# ALFRED NOBEL UNIVERSITY DEPARTMENT OF GLOBAL ECONOMICS

### **Bachelor's Thesis**

#### *Title of the Thesis*

Development and implementation of the international investment project "IT company in Ireland"

Student: Serhii Hutsaliuk

Group: IER-17e

Specialty: 292 International economic relations

Supervisor: Kuzminov S.V., Doctor of

**Economic Sciences** 

### ALFRED NOBEL UNIVERSITY DEPARTMENT OF GLOBAL ECONOMICS

First (bachelor) level Specialty 292 International economic relations

Approved b	oy:
Head of the Department	
Zadoya A.O., Doctor of	Economic Sciences,
Professor	
" "	2021 year

### The Bachelor's Thesis Assignment

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- 1. Title: Development and implementation of the international investment project "IT company in Ireland"
- 2. Supervisor: Kuzminov S.V., Doctor of Economic Sciences, Professor.

Approved with the Order of « " 20 , No. \_\_\_\_\_

- 3. Deadline for submission:  $1 \overline{\text{June }} 2021$
- 4. Aim of the paper: To develop an international investment project for opening an IT company in Ireland and evaluate its performance.
- 5. Thesis outline (list of issues to be developed):
  - to research the economic situation and the factors of the development of the economy of Ireland;
  - to evaluate changes in the economy of Ireland;
- to identify the main trends of the Ireland's labour market and its participation in international migration processes;
  - to analyse main trends in export-import activity in Ireland;
  - to consider the foreign direct investment activity in Ireland;
  - to assess the Ireland's investment climate and the degree of its attractiveness to Ukrainian investors;
  - to analyse the main trends of the world's IT market;
- to justify an investment project for the creation of an IT company, assess the need for investment resources and determine the sources of their attraction;
  - to estimate income calculation and assessment of the economic attractiveness of the investment project.
- 6. Date of issue of the assignment: 1 February 2021

#### 7. Thesis schedule

NG Change	The deadline for submission		
140	№ Stages	Schedule date	Actual date
1	Chapter 1	15.03.2021	15.06.2021
2	Chapter 2	15.04.2021	15.06.2021
3	Chapter 3	15.05.2021	15.06.2021
4	The whole paper	01.06.2021	15.06.2021

Student		Hutsaliuk S.Y.
	signature	last name, initials
Supervisor		Kuzminov S.V.
•	signature	last name, initials

#### Annotation

Hutsaliuk S.Y. Development and implementation of the international investment project "IT company in Ireland"

The paper examines the current state and trends of the Irish economy in recent years. It has been revealed that the Republic of Ireland is one of the most successful countries, which demonstrates high rates of economic dynamics and success in international economic relations, building a platform for the development of promising industries of the future. Rapid economic development is attracting the attention of many investors, and a flexible tax system has made the country a good place to do international business. Against this background, Ireland has become an attractive place for young businessmen who want to implement their own ideas. There are many projects in the country aimed at supporting small businesses and helping to develop new business models. An international investment project to create an IT company in Dublin at was developed at the expense of an investor from Ukraine. Calculations of the need for investment resources, expected profits and costs, as well as calculations of key indicators that allowed to assess the investment attractiveness of the proposed project.

*Keywords:* labour migration, investment climate of Israel, payback period of the investment project

#### Анотація

Гуцалюк С.Ю. Розробка та шляхи реалізації міжнародного інвестиційного проекту "ІТ компанія в Ірландії".

У роботі проведено дослідження сучасного стану та тенденцій розвитку економіки Ірландії за останні роки. Виявлено, що Республіка Ірландія  $\epsilon$  однією з найуспішніших країн, яка демонструє високі темпи економічної динаміки та успіхи у міжнародних економічних відносинах, будуючи платформу для розвитку перспективних галузей майбутнього. Швидкий економічний розвиток привертає увагу багатьох інвесторів, а гнучка податкова система зробила країну гарним місцем для ведення міжнародного бізнесу. На такому фоні Ірландія стала привабливим місцем для молодих бізнесменів, які хочуть реалізувати власні ідеї.

Країні існує багато проектів націлених на підтримку малого бізнеса та допомогу в розвитку нових бізнес моделей. У роботі розроблено міжнародний інвестиційний проект по створенню ІТ- компанії у Дубліні за рахунок власних коштів інвестора з України. Наведені розрахунки потреби в інвестиційних ресурсах, очікувані прибутки та витрати, а також проведено розрахунки основних показників, які дали змогу оцінити інвестиційні привабливість запропонованого проекту.

