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An Internationalization Strategy: What is the best country for the further international

expansion of Trade Republic?

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Abstract

This work project aims to identify a target country and market entry strategy for the further expansion of Trade Republic. Therefore, a literature review on Fintech companies and internationalization strategies was conducted. The research method used in this paper was a quantitative analysis of primary and secondary data. First, a country ranking for 70 relevant countries was developed by using 20 variables to evaluate the market attractiveness. Thereafter, an online survey was sent to people that live in the three most suitable countries to gather primary data. Based on that data, Switzerland was identified as the target country.

Keywords: Fintech, Internationalization Strategy, Switzerland, Ireland, Luxembourg

1. Introduction

In recent years online trading has become an increasingly popular topic because it makes access to the capital market significantly easier for ordinary people. Moreover, people are now able to influence the financial markets in a way that no one thought would be possible. The global online broker market is very fragmented and based on geography. However, there are five major players, namely, Fidelity Investments, Charles Schwab Corporation, E-Trade, Interactive Brokers, and eToro (Mordor Intelligence, 2021). In 2020, the global online trading market had a size of USD 8.28bn (Fortune Business Insights, 2021). Furthermore, a recent forecast shows that the market will steadily increase to USD 12.16bn by 2028, with a CAGR of 5.1% (Fortune Business Insights, 2021). There are several drivers for this development, and the most important ones are a low-cost business model, the integration of technology, which allows information such as real-time data, and social media advertising (Fortune Business Insights, 2021). The evolution from a business model where people had to buy their stocks through a banker to a model where you can participate in the capital market from your cell phone has led to increased investment. The reasons for the increased investment are that online brokers are not only cheaper but also make it easier to participate in the capital market. Further on, the COVID pandemic had a positive impact on the online trading industry as many millennials started to trade. The Charles Schwab Corporation researched this development in the United States and discovered that 15% of all investors in the US started to invest in 2020. This new group of investors is called "Generation Investor" and are younger (median age of 35 years) than those who began to trade before the COVID pandemic, whose median age is 48 years. However, this new group of investors includes people from all age groups (Schwab, 2021). Additionally, this group is willing to invest more money in stocks and have clearer financial goals than people who started to invest before 2020. Therefore, this topic is very interesting for further research, especially from the point of view of an online broker company.

Trade Republic is a German broker and was founded in 2015. Currently, the broker is available in Germany, France, Italy, Spain, the Netherlands, and Austria. The broker offers an easy-to-use platform to trade ETFs, crypto-currency, derivatives, and stocks. The main benefits of the platform are that subscribers can invest commission-free and create their own saving plans (BrokerChooser, 2022). The mission of the company is to open the access to the capital markets for millions of Europeans. Currently, they manage assets of more than EUR 6bn from private investors. Furthermore, they have more than one million clients (Trade Republic, 2022).

This work project aims to give deeper insights into the online trading platform market. In particular, this project will explore what is the best country for Trade Republic for further international expansion. To address this aim, the study is divided into four main parts. First, the literature review analyzes the existing scholar on this topic and builds the baseline of this work. Second, the methodology used will be explained in detail. For this specific project, a quantitative approach was used to identify a potential target country for Trade Republic to expand its services. Therefore, secondary market data was collected and analyzed to come up with a country ranking and select the three most suitable countries. For the three selected countries, primary data was collected with an online survey. Next, an in-depth market analysis for the three potential target countries was conducted by analyzing competitors, market potential, and market entry conditions. Finally, taking all data and analyses together, the project presents all findings, a conclusion, and recommendations for future research.

2. Literature Review

2.1 The difference between Fintech companies and traditional banks

In recent years, the financial services industry has been able to benefit from digitization because its products are mainly based on information. Thus, the emergence of Fintech was favored by that development in the past years. For instance, transactions, credit contracts, or the purchase of shares can be carried out online without any physical contact. On the contrary, traditional

brick-and-mortar businesses such as car dealers cannot fully digitalize their processes as they still need physical components within their value chains. Hence, they do not have the same cost-efficiency potential as online businesses. In addition, the developments in information technology led to a higher level of process automation, which enables new advanced business models and thus reshapes the entire value chain of financial services. Therefore, the development of the neo bank model has interrupted the comfortable position of traditional banks (Temelkov, 2020). According to the research of Temelkov, the most significant differences in the business model of Fintech and traditional banks are the level of operating costs, operating efficiency, client acquisition costs, ability to process data, and difference in the organizational design. First, Fintech companies do not have operating costs for a network of branches or ATMs as traditional banks do. Second, through using advanced technologies, they have a better understanding of the needs of their customers, which enables them to offer their customers the right products and services. Hence, Fintech companies are increasing their operating efficiency through the use of advanced technology. Another difference between traditional banks and neo banks is that the customers of neo banks are mainly young millennials that are confident using technology (Klarova & Hopkinson, 2019). It is also noteworthy that Fintech companies enter the market with new business models and services which respond better to customers' demands and preferences. Consequently, they can specialize in various business segments and might disrupt the traditional incumbent activities (Schena & Tanda, 2019). The research of Schena and Tanda (2019) also identifies two crucial elements of a Fintech's business model. First, a Fintech has a marked specialization on a business line corresponding to the outcome of the unbundling of traditional financial products. Second, creating direct digital circuits that facilitate financial transactions and enable faster response to a customer's financial needs, leading to incremental improvements in the customer experience (Schena & Tanda, 2019). More recent literature on the topic also suggests that Fintech companies are a threat to traditional

banks due to their business models. The main reasons are that Fintech companies offer improved customer service, easy access to banking services, low banking fees, and less bureaucracy (Menegon, 2020). However, the business model of traditional banks also has its advantages, namely, less cyber threat, access to more capital, and less data exposure (Menegon, 2020). Concluding, the main differences between traditional banks and Fintech companies are lower operating costs through digitization, operating efficiency, and the use of advanced technologies.

2.2 Neo Broker

One form of a Fintech company is a neo broker such as Trade Republic, the relevant company for this research. A more prominent example is Robinhood. This neo-broker became famous for the short squeeze of GameStop. Neo brokers are digital financial services that make trading and investing more accessible for regular people. Some of the neo brokers are fully independent, but most of them partner with traditional banks to increase efficiency, offer complementary services, and gain access to a broader customer base (United Fintech, 2022).

From a cost perspective, customers are benefiting from the new business model of neo brokers as they charge tremendously less for a trade than traditional online brokerages. In fact, they offer trades to their clients at almost zero costs. The study of Meyer, Uhr, and Johanning (2021) concludes that payment-for-order-flow does not harm private investors as the costs are at 0.25% for low-activity customers and at 0.08% for high-activity customers, which is significantly lower than for traditional online brokerages (1.5% to 3.5% for low-activity customers and 0.5% to 1% for high volume traders) (Meyer, Uhr, & Johanning, 2021). Therefore, they are able to win new-market customers and over-served customers from incumbents (Thielecke, 2021). In addition, neo-broker contribute to the overall market growth of private investors. However, they also lead to a more fragmented market and increase the price competition in the retail brokerage market (Thielecke, 2021). Nevertheless, neo brokers also have a negative impact on the capital markets since they influence the investment behavior of young investors (Gäbler, 2021). A

recent example of such a negative impact is the short squeeze of GameStop, where a group of young investors caused major financial losses to hedge funds and short sellers. The paper's finding is that neo brokers favored that incident as they are user-friendly and enable access to the capital markets for young and inexperienced investors. Besides that, the stability of capital markets is threatened by the merger of individual investors and their investment strategies (Gäbler, 2021). Consequently, people profit from the invention of neo brokers as they offer easy access to the capital market and are cheaper than traditional online brokerages. Nevertheless, the impact on the stability of the capital market must be critically considered when young inexperienced people have access to the capital market.

2.3 Internationalization strategies

The existing literature identifies five central dimensions of internationalization strategies: market entry strategies, target market strategies, timing strategies, allocation strategies, and coordination strategies (Schmid, 2018). However, the following literature review will focus on market entry strategies, as it suits the project's aim best. When a company wants to expand into a new market, it is crucial to choose the appropriate market entry strategy to ensure a successful internationalization process and achieve the predefined strategic goals. There are many scholars about internationalization models. For example, a traditional model of internationalization is the Uppsala Model, which holds that there are four stages within the internationalization process of a company. First, the company has no regular export activities. In the second step, the company starts to export via independent representatives. Third, the company establishes an overseas subsidiary, and in the final stage, the company runs its production and manufacturing units in the target country (Johanson & Vahlne, 1977). As a company goes through these stages, it gets more knowledge about the target market, and that leads to more market commitment (Johanson & Vahlne, 1977). Thus, the company increases the size of investment in the target country and proceeds to the next stage of the internationalization process. Nevertheless, this

internationalization model is the appropriate one for traditional businesses with physical products and production plants. Hence, this model cannot be applied to Fintech companies as they offer non-physical products. More recently another theory that describes the internationalization process of a company emerged, namely the "Born Global Theory" from Michael Rennie (1993). The model holds that these companies start conducting international business in the first years after they have been founded. Even though they do not have the financial resources, they achieve substantial international sales from an early stage in their development (Knight, 2010). The reasons for this success and the rapid internationalization can be explained by a high degree of entrepreneurial orientation and customer service. Another key factor is that born globals develop innovative technology-based products and that they rely on the use of information technologies (Gomes, Sahadev, Liu, & Glaister, 2014).

To enter a foreign market, the existing literature proposes five market entry modes: exporting, franchising, licensing, strategic alliances, and wholly owned subsidiaries (Yildiz & Gomes, 2011). Many scholars have examined the modes of entry, usually underpinned by either transaction cost theory or the Ownership-Location-Internationalization framework (Harzing, 2002). One of the most common strategies to enter a foreign market is the acquisition of a company in the target country because it gives immediate access to resources (e.g., plants, distribution channels, know-how, etc.) and complete control in case of a 100% acquisition (Couturier & Sola, 2010). Further on, there is empirical evidence that most of the companies that expand to another country for the first time do it via acquisition as it decreases uncertainty (Dubin, 1976). Another important strategy to enter a foreign market is a strategic alliance between two companies (e.g., joint venture, licensing agreement, distributorship, agency contract, etc.). According to Couturier and Sola, the reason behind a strategic partnership is that both partners have business assets that will help the other (e.g., production facilities, sales network, or greater general knowledge of the local business environment). Finally, companies

can enter a new market through greenfield investment which means that a company invests in a commercial office, manufacturing plant, distribution facility, or the physical structure in the target country (Couturier & Sola, 2010). This investment gives the company 100% ownership and thus full control and risk. Nonetheless, the company has to start from scratch and needs to recruit all employees and establish commercial relationships to start its operations in the new market (Couturier & Sola, 2010). According to Dubin (1976) large and established multinational companies are more likely to expand via greenfield investment strategies. Various studies have identified the variables which might have an impact on the decision between greenfield investments and acquisitions. Among these variables are R&D intensity, the degree of diversification, the level of foreign experience, cultural distance, the size of the foreign direct investment in comparison to the size of the investing company, and the time of entry (Harzing, 2002). Additionally, research shows that export and foreign direct investment are very common market entry modes, and the central finding of the research is that product type and proxy experience influence the decision between those two entry modes (Chung & Enderwick , 2001). Internal factors impacting internationalization include company size, stage of internationalization, product complexity, international competitiveness, and strategic objectives. Second, external factors such as sociocultural distance, trade barriers, intensity of competition, and anticipated overseas market risks (Koch, 2001). Third, factors such as the level of risk aversion, control, and flexibility play an important role when selecting a market entry mode. Furthermore, existing literature indicates that product-market factors, firm-foreign venture-specific factors, host market factors, cultural factors, strategy variables, global industry structure, global strategic motivations, and global corporate objectives play a critical role in the selection of the international market entry mode decision (Cavusgil & Sarkar, 1996).

