as he states that they form a bridge between economies, sociology, social

administration, comparative education, and educational psychology, while partaking a wider subject, the economics of human resources.

2.1.1 Economic contribution

The production-function approach

The primary purpose of the production function, concerning the field of education, is to relate the various inputs that affect a student's learning to the outputs. The different inputs can be school resources, family attributes, peers, and teacher quality while outputs can be labor market success, graduation rates, college attendance, or standardized test scores. James Coleman and the Department of Health USA (1966) published the Coleman Report that prompted interest in the use of production functions with the field of education. The report established that the marginal effect of different school inputs on student achievement was relatively small compared to the impact of friends and family.

Previously, the number of years of schooling completed was the most frequently employed measure of schooling verified by numerous studies of labor market outcomes (Mincer, 1970; Psacharopoulos & Patrinos, 2004). However, the impediment of the measurement is the assumption that a year of schooling will produce the same amount of skills over time and in every country. It does not take into account what happens during the time spent in school and thus does not provide an accurate measure of outcomes (Hanushek, 2008).

Recent discoveries revealed significant labor market returns to individual differences in cognitive achievement (Lazear, 2003; Mulligan, 1999; Murnane, Willett, Duhaldeborde, & Tyler, 2000). Additionally, Hanushek and Kimko (2000) reveals that society appears to gain regarding productivity due to the impact quality differences in schools on productivity and national growth rates. Coleman et al. (1966) shifted the attention to the outputs as opposed to the inputs. Furthermore, Hanushek (2008) claims that the output of the educational process is directly related to inputs directly controlled by policy makers as well as not so controlled. The process of education is cumulative as inputs from the past can still affect the current levels of the student's achievements.

Human capital is the concept of individuals acquiring skills and knowledge to increase their value in labor markets. The three main mechanisms for acquiring human capital are experience, training, and education (Aghajanyan & Erbasol, 2008). Knowledge and skills incorporated in the individual can be referred to as capital according to human capital theory. Additionally, all activities with which the present input leads to future yields while the productivity of the individual grows can be interpreted as an investment (Kiss, 2012).

The accumulation of human capital is seen as an investment decision in the standard economic model (Becker, 1993; Blundell, Dearden, Meghir, & Sianesi, 1999; Mincer, 1974; Mingat & Tan, 1996; Rusalkina & Hicks, 2002; Schultz, 1961; Wahrenburg & Weldi, 2007). It can be considered an investment since the individuals give up a proportion of income during the period of education and training in return for increased future earnings. Education must yield a higher rate of return to be pursued from an economic point of vies compared to other investment alternatives. Knowledge regarding the return of investment gives individuals the possibility to make better-informed schooling decisions by including an economic perspective to it (Wahrenburg & Weldi, 2007). Individuals will only carry out additional training or schooling if the costs (such as course fees or tuition) are compensated by satisfactorily higher future earnings (Blundell, Dearden, Meghir, & Sianesi, 1999).

The amount of education attained by laborers affect their labor market outcomes. By increasing their productivity, the laborers will increase their earnings. If higher levels of productivity reflect higher levels of human capital that are primarily a result of increased education, then a positive relationship is present between educational attainment and earnings (Aghajanyan & Erbasol, 2008). Therefore, education has an important position in one's wages and earnings differentials (Afzal, 2011) and modern labor markets (Card, 1999), as it is the measure of human capital accumulation. There are many other factors that determine in individuals earnings besides education. Hence, the investment in human capital refers to the individual's investment in skills and abilities that improve their performance (Joensen, 2007). Through countless studies, it has been recognized that individuals with a better education earn higher wages, work in more prestigious occupations, and experience less unemployment in comparison with their less-educated counterparts (Card, 1999). According to Cohn and Geske

(1990), the human capital approach as displayed in figure 3 represents that investment in education (A) causes higher productivity (B), which in turn leads to higher earnings (C).
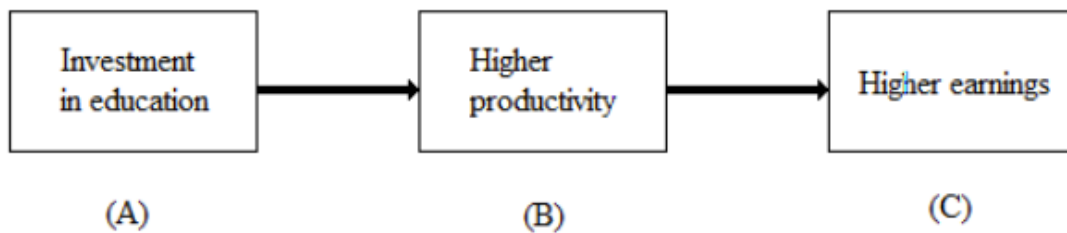
FIGURE 3 THE HUMAN CAPITAL APPROACH (COHN & GESKE, 1990)

As Becker (1993) stated, "rates of return provides the most convenient and complete summary of the economic effects of education" (Becker, 1993, p. 161). It has been used as the economic value of investment in education, and it provides a fundamental analytical tool that evaluates the investment (Kara, 2009). There are at least three different ways to define returns to education: the private return, the social return, and the labor productivity return. The private return concerns the individual's costs and benefits and is clearly net of any taxes paid and any transfers from the state. The second definition features any spillover effects or externalities, which includes taxes and transfers. The labor productivity return relates to the gross increase in labor productivity (Blundell, Dearden, & Sianesi, 2001).

Signalling and screening

Arrow and Spence are two key figures in information technology. They discuss whether more education leads to increased productivity, or whether other factors allow higher education to increase income. Education has also been evaluated through the terms signalling and screening. According to this theory, education does not give the students higher level of knowledge but rather serves as a signal of their abilities (Arrow, 1973; Spence, 1973).

Spence (1973) states that the process of recruitment is an uncertain investment decision from the employer's view. At the time of employment, it is difficult for the employer to choose which candidate is the most capable and most productive in the employment. There is the

aspect of investment as it takes time for the firm to learn the productive capability of an individual. The other aspect concerns uncertainty because the firm does not know the capabilities beforehand (Johnes, 1993). Additionally, candidates may encounter challenges demonstrating their abilities as well as labor productivity to a potential employer. According to Spence, gender and ethnicity are considered immutable. However, an individual can invest both time and money in an education. Thus, education can, therefore, act as a credible signal of productivity. This way the individual who invests in education will buy a signal of its abilities (Spence, 1973). Johnes' (1993) presentation of signalling proposes that the employer uses a formal education as a tool to identify the potential productivity of the employee, which in turn decides the level of salary. This further implies that the longer the education, the higher the salary. Johnes mentions, similarly to Spence, that education is more appropriate for those with good abilities since they have a lower "cost" by studying. In other words, the level of education will serve as a signal to the employer about what level the person has regarding ability and productivity.

Arrow (1973) claims that higher education serves as a screening device in the sense that it classifies individuals according to their different abilities, and thereby conveying information to the employers. However, he believes that higher education does not only serve as a screening tool. Johnes (1993) assumes that the firm employs individuals who will do more than one task, where one of the tasks is more resource-intensive than the other. In this case, education will serve as an indicator of expected productivity to employees to allocate work tasks depending on their different level of education. This model for filtering employees into different groups is commonly known as the screening model. It is used to determine an candidate's ability to learn as well as giving preference to candidates who have earned higher academic degrees. For an employer's point of view, this tool is beneficial as it can make it easier in a recruitment process to assess individuals based on their level of education. This reduces the employer's risk of employing someone with a moderated ability for learning (Brown & Sessions, 1996).

2.1.2 Economic aspects

The finance of higher education is maturing as a field of inquiry, since there are competing theories and methods used. The area of educational finance draws upon the principles of

politics of education and educational law since educational laws must be passed and administered. Various aspects of economics and finance are involved and thus educational finance is closely related to economics of education and government finance. Lastly, the topic is also related to school administration since the overall plans for financing education must be translated into the operations of schools Levin (1987).

Education in most countries is provided through both the private and public sectors. The increasing importance of public finance of education is connected with the social and private returns to education, increasing emphasis on educational-manpower links, educational planning, and the widespread political commitment to greater equality of educational opportunity and greater educational provision. However, it is not a question of the division of the finances between the sectors as it is more political than anything else. The controversy is rather about more specific issues. These questions are easier to find the answer to since policy objectives and their effects can more easily be measured (Sheehan, 2014).

Educational expenditure

Levin (1987) defines school expenditures as "the financial disbursements of schools for the purchase of the various resources or inputs of the schooling process such as administrators, teachers, materials, equipment, and facilities" (Levin, 1987, p.426). Who will be educated? How will they be educated? These are some of the fundamental questions to deal with when referring to school finance. The financial aspects must essentially be based on the translation of the decisions into resources requirements. These requirements will be satisfied through family expenditures, tax revenues, and donated resources for instance (Levin, 1987).

It has been suggested that there is room for students to contribute even more in developed countries. In some of these developed countries, students do not pay any tuition fees. In other countries, governments offset the fees by means of scholarships and grants (Jongbloed, 2004). The most important resources flows to and from tertiary educational institutions are displayed in figure 4. Governments, households and students, and other private entities are the main sources of funding for these institutions.
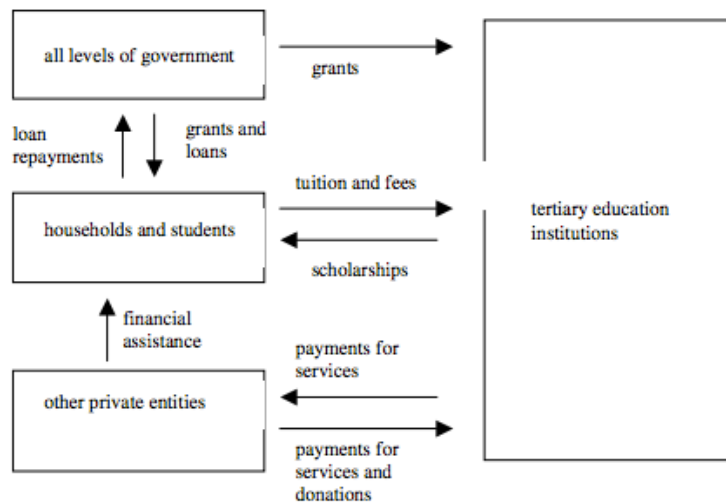
FIGURE 4 RESEARCH FLOWS TO AND FROM TERTIARY EDUCATION INSTITUTIONS (JONGBLOED, 2004)

Government resources include capital investments, operational grants for both teaching and research, and research grants paid directly to institutions. Tuition fees and charges for ancillary services are covered by student payments. Other private payments and resources include payments for consulting, patents, and other services, in addition to private donations and gifts (Jongbloed, 2004).

Whether institutions are publicly or privately owned, the use of tuition fees, as a means of finance, is fairly common at the tertiary level of education. The use of tuition fees has been encouraged as a way of preserving freedom from government interference in which direct subsidies are held to entail. In addition, the tertiary level also features the use of direct subvention of students in the form of loans, grants, or subsidized accommodation and meals (Sheehan, 2014). The degree of financing by the state may be higher than it appears since the subventions cover fees in addition to living costs in many cases. Thus, the rapidly expenditure has mainly been financed through public funds, as the very high capital costs of expanding facilities to cater for quickly increasing enrolments are too high for private endowments to cover (Sheehan, 2014).

One of the factors leading to the existing criticism of grant schemes is the increasing dependence on state grants. Additionally, the pressure of the taxation arrangements has lead to a discussion of additional or alternative sources of finance. Some various alternatives are

increased taxpayer contributions through enhanced grant allocations, introduction of graduate tax, educational vouchers, deregulation of fees, income-contingent loans (Greenaway & Haynes, 2004).

Throughout the years, higher education has received increased attention and continuous adjustments are being made to ensure good educational opportunities. Over the past two decades, state support for public institutions has eroded (Sheehan, 2014). In terms of welfare economics, there is a dimension of public goods of education at all levels, wherein education provides a common return as a result of increased investment in widespread knowledge. By choosing higher education, the individual will not only gain individual returns, but also simultaneously obtain knowledge with positive effects on society (Stiglitz & Rosengard, 2015). From the point of view of the welfare system, there are arguments for both private and public financing of higher education. Additionally, public funding of educational institutions at the tertiary level might drive the purpose of securing equal rights of education. This is by many seen as an effective approach of redistributing welfare.

2.2 International trade

International trade is an old phenomenon as it dates back many centuries to when the Egyptians imported spices in the Red Sea, Arabian nomads traded silk and spices in the Far East through the help of camels, and the Silk Road from the period of the Han Dynasty when Chinese goods made their way to India, the Roman Empire, Persia and vice versa (History of international trade). Even though the history of international business and trade can be traced back many years, regarding its existence as a separate discipline, it is not nearly as old as its history itself. During the past few centuries, international trade has become more common, and there is a tendency of increasing dependency on trade with other nations (Schumacher, 2012). A rough estimate of a nation's interdependence with another is measured by the ratio of imports and exports of goods and services with their gross domestic product (GDP) (Salvatore, 2005). Furthermore, international trade has become a critical factor in the economic activity of most nations of the world (Ball, Geringer, Minor, & McNett, 2012).

International trade is defined as the exchange of goods and services among nations and gives rise to a world economy. Here, prices, supply, and demand are affected by global events such

as industrialization, advanced technology, multinational corporations, globalization, outsourcing, and transportation (Ball, Geringer, Minor, & McNett, 2012). Nations would be limited to the goods and services within their boarders without international trade. Thus, increasing international trade is a crucial factor to the continuance of globalization (Ball, Geringer, Minor, & McNett, 2012) as it gives an opportunity to be exposed to new products and markets.

Several reasons encourage nations to engage in international trade where each of them contributes to their gain from trade. Both the variety and the quantity of goods available for consumption lead to economic growth (Young, 1991). This is further induced by efficient allocation and improved utilization of resources, as countries tend to produce goods with a comparative advantage (Matusz, 1996). As countries attempt to adopt improved methods of production to reduce costs as an effort of remaining competitive, international trade promotes efficiency in production. By producing goods at the lowest possible cost, the country or company will be able to gain a larger share of the market and gives them the incentive to produce efficiently (Caves, 1980). Biscourp and Kramarz (2007) state that international trade helps generates more employment due to the establishment of newer industries and markets for the countries' goods widens through trade. Additionally, it enables nations to consume goods in which cannot be produced within its borders or due to high domestic production costs. Through foreign trade, the country can, therefore, consume these goods at cheaper costs (Young, 1991). Moreover, it reduces trade fluctuations as the market size increases with ample supplies and great demand (Mendoza, 1995). Also, if a country possesses a surplus productive capacity of some sort, it can reallocate its resources through export and sell their surplus goods to other countries (Myint, 1958). Lastly, international trade fosters goodwill, peace, and mutual understanding among nations. Economic interdependence of nations establishes a foundation for peace through close cultural relationships (McDonald, 2004; Zartman, 2007).

From the traditional analyses to the more recent theoretical understandings on the issue of international trade, there has been a reasonable shift in the comprehension of the premises and the undertaking of the discipline. To understand the causes and effects of trade, it is beneficial to examine significant trade theories.