*Ключові слова:* трудова міграція, інвестиційний клімат Ірландії, NPV, термін окупності інвестиційного проекту.

#### Bachelor's Thesis Evaluation Form

Development and implementation of the international investment project "IT company in Ireland"; a 4<sup>th</sup> year student in specialty 292 International Economic Relations - Serhii Hutsaliuk.

Assessment of separate components of qualification work:
1. Format of the thesis (no more than 10 points)
2. Timeliness of submission of separate parts of work (Chapters 1-3) and the whole paper (5 points per each part)
3. Theoretical and analytical aspects of the work (maximum 25 points)
4. Practical aspects (max. 20 points)
5. Pre-defence mark (max 25 points)
Additional thoughts and general opinion of the supervisor:
Overall mark (max 100 points)
Supervisor Kuzminov S.V., Doctor of Economic Sciences, Professor (name of the supervisor, scientific degree, academic status)
" "

<b>Topic.</b> Development and implementation of the international investment project "IT company in Ireland"
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#### INTRODUCTION

The actuality of the research topic is that Ireland has consistently held stable positions in world rankings related to ease of doing business, innovation, competitiveness of the economy. The world's leading consulting agencies and authoritative publications have repeatedly recognized this country as the best for entrepreneurs. Ireland has a unique competitive edge thanks to its economic and political stability, progressive legislation, a large pool of highly qualified professionals and a flexible tax system.

The favourable business climate has attracted investments from major international companies and attracted the interest of many promising start-ups. This has earned Ireland a reputation as a technology hub. The government actively supports design and research developments, stimulates the development of innovative technologies. Today, the most important sectors of the economy of this state include IT technologies, the pharmaceutical industry, the production of medical equipment, electronics and engineering. Therefore, the study of the development of investment activities of the IT sector is promising and import.

**The aim** of the thesis is to develop an international investment project for opening an IT company in Ireland and evaluate its performance.

#### *The objectives* of the thesis are:

- to research the economic situation and the factors of the development of the economy of Ireland;
  - to evaluate changes in the economy of Ireland;
- to identify the main trends of the Ireland's labour market and its participation in international migration processes;
  - to analyse main trends in export-import activity in Ireland;
  - to consider the foreign direct investment activity in Ireland;
- to assess the Ireland's investment climate and the degree of its attractiveness to
   Ukrainian investors;
  - to analyse the main trends of the world's IT market;
- to justify an investment project for the creation of an IT company, assess the
   need for investment resources and determine the sources of their attraction;

 to estimate income calculation and assessment of the economic attractiveness of the investment project.

**The object** of research is the international relations and investment climate in Ireland for foreign investors in the IT sector.

*The subject* of research is the international investment project of the creation of IT company.

*Method.* For achieving the objectives of the research, general scientific methods of cognition, analysis and synthesis, a process approach, methods of systemic, strategic, economic and statistical analysis were used.

## CHAPTER 1. IRELAND ECONOMY: THE CURRENT SITUATION, ANALYSIS OF RECENT YEARS

#### 1.1. Analysis economic situation in Ireland

The Republic of Ireland is a highly developed economy based on intellectual capital, high-tech services, an efficient and highly developed financial sector, agricultural sector and high-quality food production.

Ireland's economy is open and export-oriented. In the Index of Economic Freedom, Ireland is ranked 5<sup>th</sup> in 2020, and in terms of FDI flows, country is the leader among investments in the high-tech services sector. In terms of global GDP per capita, Ireland is ranked 4th out of 186 according to the IMF and 4th out of 187 according to the World Bank.

Considering the retrospective data of the economic growth of Ireland, it should be noted that from 1984 to 2007 the growth rates of the country's economy were stable and quite high. As with other countries, the financial crisis worsened the economic situation in 2008, and led to the collapse of the Irish property market. Consequently, the Irish economy was in crisis in 2007-2008, and in 2009 the economy began to recover.

Quite quickly, the growth rates of the Irish economy returned to their previous positions and in 2011 real GDP grew by 2.2%, in 2012 - by 0.2%. The export of goods and services became the drivers of economic growth.

A feature of the Irish economy is the dominant role of transnational corporations with foreign capital. In the list of the leading Irish firms (in terms of turnover), 14 out of 20 companies are multinational. These companies employ 23% of the workforce and provide 80% of the corporate tax collected.