What has been less researched is the role of the business model on internationalization, although some research has been conducted on the influence of the business model on the choice of the

market entry mode for small software companies, suggesting that the product strategy influences the selected market entry mode (Ojala & Tyrväinen, 2007).

In summary, the last decades have seen an extraordinary interest in internationalization strategy research. Notwithstanding, research on internationalization strategies for Fintech companies is still limited, and focuses mostly on Africa and Asia. Hence, this paper aims to enrich the body of knowledge and provide insights into the selection of a suitable market entry mode and the selection of a country for the expansion of a Fintech company. In this context, the following research questions have been developed:

RQ1: What is the best target country for the further international expansion of Trade Republic?

RQ2: What is the best market entry mode for Trade Republic?

3. Methodology

In this chapter, the research method is presented. The method applied in this work project is quantitative and involves an empirical investigation of measurable and observable data. First, secondary data was collected from various databases and analyzed. Moreover, primary data was collected through an online survey. The research strategy, data collection, and variable definition will be explained. Additionally, the design and the process of the online survey, are discussed. Finally, the data analysis will be described.

3.1 Research strategy

To define the best country for further international expansion of Trade Republic, this paper used quantitative analysis of secondary and primary data. Quantitative methods are used for theory testing, prediction of outcomes, and determining relationships between and among variables using statistical analysis (Capella University, 2015). In the first step of this research process, secondary data will be collected and evaluated with a Microsoft Excel-based model to narrow down the list of countries to three potential target countries. The countries analyzed in this part of the research were selected in four steps, namely through preliminary screening,

variable selection, country ranking, and finally, country decision. First, countries were preliminarily selected based on their geographical relevance. Thereafter, several external variables were used to narrow down the list of potential countries. Third, a country ranking was performed based on the relevance for expansion. Finally, the country decision was made based on the most important variables for a successful expansion. For the explained process, a total of 20 variables were used to assess the market and ensure the selection of suitable target countries for further expansion. Afterward, an in-depth market analysis was performed for the three potential target markets. In the second step, to validate the findings from the secondary research with statistically significant quantitative data, primary data was gathered through an online survey. The obtained primary data was then analyzed using both univariate and multivariate techniques to determine a target country.

3.2 Data collection

To answer the first research question, primary and secondary data were collected. In the following, the data gathering process will be explained. The secondary data for the country ranking with the Excel based model was collected on databases such as the World Bank Data, OECD, Statista, and Hofstede Insights. With this data, the market size, market intensity, market receptivity, country risk, economic freedom, and cultural distance is assessable. The full Excel spreadsheet including the country ranking can be found in Appendix 1. To gather primary data, an online survey was created using the CXM software Qualtrics. The questionnaire was distributed via social media through public posts and private messages on Facebook, LinkedIn, Instagram, and WhatsApp. The aim was to send the questionnaire to people who live in one of the three potential target countries. Therefore, I directly contacted people in my network who are living in those three countries. In addition, to significantly increase the sample size, participants were asked to share the survey with their networks. The advantages of using primary data for a study are that the gathered data serves the purpose of answering the research

question and the collected information is more credible (Solvang & Holme, 1997). The full questionnaire can be found in Appendix 2.

To answer the second research question, the literature review on market entry modes will be used. Furthermore, research was conducted on the market entry modes used by Trade Republic in previous expansions. Based on an analysis of this qualitative information, a suitable market entry mode is determined.

3.3 Data analysis

The data analysis process consisted of analyzing the collected secondary data using Excel and analyzing the results from the online survey.

First, the secondary data were analyzed using an Excel model to establish three potential target countries. The three countries were identified by analyzing the attractiveness of the 70 preliminarily selected countries with 20 variables. Each variable received a different weight depending on its importance for the ranking. Thereafter, an attractiveness-competitiveness assessment has been conducted for the three potential target countries to identify the market potential, competitors, market entry barriers, macroeconomic conditions, and the company's strengths and weaknesses. The PESTLE analysis was used to analyze the market environment of the three potential target countries. The benefit of this tool is that it analyzes market growth or decline and the potential, position, and direction of a business in a specific market. Hence, when a company wants to expand successfully to a foreign market, it is crucial to analyze these factors (Mariadoss, 2018). Further on, a SWOT analysis was conducted to identify threats and opportunities for Trade Republic on the potential target countries. The SWOT analysis aims to help an organization develop a full awareness of all factors involved in making a business decision (Schooley, 2022). Therefore, it is important to perform a SWOT analysis before deciding on the target country for internationalization.

Second, the primary data gathered was analyzed using structural equation modeling as it is a powerful, multivariate technique to test and evaluate multivariate causal relationships (Fan, et al., 2016). Based on the multivariate analysis, a target country for Trade Republic's further expansion was identified. Finally, the market entry modes were analyzed, and the most suitable for the expansion of Trade Republic was identified.

4. Analysis and Discussion

In this chapter, the most significant findings from the primary and secondary data analysis will be presented. Moreover, the market entry mode will be selected based on the literature review.

4.1 Analysis of secondary data

In the preliminary screening phase, 70 relevant countries in Europe, Asia, and the Americas were selected. However, the US was not considered as too many competitors are already active in this market, and thus, the market entry barriers are very high for a new market participant. The preliminary screening phase also considered the existence of stock exchange-listed companies in the country.

In the next phase, 20 variables have been selected to determine three potential target countries for the expansion of Trade Republic. The 20 variables were allocated to ten factors (Appendix 3). First, the approximate market size for the countries was determined. Therefore, the variables, total population, working-age population as the percentage of the total population, average income per country, and savings in percentage of the GDP, were used. These variables were considered crucial as the height of the income and the height of the savings define the amount people in a given country can invest in stocks and ETFs. Second, the growth rate per country was analyzed using the variables GDP per capita growth and the growth rate of the population. To assess the market intensity, the following variables were used: GDP per capita, inflation rate, and GINI Index. Next, to evaluate the market receptivity in a given country, the variables ease of doing business and the total market capitalization were considered. The

variable total market capitalization is considered crucial for the analysis as it indicates the size of the capital market of a given country. Thus, it makes sense for Trade Republic to expand to a country with a large capital market. The variable ease of doing business is equally important for the country ranking as it describes how business-friendly the regulations are in a specific country. Furthermore, the commercial infrastructure has been analyzed with the variables total transaction value in digital payments and internet penetration. Those variables have been chosen as the services of Trade Republic require access to the internet as well as access to digital payment forms. To establish a more accurate market size, the variable unemployment rate has been included in the analysis as unemployed people are not a relevant customer segment since they do not have an income. In addition, the analysis includes a political and country risk assessment. Those variables are considered important for the evaluation of the political stability in a given country, and thus the financial loss Trade Republic could suffer in the event of political changes. Thereafter, economic freedom has been analyzed as it indicates if individuals in a specific country are free to work, produce, consume, and invest in any way they please. For the services of Trade Republic, the inhabitants of the target country must be free to invest their money in stocks, cryptocurrency, and ETFs. Another important factor for the country ranking is the corporate tax rate in the target country, as low tax rates mean higher net profits for Trade Republic. Ultimately, the "cultural distance" from Germany based on Hofstede (Hofstede Insights, 2022), which measures the cultural similarity between two countries, was analyzed. This variable was assessed as culture plays a tremendous role in the success of an expansion. In the final step of this process, each of the 20 variables has received a weight between two and eight percent based on its relevance for the country ranking. The in-depth explanations of the variables and their weight for the ranking can be found in Appendix 3.

The country ranking process was conducted in the next step to understand which three countries offer the highest potential for Trade Republic's further internationalization. However, the secondary data collected in the previous phase is measured in different units. Hence, a comparison is not feasible without standardizing the data. After standardizing the data, the total score for each country was calculated by multiplying the weight with the standardized value of the variable. Finally, the countries were ranked according to their overall score. Based on the explained analysis of the secondary data, the three most suitable countries for the further expansion of Trade Republic are Ireland, Switzerland, and Luxembourg. The analysis of the data and the ranking of all 70 countries can be found in Appendix 1.

In the following, an in-depth market analysis, including a SWOT analysis as well as a PESTLE analysis, will be performed for the three potential target countries. Additionally, the potential customer base for the three target countries will be calculated using the chain ratio method, and a competitor analysis will be conducted.

4.2 In-depth market analysis

4.2.1 Ireland

In the first step, the Irish market was assessed using a SWOT analysis. The sources of information used in the following SWOT analysis are based on the Excel model from the previous chapter.

Strength	Weaknesses	Opportunities	Threats
The average income (USD ~75k) in Ireland is high. Thus, people can invest more money in stocks	Potential customer base is small due to a small population of approx. 5 million people	Low interest rates on saving accounts & rising inflation lead people in Ireland to invest in stocks	Potential price wars with other online trading companies in the Irish market
Ireland is considered a global hub for technology companies as they offer a great corporate, legal, and regulatory environment for foreign companies	Compared to countries where Trade Republic is already offering its services, the total market capitalization (USD ~100 billion) of Ireland is relatively small	Demographic transition: working population of Ireland is decreasing, and pension system risks are arising. Thus, people will start to invest to build up private wealth for retirement	Many well-known competitors, such as Interactive Brokers, Degiro, Saxo Bank, XTB, and eToro, are already operating in Ireland
Corporate tax rate is very low in Ireland (12.5%)	Potential customer group is decreasing as the population is aging	36% of the people own investment products and the number is growing	

In the next step, a PESTLE analysis was conducted to analyze the market environment in Ireland. The data from the Excel model has been used to perform the analysis.

Political	Economical	Social	Technological	Legal	Environmental
Low tax rate in Ireland	Very high inflation rate (~8.3%)	Knowledge about stock trading	Leading Tech companies operate there	Financial services authorization	Low risk of natural hazards
High political stability	Relatively low unemployment rate (6.6%)	Population of Ireland is aging	High technological awareness	Trading license is required	Introduced Carbon tax in 2010
	GDP is expected to grow by 7.9% in 2022	Population grew by 0.8% in 2021	High rate of internet availability & speed	Central Bank regulates financial services	Climate plan: decrease green-house gas by 51% until 2030

Next, the total potential customers of Trade Republic's services have been estimated by using the chain ratio method. Starting with the overall population of Ireland, three ratios have been applied to calculate the customer base, resulting in a total of 2,818,000 potential customers. The calculation of the potential customer base can be found in Appendix 4.

4.2.2 Luxembourg

First, the Luxembourgish market has been analyzed using the SWOT analysis. The analysis was carried out analogously to that of Ireland.

Strength	Weaknesses	Opportunities	Threats
The average income (USD ~81k) is high. Thus, people can invest more money in stocks	Potential customer base is very small due to a population of approx. 0.6 million people	Rising inflation leads people in Luxembourg to invest in stocks	Economy is highly dependent on financial sector as majority of people works in this sector
Luxembourg is considered a financial hub as many funds, banks, and insurances operate there. Thus, employees in this sector are likely to invest in stocks.	Compared to countries where Trade Republic is already offering its services, the total market capitalization (USD ~25 billion) of Luxembourg is small	In Luxembourg live 46,200 millionaires (~7% of the total population). Hence, Trade Republic can target these people	Many well-known competitors, such as Interactive Brokers, Saxo Bank, XTB, eToro, and Capital.com, are already operating in Luxembourg
Low political and country risk	Potential customer group is decreasing as the population is aging		

Second, a PESTLE analysis for the Luxembourgish market environment has been conducted based on the data from the Excel model.