2.2.1 *Classical trade theories*

What determines the pattern of trade? What is the basis of trade? What are the sources of gains from trade? These are central questions that classical trade theories have concerned itself with. The first question relates to the commodities that are exported and imported by each nation (Salvatore, 2005). The following questions leads to the notion that countries will engage in trade as long as it is beneficial for all parties involved. Traditional trade theories postulate that countries trade by the means of taking advantage of their differences (Amiti, 1996). Trade allows nations to specialize in the production of goods that they possess a comparative advantage. Goods that are relatively produces less efficiently will therefore be imported by the nation (Salvatore, 2005).

Adam Smith and the Ricardo model

Following the negative aspects of mercantilism, the Scottish economist Adam Smith published The Wealth of Nations in 1776. His ideas and thoughts contributed to capitalism, free market and international trade (Rosenberg, 1960). Smith introduced the trade theory of absolute advantage, based on a nation's ability "to produce a good more efficiently than any other nation" (Wild, Wild, & Han, 2014, p.159). Furthermore, it means that a greater increase in production than in the past was an outcome of the division of labor. By establishing a market economy, Smith was advocating improvement of the standards of living for the vast majority of the population. This increase would benefit both the rich as well as the working poor whose living conditions were improving (Rosenberg, 1960).

His model implies that the link between human propensities and the wealth of nations was completed through a series of economic aspects. Smith argues that self-interest leads to market exchange, in which leads to the greater division of labor. This, in turn, leads to specialization, expertise dexterity and invention, and as a result of this will result in greater wealth (Muller, 2007). The mercantilist idea that international trade is a zero-sum game was destroyed by the theory of absolute advantage. The theory also questions the objective of national governments to acquire wealth through restrictive trade policies. Instead, Smith saw the potential of economic growth by expanding the market and opening up borders (Wild, Wild, & Han, 2014).

On the other hand, what will happen if a country does not hold an absolute advantage of producing any product? As a response to this, David Ricardo developed the theory of comparative advantage in 1817. It became one of the most important and unchallenged laws of economics (Salvatore, 2005). The Ricardian model proposes that a country possesses a comparative advantage when "it is unable to produce a good more efficiently than other nations, but produces the good more efficiently than it does any other good" (Wild, Wild, & Han, 2014, p.161). It is based on relative differences in production technology, as well as restrictive assumptions.

The Ricardian model is a useful tool as to comprehend the reasons behind trade between nations and its effect of international trade on national welfare. Even though the model makes accurate predictions concerning international trade flows, it also contains several misleading predictions. It predicts an extreme degree of specialization that is not comparable to the real world. It is still considered to be one of the most significant contributions to understanding the benefits of international trade focusing on nations shifting its labor force from relatively inefficient industries to ones that are considered more efficient (Krugman & Obstfeld, 2003). Smith and Ricardo both emphasized that technological differences were the cause of the advantages, and even though they both are considered simple models, they give a basic idea to the reasons why nations trade (Austvik, Bredesen, & Vårdal, 2002).

The Heckscher-Ohlin theory
A Swedish economist by the name of Eli Heckscher published an article in 1919 titled "The Effect of Foreign Trade on the Distribution of Income." The article did not receive much attention before another Swedish economist and a former student of Heckscher, called Bertil Ohlin, clarified and continued to build on the material (Kjedsen-Kragh, 1998). Together they created the Heckscher-Ohlin (H-O) theory based on Ricardo's theory of comparative advantage, which is also referred to as the factor-proportions or factor-endowment theory. The theory "focuses on the difference in the relative abundance of factors of production in various nations as the most important determinant of the difference in relative commodity process and comparative advantage" (Salvatore, 2005, p.82). The H-O theory can be

expressed through two theorems referred to as the Heckscher-Ohlin theorem and the factor-price equalization theorem (Salvatore, 2005).

The H-O theorem claims, "a nation will export the commodity whose production requires the intensive use of the nation's relatively abundant and cheap factor and import the commodity whose production requires the intensive use of the nation's relatively scarce and expensive factor" (Salvatore, 2005, p.83). Unlike the previous classical economists, the theorem explains rather than assumes the concept of comparative advantage (Feenstra, 2015). A businessman or –woman would buy a good in the country for the price is cheapest, to sell it in the country with the highest price. The difference in the dollar price of goods is based on the differences in relative commodity prices in the countries. The relative commodity prices are based on the relative factor prices, which can be the cost of labor in relation to the price of capital. The relative factor prices naturally depend on the relative abundance of these factors, in which is here considered labor and capital. Thus, a nation will specialize in producing and exporting goods using the factors of production that are cheapest and most abundant (Wild, Wild, & Han, 2014).

While the H-O theorem focuses on the pattern of trade, the factor-price equalization theorem concerns itself with the effect of international trade on factor prices. The theorem postulates "international trade will bring about equalization in the returns to homogeneous or identical factors across nations" (Salvatore, 2005, p.85). However, the theorem has some highly restrictive assumptions such as the absence of trade restriction and transportation costs. According to the theorem, international trade causes the wages for equal labor to be the equal in the trading nations. Similarly, it causes the return of homogeneous capital to also be equal in the trading nations. Consequently, both relative and absolute factor prices are equalized (Feenstra, 2015; Salvatore, 2005; Wild, Wild, & Han, 2014).

The Stolper-Samuelson theorem
The theorem derived from the framework of the H-O model as presented by Stolper and Samuelson in 1941 (Stolper & Samuelson, 1941). The Stolper-Samuelson theorem postulates that "free international trade reduces the real income of the nation's relatively scarce factor and increases the real income of the nation's relatively abundant factor" (Salvatore, 2005,

p.87). The theorem provides an answer to the central question of economics: what is the effect of changes in prices of goods on the prices of factors of production? Thus, if the price of one good increases, the factor price of the factor intensively used in the production of the good will increase while the factor price of the other factor decreases.

There is a distinction between developed and less developed nations. Due to labor being a relatively scarce factor and capital is a relatively abundant factor in developed nations, international trade has a tendency of increasing the real income of owners of capital while reducing the real income of labor. This has led to labor unions generally favor trade restrictions. In the case of less developed nations, the opposite is the case. Here, capital is the relatively scarce factor, and international trade will, therefore, reduce the real income of capital and increase the real income of labor (Salvatore, 2005).

The Leontief paradox
In 1953, a Harvard professor by the name of Wassily Leontief confronted the H-O theory by using data for the year 1947 of U.S. trade (Feenstra, 2015). Leontief conducted the first large-scale study to document that the H-O theory is not supported by several studies that examine the trade flows of nations. He examined whether the U.S., who was known as the most capital abundant country in the world at the time of the study, exported capital-intensive goods while importing labor-intensive goods as the H-O theory presumes (Wild, Wild, & Han, 2014). On the other hand, he discovered that the U.S. exports require more labor-intensive production than its imports. Since his findings were contrary to the H-O theory, it became known as the Leontief Paradox (Clarke & Kulkarni, 2010). However, it was not until 1981 when Robert Stern and Keith Maskus published an article that the Leontief Paradox was finally dispelled. The article revealed that adding a third factor of production, such as natural resources, the Leontief Paradox is not valid anymore since many of the goods previously considered as labor intensive were natural resource intensive (Clarke & Kulkarni, 2010).

The Rybczynski theorem
The English economist Tadeusz Rybczynski developed the theorem in 1955. The Rybczynski theorem states that a rise in the endowment of one factor leads to an increase in the productions consuming that factor intensively, and a decline in the output of the other good.

The shift in output mix increases the relative demand for the factor with an increase in endowments. This matches the increase in its regional relative supply, which in turn eliminates the pressure on factor prices to change (Hanson & Slaughter, 1999).
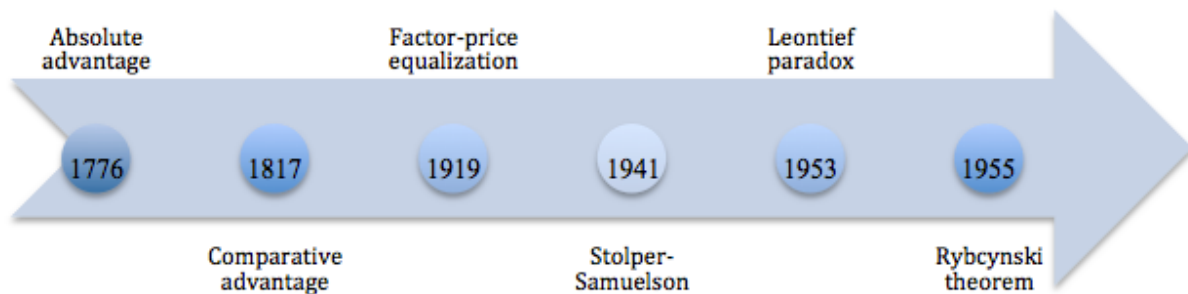
FIGURE 5 TIMELINE OF THE CLASSICAL TRADE THEORIES

The figure above gives an overview of the timeline of the classical trade theories. It displays the evolution of trade ideas all the way back from 1776 and Adam Smith to 1955 and Rybczynski.

2.2.2 Modern trade theories

The classical international trade theories explained the flow of goods between nations regarding comparative advantage. A key implication of these theories is the inter-industry trade where a country will import from one industry and export from another type of industry (Bernard, Jensen, Redding, & Schott, 2007). The inability of explaining trade between similar countries prompted a shift in the content of the theories, and the era of new trade theories concerning intra-industry trade developed (Tamasiga, 2013).

These trade theories do not contradict the main conclusions from the classical theories. They merely examine a richer environment including technological progress, research and development, the current pattern of change due to the evolution of history. In the traditional trade theories, the welfare gains arrive from the differences in opportunity costs of production industries and countries. In contrast to these theories, the welfare gains in the modern trade theories are accumulated from a wider set of varieties that trade makes available to consumers (Bernard et al., 2007). There are several sources of gains from trade that are not present in the

classical theories. These sources of gains include the love of variety gains, allocative efficiency gains, and productive efficiency gains (Tamasiga, 2013).

Economies of scale and economies of scope

<u>New trade theory</u>

Even though the traditional trade implied that capital-intensive countries ought to trade with countries in which are less capital-intensive and has cheaper labor, the opposite was customarily the case. This inspired Paul Krugman (2008) to develop the "New trade theory" in the late 1970s and early 1980s. According to the theory, consumers derive their gains from having access to new import varieties of differentiated goods. To explain intra-industry trade, the theory uses economies of scale, differentiated products, and heterogeneous preferences. By opening the economy to international trade yields a welfare gain that derives from variety (Tamasiga, 2013). New low-cost countries achieve comparative advantages in the production of certain goods as the world market becomes more integrated. However, due to the entrants' economies of scale, the current, established producers have the power to prevent the new entrants (Krugman, Melitz, & Obstfeld, 2012).

<u>Allocative efficiency gains</u>

Allocative efficiency gains are associated with the movement of labor and capital from small, less productive firms to large and productive firms. These gains are concerned with the self-selection of a firm where only the most efficient firms survive after trade liberalization. When entering the domestic market, firms face uncertainties regarding their future productivity when deciding to make an irreversibly costly investment. After some time observing the firm's productivity, the firm can choose to export its products. If the net profits generated from its exports are sufficient to cover the fixed exporting costs, then the firm may enter the export markets. The productivity thresholds for firms entry into the domestic and exports markets are defined by the free entry conditions in domestic and exporting markets in addition to the zero cutoff profit (Tamasiga, 2013).

The Melitz model analyses the intra-industry effects on international trade. The model extends Krugman's New Trade Theory by incorporating firm level productivity differences. Melitz (2003) presents how the exposure to trade encourages the most productive firms to enter the export market, while firms that are less productive will remain in the domestic market. Moreover, the least productive firms are forced to exit the market as a consequence. The model shows how inter-firm reallocations towards more productive firms are a result of further increases in the industry's exposure to trade. Furthermore, the model shows how the aggregate industry productivity growth generated by this reallocation contributes to a welfare gain (Melitz, 2003).

Productive efficiency gains

Productive efficiency gains are associated with trade-induced innovation. Melitz and Ottaviano (2008) created a monopolistic competitive model that allows for gains from a reduction in firm markups due to the competition of import. The model reveals how larger markets display tough competition, which results in higher aggregate productivity and lower average mark-ups. Both trade and market size affect the competition between countries. The competitive effect as trade increases will further increase the losses a firm would face if it fails to innovate. The scale effect is based on how international trade increases the profits of a firm. The anticipated gains may increase the incentive of a firm to innovate. The aggregate productivity and average mark-ups respond to both the size of the market as well as the extent of its integration through trade (Meltiz & Ottaviano, 2008).

Technological progress

Technological gap model

Michael Posner (1961) developed the Technological Gap model in 1961. The model suggests that a significant amount of trade among industrialized nations occurs due to the introduction of new goods, new production processes, and technical changes and developments in a market (Posner, 1961). Through research activity and entrepreneurship, the nation and an innovative company will earn an advantage as sole producer and receive a temporary monopoly, often based on copyrights and patents (Salvatore, 2005). Comparative cost differences may induce trade during the time taken by other countries to imitate a nation's innovation (Posner, 1961).

International product life cycle model

The economist Raymond Vernon developed an extension of the Technological Gap model in 1966. It was initially developed around the United States, but can also be applied to the world market (Wild, Wild, Han, 2014). The model is based on the idea that products enter the market and gradually disappears from it and demonstrates dynamic comparative advantage. Vernon (1966) distinguishes the products into three categories that are new, maturing, and standardized products. With the introduction of a new product, it requires high skilled labor to produce. The product will become standardized as it matures over time and acquires mass acceptance. This allows the product to be produced through mass production techniques and less skilled labor. Consequently, the comparative advantage in the products shifts from the nation that initially introduced the product with high skilled labor to the nation considered less advanced with cheaper labor (Salvatore, 2005).

Vernon (1966) states that a product will go through four stages in its life cycle. The first stage is called the introduction stage where the product is developed to meet local needs and export to similar countries. There are few competitors and profits are low at this stage. As an increasing amount of the product is sold, it automatically enters the growth stage. Due to increasing demand, production costs will decrease, and high profits are generated. This attracts competitors, and therefore the producers of the original product will increase promotional spending or move the production to other countries. At the next stage, the maturity stage, the product is well known, as many consumers own it. Because of intense competition and the wish of remaining market leader, the product is sold at a very low price. At this stage, the marketing and promotion costs are consequently very high. At some point the market becomes saturated, and the product has entered the decline stage. By this time, it is not economically feasible to continue the production of the product. The production may be moved to developing countries or sell the product to another company (Wild, Wild, Han, 2014).

National competitive advantage theory

The theory of national competitive advantage explains why some countries are more successful in certain industries compared to other countries. Michael Porter (1990) states the

competitive advantage in any industry on a national level is dependent on the capacity of the industry to innovate and to continually seek methods to keep those industries upgraded with the best production sets available compared to competing nations. The theory proposes that the national home base of a firm ensures an imperative role as to shape the extent a nation can create new advanced factors such as advanced technology and knowledge base, skilled labor, culture, and government support.

Porter's diamond framework contains four elements: factor conditions, demand conditions, related and supporting industries, and firm strategy, structure, and rivalry. These elements are present in every nation to various degrees and either individually or through their interactions form the basis of national competitiveness by either promoting or hindering the creation and sustainability of competitive advantage. There are two additional determinants that shape the national environment in an indirect way through the other four determinants. These determinants are the role of government and exogenous change (Wild, Wild, & Han, 2014).