Irish growth was expected to slow down in 2019 due to Brexit. Table 1.1 contains current GDP at market prices in 2021. Table 1.2 demonstrates annual GDP and GDP per capita of Ireland over last 10 years.

Quarterly GDP at market prices 2021

Date	Quarterly	Quat. GDP	Quat. GDP Annual
	GDP	Growth (%)	Growth (%)
2021Q1	119,980M.\$	7.8%	12.8%

Source: https://countryeconomy.com

Table 1.1

GDP of Ireland grew 7.8% in the 1st quarter of 2021 compared to the previous quarter. This rate is 122 -tenths of one percent higher than the figure of -4.4% published in the 4th quarter of 2020. The year-on-year change in GDP was 12.8%, 129 -tenths of one percent more than the -0.1% recorded in the fourth quarter of 2020. The GDP figure in the 1st quarter of 2021 was \$119,980 million.

Annual GDP per capita of Ireland

Date	<b>Annual GDP</b>	GDP Growth	GDP per capita	GDP P.C. Annual
		(%)		Growth
2020	418,623M.\$	3.4%	84,324\$	4.8%
2019	398,379M.\$	5.6%	80,482\$	1.7%
2018	386,689M.\$	8.5%	79,144\$	13.1%
2017	337,545M.\$	9.1%	69,951\$	11.6%
2016	299,145M.\$	2.0%	62,696\$	1.2%
2015	292,037M.\$	25.2%	61,952\$	11.7%
2014	258,889M.\$	8.6%	55,467\$	7.8%
2013	238,264M.\$	1.2%	51,455\$	5.2%
2012	225,185M.\$	0.1%	48,902\$	-5.8%
2011	237,905M.\$	0.6%	51,892\$	6.4%

Source: <a href="https://countryeconomy.com">https://countryeconomy.com</a>

Analysing the current trends in economic situation of Ireland, we consider that the economy grew by 3.4% in terms of GDP in 2020, according to the official information of the Central Statistical Office of Ireland. This result was achieved in part due to export growth of 6.25%, which in turn was driven by the pharmaceutical sector and the information and communication technology sector.

According to GDP, Ireland was the only country in the EU to show positive economic growth in 2020 despite the pandemic and the global economic crisis. The Covid-19 pandemic has had a negative impact on economic activity in Ireland. Personal consumption in 2020 decreased by 9%, which affected some industries and sectors of the economy. The largest losses were incurred by enterprises in the transport sector, hotel and restaurant business, whose income fell by 16.7%. The arts and entertainment sector shrank by 54.4% and the construction sector by 12.7%.

Table 1.2

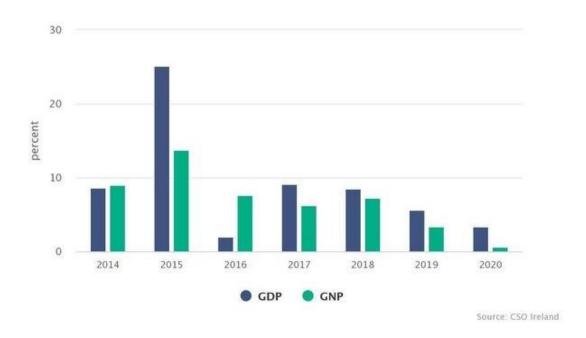


Fig. 1.1. Annual growth rates of GDP and GNP

Source: CSO Ireland

According to the CSO, the salaries of employees decreased slightly, by 0.1% in 2020 compared to 2019. But there were significant differences across sectors.

The wages of those who work in the transport sector, hotel and restaurant business decreased by 11.3%, in the arts and entertainment industry - decreased by 15.1%.

Wages in the IT sector grew by 8.9%, while in the public administration, education and health sectors rose by 5.5%.

The industrial growth rate was 15.2%, and information and communication technologies - by 14.3%.

This trend has developed in part due to the dominance of multinational corporations in the Irish economy. According to the CSO, multinational sectors grew by 18.2%, while domestic sectors of the economy contracted by 9.5%.

The multinational sector contributes 50% of the value of the economy in 2020, up from 43.4% in 2019.

Government spending has accounted for 25.1% of total GDP over the past three years, and the budget surplus averaged 0.02% of GDP. Public debt is equivalent to 58.6% of GDP.

Ireland's current account is volatile and dependent on multinationals. However, the deficit of 7.5% of GNI in 2008 was eliminated and in 2018 there is a surplus of 6.5%. (fig. 1.2). (Department of Finance, 2019a).