Political	Economical	Social	Techno-logical	Legal	Environ-mental
Medium to high tax rate	High inflation rate (~6.9%)	Knowledge about stock trading	High level of innovation in Luxembourg	License is required	Low risk of natural hazards
High political stability	Low unemployment rate (5.2%)	Population is younger than that of neighbor countries	Have created a ministry for digitalization in 2018	Fintech entities are subject to regulatory supervision	Introduced Carbon tax in 2021
	GDP is expected to grow by 2.9% in 2022	Population grew by 1.4% in 2021	Very high rate of internet availability & speed	Central Bank ensures safety of payment systems	Climate plan: decrease green-house gas by 55% until 2030

Ultimately, according to the chain ratio method, there are 403,000 potential customers in Luxembourg. The calculation of the potential customer base can be found in Appendix 4.

4.2.3 Switzerland

In the first step, the Swiss market has been analyzed using the SWOT analysis. The analysis was performed analogously to that of Ireland and Luxembourg.

Strength	Weaknesses	Opportunities	Threats
The average income (USD ~90k) in Switzerland is very high. Thus, people can invest more money in stocks	Potential customer base is small due to a small population of approx. 8.7 million people	Low interest rates on saving accounts leads people in Switzerland to invest in other financial assets	Swiss economy is highly dependent on financial sector
Compared to countries where Trade Republic is already offering its services, the total market capitalization (USD ~1,411 billion) of Switzerland is high	Potential customer group is decreasing as the population is aging	Demographic transition: working population of Switzerland is decreasing & pension system could collapse. Thus, people will start to invest to build up private wealth for retirement	Many well-known competitors, such as Interactive Brokers, Degiro, Saxo Bank, XTB, and eToro, are already operating in Switzerland
Corporate tax rate is very low in Switzerland (14.93%)		27% of the population invests in stocks and the number is growing	Rising labor costs & stagnant productivity growth

Second, a PESTLE analysis for the Swiss market environment has been conducted based on the data from the Excel model.

Political	Economical	Social	Technological	Legal	Environmental
Very low tax rate	Low inflation rate (~3.0%)	Knowledge about stock trading	Fintech is a key driver of innovation	Supervised by FINMA	Low risk of natural hazards
High political stability	Low unemployment rate (5.3%)	Population is aging	High technological awareness	Fintech license is required	Swiss Biodiversity Strategy (2012)
	GDP is expected to grow by 2.5% in 2022	Population grew by 0.7% in 2021	High rate of internet availability & speed	Introduced measures to promote innovation	Climate plan: decrease green-house gas by 50% until 2030

Subsequently, the total potential customers of Trade Republic's services have been estimated

by using the chain ratio method, resulting in a total of 5,067,000 potential customers. The calculation of the potential customer base can be found in Appendix 4.

4.2.4 Competitor analysis

Analyzing the competition in the target countries is crucial for Trade Republic to gain insights into the level of competition and the major players. One of the central findings of the SWOT analysis for the three countries is that there are five major players which are offering their services in all three countries. These five players will be assessed in the following part.

First, Degiro was founded in the Netherlands in 2013 and has expanded since then its services to 18 European countries. Degiro's target group is the same as Trade Republic's, namely private investors. Furthermore, Degiro has more than one million users and thus approximately the same amount of users as Trade Republic. To increase the capacity for sustainable growth of the company, Degiro merged with flatex in 2020. In the same year, the flatexDegiro Bank AG got listed on the German stock exchange SDAX, which makes them one of the 160 largest listed companies in Germany. Moreover, they merged with flatexDegiro Bank AG in 2021 to become the biggest online execution-only broker in Europe (DEGIRO, 2022). Additionally, like Trade Republic, Degiro has its banking license. A unique selling proposition of Degiro is that its customers have access through the broker to stock markets in Australia, Japan, and Hong Kong, and not only to the European and US exchanges (DEGIRO, 2022). Degiro employs 400 people like Trade Republic. However, the estimated revenue of Degiro is USD 105 million and thus USD 95 million lower than the revenue of Trade Republic (Growjo, 2022). Lastly, the prices per trade are slightly higher than Trade Republic's ones.

Second, the American company Interactive Brokers is not considered a neo broker as the company is already existing for 45 years. Currently, they manage assets of more than USD 10.9 billion and hence USD 4.9 billion more than Trade Republic. Other than Trade Republic, which focuses on the European market, Interactive Brokers operates worldwide in 150

countries. They employ more than 2,650 employees in various offices worldwide (Interactive Brokers, 2022). Hence, they have approximately six times as many employees as Trade Republic. According to the company website of Interactive Brokers, approximately 1,965,000 trades are executed with their broker per day. Further on, they achieved a revenue of USD 2.71 billion in 2021 and thus a significantly higher revenue than Trade Republic (Macrotrends, 2022). Nonetheless, trading prices can be more expensive at Interactive Brokers than at Trade Republic as the price per trade can be up to EUR 29.

Third, Saxo Bank is a licensed and regulated Danish bank with an online trading platform and was founded in 1992. Currently, they manage assets of more than USD 85 billion. Therefore, they manage approximately USD 79 billion more assets than Trade Republic. Saxo Bank offers its services in around 180 countries worldwide and, unlike Trade Republic, focuses not only on the European market. Moreover, they have 850,000 clients worldwide, and 270,000 trades are executed on their online trading platform per day (Saxo Bank, 2022). In 2021, Saxo Bank had a revenue of USD 679 million (Segal, 2022). Hence, their revenue is approximately three times higher than the revenue of Trade Republic. In 2022, Saxo Bank employs more than 2,500 people worldwide, thus having around six times as many employees as Trade Republic. The prices are not comparable with Trade Republic because Trade Republic charges EUR 1 per trade. On the other hand, Saxo Bank has set percentages of the purchase price per trade as fees. Furthermore, the costs for the individual markets (e.g., German Stock Exchange, New York Stock Exchange, etc.) vary (Saxo Bank, 2022).

Fourth, eToro is an Israelian trading platform, and the company was founded in 2007. At the moment, they have more than 25 million users around the globe and thus have 25 times more users than Trade Republic (eToro, 2022). The company operates in 140 countries worldwide and was valued at USD 5 billion in 2022 (Shulman, 2022). Therefore, Trade Republic has approximately the same worth as eToro as they have been valued at USD 5.3 billion (Growjo,

2022). In 2021, the company generated USD 1.2 billion in revenues and hence has six times higher revenues than Trade Republic (Abdelaziz, 2022). Further, they have approximately 1,700 employees and therefore employ around four times as many people as Trade Republic. The advantage of eToro is that no fees apply for ETF and stock trades. However, in case of inactivity, eToro charges USD 10 per month. For cryptocurrency trades, eToro charges 1% of the trade value (eToro, 2022).

Ultimately, the online broker company XTB was founded in Poland in 2002. Currently, they have offices in 13 countries worldwide and 495,000 active users. The most important difference between XTB and the previously analyzed market participants is that XTB also offers over-the-counter trading (trading between market participants, which does not take place via the stock exchange) (XTB, 2022). According to their corporate website, they employ more than 400 people. Currently, the market capitalization of XTB is USD 758 million (PLN 3.42 billion) (Google Finance, 2022). Thus, Trade Republic (valued at USD 5.3 billion) is significantly more worth than XTB. In 2021, they generated approximately USD 160 million (PLN 640 million) in revenues. Therefore, their revenue is slightly lower than the revenue of Trade Republic. However, XTB focuses on a different customer segment than Trade Republic. They offer their services mainly to professional contracts for difference (CFD) traders.

4.3 Survey - Quantitative findings

In total, the online survey obtained 95 responses. Thereof, 31 (32.63%) people from Ireland, 25 (26.32%) people from Luxembourg, and 39 (41.05%) people from Switzerland participated in the survey. The majority of the respondents were aged between 24 and 27. However, the youngest participant was 20, and the oldest was 39. Therefore, it can be stated that this survey is not representative of all age groups of these three countries. Some of the participants have already invested in stocks (24.32%), ETFs (27.93%), and cryptocurrency (3.6%). Moreover, 32.43% of the participants have invested in all the aforementioned financial assets.

Interestingly, only 11.71% of the participants have not invested in stocks, ETFs, and cryptocurrency. Most of the respondents from Ireland (30.56%) and Switzerland (44.19%) have invested in all of the aforementioned financial assets, while most of the participants from Luxembourg (37.50%) have invested in ETFs. In the survey, the participants were asked if they had heard about the following online brokers: Trade Republic, Scalable Capital, Degiro, eToro, Trading212, Interactive Brokers, Robinhood, and Fidelity Investments. Eight participants have heard about none of the previously named brokers, and seven have heard about all of them. The most known broker is eToro (63 respondents have heard about it), followed by Degiro (60 participants have heard about it), and Robinhood (40 people know this broker). However, the finding of the survey shows that there are small differences between the three countries. In Ireland, the top three online brokers are eToro (19.57%), Interactive Brokers (19.57%), and Robinhood (18.48%). In Luxemburg, the most known market participants are Degiro (29.23%), eToro (27.69%), and Interactive Brokers (13.85%). Finally, in Switzerland, the most known online brokers are eToro (27.84%), Degiro (25.77%), and Robinhood (16.49%). Another important finding is that Trade Republic is most known in Switzerland (10.31% of the respondents have heard about them). Furthermore, most of the survey respondents acquired their knowledge about stocks, ETFs, and cryptocurrency through the internet (41.12%), followed by friends and family (20.81%), and books (18.27%). The majority of the participants (78.49%) invest between 0€ and 499€ per month, and only one participant invests more than 1000€ per month. Further on, most of the respondents (71.74%) have so far invested between 0€ and 24,999€. Interestingly, only 7.61% of the survey participants have invested more than 45,000€ in stocks, cryptocurrency, and ETFs. However, 29.73% of the Swiss respondents, 20% of the Luxembourgish respondents, and 0% of the Irish respondents have already invested more than 35,000€. Hence, the Swiss and Luxembourgish markets are more attractive for expansion as people tend to invest more money in stocks, ETFs, and cryptocurrency in these two

countries. In terms of evaluating the influence of nationality on the amount invested in financial assets, the amount invested in financial assets is dependent on nationality (F=17.79; critical value = 3.95; level of significance = 5%). This has been demonstrated through a one-way ANOVA as the F-value (17.79) is higher than the critical value (3.95). Therefore, it can be stated that people in Switzerland and Luxembourg invest more than people in Ireland. This finding could also be related to the profession of the respondents as many of the Swiss and Luxembourgish participants work in the finance sector, thus, they are more likely to invest. The Irish respondents work in the following areas (only the four biggest groups): 30% are students, 13% in sales, 13% in consulting, and 10% in human resources. In Luxembourg, the participants work in the following areas (only the three biggest groups): 32% are students, 28% in finance, and 20% in auditing. Finally, the Swiss respondents work in the following areas (the four biggest groups): 21% are students, 13% in finance, 13% in marketing, and 11% in consulting.