Transportation costs

In addition to tariffs, non-tariff measures, and distribution costs, transportation costs are one of the major components of trade costs. It acts as a major determinant in the choice of location as well as clustering of economic activity. Transportation costs depend on various factors such as infrastructure, geographical location, modes of transportation, trade facilitation, market power, and technology (Behar & Venables, 2011; Kurmanalieva, 2006). Also, trade is choked-off by borders, by distance and by a variety of cultural and political obstacles. One of the key factors underlying the success of the fastest growing economies is the integration into the world economy (Commission on Growth, 2008). Nonetheless, many countries remain isolated and have not achieved this integration. Transportation costs are considered one of many factors that shape these trade patterns (Behar & Venables, 2011).

Trade policy

Trade policy concerns economic relations between countries where the intention is to give particular groups or countries advantages over others. On a general basis, there are three reasons for active use of trade policy. The purpose is to improve a country's exchange rate, to

help national business and industries, and ultimately curb the national ripple effects in the event of a shock to the national economy. Trade policy has been the subject of international negotiations and multilateral agreements and has been influenced by its regulations against the use of trade policy between countries since the commencement of the GATT Agreement (General Agreement on Tariffs and Trade) (Austvik, Bredesen, & Vårdal, 2002).

A nation's trade policy has direct consequences for other nations' adaption and welfare. International negotiations and multilateral agreements can lead to the development of new methods for protecting interests in domestic industries, in spite of supranational restrictions and regulations that have been introduced or extended (Hagen, Heum, Haaland, Knarvik, & Midelfart, 2002). According to Hagen et al. (2002), agreements of tariff reduction led to the formation of other forms of import restrictions. Initially, trade policy implies helping your own business in competition with foreign companies by giving benefits to different actors. The costs will typically fall on other domestic actors such as taxpayers, consumers, and other industries. In some cases, a nation may be more concerned with protecting single industries of vital importance for certain regions or employments, rather than promoting trade and industry interests. This type of protection will in most cases lead to higher prices for consumers, less commodity, and lower national income (Hagen et al., 2002).

Austvik, Bredesen, and Vårdal (2002) emphasize that the most common form of effort towards international trade is to assist industries that compete for imports for a period of time, where the measures aim to restrict competition from other countries. The costs generated by an import restriction will be in the hands of the consumers because they will be deprived of the gains obtained through lower prices and larger commodities on import. These costs are appreciated to a lower value than the value of benefits gained by promoting the industries that are protected in the country (Austvik, Bredesen, & Vårdal, 2002). It is easier to argue for trade restrictions that endure over a short period than to argue for free trade or a reduction in constraints. The disadvantages that arise immediately due to a reduction of trade barriers rest with the import-competing producers, while the advantages rest with the consumer. Although the advantages are not significantly noticeable to the individual consumer, a product may be a few dollars cheaper without the import restriction. This may lead to producers to lose profits, which in turn affects jobs. The industry will then support the conservation or the retrenchment

of the import restriction. Producers are often better organized than consumers, and can, therefore, influence policy decisions to a greater extent. At the same time, it is important to note that sector interest often characterizes a country's trade policy (Austvik, Bredesen, & Vårdal, 2002).
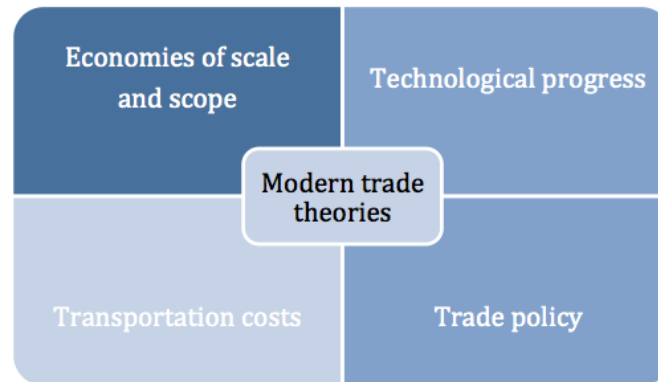
FIGURE 6 OVERVIEW OF MODERN TRADE THEORIES

The figure above displays the central principals of the modern trade theories. There has been a significant change in the content of trade theories compared to the classical theories. As the world changes, other areas has been taken into account.

3   Methodology

The methodological approach to the research question is presented in this chapter. It further explains the objectives of the study, the scientific standpoint, choice of research design and method, and the quality of the study. The choices that are made are assessed against the reliability, validity, and transferability of the study.

3.1 Introduction to methodology

In the process of choosing a topic for the thesis, Huff's (1999) critical diamond was applied as a guide for evaluating alternatives. It is a tool for identifying projects that are important, interesting, and likely to be published (Huff, 1999). The critical diamond is shown underneath in figure 7.
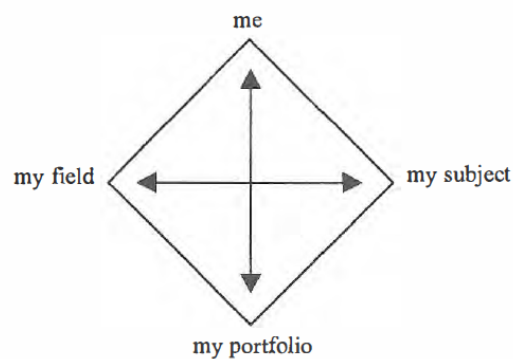
FIGURE 7 A CRITICAL DIAMOND FOR EVALUATING REASEARCH ALTERNATIVES (HUFF, 2008)

As a scholar, you must begin the process of evaluating the alternative topics you wish to select from when starting a research project. The must be a balance between finding a topic that you find interesting at the same time as other scholars will find it interesting. The scope of the thesis should fit the abilities the scholar holds to be able to complete it (Huff, 1999). After a long and time-consuming process of finding alternative topics to write about, the final choice landed on using Norway and New Zealand in the scholarly conversation of international business and economics of education. More detailed reasoning behind the choice of topic is described in the introduction chapter.

Academic work is a scholarly conversation with other scholars (Huff, 2008). These conversations evolve continuously, and one must, therefore, be deliberate when choosing a topic (Huff, 1999). By being expansive and choosing the right scholarly conversation, it is

more likely the topic is interesting for the field of research of the thesis topic, which is, in this case, international business and economics of education as mentioned above.

Many scholarly contributions begin with the observation of an anomaly or a revealing comparison among different data points. By acquiring knowledge on the subject, you can codify what already exists (Huff, 1999). The entire process began by reading a vast amount of literature and journals on the subject of my thesis. However, before starting the project, the researcher must have in mind the intrinsic need for the study, availability of data, and site access (Huff, 1999).

The last section of the Critical Diamond concerns the criteria for managing a set of promising projects. It depends upon several things such as your field, your non-writing responsibilities, your aspirations, and where you are in your career (Huff, 1999). It is wise to think in portfolio terms to assure a balance between different projects. As this is the final project of the degree, there are only projects outside of the education sector to take into consideration.

3.2 Research question

The next step in the process was to formulate a suitable research question according to the chosen topic. The research question is a crucial tool for proper research since everything in the thesis should be related to the research question. It explains what the scholar wishes to study concerning what to focus on and what is not relevant. In this case, the research question has personal relevance in addition to social relevance.

I have chosen a main research question concretized into two more research questions due to the scope of the study. The research question is fairly broad. However, the subordinate questions are used to delineate and specify the subject area in the disciplinary preference of international business and economics of education. Hence, the research question is defined through the omnibus context of comparing two countries.

After the topic was chosen and the research question was carefully formulated, I had to take into account the possibility of level issues in my thesis. In the same way as organizations are multilevel, level issues pervade organizational theory and research. Accordingly, every construct is tied to one or more organizational levels, whether it may be on an individual, group, organizational, industry, or national level. When the levels of analysis, measurement, and theory are not identical, the obtained results may misrepresent the relationships, and the researcher may draw inaccurate conclusions. However, the same phenomenon can be examined at different levels of analysis (Klein, Dansereau, & Hall, 1994). The assumption of homogeneity underlies the specifications of levels in this case. This denotes that the level is within higher-level units. Thus, the level of analysis is at a national level since theory, measurements, and analysis is all based on Norway and New Zealand. Consequently, there are no level issues in this thesis since they are similar to the construct of interest.

3.3 Research design

The choice of research design is based on the research question. The research design provides a framework for the collection and analysis of data. It reflects the decisions made about the priority given to a variety of dimensions of the entire process. The connections between variables, the concept of generalizing, and understanding behavior in a specific context are just some of the dimensions (Bryman & Bell, 2007). In addition, the design affects the validity and the reliability of the study as well (Jacobsen, 2013).

The research design relates to all parts of a research project as it provides the glue that holds the project together. Figure 8 illustrates how complex and intricate the concept of design is in research. It is important to choose a design that fits all dimensions of the thesis.
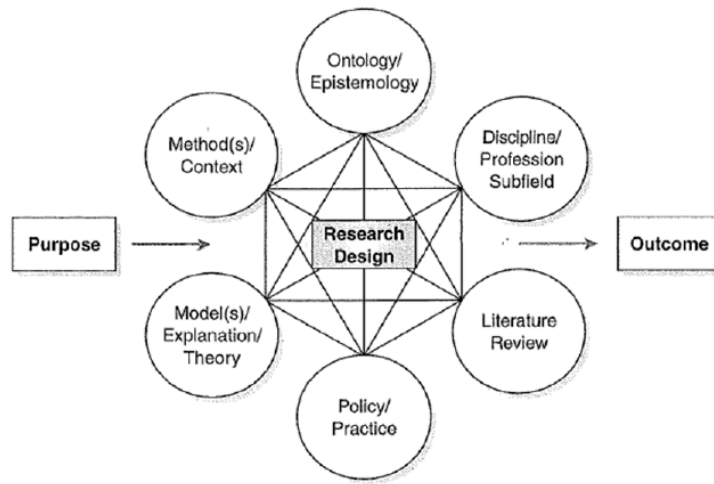
FIGURE 8 RESEARCH DESIGN AS A WEB OF CONSIDERATIONS (HUFF, 2008)

Due to the complexity and scope of my thesis and research question, this study will, therefore, benefit from using design triangulation. The design is used to ensure that you use data that provides relevant answers to the research questions. Each type of design will be presented and given an explanation as to why it has been chosen.

Different research designs will apply depending on the understanding of the research question. The design of the thesis is exploratory in the sense that I am searching for similarities and differences, and how to understand them. It is particularly useful in situations where you face a phenomenon you want to know more about and where you have no clear ideas about how the phenomenon or the problem is to be analyzed (Baxter & Jack, 2008). This is the case in this thesis as there are few, or none, similar written literature that examines trade patterns and higher education in the particular context of my study. Exploratory studies come in handy when it is necessary to acquire new insight to develop a hypothesis or to formulate a more precise problem. A hypothesis cannot be formulated if the theory is too general. Hence, the exploratory study is often used as a pilot study as a prerequisite for more rigorous investigation (Kumar & Singh, n.d.)

Due to the broad research question, an exploratory design was chosen to give understanding and insight in the phenomenon being studied. It is a continuous learning process where you learn in line with the implementation. The exploratory design emphasizes tracking relevant theory, literature, relevant data, and unstructured observations of the phenomenon (Alston & Bowles, 2003). This relates to both the qualitative research through the observations made

and the extended literature review. Accordingly, this design often relies on techniques such as secondary research through reviewing available literature (Shields & Rangarajan, 2013).

In addition to an exploratory design, the study applies a comparative design that examines patterns of similarities and differences. One of the reasons for choosing design triangulation is because the comparative study of diversity is neither as fluid as qualitative research nor as fixed as quantitative research. It is a versatile method that is used to complement other methods and structure of the thesis. Both of the subordinate research questions have a comparative design. The goal of these two questions is to reveal the general underlying structure, which allows or generates such a variation. This type of design helps the researcher ascend from the initial level of exploratory studies to a more advanced level of general theoretical models (Routio, 2007). The aim of the comparative design is to seek explanations for similarities and differences, and also to gain a deeper understanding of social reality in different national context (Bryan & Bell, 2007).

In addition to an exploratory and comparative design, a descriptive design is also used to describe the characteristics of the phenomenon being studied. A descriptive design has been applied to the subordinate questions in addition to the content of the empirical chapter. Descriptive research does not fit neatly into the definition of either qualitative or quantitative research methodologies. However, it can instead utilize elements of both within the same study such as this thesis (Hair, Celsi, Money, Samouel, & Page, 2011). Observation is the primary qualitative method applied in this thesis. It is one of the three top categories of descriptive research, in addition to case studies and surveys, used to collect descriptive data (Borg & Gall, 1989).

3.4 Research method

The choice of research method will have implications for the type of information you are searching for and how the information is obtained. Nonetheless, before making the decision for the most appropriate type methodology, I had to identify what access I had concerning resources and information, whether it is interview objects or documents and reports. This is crucial to how data should be collected and what type and amount of available data. I knew that I hade several respondents available to interview that had previously studied in New

Zealand. While searching for information about the countries, I found a sufficient amount of information related to the topic. Also, I discovered that both countries are members of OECD, which implies that the data from this source is comparable to the countries.

The research method is the procedure of collecting information, and there is a distinction between two different classifications of the methods, quantitative and qualitative (Bryman & Bell, 2007; Ghauri & Grønhaug, 2010; Saunders, Lewis & Thornhill, 2009; Tjora, 2012). The quantitative method emphasizes overview and seeking explanations while being broadly based on a vast and representative selection of data. The data is systemized through statistical methods to be interpreted and generalized the results of the sample to a population. According to Ghauri and Grønhaug (2010), the quantitative methods emphasize testing and verifying incidents based on facts and hypotheses. Consequently, it is beneficial to use a quantitative method when faced with descriptive research design. On the other hand, the qualitative method is a less structured based on a smaller selection, which provides understanding and insight in a phenomenon. The research here relies on a narrow field of research, where the purpose will thus be to acquire new knowledge and give an understanding of the underlying motivation and causes (Ghauri & Grønhaug, 2010). Ghauri and Grønhaug (2010) points out that when faced with exploratory or descriptive design, it is appropriate to use qualitative methods. It may comprise of different types of observational methods, various types of interviews, or case studies that combine different qualitative methods (Tjora, 2012).

Based on the extent of the study, its research question and the selected design, I have decided that a quantitative method is the most suitable method. It will provide a comprehensive understanding of the research problem. The thesis utilizes document review as method of gathering secondhand data. The document review has provided data and information that I would not be able to gather in other ways.

3.5 Data collection
All data collected in this study is recognized as secondary data. Secondary data is recognized as data that is used for research that has not been gathered directly and purposely for this specific project. Since the original purpose of the data is not related to my study, validity,

reliability and potential bias must be taken into consideration when studying the data in closer detail (Hair Jr. et al., 2011).

Due to the scope of this study, collecting secondary sources was viewed as the most appropriate with regards to the topic studied. Collecting data on a macroeconomic level is too complex and complicated for a single individual. The high quality and complexity of the data is considered a great advantage. The sampling procedures are rigorous, covers the entire nations being studied, and have been gathered by research organizations such as the OECD and the Observatory of Economic Complexity (OEC). They have developed control procedures and structures to check the quality of the emerging data. The secondary data also gives the opportunity for cross-cultural analysis. It provides comparable data on the countries being researched. As data collection is time-consuming, the method gave more time to conduct the analysis, as it requires considerable thought (Bryman & Bell, 2007).