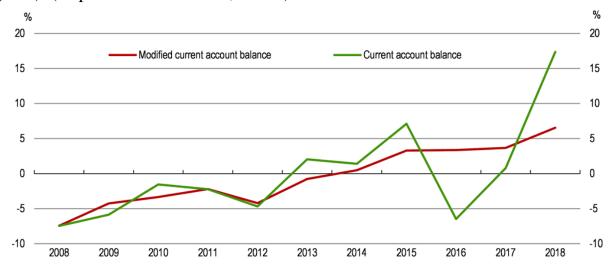


Fig. 1.2. Current account balance of Ireland, percentage of GNI Source: CSO, OECD calculations. URL: https://doi.org/10.1787/888934079193

Ireland's fiscal policy is expansionary. The growth of government capital expenditures and government consumption is stable. The budget balance declined by 0.5% of GDP in 2019 due to cyclical fluctuations in the economy and interest rates.

Export growth also boosted the economy. Exports of services increased sharply, mainly due to the export of IT services. The service sector's share in the country's export structure is over 50%. The growth in merchandise exports was less intense, as the main consumers of Irish-made goods are the EU countries. In these countries, demand has decreased due to the crisis and pandemic.

Overall, the Irish economy has improved its competitiveness and resilience. Export growth has led to the expansion of sales markets abroad. This has increased the investment attractiveness of the country for investors.

#### 1.2. Structural changes in the economy

The statistic shows the distribution of employment in Ireland by economic sector from 2010 to 2020. In 2020, 4.49 % of the employees in Ireland were active in the agricultural sector, 18.53 % in industry and 76.98 % in the service sector (fig. 1.3).

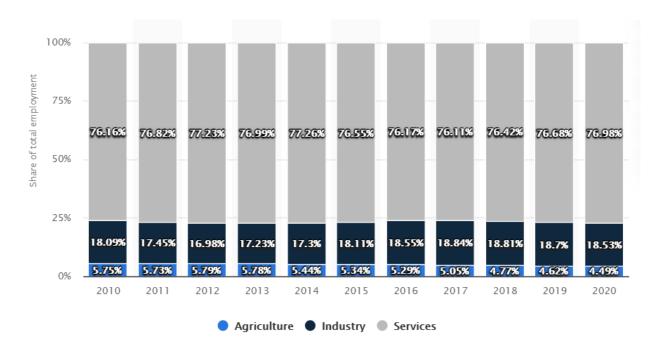


Fig. 1.3. Distribution of employment by economic sector in Ireland from 2010 to 2020 Source: Statista. URL: <a href="https://www.statista.com/statistics/377005/employment-by-economic-sector-in-ireland/">https://www.statista.com/statistics/377005/employment-by-economic-sector-in-ireland/</a>

Consider the main sectors of the Irish economy.

The aircraft lease employs 1,200 people, and the assets of the companies are over € 100 billion. Ireland owns 22% of the world's aircraft fleet and 40% of aircraft leases. Ireland has 14 of the 15 largest lessors by fleet size.

The production of alcohol employs about 92,000 people, and the annual turnover is about 2 billion euros. This sector creates jobs in related sectors, in particular in agriculture, distillery and brewing.

Mechanical engineering is the leading sector of the Irish economy. It employs over 18,500 people and contributes to the country's economy around 4.2 billion euros annually. The sector contains about 180 companies in the industrial goods and services, aerospace, automotive and clean technology sectors.

Energy is an important sector of Irish economy. The country seeks to develop renewable energy sources, abandoning oil, natural gas, coal.

Exports play a key role in Ireland's economic growth. The country is one of the world's largest exporters of pharmaceuticals, medical devices, and software-related goods and services.

Today in Ireland, non-ferrous metals are mined and processed, in particular, lead-zinc ores. Ireland is the largest zinc producer in Europe and the second largest lead producer.

The financial services sector employs about 35,000 people and contributes € 2 billion in taxes annually to the economy of Ireland. Key banks and financial companies are located at the International Financial Services Centre (IFSC) in Dublin.

The information and communication technology (ICT) sector provide about 37,000 people with employment, with a turnover of about 35 billion companies annually. Ten of the world's top 200 ICT companies are registered in Ireland. These include Google, Facebook, Twitter, LinkedIn, Amazon, eBay, PayPal, and Microsoft. Some companies are headquartered in Ireland, while others operate their European headquarters from Cork, including Apple, EMC and Johnson Controls.