In terms of how likely the respondents are to start investing in the next six to twelve months, on a scale from 0 (very unlikely) to 10 (very likely), the means and standard deviations (SD) for the three countries were as follows: in Ireland, the mean was 8.4 (SD = 2.6), in Luxembourg 8.56 (SD = 2.25), and in Switzerland, the mean was 8.66 (SD = 2.56). Further on, the survey shows that 76.92% of the respondents are very likely to invest at some point in the future. Nonetheless, one central finding is that 81.08% of the Swiss participants are very likely to start investing at some point in the future. This number is higher than in Luxembourg (75%) and Ireland (73.33%). Thus, the demand for online brokers could be slightly higher in Switzerland. The means and SDs for the three countries for the likelihood of the participants to invest at some point were as follows: in Ireland, the mean was 8.93 (SD = 2.26), in Luxembourg 9.17 (SD = 1.91), and in Switzerland, the mean was 9.14 (SD = 2.13). In the next question, the participants were asked about the general attitude in their country towards stocks, ETFs, and

cryptocurrency. The survey suggests that people in Luxembourg and Switzerland feel more positive about investing than people in Ireland. In Luxembourg, 88% of the participants feel very positive about investing, and in Switzerland 47%. However, in Ireland, only 3% of the participants feel that the people in their country have a positive attitude toward investing. The means and SDs for the general attitude toward investing were as follows: in Ireland, the mean was 5.93 (SD = 1.00), in Luxembourg 8.56 (SD = 1.24), and in Switzerland, the mean was 7.18 (SD = 1.67). Hence, the Luxembourgish and the Swiss market are more favorable for the expansion of Trade Republic as the general attitude in these two countries towards investing is significantly better than the attitude in Ireland. Moreover, the general attitude towards stocks and ETFs is dependent on nationality (F=51.73; critical value = 3.95; level of significance = 5%). This has been demonstrated through a one-way ANOVA as the F-value (51.73) is significantly higher than the critical value (3.95). In terms of the likelihood that a large number of people in the respondent's country invest to build up private wealth, the means and SDs were as follows: in Ireland, the mean was 4.1 (SD = 1.19), in Luxembourg 7.83 (SD = 1.21), and in Switzerland, the mean was 6.19 (SD = 1.45). 62.49% of the respondents from Luxembourg believe that the people in their country are very likely to invest. In Switzerland, 16.22% of the participants believe that people in their country are very likely to invest. However, none of the participants from Ireland believes that people in their country are very likely to invest. Further on, the likelihood that many people in a country invest to build up private wealth is dependent on nationality (F=108.54; critical value = 3.95; level of significance = 5%). This has been demonstrated through a one-way ANOVA as the F-value (108.54) is significantly higher than the critical value (3.95), hence the null hypothesis can be rejected. Therefore, it can be concluded that Trade Republic should expand to Luxembourg or Switzerland since the likelihood that many people invest is higher there.

Taking all analyses from chapter four into consideration, both countries, Switzerland and

Luxembourg, offer favorable conditions for the further expansion of Trade Republic. However, it is recommendable to expand to Switzerland due to the significantly larger market size. The results of the survey and the calculations can be found in Appendix 5.

4.4 Market entry mode selection

In this part of the work project, the market entry strategies relevant for Trade Republic's expansion to Switzerland are evaluated using factors such as resource commitment, control, flexibility, and risk (Koch, 2001) (Gomes, 2020).

First, internal factors such as company size, international experience, and competitive strategy are influencing the entry mode selection (Gomes, 2020). Trade Republic employs approximately 400 persons, has 1 million active customers, and manages assets of EUR 6 billion (Trade Republic, 2022). The estimated revenue of Trade Republic is USD 200 million, and the company is valued at USD 5.3 billion (Growjo, 2022). Further, Trade Republic has substantial international experience as they have already successfully expanded to five European countries. Finally, Trade Republic uses a cost leadership strategy, as their digital business model allows them to offer their services at a lower cost than traditional market players (e.g., banks). However, there are other new competitors on the market with similar business models, thus, no specific differentiation is identifiable.

Second, external factors, including sociocultural distance, demand uncertainty, trade barriers, and the intensity of competition, must be considered when selecting an entry strategy (Gomes, 2020). The sociocultural distance, according to the Hofstede Cultural Dimensions, between Germany and Switzerland is very small. According to the previously mentioned market potential, there are 5,067,000 potential customers in Switzerland. The major players in the Swiss market are Interactive Brokers, Degiro, Saxo Bank, XTB, and eToro.

Finally, it is crucial for a company to decide on the level of risk, control, and flexibility before selecting a market entry strategy (Gomes, 2020). It is recommendable for Trade Republic to

use an entry strategy with medium to high risk, low flexibility, high control, and high costs. The rationale for this is that Trade Republic possesses sufficient financial resources as they just received a series C funding of USD 268 million. Hence, it is advisable to use an entry mode that allows them to have full control over foreign operations. In addition, they should commit extensive financial resources to the target country to quickly achieve a substantial market share and prevail over the other competitors. Since they already have considerable expansion knowledge as they have expanded to five countries, they do not need an entry mode with high flexibility and low risk.

Evaluating the critical factors influencing the market entry mode decision, Trade Republic is recommended to use an intermediate entry mode or an internationalization entry mode. Hence, the potential options to enter the Swiss market are a strategic alliance, a sales and marketing subsidiary, or a merger & acquisition.

First, Trade Republic could enter the Swiss market by establishing a strategic alliance with a local partner (e.g., a local bank). This entry strategy entails some advantages. For example, Trade Republic will have access to the bank's clients, and they can share marketing costs. Therefore, the shared costs lead to reduced investment and lower risk (Mariadoss, 2018). Moreover, partnering with a local business is beneficial as the local partner has a better understanding of the local market, culture, and ways of doing business (Mariadoss, 2018). Nevertheless, integration problems could arise between the two parties due to corporate culture conflicts. Additional disadvantages of this entry mode are that there is a lack of direct control, and the partner's goals could differ from Trade Republic's goals (Mariadoss, 2018).

Second, Trade Republic could establish a marketing and sales subsidiary in Switzerland. This entry mode allows full control over foreign operations and provides above-average returns. Moreover, the company will gain market knowledge by hiring local employees (Mariadoss, 2018). However, this entry mode is very costly and risky as it requires substantial investment

to set up operations in the target country. Additionally, the company needs to hire consultants to acquire knowledge about the market (Mariadoss, 2018).

Ultimately, Trade Republic could enter the market with a merger & acquisition. This entry strategy is the riskiest one as it requires a considerable financial investment to acquire the foreign target company. Nonetheless, it allows total control over foreign operations, a fast market entry, and Trade Republic could use the reputation of the target company to win customers (Mariadoss, 2018). To ensure a successful merger, Trade Republic has to consider many critical success factors. In the pre-merger phase, they have to identify the right strategic partner and the right price for the M&A. Furthermore, in the post-merger phase, cultural problems could arise when choosing an inappropriate integration strategy (Gomes, Angwin, Weber, & Tarba, 2012).

After analyzing the three potential market entry modes, with their respective advantages and disadvantages, it is recommendable that they use an entry strategy that allows them to have full control over the foreign operation. Moreover, to gain substantial market share and prevail against existing competitors, which are already in the market, they need to commit an extensive amount of resources. Hence, the best entry mode for Trade Republic is acquiring a local online bank since they will have access to the customer base and can use the reputation of the bank.

5. Conclusion and Recommendations

Concluding, the results of this study show that Switzerland is the best country for the further expansion of Trade Republic. Based on the secondary data Switzerland was ranked in the second place. However, the in-depth market analysis and the results from the survey show that Switzerland is the most attractive country. The reasons for this are the high income of the population, low corporate tax rates, the increasing number of people who invest in stocks, and the significantly higher potential customer base compared to Ireland and Luxembourg. Furthermore, the online survey shows that people in Switzerland invest more money in stocks

than people from Ireland and Luxembourg. Finally, the most crucial point is that more survey participants from Switzerland have already heard of Trade Republic than respondents from the other two countries. Moreover, research question two was answered by an extensive company analysis and literature review on market entry modes. The analysis showed that Trade Republic should acquire a local online bank to have access to the bank's existing customer base and reputation since it will help Trade Republic to gain substantial market share and in-depth market knowledge. This study adds to the existing body of knowledge as it shows how Fintech companies, in this specific paper in the example of Trade Republic, can identify new countries for their further international expansion. Furthermore, this study contributes to the knowledge of market entry modes as it proposes a market entry mode for Fintech companies.

The research conducted in this work project is subject to limitations. Firstly, biases in selecting variables for the country ranking cannot be eliminated. Secondly, the credibility of the secondary data collected cannot be fully verified. Thirdly, in the event of missing data in the Excel-based model, the average of culturally similar countries was used. Furthermore, the survey results do not represent all age groups and job groups, as mainly students and people from business-related jobs have answered the survey.

In terms of further research, conducting interviews with industry experts would result in deeper market insights and help to make a more sophisticated decision regarding the selection of the target country. Moreover, those experts could provide data regarding the demand for online brokers, future trends, and regulatory issues in the target countries. Further on, the interviews could provide representative data for all age groups as the survey participants in this research mainly consist of people between the age of 24 and 27. Finally, it would be particularly interesting to see how the demand for online brokers is changing in the future due to inflation and the impact of the retirement of the "boomer" generation on the pension system.

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7. Appendices

Appendix 1 – Country Ranking

Hofstede Cultural Dimension

#	Country	Power Distance	Individualism	Masculinity	Uncertainty Avoidance	Long Term Orientation	Indulgence	Cultural Distance Calculation
1	Albania	90	20	80	70	61	15	2.178
2	Argentina	49	46	56	86	20	62	1.826
3	Australia	38	90	61	51	21	71	1.808
4	Belarus	95	25	20	95	81	15	3.216
5	Belgium	65	75	54	94	82	57	0.746
6	Bolivia	78	10	42	87	25	46	3.159
7	Bosnia & Herzegovina	90	22	48	87	70	44	2.008
8	Brazil	69	38	49	76	44	59	1.432
9	Bulgaria	70	30	40	85	69	16	1.541
10	Cambodia	78	22	41	43	43	46	2.200
11	Canada	39	80	52	48	36	68	1.217
12	Chile	63	23	28	86	31	68	2.814
13	China	80	20	66	30	87	24	1.859
14	Colombia	67	13	64	80	13	83	3.560
15	Costa Rica	35	15	21	86			4.688
16	Croatia	73	33	40	80	58	33	1.443
17	Czech Republic	57	58	57	74	70	29	0.343
18	Denmark	18	74	16	23	35	70	2.846
19	Dominican Republic	65	30	65	45	13	54	2.497
20	Ecuador	78	8	63	67			4.495
21	El Salvador	66	19	40	94	20	89	3.733
22	Estonia	40	60	30	60	82	16	0.821
23	Finland	33	63	26	59	38	57	1.491
24	Germany	35	67	66	65	83	40	0.000
25	Greece	60	35	57	100	45	50	1.453
26	Guatemala	95	6	37	98			5.866
27	Honduras	80	20	40	50			4.513
28	Hong Kong	68	25	57	29	61	17	1.710
29	Hungary	46	80	88	82	58	31	0.632
30	Iceland	30	60	10	50	28	67	2.737
31	Indonesia	78	14	46	48	62	38	1.932
32	Ireland	28	70	68	35	24	65	1.631
33	Japan	54	46	95	92	88	42	0.881
34	Latvia	44	70	9	63	69	13	1.821
35	Lithuania	42	60	19	65	82	16	1.235
36	Luxembourg	40	60	50	70	64	56	0.352
37	Malaysia	100	26	50	36	41	57	2.976
38	Malta	56	59	47	96	47	66	1.279
39	Mexico	81	30	69	82	24	97	3.473
40	Moldova	90	27	39	95	71	19	2.325
41	Montenegro	88	24	48	90	75	20	2.025
42	New Zealand	22	79	58	49	33	75	1.435
43	Nicaragua	80	15	39	81	20	89	4.060
44	North Macedonia	90	22	45	87	62	35	2.152
45	Norway	31	69	8	50	35	55	2.418
46	Panama	95	11	44	86			5.312
47	Paraguay	70	12	40	85	20	56	3.170
48	Peru	64	16	42	87	25	46	2.618
49	Philippines	94	32	64	44	27	42	2.683
50	Poland	68	60	64	93	38	29	1.310
51	Portugal	63	27	31	99	28	33	2.677
52	Qatar	93	25	55	80			4.557
53	Romania	90	30	42	90	52	20	2.341
54	Russia	93	39	36	95	81	20	2.190
55	Saudi Arabia	72	48	43	64	27	14	2.043
56	Serbia	86	25	43	92	52	28	2.252
57	Singapore	74	20	48	8	72	46	2.432
58	Slovakia	100	52	100	51	77	28	2.109
59	Slovenia	71	27	19	88	49	48	2.504
60	Sweden	31	71	5	29	53	78	2.895
61	Switzerland	34	68	70	58	74	66	0.284
62	Thailand	64	20	34	64	32	45	2.296
63	Ukraine	92	25	27	95	86	14	2.850
64	United Arab Emirates	74	36	52	66	22	22	2.201
65	United Kingdom	35	89	66	35	51	69	1.058
66	Uruguay	61	36	38	98	26	53	2.326
67	Vietnam	70	20	40	30	57	35	2.033
68	Israel	13	54	47	81	38		1.660
69	India	77	48	56	40	51	26	1.333
70	Turkey	66	37	45	85	46	49	1.398
71	South Korea	60	18	39	85	100	29	1.574