On the other hand, there are some limitations to the use of secondary analysis. When using secondary sources, there is a lack of familiarity with the data. As opposed to data you have collected yourself, it takes time to familiarize with the data, especially regarding large complex data sets. The disadvantage with large data sets is that the researcher must ensure at what level the data is situated, whether it is at the individual, organizational or country level. Additionally, the researcher does not have complete control over the quality of the data (Bryman & Bell, 2007). Although the quality of the data should not be taken for granted, the case of data retrieved from government departments or research organizations is reasonably assured. Another disadvantage is that document analysis is limited to data that already exists.

In the case of this study, official statistics and reports have been collected. The main sources have been gathered from statistics or reports OECD, OEC, other research organizations, and government departments as the state is considered the source of a great deal of information. All the data has been available in digital form and also free of charge. Secondary data need not necessarily be collected by other researchers, but by organizations such as in this case. Most of the data was in summarized form, and not in raw material. The same data for each country has all in all been collected from the same source to ensure comparability.

The data collected for analysis of higher education is solely from the OECD report "Education at a glance 2016". The information collected is delimited to the member countries in which are all are recognized as developed countries. The data is based on the same measures in which makes them highly comparable. There is some variation in the collection of data for resources in Norway and New Zealand. Most of the data has been collected from official government websites. To supplement the information of resources an encyclopedia of New Zealand, and two articles, one from the New York Times and the other from the Economist, have been acquired. The analysis of international business is largely based on data collected from OEC or official websites and reports from government departments. OEC is a tool that allows you to compose a visual description of a country, their trade balance, exports, imports, and destinations of trade. The organization has data for both Norway and New Zealand, which is why is was preferred in addition to the visuals they provided. In addition, certain data and information from official government websites was collected.

Key indicators, especially in the form of rates and percentages, were consequently collected from the same source and same year to ensure comparability. The majority of the data is from 2015. The OECD report regarding education contains some key indicators from other years as well. However, as the data was collected from the same source using the same measurements and is from a reliable source, it was considered valid to use this data.

3.6 Quality of the research
One of the purposes of scientific studies is to achieve results that are not everyday theories and general assumptions, which we attribute and dedicate characteristics of phenomena and people that are not present (Easterby-Smith, Thorpe, & Jackson, 2012). To avoid this, as well as criticism of the findings, it is important to set certain criteria for the evaluation of the research. The criteria reliability and validity are used as indicators of the quality of the research and to ensure the credibility of the study. The goal of any study is to ensure a high level of both reliability and validity. These indicators are often geared towards quantitative research (Wennes, 2006). The concept of generalization is also an indicator of research quality (Tjora, 2012). However, since the study is not aimed at making any generalizations, this indicator will not be utilized.

3.6.1 Reliability

According to Bryman and Bell (2007), reliability concerns whether or not the measures devised for the concepts are consistent. Reliability relates to the accuracy of the data, what data is utilized, how the data is collected, and how it is processed (Johannesen et al., 2010). There are three prominent factors to be considered when figuring out whether a measure is reliable. The factors are stability, internal validity and inter-observer consistency. However, only stability is relevant to this thesis. The factor of stability entails whether or not a measure is stable over time.

To ensure reliable data, the source of the documents was of great importance. It was important that the collected data from each country was highly comparable with the same measures. Therefore, the data for each country was consequently gathered from the same secondary source to guarantee that the key indicators were based on the same measures. I recognize that the data provided in the next chapter may be interpreted differently by others, and may therefore arrive at other conclusions. However, based on the reliable sources used, the key indicators for the chosen years will likely be the exact same if replicated by another researcher, which implies high reliability.

3.6.2 Validity

The concept of validity answers to how well or relevant the data represents the phenomenon being investigated. All measures of validity refers to the same thing, although the concept is split into a few interpretations including different areas that distinguishes mainly between construct validity, internal validity, and external validity (Bryman & Bell, 2007). Internal validity is not of relevance to the thesis, as the study does not measure causality. Additionally, external validity is not applicable since the results cannot be generalized beyond the specific context of the study. Validity is concerned with the integrity of the conclusions generated from the research, more specifically whether or not a measure a measure devised of a concept does in fact reflect the explicit concept supposed to be denoting. In social science, inter-subjectivity has been has more often been used as opposed to the truth as an indicator of validity (Jacobsen, 2005). The case of inter-subjectivity occurs when a common understanding of a phenomenon is created (Tjora, 2012). A prerequisite of ensuring validity is to get familiarized with the existing theories, previous research on the matter with similar

research methods. Tjora (2012) states that an important source to high validity is that the research is rooted in other relevant research.

There exists a vast amount of literature on the subject of education and international business. Much time was spent in the attempt of somewhat getting an overview of the literature available. Due to the wide range of literature, I was forced to prioritize what is the most relevant to this research and it ended up becoming the greatest challenge of the thesis. The measurement validity here is closely related to reliability.

4 Findings and analysis

The chapter presents the findings collected from secondary sources. The data represents key indicators concerning higher education, resources, and international trade of the two countries. These key indicators are analyzed mainly on a macroeconomic level.

4.1 Higher education

The structure of the school system in Norway and New Zealand is quite similar, only with a few small differences (Ministry of Education, n.d.). Both nations are members of the Lisbon Recognition Convention, which is an important instrument for the Bologna Process. They follow the objective of the Bologna system intended to create academic degree standards and quality assurance standards compatible and comparable for all member states (European Higher Education Area and Bologna Process, n.d.a; European Higher Education Area and Bologna Process, n.d.b). The first cycle constitutes a bachelor's degree, the second cycle is a master's degree, and the third cycle represents a doctoral degree. After finishing upper secondary school, acceptance is offered at higher education. Though this degree system, it has become easier for students to complete parts of all of their education, especially in Norway (OECD, 2016a). Appendix 1 and 2 illustrate the few differences in the structure of the education systems in Norway and New Zealand.

Although the educational structure is very similar, the structure of the academic year differs between the countries. The academic year in Norway is comprised of two semesters; the first semester is from August to December and the second from January to June. Due to the seasons being different on the opposite side of the globe, the academic year in New Zealand begins in February and finishes in November. Although the academic year is made up of two semesters, a "summer" semester is becoming increasingly popular in New Zealand (Ministry of Education, n.d.).

There are eight universities, eight specialized universities, and 22 university colleges that provide tertiary education in Norway. In addition, 17 non-accredited university colleges offers approved first degree programs (NOKUT, 2017). In New Zealand, tertiary education includes eight universities, 18 institutes of technology and polytechnics, private training

establishments, industry training organizations, and wānanga in which is Maori education (Ministry of education, n.d.). NZ has some well-reputed universities that rank high internationally. All eight universities feature in the top 500 in the 2015/16 QS World University Rankings. University of Auckland is among the top 100. In comparison, out of Norway's eight universities, only half are featured in the top 500 (Top Universities, 2017).

There are no private universities in Norway, although BI Norwegian Business School has attempted to advance into a full university. The specialized universities functions as a national competence center for the representational field. There are currently six public and three private specialized universities. Of the 24 university colleges, only four are private. Even though there are several private institutions in Norway, the public higher education covers more than 90% of the student population (NOKUT, 2017). Norway is currently going through the process of reducing the number of tertiary institutions by merging them together. OECD promotes further merges as smaller institutions often face challenges in cost-efficiency and quality (OECD, 2016b).

All the universities and institutes of technology and polytechnics in New Zealand are state-owned. All state-owned educational institutions possess a high degree of academic freedom. However, the government has set up nationally recognized processes of quality assurance (Studential, n.d.). In addition to the state-owned institutions, there are approximately 860 private training establishments. These establishments offer curriculum in niche occupation in industries such as food and hospitality, tourism, business and technology, commercial aviation, animation and game design (Ministry of education, n.d.).

The total number of students in higher education in 2016 is 288 989 in Norway (Statistics Norway, 2017). In New Zealand, the total number of students in higher education is approximately 420 000 (Education counts, 2016), although 329 000 are students enrolled in universities and institutes of technology and polytechnics (New Zealand Education, 2017; Universities New Zealand, 2016). Figure 9 and 10 represent the percentage of the population between the ages of 25 and 64 who has attained tertiary level of education and who has not. The figures show that the number of people who do not have tertiary education is somewhat

similar. Likewise is the percentage of undergraduate degrees in both countries. However, a greater percentage of the Norwegian population has tertiary education compared with New Zealand, namely 42,7% as to 34%. More than twice as many Norwegians have education at a postgraduate level than what New Zealanders have, which means that they either have attained a master's degree or a doctoral degree or equivalent.

Norway Education level

- Undergraduate
- Postgraduate
- No higher education

32%

11%

57%
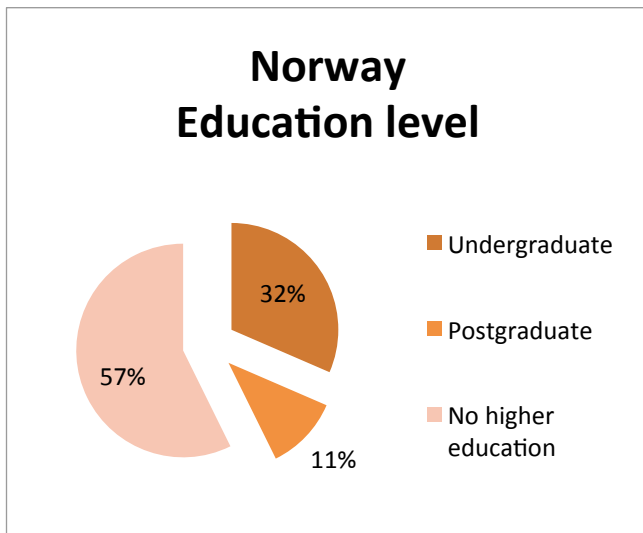
FIGURE 9 EDUCATION LEVEL IN NORWAY (OECD, 2016A)

New Zealand Education level

- Undergraduate
- Postgraduate
- No higher education

29%

5%

66%
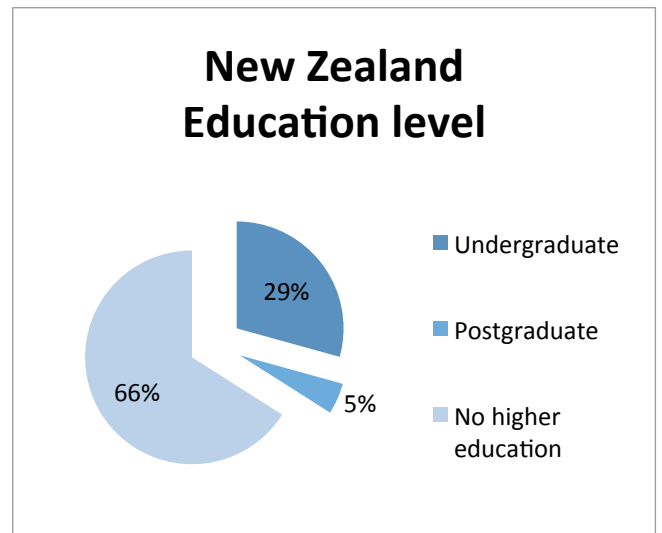
FIGURE 10 EDUCATION LEVEL IN NEW ZEALAND (OECD, 2016A)

Out of the total number of student in tertiary education there is a majority of females who acquire an education in both countries. Although, more males obtain an education in New Zealand compared to Norway as illustrated in figure 11 and 12.

59%

41%
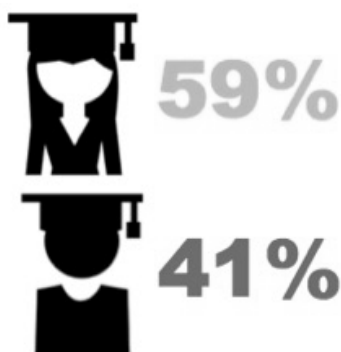
FIGURE 12 GENDER RATIO IN NORWAY (OECD, 2016A)

56%

44%
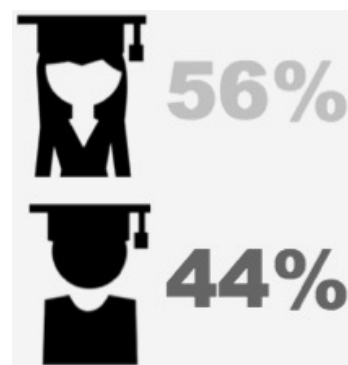
FIGURE 11 GENDER RATIO IN NEW ZEALAND (OECD, 2016A)

There is no secret that the labor market outcomes are better among the higher educated. The employment rates of men are higher than those of women. This concerns to all levels of educational attainment, but as the educational attainment increases the gender-gap shrinks. Furthermore, the employment rate varies across the field of education studied. The employment rate is high for manufacturing and construction, engineering, and for science, mathematics, and computing on average across OECD countries, but is low for teacher training and education science, humanities, arts and languages (OECD, 2016a).

As illustrated in table 1, the employment rates for people with tertiary education are high in both nations, well above the OECD average of 84% (OECD, 2016a). In comparison to other OECD countries, people with higher education in Norway and New Zealand are more likely of being employed, which gives students greater incentives to get an education. Postgraduates in Norway have a greater chance of being employed as opposed to New Zealand postgraduates. The unemployment rate for all levels of education is higher than at the tertiary level, which substantiates the incentives to obtain a higher education since it implies that higher levels of education reduce the risk of unemployment. There is a small distinction in the postgraduate unemployment rate as the New Zealand rate is at surprisingly 4,1, while Norway's rate is only 2,6. This may due to the large number of researchers and high competition within the R&D environment. However, one must take into account that these numbers applies only to education at master's level or equivalent as there is no data available or too few observations of doctorate level.

TABLE 1 PARTICIPATION IN THE LABOR MARKET (OECD, 2016A)

	Norway	New Zealand
Employment rate		
- Tertiary education	91,4	88,3
- Undergraduate level	87,2	87
- Postgraduate level	95,5	89,5
- All levels of education	81	80
Unemployment rate		
- Tertiary education	2,8	3,2
- Undergraduate level	2,9	2,8
- Postgraduate level	2,6	4,1
- All levels of education	3,6	4,4

The tertiary graduation rates represent a nation's capacity to provide a future workforce with specialized and advanced knowledge and skills. Higher salaries and better employment prospects are among the incentives to earn a tertiary degree in which remains strong across OECD countries (OECD, 2016a). In this case, the first-time graduates from tertiary education are defined as "students who receive a tertiary degree for the first time in their life in a given country" (OECD, 2016a, p.62). New Zealand produces many new candidates for the workforce with an astounding graduation rate of 76, meanwhile the graduation rate in Norway lies at 47 (OECD, 2016a). However, in some countries such as New Zealand, a large proportion of tertiary graduates are international students. This causes the graduation rates to be inflated. Consequently, with respect to the inflation, the graduation rates of Norway and New Zealand are respectively 46 and 58 (OECD, 2016a).

4.1.1   International student mobility

As the participation in education increases and national economies become more interconnected, the emergence of tertiary education also becoming more international due to distance education, cross-border delivery of academic programs, international education-related internships and training experiences, and offshore satellite campuses. Students and policy makers on a worldwide basis is now more aware of the gains from enrolling in higher education abroad. It provides new opportunities, a chance to expand knowledge, gives significant cultural and personal experiences, and improves the employability in globalized sectors of the labor market. As for the host countries, attracting international students is alluring because of fees, living expenses, the social and business networks they bring along.

The internationalization of labor markets have given student even greater incentives to study abroad. One of the greatest increases in growth rate in 2014 of mobile students was in New Zealand compared to other OECD countries. Norway did not experience any changes in their growth rate. Furthermore, 19% of the total number of students in New Zealand are international or foreign students. The Norwegian student body constitutes only 3% international or foreign students. Here, foreign students are recognized as "those who are not citizens of the country in which the data are collected" (OECD, 2016a, p.336). International students are here defined as "those who left their country of origin and moved to another country for the purpose of study" (OECD, 2016a, p.337). Among the international and foreign students, most of them are on a postgraduate level. 7% are on master's level and 20% are at the doctoral level in Norway. In comparison, 23% are at master's level and 45% are at the doctoral level in New Zealand. Postgraduate programs attract more international students due to a number of reasons. The population of these programs is more likely to travel and live abroad. The returns to study abroad are higher and there might be a capacity constraint at the origin country (OECD, 2016a).

Although New Zealand receives a large proportion of international students, there are not nearly as many New Zealand students who studies abroad. For every national student who decides to study abroad, New Zealand receives 7,5 international or foreign students. In comparison, Norway receives only 0,5 students on average as shown in table 2. Norway experiences most international students from its neighboring countries of Sweden and

Denmark, as well as Germany, Russia, China, France, Poland, and Spain. Since New Zealand is located on the opposite part of the world, it is only natural that the mix of international students' origin is from other nations, especially nations in Asia. A large share of these students comes from China, Australia, India, Japan, South Korea, and Saudi Arabia (OECD, 2016a).

TABLE 2 OVERVIEW OF FOREIGN AND INTERNATIONAL STUDENTS' MOBILITY (OECD, 2016A)

	Norway	New Zealand
International or foreign students	3%	19%
Undergraduate	1,3%	20,9%
Postgraduate	13,5%	34%
Growth rate (2013-2014)	0	18
National students enrolled abroad	6,8%	2,5%
Number of international/foreign students per national student abroad	0,5	7,5

There are several underlying factors that affect a students' choice of a country of study. First of all, the spoken and academic language is likely to affect potential destinations to study. Countries in which has English as spoken and instruction language are particularly attractive destinations. Many international student has learning or improving their English skills as a goal. An increasing number of institutions of non-English-speaking countries offer tertiary programs in English, such as Norway. Secondly, the quality of the programs offered perceived from the wide array of information available, either from international university rankings, on line information or other channels. Of New Zealand's eight universities, all of them are among the top 500 universities world wide according to QS World University Rankings (Ministry of Education, n.d.). There is also a strong connection between the university ranking and their attractiveness to international students. Lastly, tuition fees are a substantial proportion of the cost of studying. These costs are taken into consideration when choosing where to study abroad. New Zealand has continued to attract a great number of international students even though they have differentiated tuition fees for these students with the exception of doctorates (OECD, 2016a).

4.1.2 Educational expenditure

Nations have many incentives to invest in educational institutions. Among these are fostering economic growth, reduce social inequality, enhance productivity, contribute to personal and social development. The share of expenditure relative to GDP on education is dependent on the various preferences of public and private actors. Both the Norwegian and the New Zealand governments are major investors in education, as they are among the OECD countries that spend the most on all levels of education. Norway spends 1,6% of their GDP on tertiary education, while New Zealand spends even more (1,8%) as displayed in table 3.

TABLE 3 PUBLIC AND PRIVATE EXPENDITURE ON EDUCATION INSTITUTIONS AS A PERCENTAGE OF GDP (OECD, 2016A)

	Public expenditure	Private expenditure	Total expenditure
OECD average	1,1	0,5	1,6
Norway	1,5	0,1	1,6
New Zealand	0,9	0,9	1,8

Although public funding is still overrepresented in countries' investment in education, private funding in received an increasingly prominent role in some educational levels. Public investment has dominated funding at the lower levels of education. However, the balance between private and public funding in tertiary education varies by countries. These differences between Norway and New Zealand are shown in table 4. The proportion of expenditure in Norway covered by businesses, individuals, and other private sources is only 4% as opposed to 48% in New Zealand. 33% of the private expenditure in New Zealand is from household expenditure through tuition fees. Although the Norwegian government funds most state tertiary providers, the high spending has only led to average performance (OECD, 2016a).

TABLE 4 DISTRIBUTION OF EXPENDITURE (OECD, 2016A)

	Norway	New Zealand
Public expenditure on educational institutions	96%	52%
Household expenditure	3%	33%
Expenditure from other private entities	1%	15%
All private sources	4%	48%

Policy makers must provide a balance between high-quality education against the overall tax burden and other demands on public expenditure. Higher quality of education can translate into higher costs per student. The annual expenditure per student on core educational services, ancillary services and R&D is $20 379 in Norway and $14 585 in New Zealand. Often, R&D takes up a large share of the budget, as the expenditure per student in these activities is higher (OECD, 2016a). This explains why the expenditure per student is higher in Norway, because a large proportion of the expenditure is from public funding. However, a proportion of research is performed outside of academic environments in New Zealand due to the involvement of domestic business and private non-profit organizations.

The tuition fee level of educational institutions is a hot debate. Governments are faced with the struggle of finding a balance of tuition fees between choosing a higher level that increases the resources available or a lower level that promotes access to higher education. The latter case applies especially for students who come from low-income backgrounds. Although Norway has no tuition fees, New Zealand charges an average annual fee of over $4000.

4.1.3 *Financial incentives to invest in education*

Investing money and time in education is equally an investment in human capital. As previously mentioned, the initial cost of pursuing education is outweighed by the labor market outcomes of higher educational attainment. Many postpone labor market activities due to the

strong incentives to invest in education. Although women holds higher levels of education, men reap more benefits from education as a response to better employment and better earning outcomes. The benefit of individuals attaining higher education is through reduced public expenditure on social welfare programs in addition to higher revenues earned through taxes paid once individuals enter the labor market (OECD, 2016a). Since not only individuals, but also the government benefits from tertiary educational attainment, it is important to consider the financial returns to education.

The private net financial return is known as the difference between the costs and benefits associated with educational attainment. Nevertheless, the total costs consist of direct costs and foregone earnings for private costs. The total private benefits consist of gross earnings benefits, income tax effects, social contribution effect, transfers effect, and unemployment benefits effect. Although there is a tendency towards more women completing tertiary education, men's private net financial returns are still higher as shown in table 5. The numbers on the following page are explained in greater detail in appendix 3. The lower returns of women can be due to several different factors such as lower earnings, a higher share of part-time work, or higher unemployment rates. From the internal rate of return, attaining higher education is more desirable in Norway compared to New Zealand regarding private costs and benefits. Free education in Norway and a good welfare system are some factors that may affect the rate.

TABLE 5 PRIVATE COSTS AND BENEFITS OF ATTAINING TERTIARY EDUCATION (OECD, 2016A)

Private costs and benefits	Total costs	Total benefits	Net financial returns	Internal rate of return
Norway				
Male	51 200	232 200	181 000	9%
Female	53 000	185 800	132 800	9%
New Zealand				
Male	66 200	169 500	103 300	7%
Female	64 600	147 300	82 700	7%

Public net financial returns are measured in a similar manner to private net financial returns. The total public costs consist of direct costs and foregone taxes on earning. The public benefits consist of the same as the private benefits with the exception of gross earnings benefits. The content of the key numbers is illustrated more detailed in appendix 4. Since there is a correlation between higher levels of educational attainment and higher income, educational investments generates higher public returns. In general, people with higher education pay higher income taxes and social contributions, and does not require an abundance of social transfers.

The direct costs are of greater importance to the government than of the individual. This applies especially to countries such as Norway where students do not pay tuition fees and have access to substantial public subsidies. On the other hand, these individuals pay high income tax rates in progressive tax regimes to finance these subsidies (OECD, 2016a). Compared to OECD average, Norway is one of the countries with the largest public costs since the direct costs represent the largest share of total public costs. Net financial returns on government investment are commonly closely related to private returns. The countries where individuals benefit the most from attain a higher education are also the countries where governments gain the largest returns, as this is the case of Norway. It is the opposite in New Zealand where net financial public and private returns are lowest as presented below in table 6.

TABLE 6 PUBLIC COSTS AND BENEFITS OF ATTAINING TERTIARY EDUCATION (OECD, 2016A)

Public costs and benefits	Total costs	Total benefits	Net financial returns	Internal rate of return
Norway				
Male	87400	190 800	103 400	5%
Female	87900	101 300	13 400	3%
New Zealand				
Male	38000	76 600	38 600	5%
Female	37800	52 900	15 100	4%

It is costly on an individual basis to pursue further education, even though the gains made over time throughout the individual's career will exceed the costs endured during their studies. While higher levels of educational attainment will yield higher financial returns, there is a gender gap present. There is evidence that Norwegian men have higher net financial returns than Norwegian women due to the effect of greater income tax. In the long run, investing in education pays off for both genders.

4.2 Resources

Even though the Norwegian economy is sensitive to global business cycles, it has revealed a vigorous growth since the beginning of the industrial era. Norway had previously been largely based on agriculture, fishing, and timber. After the discovery of large oil and gas reserves in the North Sea, Norway became a very wealthy nation. The economic growth has mostly been fueled by this abundance in natural resources, more specifically including petroleum exploration and production, fisheries, and hydroelectric power. As an effect of the industrial era, agriculture and traditional heavy manufacturing have declined in comparison to services and oil-related industries (The Trade Council of Denmark, 2009).

The economy of New Zealand was previously built on a narrow set of agricultural products such as wool, dairy, and meat. These products were the country's most valuable exports underpinning the success of the economy until the 1970's (Easton, 2010a). In 1973, New Zealand lost its preferential trading position with the UK when they joined the European Economic Community. As a result, the GDP per capita adjusted for purchasing power declined between 1970 to 1990 to 80% of the OECD average from 120% (Drew, 2007). However, between the years 1984 and 1993, their economy evolved into being one of the most open economies in the OECD when previously having been a somewhat closed and centrally controlled economy (Evans, Grimes, Wilkinson, & Teece, 1996).

The different sectors of both countries have changed over the course of time. Both economies were in earlier years largely based on the primary and industrial sectors to now being dependent on the service sector. Figures 13 and 14 below show that the tertiary sector contributes well over half to the GDP of Norway and New Zealand, respectively 60% and 70%. The primary sector consists of small shares, even smaller in Norway with 2% compared

to 7% in New Zealand. However, the industrial sector is greater in Norway consisting of 38% of the GDP in comparison to 23% in New Zealand. The latter is an attractive tourist destination and tourism is growing in which helps to explain the great share of the service sector. Particularly, since New Zealand is known for its film industry. In 2008, the leading generator of foreign exchange was tourism (Easton, 2010b).
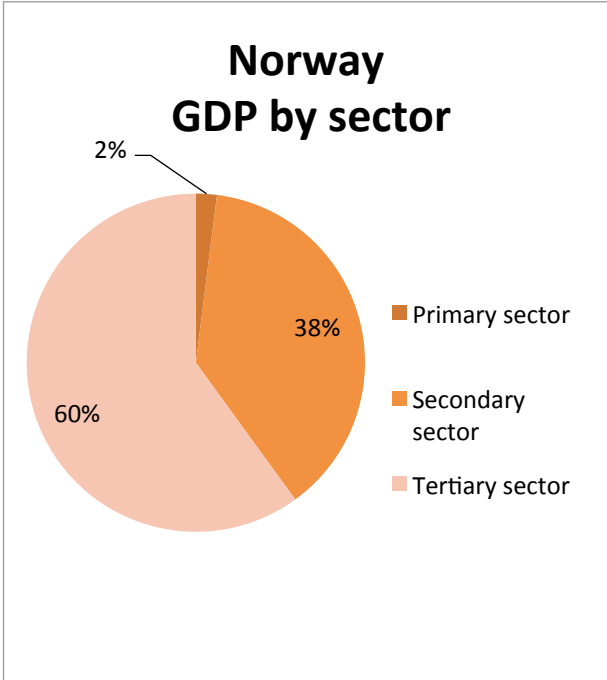
FIGURE 13 GDP BY SECTOR IN NORWAY (GLOBALIS, N.D.A)
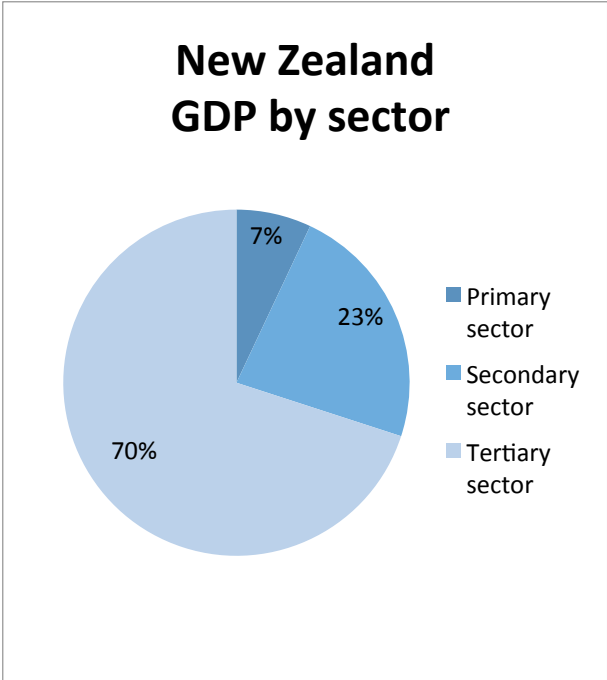
FIGURE 14 GDP BY SECTOR IN NEW ZEALAND (GLOBALIS, N.D.B)

The most important natural resources will be presented in more detail. The focus is on oil and gas, minerals, source of energy, agriculture, and fishery.

4.2.1 *Petroleum and minerals*

Oil and gas as well as minerals are important to the Norwegian and the New Zealand economies as they both have a long history of producing oil and gas. Norway is the eighth-largest oil exporter and the third-largest gas exporter worldwide, although not a member of OPEC. Export revenues from oil and gas accounts for almost 47% of total exports and constitutes about 20% of GDP (Norwegian Petroleum, 2017). The Norwegian government in 1995 established the Government Pension Fund. This sovereign wealth fund would be funded through oil revenues, including dividends, taxes, sales revenues, and licensing fees. It was created with the intension of reducing overheating of the economy from oil revenues,

minimizing uncertainty from volatility in oil price, and providing a cushion to compensate for expenses connected to the aging of the population (Reed, 2014). As of March 2017, the Government Pension Fund controlled assets valued at approximately 178% of Norway's current GDP. The fund is considered to be the largest sovereign wealth fund on a world basis (Reed, 2014).

Norway encompasses a significant amount of mineral resources, as its mineral production was valued at $1,5 billion in 2015 (Aasly & Erichsen, 2016). The most valuable minerals are limestone, nepheline syenite, building stone, iron, olivine, nickel, and titanium. Hydroelectric plants generate approximately 98-99% of Norway's entire electric power. This is more than any other nation worldwide ("Binge and purge", 2009).