1-100 Standardization	Ranking
Ireland	1
Switzerland	2
Luxembourg	3
Norway	4
Denmark	5
United Kingdom	6
Japan	7
Singapore	8
Sweden	9
Finland	10
Canada	11
China	12
Belgium	13
New Zealand	14
Estonia	15
Australia	16
Iceland	17
South Korea	18
Hong Kong	19
Lithuania	20
Czech Republic	21
United Arab Emirates	22
Israel	23
Slovenia	24
Slovakia	25
Latvia	26
Portugal	27
Malta	28
Poland	29
Croatia	30
Chile	31
Qatar	32
Hungary	33
India	34
Malaysia	35
Thailand	36
Romania	37
Bulgaria	38
Indonesia	39
North Macedonia	40
Saudi Arabia	41

Bosnia & Herzegovina	42
Uruguay	43
Greece	44
Serbia	45
Peru	46
Panama	47
Albania	48
Mexico	49
Turkey	50
Philippines	51
Dominican Republic	52
Costa Rica	53
Paraguay	54
Montenegro	55
Moldova	56
Vietnam	57
Colombia	58
Russia	59
Brazil	60
Ukraine	61
El Salvador	62
Belarus	63
Cambodia	64
Guatemala	65
Argentina	66
Honduras	67
Ecuador	68
Bolivia	69
Nicaragua	70

Appendix 2 – Online Survey

NOVA
NOVA SCHOOL OF
BUSINESS & ECONOMICS

Dear participant,

My name is Marc Rosskopf, and I am pursuing a Master's in International Management at Nova School of Business and Economics. Currently, I am working on my master's thesis. The research aims to identify a suitable market for further international expansion of a Fintech company.

The survey will take no longer than 5 minutes to complete.

All the information you provide will be treated strictly confidential at all times. The data provided for this research will be solely used for scientific research purposes.

Thank you for your participation!

In case of any further questions concerning this survey, please feel free to contact me at any time (48200@novasbe.pt).

Please click next to show your consent to be part of this study.

→

Did you live in one of the following countries in the last two years?

- Ireland
- Luxembourg
- Switzerland
- Other

→

Have you ever invested in stocks, crypto currency, or ETFs?

- Stocks
- Crypto currency
- ETFs
- All of the above
- None of the above

→

Have you ever heard about any of the following online brokers?

Trade Republic

Scalable Capital

Degiro

eToro

Trading 212

Interactive Brokers

Robinhood

Fidelity Investments

All of the above

None of the above

→

NOVA
NOVA SCHOOL OF
BUSINESS & ECONOMICS

How much do you invest per month?

0€

1€ to 99€

100€ to 199€

200€ to 299€

300€ to 399€

400€ to 499€

500€ to 599€

600€ to 699€

700€ to 799€

800€ to 899€

900€ to 999€

1000€ or more

→

NOVA
NOVA SCHOOL OF
BUSINESS & ECONOMICS

How did you acquire knowledge about ETFs, stocks, and crypto currency?

Books

Financial magazines

Social Media (YouTube, Instagram, etc.)

Internet

Friends and family

All of the above

None of the above

→

How likely are you to start investing in the next 6 to 12 months?

Not at all likely										Extremely likely
0	1	2	3	4	5	6	7	8	9	10

→

How likely are you to invest in stocks or ETFs at some point in the future?

Not at all likely										Extremely likely
0	1	2	3	4	5	6	7	8	9	10

→

How would you describe the general attitude of people in your country towards stocks and ETFs?

Not at all likely										Extremely likely
0	1	2	3	4	5	6	7	8	9	10

→

How likely is it that a large number of people in your country will invest in stocks and/or ETFs to build up private wealth?

Not at all likely   Extremely likely

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

→

How old are you?

→

What is your profession?

→

Which country are you from?

→

How much money do you have invested in stocks, ETFs, or crypto currency?

0€ to 4,999€
5,000€ to 9,999€
10,000€ to 14,999€
15,000€ to 19,999€
20,000€ to 24,999€
25,000€ to 29,999€
30,000€ to 34,999€
35,000€ to 39,999€
40,000€ to 44,999€
45,000€ or more

→

Appendix 3 – Variable explanation and weight

Factor	Variable	Definition & Weight Explanation	Weight	Source
Market Size	Total population	A larger population usually implies a larger base of potential customers, for this reason it has a significant weight on the total.	7.00%	https://data.worldbank.org/indicator/SP.POP.TOTL
	Working age population (15-64)	The rating for this variable is low, as there are also people who are unemployed or have a low income. Thus, they will not be customers.	2.00%	https://data.oecd.org/pop/working-age-population.htm
	Gross domestic savings (% of GDP)	This variable shows the gross domestic savings in a given country. The higher the savings, the more capital is available for investments in stocks. However, I consider this variable as slightly important because there are people with high savings who are not interested in investing in stocks.	4.00%	https://data.worldbank.org/indicator/NY.GDS.TOTL.ZS
	Average income	This variable shows the purchasing power of the population of a country. The average income variable has a high weight as the revenue of Trade Republic can be higher in a country with a higher average income.	8.00%	https://www.worlddata.info/average-income.php
Market Growth Rate	GDP per capita growth	GDP per capita is the sum of gross value added by all resident producers in the economy plus any product taxes not included in the valuation of output, divided by mid-year population. Therefore, this variable has a medium importance.	5.00%	https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG
	Growth rate of population	This variable indicates the average rate at which the number of inhabitants of a specific country changes, during a year. It conveys the ratio between the population growth at a given year and the total population for the same period of time. The variable is not that important for the ranking, thus, it received a low weight.	2.00%	https://data.worldbank.org/indicator/SP.POP.GROW
Market Intensity	GDP per capita current (PPP)	Gross Domestic Product (GDP) per capita shows a country's GDP divided by its total population. It represents the country's standard of living. Therefore, the weight of the variable is relatively low.	3.00%	https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD
	Inflation (consumer prices)	Inflation is an important variable because a high inflation rate means that the purchasing power of the people in a country is decreasing. The inflation is a recent problem in many countries, therefore, I consider it as an important variable.	6.00%	https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG
	GINI Index	The Gini Index is a statistical measure that aims to analyse and calculate the inequality of a frequency distribution of variables, such as income. If the calculated value is equal to 0%, that means that the income in a nation is well distributed, whereas if the value is close to 100%, that is translated into maximal inequality.	3.00%	https://countryeconomy.com/demography/gini-index

Market Receptivity	Ease of doing business	This variable describes how business-friendly the regulations are in a given country. A good rating indicates that the country is a good option for expansion. Therefore, it is recommendable to expand to a country with a good rating. Thus, the weight of this variable is high.	7.00%	https://data.worldbank.org/indicator/IC.BUS.EASE.XQ
	Total market capitalization	This variable is the sum of all company values traded at the capital market in a given country. This variable is a good indicator of the investments in stocks in a given country. Hence, the weight of the variable is high.	7.00%	https://www.oecd.org/corporate/Owners-of-the-Worlds-Listed-Companies.pdf
Commercial Infrastructure	Total transaction value in digital payments	For Trade Republic it is important to have an online payment infrastructure in the target country because the service, which works through an app, requires online payment. Hence, this variable is relatively important for the ranking and has a high weight.	5.00%	https://www.statista.com/outlook/dmo/fintech/digital-payments/worldwide#transaction-value
	Internet Penetration	The Internet Penetration variable indicates the percentage of a country's population that is able to use the internet. The variable has a high rating as the service of Trade Repblic requires internet connection.	6.00%	https://www.internetworldstats.com/list2.htm
Standard of Living	Unemployment rate	The variable determines the health of the economy. Therefore this variable should be considererd with a low weighting.	3.00%	https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS
Country Risk	Political risk	Political risk is the possibility that a business could suffer because of instability or political changes in a country. Therefore, this variable has a high weight in the country ranking.	6.00%	https://credendo.com/en/country-risk
	Country risk	This variable is associated with the uncertainty that comes with investing in a particular region or country. The lower the rating, the lower the risk of a potential loss due to foreign investment.	5.00%	https://www.allianz-trade.com/en_US/resources/country-reports.html
Economic Freedom	Economic freedom index	In an economically free society, individuals are free to work, produce, consume, and invest in any way they please. Therefore, a good rating indicates that it is recommendable to expand to this country.	5.00%	https://www.heritage.org/index/ranking
	Political freedom index	The Political Freedom Index assesses for each country the electoral process, political pluralism and participation, the functioning of the government, freedom of expression and of belief, associational and organizational rights, the rule of law, and personal autonomy and individual rights. The weight of the variable is high as the government can influence the success of a business in a significant way.	6.00%	https://freedomhouse.org/report/freedom-world
Financial Attractiveness	Corporate tax rate	A country with a high corporate tax rate is unattractive for expansion as it influences the profit of a company. However, it is not the most important variable. Thus, the weight of this variable is medium.	4.00%	https://tradingeconomics.com/country-list/corporate-tax-rate
Cultural Distance	Cultural distance to Germany	This variable was chosen as countries that have a close culture to Germany might be more receptive to the service Trade Republic offers. The weight is high as culture has a significant impact on a successful.	6.00%	https://www.hofstede-insights.com/product/compare-countries/

Appendix 4 – Market size calculation

The Chain Ratio Method

	Ireland	Switzerland	Luxembourg
Overall population (thousands)	5,028	8,698	639
% Working age population (15-64)	65.3%	66.0%	69.4%
Working age population (15-64)	3,283	5,740	444
Internet penetration rate (%)	91.9%	93.2%	95.9%
Working age population with internet access	3,017	5,350	425
Employment rate (%)	93.4%	94.7%	94.8%
Employed working age population with access to internet	2,818	5,067	403

Ireland

5,028,000	Overall population
65,3% 3,283,000	Working age population (15 – 64)
91,9% 3,017,000	Working age population with internet access
93,4% 2,818,000	Employed working age population with internet access

Luxembourg

639,000	Overall population
69,4% 444,000	Working age population (15 – 64)
95,9% 425,000	Working age population with internet access
94,8% 403,000	Employed working age population with internet access

Switzerland

8,698,000	Overall population
66,0% 5,740,000	Working age population (15 – 64)
93,2% 5,350,000	Working age population with internet access
94,7% 5,067,000	Employed working age population with internet access

Appendix 5 – Survey results
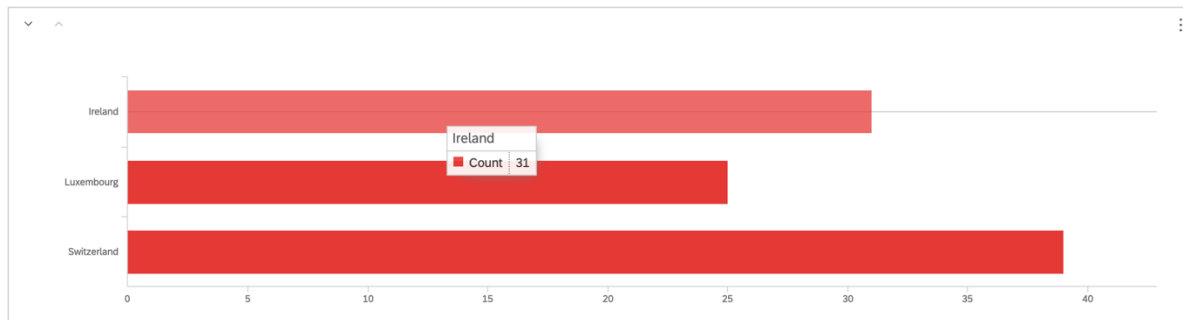
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Did you live in one of the following countries in the last two years?	1.00	3.00	2.08	0.85	0.73	95

#	Field		Choice Count
1	Ireland	32.63%	31
2	Luxembourg	26.32%	25
3	Switzerland	41.05%	39
			95
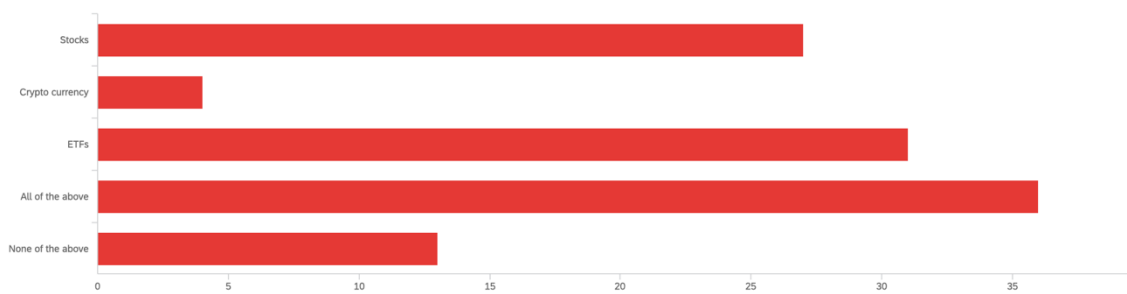
#	Field		Choice Count
1	Stocks	24.32%	27
2	Crypto currency	3.60%	4
3	ETFs	27.93%	31
4	All of the above	32.43%	36
5	None of the above	11.71%	13
			111

#	Field	Ireland	Luxembourg	Switzerland
1	Stocks	25.00% 9	31.25% 10	18.60% 8
2	Crypto currency	2.78% 1	3.13% 1	4.65% 2
3	ETFs	22.22% 8	37.50% 12	25.58% 11
4	All of the above	30.56% 11	18.75% 6	44.19% 19
5	None of the above	19.44% 7	9.38% 3	6.98% 3
		36	32	43

Q3 - Have you ever heard about any of the following online brokers?   Page Options ⌄
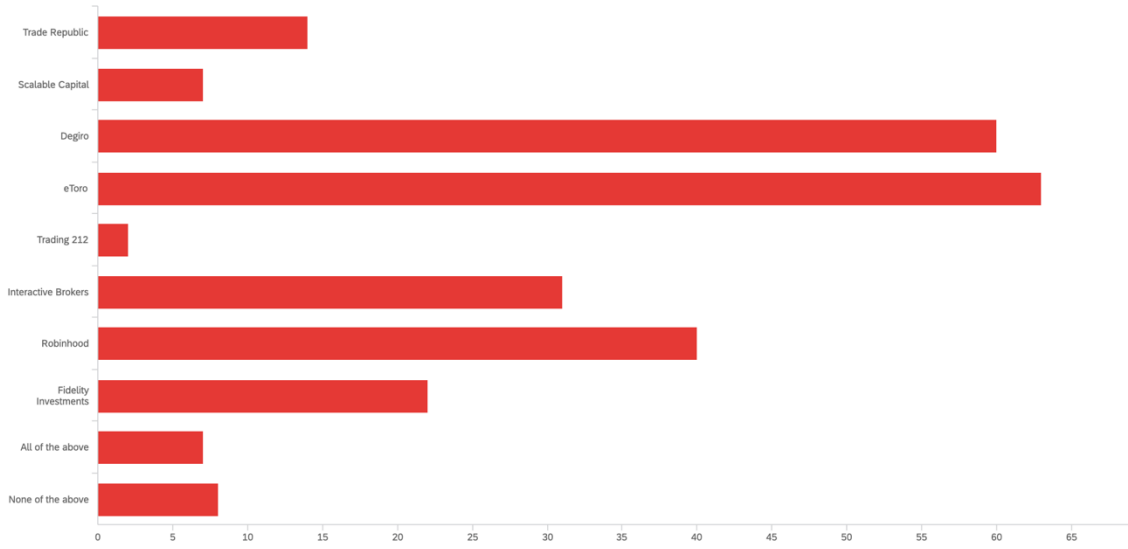
#	Field	Ireland	Luxembourg	Switzerland
4	eToro	19.57% 18	27.69% 18	27.84% 27
6	Interactive Brokers	19.57% 18	13.85% 9	4.12% 4
7	Robinhood	18.48% 17	10.77% 7	16.49% 16
8	Fidelity Investments	18.48% 17	3.08% 2	3.09% 3
3	Degiro	17.39% 16	29.23% 19	25.77% 25
1	Trade Republic	2.17% 2	3.08% 2	10.31% 10
2	Scalable Capital	2.17% 2	3.08% 2	3.09% 3
10	None of the above	2.17% 2	4.62% 3	3.09% 3
5	Trading 212	0.00% 0	1.54% 1	1.03% 1
9	All of the above	0.00% 0	3.08% 2	5.15% 5
		92	65	97

47

Q4 - How much do you invest per month?
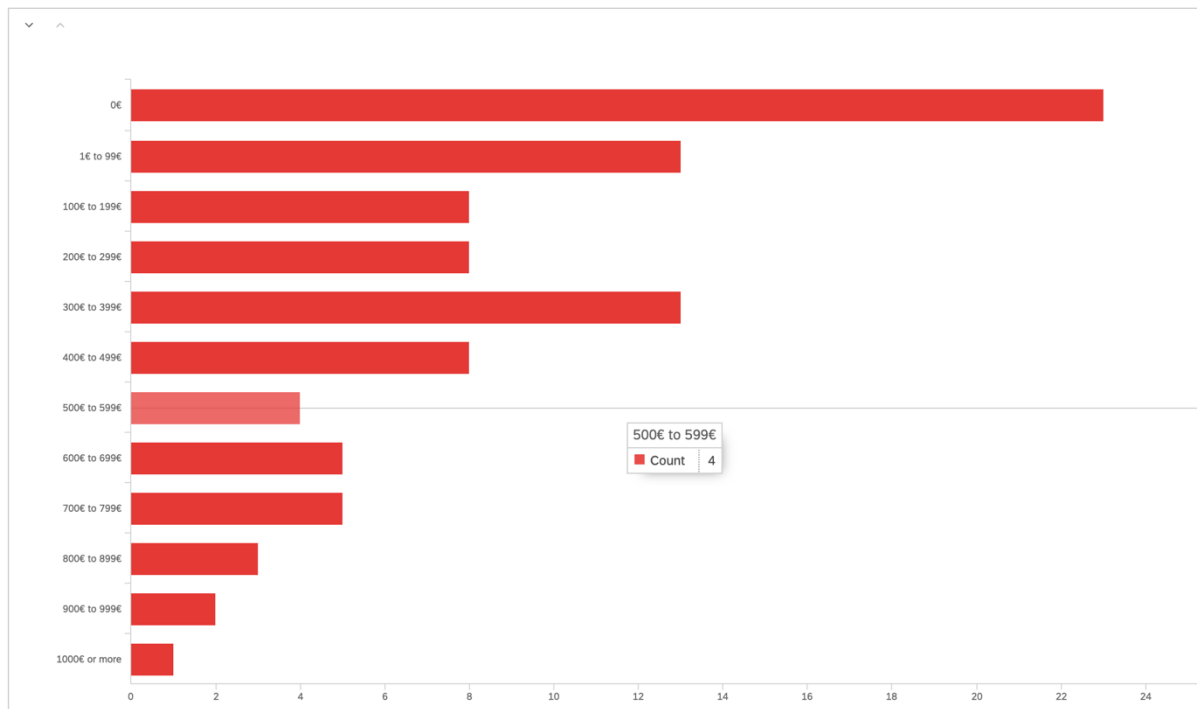
#	Field		Choice Count
1	0€	24.73%	23
2	1€ to 99€	13.98%	13
3	100€ to 199€	8.60%	8
4	200€ to 299€	8.60%	8
5	300€ to 399€	13.98%	13
6	400€ to 499€	8.60%	8
7	500€ to 599€	4.30%	4
8	600€ to 699€	5.38%	5
9	700€ to 799€	5.38%	5
10	800€ to 899€	3.23%	3
11	900€ to 999€	2.15%	2
12	1000€ or more	1.08%	1
			93

Q5 - How did you acquire knowledge about ETFs, stocks, and crypto currency?
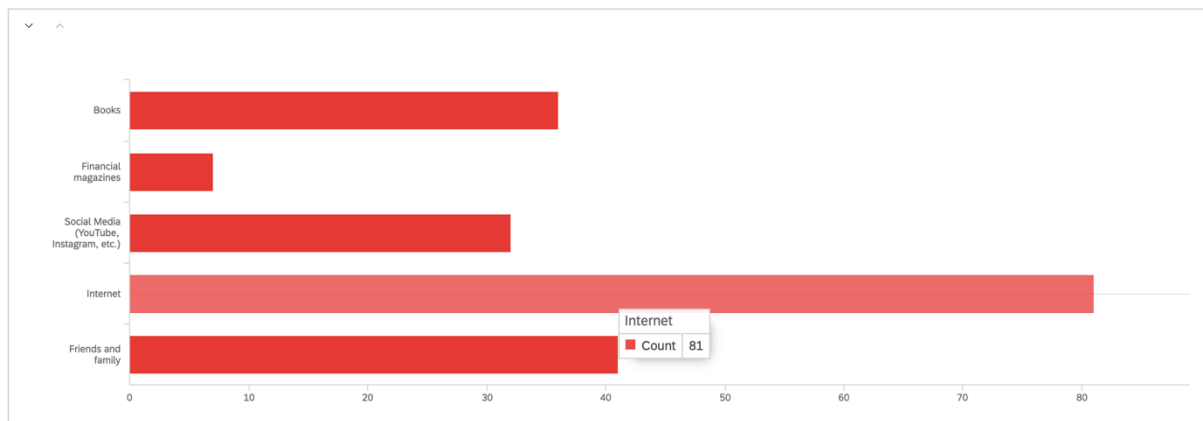
#	Field		Choice Count
1	Books	18.27%	36
2	Financial magazines	3.55%	7
3	Social Media (YouTube, Instagram, etc.)	16.24%	32
4	Internet	41.12%	81
5	Friends and family	20.81%	41
			197

Q6 - How likely are you to start investing in the next 6 to 12 months?