Oil and gas are important to the New Zealand economy. Oil is a major export earner for New Zealand, while gas is a significant input into their domestic economy. (Ministry of Business, Innovation, and Employment, 2016a). There is great potential to discover new oil and gas reserves according to research done by GNS Science. New Zealand has sovereign rights over 5,7 million km^2 of seabed in which most has only been scarcely explored. There is reason to believe that the industry can make a significant contribution to the economy with the right balance of private investment and government support. Crude oil is their fourth largest export commodity by value. Oil and gas production contributed 1,5% while the petroleum and minerals sectors accounted for 2,3 % of GDP in 2009 (Ministry of Business, Innovation, and Employment, 2012).

New Zealand is rich in minerals just like Norway, best known for their production of gold and coal in addition to hydropower and limestone. Their offshore potential includes seafloor gold and base metals, iron sands, phosphate and other minerals. As their potential value may eventually exceed the value of onshore resources, the government regards the environmentally responsible development of the country's mineral resources important to the economy given the size of its potential (Ministry of Business, Innovation, and Employment, 2016b). On top of being rich in minerals, New Zealand is also rich in geothermal energy. It is mainly used for electricity generation in New Zealand and it accounted for over 16% of their total electricity supply in 2014. It is considered beneficial to use this type of energy since it is

relatively cost effective, sustainable, reliable, and relatively environmentally friendly (Ministry of Business, Innovation, and Employment, 2016c).

4.2.2 *Agricultural and fisheries industry*

Agriculture is used as a collective name for agriculture both on land and in water. For the sake of simplicity, the main types referred to here is animal husbandry, dairy, forestry, and aquaculture. Both Norway and New Zealand are eminently agricultural nations, and as such they are strongly influenced by geographical location and the natural conditions. Table 7 presents an overview of some key indicators.

82,9 % of the agricultural land is arable and permanent cropland of the Norwegian mainland, while it is only 2,6% in New Zealand. However, permanent pasture accounts for 17,1% of the agricultural land in Norway and 95,4% in New Zealand (OECD, 2016c). Arable land is defined as land under temporary crops, while permanent cropland recognized as cultivated with crops occupied for long periods of time. Permanent pasture is known as land that is used for five years or more for forage.

The agricultural sector in New Zealand is considered unique, as it is the only developed country that is completely exposed to the international market since tax concessions, subsidies, and price supports were removed in the 1980s (Hutchins, 2006). The most common livestock are sheep and goats in both nations.

From table 7, the difference in the level of agricultural support is major. There have been few attempts to reduce the level of agricultural support in Norway as it is among the highest levels of the OECD countries. The agricultural support to farmers comprises 62% of gross farm receipts as opposed to only 0,7% in New Zealand (OECD, 2016c). This is largely due to the strict border protection of agricultural products in Norway. This relates to the high producer protection ratio in Norway. OECD defines producer protection as the ratio between the average price received by producers and the border price (OECD, 2016c). This reflects a level of price distortions and indicates that Norway is 89% above international market levels. Due to open trade, the prices in New Zealand are aligned with world market prices.

TABLE 7 KEY INDICATORS OF AGRICULTURE AND SEAFOOD (OECD, 2016C)

	Norway	New Zealand
Agricultural land	82,9%	2,6%
Agricultural support	62%	0,7%
Producer protection ratio	1,89	1
Fish landings	2 027 676 tons	288 760 tons
Aquaculture production	1 346 543 tons	109 787 tons

The dairy industry in Norway produces mainly milk, cheese, yoghurt, and butter. Dairy products in Norway stand for less than 1% of their exports, as most of it is distributed domestically (OEC, n.d.a). Contrarily, New Zealand is among the world's top dairy export since the country is the eight largest milk producer worldwide. Just over 2% of the world milk production comes from New Zealand. Dairy products accounts for about 22% of New Zealand's total commodity export value, concentrated milk standing for 13,3% of the value (OEC, n.d.b). In New Zealand's negotiations with the European Union (EU) regarding access to the European markets, dairy products have had a central place especially concerning product quotas.

Norway is the world's second largest exporter of fish in value, after China. The country exports approximately 95% of their seafood production and the EU was the most important export market taking as much as 59% of the export production. 52% of the key landings in value is groundfish and the main species harvest were herring, cod, and mackerel. The fisheries industry accounts for the fourth or fifth largest exporting sector in New Zealand and about 90% their seafood production is exported. The largest importer is China (27%) followed by Australia (18%) and the EU (11,5%). Groundfish and crustaceans stands for approximately 60% of landings by value. OECD distinguishes between fish landings and aquaculture production due to their different growth rates and production systems (OECD, 2015). The large difference is displayed in the table above where Norway produces seven times as much key landings and twelve times as much aquaculture production in tons than New Zealand.

4.3 International trade

Both Norway and New Zealand are nations with small economies in comparison to the rest of the world, as they both have a relative unilateral industry structure. Therefore, both countries have a high proportion of both import and export. The Observatory of Economic Complexity (OEC) states that Norway is the 17th and New Zealand is the 39th most complex economies according the to Economic Complexity Index (ECI). The ECI determines the complexity of an economy related to the multiplicity of useful knowledge embedded. In attempt to explain the economy as a whole, the ECI measures the production characteristics of large economic systems (OEC, n.d.c).

4.3.1 Trade of balance

The GDP of Norway is over twice as high as New Zealand's GDP as seen in table 8. This is largely due to the revenues collected by the Norwegian petroleum sector, in addition to traditional activities such as shipping, fisheries and fish farming (European Commission, n.d.). Although New Zealand exports oil like Norway, it does not account for nearly the same amount, respectively $998 million and $66 billion in mineral products (OEC, n.d.a; OEC, n.d.b). The table below displays a similar percentage GDP of imports for both countries, with 20,9% and 20,6%. However, the Norwegian export exceeds New Zealand with 29% compared to 20,7% of GDP. Still, both countries have a trade surplus as the exports exceed the imports, but the Norwegian surplus is much greater than New Zealand's.

TABLE 8 ECONOMIC OVERVIEW (OEC, N.D.A; OEC, N.D.B; THE WORLD BANK, 2016)

2015	Norway	New Zealand
GDP	$386B	$173B
GDP per capita	$62.1k per capita	$37.6k per capita
GDP growth rate	1,6%	3,4%
Export	$112B	$35.8B
Export % of GDP	29%	20,7%
Import	$80,9B	$35,7B
Import % of GDP	20,9%	20,6%
Balance of trade	$31,2B	$71,8M
Balance of trade % of GDP	8,1%	0,4%

In 2015, Norway exported $112 billion and imported $80,9 billion, which results in a positive trade balance of $31,2 billion (OEC, n.d.a). According to the OEC (n.d.a), the top exports of Norway are petroleum gas (31%), crude petroleum (22%), refined petroleum (4,4%), non-fillet fresh fish (3,5%), and raw aluminum (2,4%) (OEC, n.d.). Special purpose ships (6,4%), cars (6,1%), refined petroleum (2,5%), passenger and cargo ships (2,3%), and computers (2,1%) are the main imports of Norway. Figures 15 and 16 display the allocation of export and imports by main product groups.
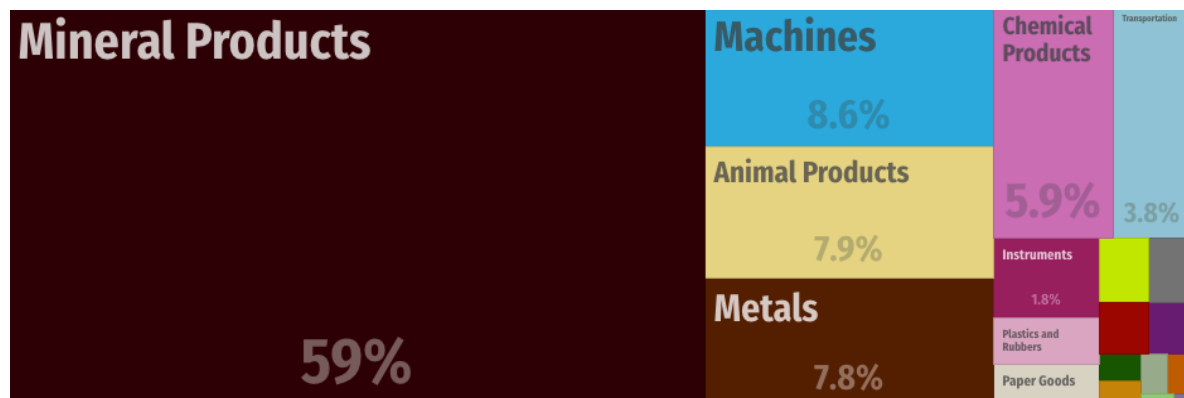
FIGURE 15 NORWEGIAN EXPORTS BY PRODUCT GROUP (OEC, N.D.A)
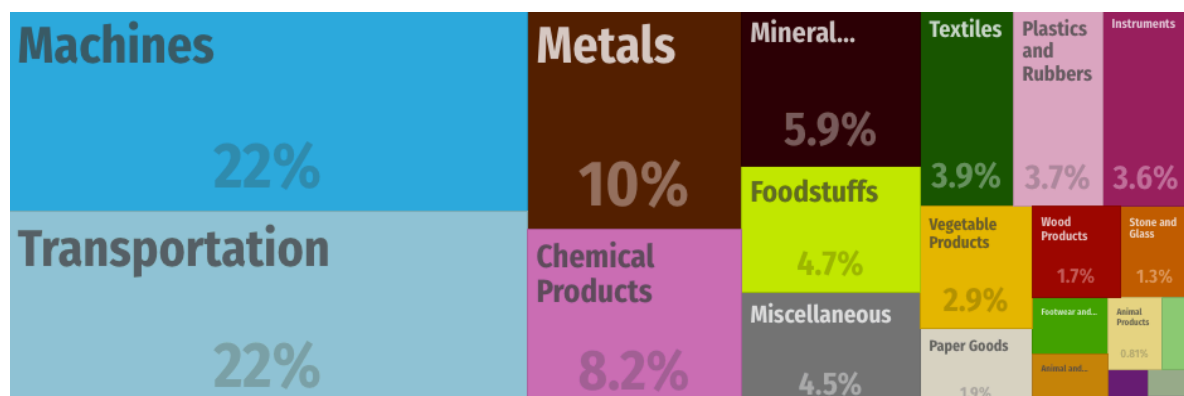
FIGURE 16 NORWEGIAN IMPORTS BY PRODUCT GROUP (OEC, N.D.A)

The largest share by far of export and import is with Europe, respectively 79% of exports and 63% of imports. The Nordic countries, Germany, and the UK constitute the most important trading partners. The top export destinations are Germany ($19,3B), the UK ($18,8B), the Netherlands ($13,4B), Sweden ($8,56B), and France ($7,33B). The top import origins are Sweden ($9.4B), Germany ($8.66B), China ($7.9B), South Korea ($5.29B) and the United Kingdom ($4.98B) (OEC, n.d.a). Germany and the UK are considerably larger buyers of

Norwegian export products than other Nordic countries due to the fact that they are major markets for Norwegian oil and gas (Ministry of Trade, Industry, and Fisheries, 2001).

On the opposite side of the world the contents of main exports and imports are different. Exports contributed $35,8 billion while imports accounted for $35,7 billion in New Zealand in 2015. This resulted in a slight positive trade balance of $71,8 million (OEC, n.d.b). The top exports are concentrated milk (13%), sheep and goat meat (6,3%), frozen bovine meat (5,9%), butter (4,5%), and rough wood (4,5%) according to the OEC (n.d.b). Cars (8,2%), crude petroleum (5,8%), refined petroleum (3,4%), planes, helicopters, and/or spacecraft (3,3%), and delivery trucks (3,0%) are the major imports of New Zealand (OEC, n.d.b). The allocation of exports and imports by main products groups are displayed in figures 17 and 18 below.

FIGURE 17 NEW ZEALAND EXPORTS BY PRODUCT GROUP (OEC, N.D.B)

FIGURE 18 NEW ZEALAND IMPORTS BY PRODUCT GROUP (OEC, N.D.B)

The allocation of New Zealand exports and imports is more spread out over the continents than that of Norway, although about 50% of both exports and imports are with Asia. The top export destinations are China ($6,14B), Australia ($5.7B), the United States ($4.18B), Japan ($2,27B), and the UK ($1,24B). The top import origins are China ($7,03), Australia ($4,36B), the United States ($4.13B), Japan ($2,36B), and Germany ($1,59B) (OEC, n.d.b). The exports and imports of New Zealand come from mainly the same countries. Due to its small size and distance from other major world markets, creates challenges in their ability to compete in global markets.

In 2014, the total trade in goods between Norway and New Zealand accounted for $90 million. New Zealand exported product worth $43,1 million to Norway. The top products were aluminum, wine, radar and radio apparatus. The top imports from Norway were fish and shellfish, fertilizers, machinery and mechanical appliances, which accounted for $46,9 million (New Zealand Foreign Affairs and Trade, n.d.).

4.3.2 *The development of GDP*
The development of GDP of Norway and New Zealand over 20 years is displayed in figure 19. The evolvement of their GDPs from 1995 to 2015 is compared to the OECD average in purple. As shown from the figure, New Zealand's GDP in blue is positioned right underneath the OECD average for the entire time period. They both have a steadily increasing GDP unlike Norway's GDP in red. Its GDP has been increasing at a greater pace until the financial crisis in 2008.
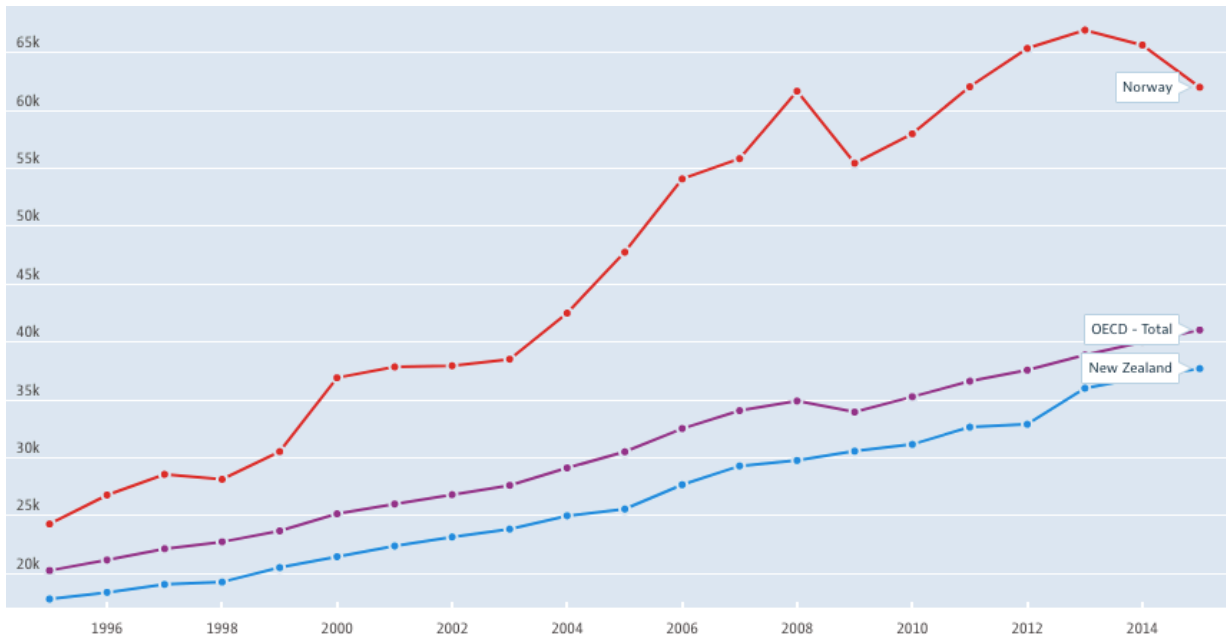
FIGURE 19 THE DEVELOPMENT OF GDP FROM 1995-2015 (OECD, 2017)

The following figure 20 below shows the GDPs from 2007 until 2015 in closer detail. It displays how Norway's GDP had a slight decline after the financial crisis before it recovered in 2009. It reached its peak in 2013 until it slowly has declined the recent years.
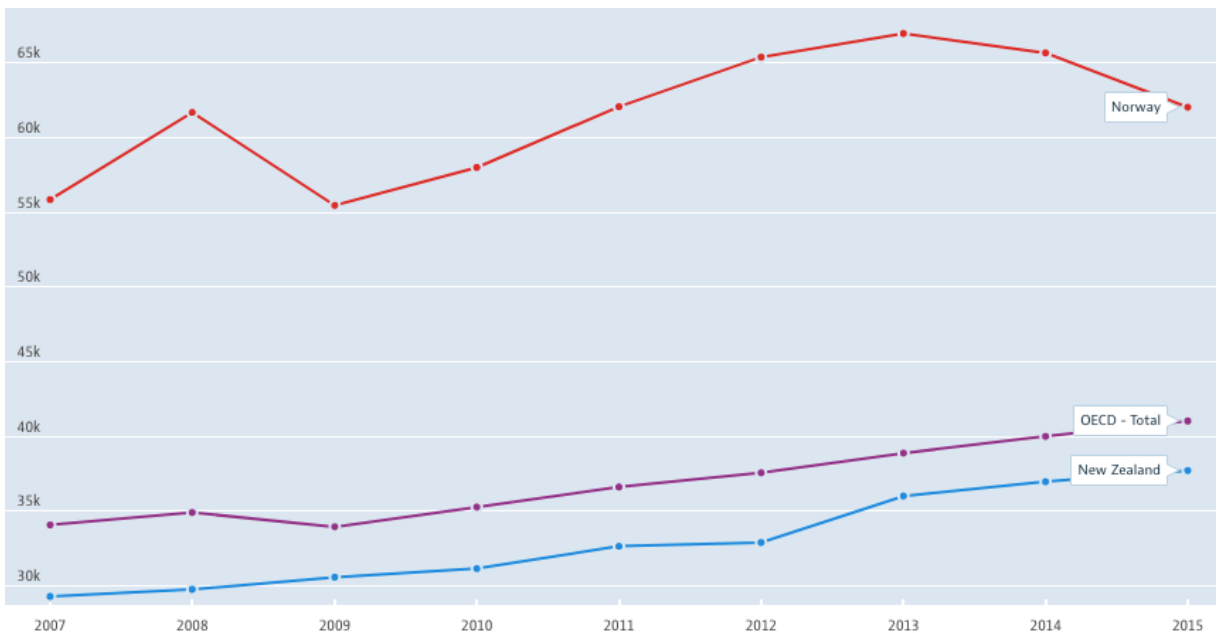
FIGURE 20 THE DEVELOPMENT OF GDP FROM 2007-2015 (OECD, 2017)

The growth rate measured in annual percentage determines the rate of change in a nation's GDP, not adjusted for inflation (Investopedia, 2005). The growth rate of Norway and New Zealand has been relatively inverted until the financial crisis where they both experienced a downfall as shown in figure 21. As the economy expands, the growth rate is positive. It has been essentially positive with the exception of 2008 due to the financial crisis, before it changed direction in 2009 and became positive in 2010. The growth rate, applied as an indicator of economic health, was in 2015 1,6% in Norway and 3,4% in New Zealand.

FIGURE 21 GDP GROTH (ANNUAL PERCENTAGE) (THE WORLD BANK, 2016)

4.3.3 Trade barriers

Trade barriers are restrictions on international trade induced by governments. These restrictions can take form through tariffs or non-tariffs such as import or export licenses, subsidies, embargo, and others (New Zealand Foreign Affairs & Trade, n.d.b). Both nations are relatively dependent on trade and members of World Trade Organization (WTO), although they hold different trade policies. New Zealand has a free trade policy as an attempt to promote trade. Being an island group with no near neighboring countries, with the exception of Australia, trade with other countries is of significant importance to their economy. International trade constitutes for almost 60% of their total economic activity. The country pursues a free trade agenda to benefit their exporters while at the same time give

access to a wider range of goods and services to their consumers (New Zealand Foreign Affairs & Trade, n.d.b). On the other hand, agricultural and seafood products prevent free trade in Norway due to import restrictions and customs duties.

Along with Iceland, Switzerland, and Liechtenstein, Norway is a member of the European Free Trade Association (EFTA). The members of EFTA, with the exception of Switzerland, participate in the EU's single market through the European Economic Area (EEA) agreement. In light of political and economic significance, the EEA agreement is Norway's most important free trade agreement, as it goes far beyond a classic trade agreement regarding economic integration and institutional overhaul. Simultaneously, the importance of trade in markets outside the EEA has increased in line with the globalization of Norwegian foreign trade over the last two decades. Through the EEA and other free trade agreement through EFTA, Norway now has free trade agreements with over 60 countries (Office of the United States Trade Representative, n.d.).

As a member of the EEA, Norway has most of the rights and obligations as other EU members with the exception in the agricultural and fishery sectors. However, Norway is one of the most liberal countries in the world regarding industry products, but is one of the countries with highest protection concerning agricultural products. In addition to import protection on agriculture, Norway has high rate of duty on processed fish. Agriculture accounts for approximately 1% of Norway's GDP, but the state supports its agricultural producers with a percentage of total farm receipts that is considered among the highest in the world. Norway is around 50% self-sufficient regarding agricultural production. However, the state maintains tariff rates on these products as an attempt to ensure domestic farmers have low competition until every part of the domestic production has been consumed (Office of the United States Trade Representative, n.d.).

Not only is New Zealand a member of the WTO, but is also a member of the Asia-Pacific Economic Cooperation (APEC), which promotes free trade throughout the Asia-Pacific region. The country's engagement with APEC is a reflection of their strong relationship with other countries in the Asia-Pacific region as 74% of their goods is exported to APEC members and 72% of their imports are from these economies (New Zealand Foreign Affairs

& Trade, n.d.c). One of New Zealand's most important trade agreements is the Trans Pacific Partnership (TPP), which also includes Australia, Japan, USA, Brunei, Canada, Chile, Mexico, Peru, Singapore, Malaysia and Vietnam. The goal of this agreement is to remove most of the customs barriers and reduce trade barriers between the twelve countries. WTO, OECD, and APEC are among the organizations that support their free trade policy (New Zealand Foreign Affairs & Trade, n.d.b). Since agricultural products are the main export of New Zealand, these products are therefore critical to their economy. The exporters in New Zealand often experience barriers overseas, especially concerning agricultural products

Norway is the second largest exports of seafood on a world basis with the EU as the single most important market. For several decades, Norway has worked to lower the tariffs on processed fish. In response to this, the EU claims of access to Norwegian fish resources, especially investing in Norwegian fishing vessels with quotas (Regjeringen, 2016). Moreover, New Zealand is known as the coordinator of "Friends of Fish". Members of this group from WTO are advocating for new rules on fisheries subsidies, as these subsidies contribute to overfishing through artificially inflating earnings and artificially reducing costs for the fishing industry as a whole. Prohibiting these subsidies will benefit both Norway and New Zealand (World Trade Organization, n.d.).

5   Discussion

In this chapter, the main empirical findings presented in the previous chapter are highlighted. These findings are further discussed in view of relevant theory from chapter two.

The thesis aims to compare and contrast economic growth in Norway and New Zealand in light of higher education and international business. These two nations have seldom been placed in the same context in previous literature.

5.1 Educational investment

Norway and New Zealand are major investors in education. They are both above the OECD average, along with the UK, who has the highest expenditure most on all levels of education among the developed member countries. Both nations spend nearly the same percentage of their GDP on tertiary education, almost exactly the same as the OECD average. It indicates that the countries have a similar way of thought behind allocating resources to education, although the path is different.

The main difference lies in the expenditure distribution between public and private financing. Norway and New Zealand have different approaches to division of expenditure on tertiary education between government, private entities, and students and their families. Norwegian education is almost exclusively publicly financed. On the other hand, there is an evenly distribution between public and private financing in New Zealand. As Greenaway and Haynes argues, issues concerning funding of higher education and finding the balance between private and public funding is a challenge and will likely continue to be a source of debate. It can almost be regarded as evident that all countries want both national and international student to be able to afford higher education. Although, some countries prefer to invest the resources in lowering tuition fees, while other countries offer student loans and grants with the purpose of covering tuition fees and/or living costs.

As Schultz stated, education is an investment in human capital. The challenge is to offer high quality of the education since it is producing human capital for the future. Consequently, higher quality often entails higher costs. Providing high-quality education translates into higher costs per student. Furthermore, it is necessary with government funding in situations

where the public benefit is high. However, the private costs are greater than the benefits. In general, the internal rate of return is higher in Norway when it comes to both private and public costs and benefits, which may be one of the many reasons why the Norwegian state invests so much in tertiary education.

5.2 Tendency to study

A large share of the population attains an education at any level in both Norway and New Zealand. More people in New Zealand were enrolled 2015, although a greater percentage of the entire Norwegian population has attained higher education in comparison. The high enrolment number in New Zealand may be partially due to the many international students. The majority has attained an education at the undergraduate level, though more and more are getting a master's degree, a doctorate or equivalent.

Shultz suggests that individuals with tertiary education have a competitive advantage in the labor market. Not only does higher education give career preparation, promote personal development, give the opportunity to pursue a passion, and offer a range of possibilities after graduation. It also gives high incentives to pursue higher education after compulsory education has ended due to higher earnings in the labor market in Norway and New Zealand. Both countries provide a wide range of higher educational offers for students. Students are able to educate themselves to nearly any profession of their choice. This argues for their educational provision is attractive, not only for domestic students but for international students as well.

This ideology of Schultz is supported by the low unemployment rate at the higher levels of education in both nations. Overall, the unemployment rate at all levels of education is fairly low, even lower in Norway. The decrease in the unemployment rate from undergraduate to postgraduate in Norway implies that individuals with a master's or doctorate degree are sought after in the labor force. In New Zealand on the other hand, the unemployment rate at the postgraduate level is nearly the same as the rate for all levels of education. This may be related to the growing trend of acquiring a doctorate, in which can create a difficult labor market to enter into. These individuals may be overqualified for an occupation, it may lack

security or status, or the work may be poorly paid. A PhD candidate is not as lucrative as being newly graduated in the labor market.

According to the modern education literature, education has a system of raising the level of students by allocating the best students. As Arrow and Spence claims, these students will use education for the purpose of signaling their productivity. This creates a division that will separate those who will not be able to meet the requirements. Norway attempts to raise the level of all individuals with the idea of leaving no one behind. However, Norway focuses on extending education instead of making it more efficient. This will further lead to an increasing share of doctorates in the future.

5.3 Student mobility

Mobility is an important element of the internationalization of education. The higher education sector is changing rapidly and the internationalization of students is a large part of this. According to the Norwegian Ministry of Education and Research, internationalization of education is a prerequisite of quality (Kunnskapsdepartementet, 2017). Maintaining a high quality, sustainable education sector is important to business. Both Norway and New Zealand are international nations who are also dependent on international trade. There exists a great difference in the quantity of international student in each country, as New Zealand tops the chart while Norway only has a small share of international students in their student body. Nevertheless, exchanging international students entails positive externalities, exchange of knowledge, and the possibility of expanding your personal and business network.

There has been a downfall in the growth of international students in Norway the recent years. This may be due to reduced labor migration and a weakened economy. On the contrary, New Zealand had one of the largest increases of mobile students of the OECD countries. It may be a response to their reform in the tuition fee level that is charged to international students. With the present effort to boost the number of international students by the education sector and marketing activities from the air transport and tourism sector, Taumoepeau and Al-Shamaa (2012) expects the export education sector to continue to grow by an annual average growth rate of 10%. New Zealand will likely experience a parallel growth rate from the economic benefits it will bring about. Monitoring holiday and travel patterns of these students can be a

part of determining how the education and tourism sectors can be involved in optimizing economic benefits from the export education sector.

At the same time, Norway can be considered a net exporter of Norwegians students due to the high number of national students that choose to study abroad. The country might face the risk of permanently losing some of their talented citizens when sending them abroad. With high standards of living, it is difficult to compete with other countries such as New Zealand, who is an English-speaking nation, with educational institutes with high rankings, and is characterized by strong international education connections and recognition. Their educational achievements are sought after around the world. Norway will be forced to take some measures to make it more attractive to study in the country.

5.4 Competitive advantages

The Norwegian economy is a developed mixed economy with state-ownership featuring in strategic areas. Compared to other European countries, Norway has a very high standard of living with a strongly integrated welfare system. Its welfare and modern manufacturing system rely heavily on a financial reserve in which is produced by exploitation of natural resources. The public sector of Norway is considered among the largest in the world as percentage of GDP. On the other side of the world, the economy of New Zealand is one of the worlds most globalized as it depends greatly on international trade. New Zealand has a diverse market economy with a service sector that accounts for more than half of all GDP activity.

Being among the richest countries in the world, particularly concerning their GDP per capita, the economy of Norway and New Zealand are considered quite small. Not only is their economy small world wide, but also the countries are also small in size and therefore dependent on the global development. Both nations experience relatively similar growth rates although the GDP level in Norway is much higher than New Zealand's GDP level mainly due to their large oil and gas reserves. The resource base are different in the countries, even though they both have glaciers and varied topography formed by these glaciers, long coast lines, fjords, and mountains.

These strong democratic nations have exploited their resources to gain a competitive advantage. Porter claims that the competitive advantage of any industry depends on their capability to innovate. Posner takes it one step further and states that the advantage is a consequence of research activity and innovation. This aligns with Norway's petroleum industry's dependency on their capacity to innovate. The same applies to New Zealand's dairy industry.

Norway's economic structure is extremely dependent on natural resources, especially the petroleum industry, in which does not require skilled labor. Critics are concerned that the human capital investment in Norway is largely concentrated in related industries. This affects the Norwegian economic growth, as it is highly vulnerable to fluctuations in pricing and demands of these natural resources. Several efforts have been made to hedge against the petroleum revenue dependence and the Government Pension Fund of Norway is one of these efforts.

Norway's closest and most important trading partner is the EU. European countries are in general considered wealthy, but their population growth is low. There is little evidence that this will change at first appearance. Contrarily, Asia as a locality is enormous and is growing rapidly in both population and standards of living. New Zealand's proximity to the emerging markets in Asia can give the country great opportunities if they gain free market access, as these Asian nations will most likely ask for imported goods.

Moreover, New Zealand has greatly benefitted from the development of the film industry. The famous Peter Jackson directed the trilogy of the Lord of the Ring and the Hobbit trilogy in his home country of New Zealand. Other famous movies, such as the Chronicles of Narnia and King Kong, were also filmed in the beautiful scenery. This has attracted many tourists to the country, which has had a positive effect on their economy.