68%
10

0 1 2 3 4 5 6 7 8 9 10

53.76

-100   100

data
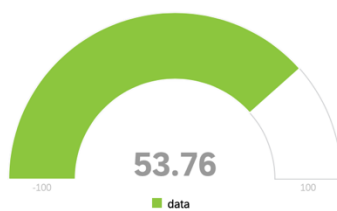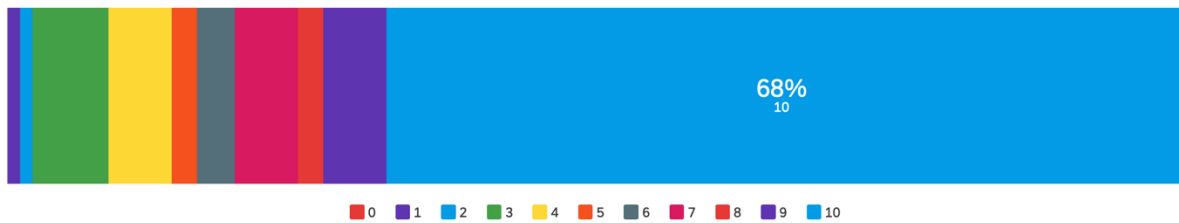
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Ireland	3.00	10.00	8.40	2.60	6.77	30
2	Luxembourg	3.00	10.00	8.56	2.25	5.05	25
3	Switzerland	1.00	10.00	8.66	2.56	6.54	38

49

Q7 - How likely are you to invest in stocks or ETFs at some point in the future?

0 1 2 3 4 5 6 7 8 9 10

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Ireland	0.00	10.00	8.93	2.26	5.13	30
2	Luxembourg	3.00	10.00	9.17	1.91	3.64	24
3	Switzerland	1.00	10.00	9.14	2.13	4.55	37

#	Field	Ireland	Luxembourg	Switzerland
1	0	3.33% 1	0.00% 0	0.00% 0
2	1	0.00% 0	0.00% 0	2.70% 1
3	2	0.00% 0	0.00% 0	2.70% 1
4	3	0.00% 0	4.17% 1	0.00% 0
5	4	0.00% 0	4.17% 1	0.00% 0
6	5	6.67% 2	0.00% 0	0.00% 0
7	6	6.67% 2	4.17% 1	5.41% 2
8	7	0.00% 0	0.00% 0	5.41% 2
9	8	3.33% 1	0.00% 0	0.00% 0
10	9	6.67% 2	12.50% 3	2.70% 1
11	10	73.33% 22	75.00% 18	81.08% 30
		30	24	37

Showing rows 1 - 12 of 12

Q8 - How would you describe the general attitude of people in your country towards stocks and ETFs?

0 1 2 3 4 5 6 7
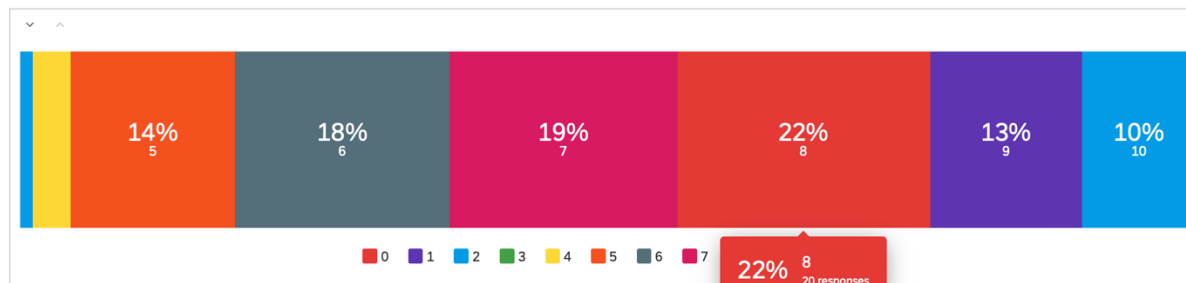
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Ireland	4.00	8.00	5.93	1.00	1.00	30
2	Luxembourg	5.00	10.00	8.56	1.24	1.53	25
3	Switzerland	2.00	10.00	7.18	1.67	2.78	38

#	Field	Ireland	Luxembourg	Switzerland
1	0	0.00% 0	0.00% 0	0.00% 0
2	1	0.00% 0	0.00% 0	0.00% 0
3	2	0.00% 0	0.00% 0	2.63% 1
4	3	0.00% 0	0.00% 0	0.00% 0
5	4	6.67% 2	0.00% 0	2.63% 1
6	5	30.00% 9	4.00% 1	7.89% 3
7	6	30.00% 9	4.00% 1	18.42% 7
8	7	30.00% 9	4.00% 1	21.05% 8
9	8	3.33% 1	32.00% 8	28.95% 11
10	9	0.00% 0	32.00% 8	10.53% 4
11	10	0.00% 0	24.00% 6	7.89% 3
		30	25	38

Q9 - How likely is it that a large number of people in your country will invest in stocks and/or ETFs to build up private wealth?   Page Options ⌄

0 ◼ 1 ◼ 2 ◼ 3 ◼ 4 ◼ 5 ◼ 6 ◼ 7 ◼ 8 ◼ 9 ◼ 10
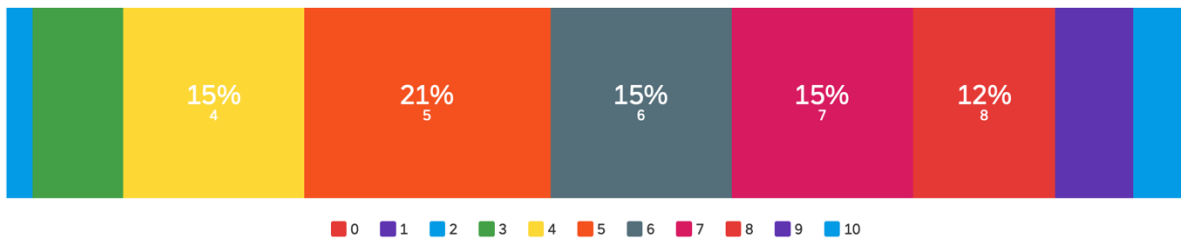
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Ireland	2.00	7.00	4.10	1.19	1.42	30
2	Luxembourg	5.00	10.00	7.83	1.21	1.47	24
3	Switzerland	4.00	10.00	6.19	1.45	2.10	37

#	Field	Ireland	Luxembourg	Switzerland
1	0	0.00% 0	0.00% 0	0.00% 0
2	1	0.00% 0	0.00% 0	0.00% 0
3	2	6.67% 2	0.00% 0	0.00% 0
4	3	23.33% 7	0.00% 0	0.00% 0
5	4	40.00% 12	0.00% 0	5.41% 2
6	5	20.00% 6	4.17% 1	32.43% 12
7	6	3.33% 1	8.33% 2	29.73% 11
8	7	6.67% 2	25.00% 6	16.22% 6
9	8	0.00% 0	33.33% 8	8.11% 3
10	9	0.00% 0	20.83% 5	2.70% 1
11	10	0.00% 0	8.33% 2	5.41% 2
		30	24	37

Country	Age
Ireland	25
Ireland	25
Ireland	20
Ireland	26
Ireland	26
Ireland	25
Ireland	24
Ireland	28
Ireland	25
Ireland	26
Ireland	27
Ireland	25
Ireland	25
Ireland	27
Ireland	25
Ireland	22
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Ireland	23
Ireland	26
Ireland	24
Ireland	27
Luxembourg	22
Luxembourg	24
Luxembourg	28
Luxembourg	25
Luxembourg	27
Luxembourg	21
Luxembourg	25
Luxembourg	26
Luxembourg	29
Luxembourg	30
Luxembourg	24
Luxembourg	21
Luxembourg	22
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Luxembourg	24
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Luxembourg	28
Luxembourg	28
Luxembourg	24
Luxembourg	29
Luxembourg	27
Switzerland	25
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Switzerland	26
Switzerland	26
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Switzerland	29
Switzerland	22
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Switzerland	23
Switzerland	25
Switzerland	26
Switzerland	28
Switzerland	30
Switzerland	27
Switzerland	23
Switzerland	27
Switzerland	28
Switzerland	31
Switzerland	23
Switzerland	29
Switzerland	26
Switzerland	29
Switzerland	22
Switzerland	31
Switzerland	39
Switzerland	27
Switzerland	36
Switzerland	37
Average	26.02
Min	20
Max	39
25 percentile	24
75 percentile	27
SD	3.24

Ireland

Job Area	#	in %
Marketing	2	7%
Sales	4	13%
Student	9	30%
HR	3	10%
Consultant	4	13%
Business Development	3	10%
Financial Analyst	2	7%
Business Analyst	3	10%
Sum	30	

Luxembourg

Job Area	#	in %
Student	8	32%
Audit	5	20%
Investment Banking	2	8%
Marketing	1	4%
Project Manager	1	4%
Consultant	1	4%
Finance	5	20%
Compliance	1	4%
Recruiting	1	4%
Sum	25	

Switzerland

Job Area	#	in %
Investment Banking	3	8%
Social Worker	4	11%
Teacher	1	3%
Student	8	21%
Consultant	4	11%
Marketing	5	13%
Real Estate	1	3%
Finance	2	5%
Project Management	3	8%
Sales	2	5%
Audit	1	3%
Politics	1	3%
IT	1	3%
Graphic Design	1	3%
Administration	1	3%
Sum	38	

Q13 - How much money do you have invested in stocks, ETFs, or crypto currency?