5.5 Trade barriers

Free trade is considered the ultimate goal as it increases consumer choices and reduces prices. Yet, the global economy brings uncertainty in which drives governments to impose different trade barriers in an attempt to protect the industry in the country. International trade policy today is becoming increasingly complex network of multilateral, plurilateral, regional, and bilateral agreements. Both Norway and New Zealand are characterized by free trade, although New Zealand is more liberal when it comes to trade policy.

The Norwegian government is working towards conducting an even more liberated trade policy. Norwegian market access is linked to their high import protection and subsidies of the agriculture section. As Hagen et al claims, this is an attempt to protect a single industry and employments within the industry. In addition, Norway has high tariff rates on processed fish. As a great fishing nation, Norway wishes to negotiate trade agreements with other great fishing nations such as Japan and China. Japan is against free trade of fish and consequently there has currently not yet made any agreements. Switzerland and Iceland have both entered trade agreements with China. Hence, Norway's negotiations with China are postponed after the Nobel ceremony in 2010 (Melchior, 2015, p.30-43).

Being geographically distant from other export markets and a trade dependent economy, New Zealand is a definite supporter of free and open trade. This is supported by the fact that they have one of the most open economies on world basis. Through ending most subsidies, removing barriers to import, and that their rules are designed to encourage foreign investment in New Zealand. The agenda of New Zealand Foreign Affairs and Trade (n.d.b) department focus on export markets, infrastructure, capital, natural resources, innovation, and skilled and safe workplaces. Their free trade agreements will help liberalize and facilitate trade.

Additionally, trade barriers exist not only in the trade of goods but also within higher education, especially in Norway. The underlying factors, such as language, quality of programs, and tuition fees, affect a student's choice of a country of study. On the contraire, as an English-speaking nation, the higher education system in New Zealand gains much attention from students. With their strategic location regarding especially Asian countries,

which is the largest contributor by far of international students, they are able to get a hold of many Asian students with the objective of learning English.

Norway has several barriers that make it challenging to compete for international students. With high standards of living, located far north in the cold, and not being an English-speaking country, it is difficult for Norway to attract students. Still, they do compensate for free education and no tuition fees. New Zealand gains attention as their educational institutions are highly ranked on a world basis draws attention to the increasing significance of quality in attracting students. This gives New Zealand a competitive advantage in being able to provide a good educational offer for students.

6   Conclusion

In the previous chapter the main findings of the study was discussed in its entirety. A brief and summarized response to the thesis problem is depicted in the conclusion. It is followed by my reflections on the contributions concerning the study. Suggestions for further research are presented in the end.

A nation's development is largely determined by the economic growth. As there are many aspects in which contribute to economic growth, this study has focused on higher education and international business. The overall objective of the thesis was to examine the impact of these aspects on sustainable economic growth in Norway and New Zealand. The thesis set out to answer the following research question:

How does higher education and international trade contribute to sustainable economic growth in Norway and New Zealand?

As the world is becoming more global by the hour, the demand for higher education increases and communication and transportation costs are reduced gives students incentives to travel to other countries to take a part or the entire education in other countries. The high demand for higher education is related to the competitive advantage in the labor market and high incentives due to high earnings. International students contribute to raise the quality of education. New Zealand is better at attracting international students than Norway, as Norwegian students are more likely to encounter barriers such as language, quality of program, or costs of study. Norway has to invest in measures to make it more attractive to study in the country if they are to compete at the same level as New Zealand.

One of the main findings was the vast difference in educational expenditure. Norway uses mainly only public funds, whereas there is an evenly division between public and private funding in New Zealand. To improve the quality in education, there must be more focus on efficient educational spending, and not on the additional resources. There are different educational expenditure systems as well as the allocation between private and public funding. Each country must find the appropriate structure that is appropriate and most fitting for the development of future human capital. There is a powerful relation between the quality of

education and economic growth. By increasing the cognitive skills of the population, the economic development has increased.

Increased internationalization in education is of great importance in a world that is becoming smaller and smaller, and where the competition from other nations is increasing. There is a necessity to invest in human capital that holds competence of Norway and New Zealand's trading partners. This competence is invaluable and can give the nation a competitive advantage on an international level.

The nations advocate free trade, as they are dependent on trade with other nations. Both nations exploit their natural resources for competitive advantage in the global market. Norway is centered on the petroleum industry whereas New Zealand collects revenues from the agricultural industry. The New Zealand economy is particularly dependent on the export market, meanwhile the country is isolated from these markets. New Zealand is still relatively close to the emerging markets in the Asia-Pacific region in which can give them an edge in the competition. Norway on the other hand faces the protectionist trade policy of the EU.

The service sector dominates in both countries. In regards to natural resources, the petroleum industry is the dominant industry in Norway followed by the seafood industry. New Zealand's main industry is agriculture, more specifically dairy. Improvements in terms of trade enhance economic growth. Due to a higher growth rate of the ratio of export prices to import prices, both nations are experiencing economic growth in their countries.

Trade agreements give the opportunity to shape globalization through international cooperation. The goal is ultimately to preserve and develop further trade policies that will continue to contribute to the nation's value creation and sustainable development in the future. Both nations have liberal trade policies. New Zealand faces very few trade barriers due to a very open economy. Norway also has an open economy, but faces some barriers in regards the agricultural and fishery sectors. These trade barriers restrains their trade somewhat, which in turn adversely affects economic growth.

International cooperation and international perspective are a prerequisite to handle the global challenges. Cooperation will increase the educational quality that provides human capital and gives competence and skills that of crucial importance to trade and industry in Norway and New Zealand. A nation's development is strongly influenced by international interaction. Investments in trade and higher education help to foster economic growth. As the research indicates, internationalization of trade and higher education contributes to economic growth in Norway and New Zealand. However, is it sustainable? Will the two nations develop in the same path in the years to come? Even though they are located far apart, can they transfer knowledge and learn from each other?

6.1 Limitations

An abundance of possibilities were present when making the decision of which aspects to study. As presented in the introduction, there are numerous factors that affect economic growth in a nation. However, the decision landed on international trade and higher education, as there is a close link between these two.

The aim was to obtain figures that were based on the same measurements to ensure comparability. However, one of the most difficult factors of the current research was vast amount of available data. It was of great importance to collect data from the same year to ensure that the data was highly comparable. There are numerous of other data that could have been further examined. In this case, the key indicators that were used were chosen based on the three subordinate research questions.

6.2 Suggestions for further research

In the study, key indicators from the years 2015 and 2016 have mainly been utilized. One of the recommended areas for future research is to attempt to find statistics from a single year for the entire study to obtain a better comparison with a higher degree of validity and reliability. Alternatively, it can be interesting to collect key indicators for a time period to examine how the factors affect economic growth over time.

There exists numerous other ways to evaluate economic growth, as it is a large field of research. A suggestion is to examine the link between higher education and tourism, and how they together affect economic growth in Norway and New Zealand. The service sector is large in both nations, and tourism is increasing. Does the landscape in these nations assist to attract more international students?

In addition, only two countries were studies in relation to one another. Future research can widen the number of countries studied and include neighboring countries such as Australia and other countries of Scandinavia. This provide information not only concerning to countries but two regions.

Another suggestion for further research is to investigate if there are any upcoming reforms, within trade policy or educational policy, in either of the governments that can give the possibility for further growth and development in the countries. How will these reforms potentially be able to improve the conditions for sustainable growth? And how can the government attack these potential reforms?

Reforms concerning trade policies are likely to form in the near future. Trade policies are consistently changing. As of now, Norway does not have a trade agreement with China, but this may change soon. It can be interesting to examine in closer detail Norway and New Zealand's relation to China concerning trade, especially of the fishing industry.

The world is experiencing changes in the environment and society is faced with challenges regarding these changes. Oil and gas are becoming more and more problematic with regards to climate policy. It will become increasingly difficult in the long run for Norway and their petroleum industry. Knowingly, Norway is changing their strategy to an ocean strategy in an attempt to create sustainable value and growth. The last suggestion for further research is consequently is to examine the change from non-renewable to renewable resources in Norway and New Zealand.

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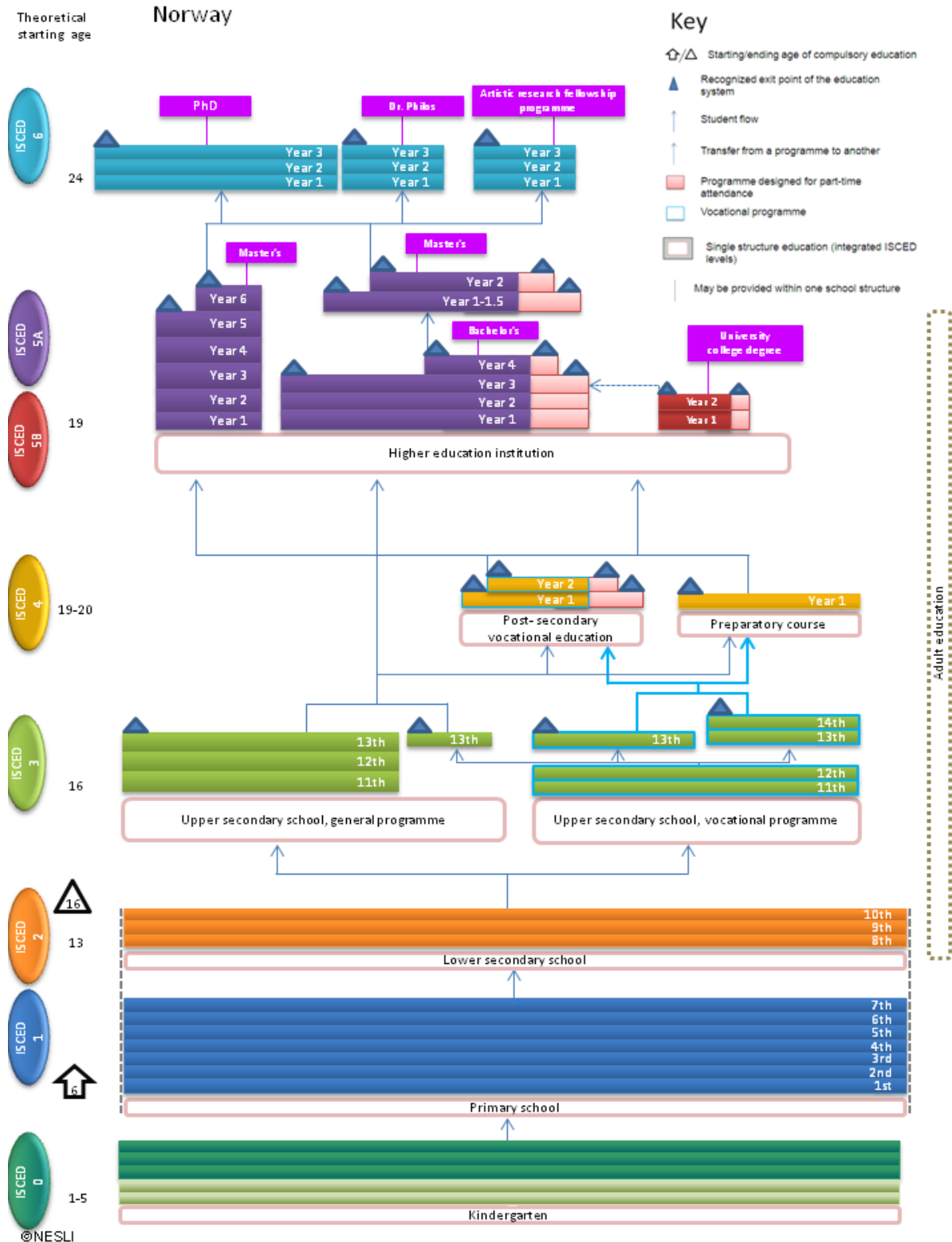Routio, P. (2007, August 03). *Comparative study*. Retrieved May 09, 2017, from
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Appendix

Theoretical starting age

New Zealand

Key

⌂/△ Starting/ending age of compulsory education

▲ Recognized exit point of the education system

↑ Student flow

↑ Transfer from a programme to another

Programme designed for part-time attendance

Vocational programme

Single structure education (integrated ISCED levels)

May be provided within one school structure

Doctorate

ISCED 6 — 23

Year 4
Year 4
Year 3
Year 2
Year 1

University, Institute of technology, Polytechnic, Wānanga

Postgraduate certificate / Diploma

Master's

ISCED 5A — 21

Year 0.5-1

Year 2
Year 1

Graduate certificate / Diploma

Bachelor's

Bachelor's (Honours)

Diploma / Advanced certificate

ISCED 5B — 21

Year 0.5-1

Year 4
Year 3
Year 2
Year 1

Year 2
Year 1

— 18

University, Institute of technology, Polytechnic, Wānanga, Private training establishment

ISCED 4 — 17

Year 1

Level 4 certificate programme at tertiary institution

Year 1

Level 3 certificate programme at tertiary institution

ISCED 3 — 16 / 15

13th
12th
11th

Senior high school

13th
12th
11th
10th
9th

Year 9-13 school

13th
12th
11th

13th
12th
11th
10th
9th
8th
7th

ISCED 2 — 11-12

10th
9th
8th
7th

Junior high school

10th
9th
8th
7th

8th
7th

Intermediate school

8th
7th

Year 7-13 school

10th
9th
8th
7th

ISCED 1 — 5

6th
5th
4th
3rd
2nd
1st

Contributing primary school

6th
5th
4th
3rd
2nd
1st

Full primary school

6th
5th
4th
3rd
2nd
1st

Composite / Area school

Special needs education

ISCED 0 — 3

Early childhood education

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APPENDIX 3 PRIVATE COSTS AND BENEFITS OF ATTAINING TERTIARY EDUCATION (OECD, 2016A)

Private costs and benefits	Direct costs	Foregone earnings	Total costs	Earnings benefits decomposition (taking into account the unemployment effect)				Unemployment benefits effect	Total benefits	Net financial returns	Internal rate of return
				Gross earnings benefits	Income tax effect	Social contribution effect	Transfers effect				
Norway											
Male	0	51 200	51 200	395 000	142 500	30 800	0	10 500	232 200	181 000	9%
Female	0	53 000	53 000	282 100	79 000	22 000	0	4 700	185 800	132 800	9%
New Zealand											
Male	12 200	54 000	66 200	226 300	69 600	0	0	12 800	169 500	103 300	7%
Female	12 200	52 400	64 600	172 100	40 100	0	2 000	17 300	147 300	82 700	7%

Public costs and benefits	Direct costs	Foregone taxes on earnings	Total costs	Earnings benefits decomposition (taking into account the unemployment effect)			Unemployment benefits effect	Total benefits	Net financial returns	Internal rate of return
				Income tax effect	Social contribution effect	Transfers effect				
Norway										
Male	74 700	12 700	87 400	142 500	30 800	0	17 500	190 800	103 400	5%
Female	74 700	13 200	87 900	79 000	22 000	0	300	101 300	13 400	3%
New Zealand										
Male	32 300	5 700	38 000	69 600	0	0	7 000	76 600	38 600	5%
Female	32 300	5 500	37 800	40 100	0	2 000	10 800	52 900	15 100	4%