Page Options ⌄
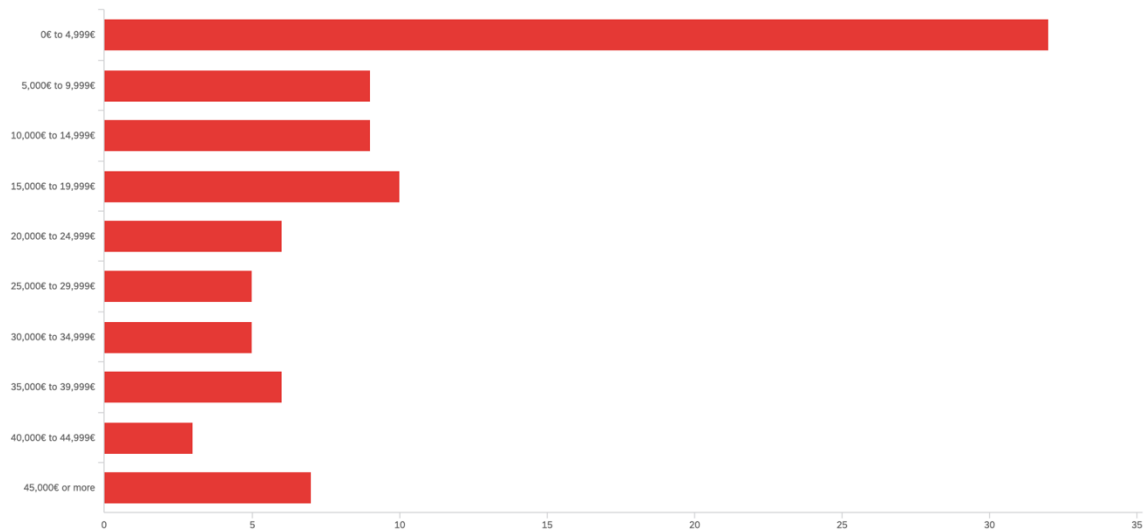
#	Field	Ireland		Luxembourg		Switzerland	
10	45,000€ or more	0.00%	0	8.00%	2	13.51%	5
1	0€ to 4,999€	46.67%	14	40.00%	10	21.62%	8
2	5,000€ to 9,999€	13.33%	4	8.00%	2	8.11%	3
3	10,000€ to 14,999€	10.00%	3	12.00%	3	8.11%	3
4	15,000€ to 19,999€	23.33%	7	4.00%	1	5.41%	2
5	20,000€ to 24,999€	6.67%	2	4.00%	1	8.11%	3
6	25,000€ to 29,999€	0.00%	0	4.00%	1	10.81%	4
7	30,000€ to 34,999€	0.00%	0	8.00%	2	8.11%	3
8	35,000€ to 39,999€	0.00%	0	8.00%	2	10.81%	4
9	40,000€ to 44,999€	0.00%	0	4.00%	1	5.41%	2
			30		25		37

RQ: Is nationality independent from amount invested?

Dataset

Y-Variable	X-Variable	Compute s2y
Amount invested	Nationality	
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
4,999	Ireland	196,611,302
9,999	Ireland	81,393,150
9,999	Ireland	81,393,150
9,999	Ireland	81,393,150
9,999	Ireland	81,393,150
14,999	Ireland	16,174,998
14,999	Ireland	16,174,998
14,999	Ireland	16,174,998
19,999	Ireland	956,845
19,999	Ireland	956,845
19,999	Ireland	956,845
19,999	Ireland	956,845
19,999	Ireland	956,845
19,999	Ireland	956,845
19,999	Ireland	956,845
24,999	Ireland	35,738,693
24,999	Ireland	35,738,693
4,999	Luxembourg	196,611,302
4,999	Luxembourg	196,611,302
4,999	Luxembourg	196,611,302
4,999	Luxembourg	196,611,302
4,999	Luxembourg	196,611,302
4,999	Luxembourg	196,611,302
4,999	Luxembourg	196,611,302
4,999	Luxembourg	196,611,302
4,999	Luxembourg	196,611,302
4,999	Luxembourg	196,611,302
9,999	Luxembourg	81,393,150
9,999	Luxembourg	81,393,150
14,999	Luxembourg	16,174,998
14,999	Luxembourg	16,174,998
14,999	Luxembourg	16,174,998
19,999	Luxembourg	956,845
24,999	Luxembourg	35,738,693
29,999	Luxembourg	120,520,541
34,999	Luxembourg	255,302,389
34,999	Luxembourg	255,302,389
39,999	Luxembourg	440,084,237
39,999	Luxembourg	440,084,237
44,999	Luxembourg	674,866,085
45,000	Luxembourg	674,918,042
45,000	Luxembourg	674,918,042
4,999	Switzerland	196,611,302
4,999	Switzerland	196,611,302
4,999	Switzerland	196,611,302
4,999	Switzerland	196,611,302
4,999	Switzerland	196,611,302
4,999	Switzerland	196,611,302
4,999	Switzerland	196,611,302
4,999	Switzerland	196,611,302
9,999	Switzerland	81,393,150
9,999	Switzerland	81,393,150
9,999	Switzerland	81,393,150
14,999	Switzerland	16,174,998
14,999	Switzerland	16,174,998
14,999	Switzerland	16,174,998
19,999	Switzerland	956,845
19,999	Switzerland	956,845
24,999	Switzerland	35,738,693
24,999	Switzerland	35,738,693
24,999	Switzerland	35,738,693
29,999	Switzerland	120,520,541
29,999	Switzerland	120,520,541
29,999	Switzerland	120,520,541
29,999	Switzerland	120,520,541
34,999	Switzerland	255,302,389
34,999	Switzerland	255,302,389
34,999	Switzerland	255,302,389
39,999	Switzerland	440,084,237
39,999	Switzerland	440,084,237
39,999	Switzerland	440,084,237
39,999	Switzerland	440,084,237
44,999	Switzerland	674,866,085
44,999	Switzerland	674,866,085
45,000	Switzerland	674,918,042
45,000	Switzerland	674,918,042
45,000	Switzerland	674,918,042
45,000	Switzerland	674,918,042
45,000	Switzerland	674,918,042

xbar	xbar Ireland	xbar Luxembourg		Switzerland	counter overall	Ireland	Luxembourg	Switzerland
19,020.82	11,499.00	18,999.08		25,134.27	92	30	25	37
					n-1			
					91			

Total SS		Factor SS	
18,662,320,224		3,080,193,244.72	

α – level of significance : 0.05

n : 92

	Sum of Squares	df	Mean Sum o	F	CV	p-value
Nationality	3080193245	1	3080193245	17.79	3.946875731	5.8649E-05
Error	15582126979	90	173134744			
Total	18662320224	91	205080442 VARIANCE			

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RQ: Is nationality independent from the likelihood that many people in a given country invest in stocks, ETFs, and cryptocurrency?

Dataset

Y-Variable	X-Variable	Compute s2y		xbar	xbar Ireland	xbar Luxembourg		Switzerland	counter overall	Ireland	Luxembourg	Switzerland
Amount invested	Nationality											
2	Ireland	15		5.93	4.10		7.83		6.19	91	30	24	37
2	Irleand	15								n-1			
3	Irleand	9								90			
3	Irleand	9		Total SS	Factor SS								
3	Irleand	9			346	189.90							
3	Irleand	9											
3	Irleand	9											
3	Irleand	9											
3	Irleand	9											
4	Irleand	4											
4	Irleand	4											
4	Irleand	4											
4	Irleand	4											
4	Irleand	4											
4	Ireland	4											
4	Ireland	4											
4	Ireland	4											
4	Ireland	4											
4	Ireland	4											
4	Ireland	4											
4	Ireland	4											
5	Ireland	1											
5	Ireland	1											
5	Ireland	1											
5	Ireland	1											
5	Ireland	1											
5	Ireland	1											
6	Ireland	0											
7	Ireland	1											
7	Ireland	1											
5	Luxembourg	1											
6	Luxembourg	0											
6	Luxembourg	0											
7	Luxembourg	1											
7	Luxembourg	1											
7	Luxembourg	1											
7	Luxembourg	1											
7	Luxembourg	1											
7	Luxembourg	1											
8	Luxembourg	4											
8	Luxembourg	4											
8	Luxembourg	4											
8	Luxembourg	4											
8	Luxembourg	4											
8	Luxembourg	4											
8	Luxembourg	4											
8	Luxembourg	4											
9	Luxembourg	9											
9	Luxembourg	9											
9	Luxembourg	9											
9	Luxembourg	9											
9	Luxembourg	9											
10	Luxembourg	17											
10	Luxembourg	17											
4	Switzerland	4											
4	Switzerland	4											
5	Switzerland	1											
5	Switzerland	1											
5	Switzerland	1											
5	Switzerland	1											
5	Switzerland	1											
5	Switzerland	1											
5	Switzerland	1											
5	Switzerland	1											
5	Switzerland	1											
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5	Switzerland	1											
6	Switzerland	0											
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6	Switzerland	0											
6	Switzerland	0											
6	Switzerland	0											
6	Switzerland	0											
6	Switzerland	0											
7	Switzerland	1											
7	Switzerland	1											
7	Switzerland	1											
7	Switzerland	1											
7	Switzerland	1											
7	Switzerland	1											
8	Switzerland	4											
8	Switzerland	4											
8	Switzerland	4											
9	Switzerland	9											
10	Switzerland	17											
10	Switzerland	17											

α – level of significance		0.05					
n		91					
		Sum of Squares	df	Mean Sum o	F	CV	p-value
Nationality		189.8953866	1	189.895387	108.54	3.948084352	4.3996E-17
Error		155.709009	89	1.74953943			
Total		345.6043956	90	3.84004884	VARIANCE		

RQ: Is nationality independent from the general attitude towards stocks and ETFs?

Dataset
Y-Variable
Amount invested

X-Variable
Nationality

Compute s2y

				xbar	xbar Ireland	xbar Luxembourg		Switzerland	counter overall	Ireland	Luxembourg	Switzerland
				7.15	5.93	8.56		7.18	93	30	25	38
									n-1			
									92			
				Total SS	Factor SS							
				260	94.16							

4	Ireland	10
4	Irleand	10
5	Irleand	5
5	Irleand	5
5	Irleand	5
5	Irleand	5
5	Irleand	5
5	Irleand	5
5	Irleand	5
5	Irleand	5
5	Irleand	5
6	Ireland	1
6	Ireland	1
6	Ireland	1
6	Ireland	1
6	Ireland	1
6	Ireland	1
6	Ireland	1
6	Ireland	1
6	Ireland	1
7	Ireland	0
7	Ireland	0
7	Ireland	0
7	Ireland	0
7	Ireland	0
7	Ireland	0
7	Ireland	0
7	Ireland	0
7	Ireland	0
8	Ireland	1
5	Luxembourg	5
6	Luxembourg	1
7	Luxembourg	0
8	Luxembourg	1
8	Luxembourg	1
8	Luxembourg	1
8	Luxembourg	1
8	Luxembourg	1
8	Luxembourg	1
8	Luxembourg	1
8	Luxembourg	1
9	Luxembourg	3
9	Luxembourg	3
9	Luxembourg	3
9	Luxembourg	3
9	Luxembourg	3
9	Luxembourg	3
9	Luxembourg	3
9	Luxembourg	3
10	Luxembourg	8
10	Luxembourg	8
10	Luxembourg	8
10	Luxembourg	8
10	Luxembourg	8
10	Luxembourg	8
2	Switzerland	27
4	Switzerland	10
5	Switzerland	5
5	Switzerland	5
5	Switzerland	5
6	Switzerland	1
6	Switzerland	1
6	Switzerland	1
6	Switzerland	1
6	Switzerland	1
6	Switzerland	1
6	Switzerland	1
7	Switzerland	0
7	Switzerland	0
7	Switzerland	0
7	Switzerland	0
7	Switzerland	0
7	Switzerland	0
7	Switzerland	0
7	Switzerland	0
8	Switzerland	1
8	Switzerland	1
8	Switzerland	1
8	Switzerland	1
8	Switzerland	1
8	Switzerland	1
8	Switzerland	1
8	Switzerland	1
8	Switzerland	1
8	Switzerland	1
9	Switzerland	3
9	Switzerland	3
9	Switzerland	3
9	Switzerland	3
10	Switzerland	8
10	Switzerland	8
10	Switzerland	8

α – level of significance   0.05
n   93

	Sum of Squares	df	Mean Sum o	F	CV	p-value
Nationality	94.15528014	1	94.1552801	51.73	3.9456942	1.7341E-10
Error	165.6177572	91	1.81997535			
Total	259.7730373	92	2.82361997 VARIANCE			