Ireland is a leading manufacturer and exporter of medical technology (MedTech). The sector employs about 25,000 people and has a turnover of 9.4 billion euros annually.

The pharmaceutical sector provides annual exports of 55 billion euros. The sector employs about 50,000 people.

An important sector of the economy is software development with an annual turnover of 16 billion euros and an employment of 24,000. Ireland is the 2<sup>nd</sup> largest software exporter in the world. There are over 900 software development companies operating in Ireland.

The primary sector of the Irish economy (including agriculture, forestry, mining and fishing) accounts for only 5% of Ireland's GDP and 8% of employment in Ireland.

Ireland's agricultural exports are negligible and are represented by exports of cattle, beef and dairy products. Irish agri-food exports include several significant dairy brands, with the main companies being Kerry Group, Glanbia, Greencore and Ornua. The main crops are barley, wheat, potatoes, oats.

The mining industry in Ireland is poorly diversified. The country is a major exporter of zinc, lead and alumina to the EU. On the territory of the country there are deposits of gypsum, limestone and, in smaller quantities, copper, silver, gold, barite and dolomite. Peat is used as fuel.

More than 60 banks are registered in Ireland. Thus, the banking system is highly concentrated. The largest banks are AIB Bank, Bank of Ireland and Ulster Bank. The Irish

Stock Exchange is located in Dublin. Insurance in Ireland is in high demand among retail and corporate clients in the EU, thanks in large part to the International Financial Services Centre.

The structural transformation of the Irish economy is driven by advances in technology. Technological changes affect the country's economy, create new jobs and innovative products and services with high added value. Ireland has excelled in technological development compared to OECD countries. However, technological progress has been uneven across industries, and the impact on productivity growth is not always high.

The government strongly supports the further diffusion of new technologies through reforms for business development, attracting investments in the high-tech and IT sectors, and training personnel in the field of high technologies. New jobs in the gig economy and structural changes in the economy have increased the flexibility of the Irish economy. However, technological advances have led to changes in business models and market structures, which have led to reforms in competition and information security policies.

The structural changes in the Irish economy have been particularly strong in recent decades (fig. 1.4). The country's economy has adapted to new demographic, economic and technological trends. Since the mid-1990s, average real wages have increased by over 50% in Ireland, compared with about 30% in the United States or the OECD.

The Lilien index reflects the level of structural change and is determined based on the variance of the employment indicator over a specified period (Lilien, 1982). The OECD Aggregate is the average of 24 OECD countries.

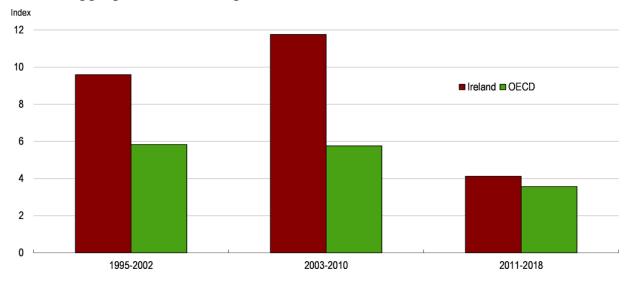


Fig. 1.4. The Index of Structural Change of economies

Source: OECD. URL: https://doi.org/10.1787/888934079744

The share of employment in the service sector increased (Fig. 1.5, Panel A). In construction, employment declined due to a decline in economic activity and a downturn in the real estate market in 2008-2013. A similar decline was observed in the manufacturing industry. At the same time, the technological intensity of the economy has increased. The share of people employed in knowledge-intensive services and high-tech manufacturing has increased and is now above the EU average (Figure 1.5, Panel B).

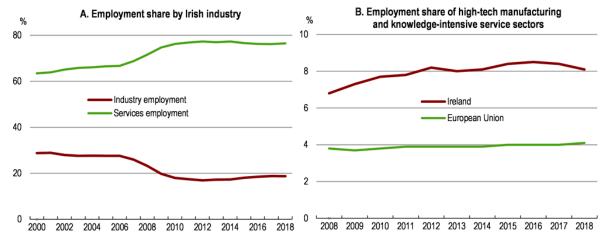


Fig. 1.5. Services and knowledge-intensive sectors have gained prominence Source: Eurostat, OECD Annual Labour Force Statistics database.

URL: https://doi.org/10.1787/888934079763

Ireland is the largest exporter of high-tech goods among the EU member states. This led to changes in the territorial concentration of economic activity and an increase in urbanization. Since 2010, Dublin's economic growth has significantly exceeded other regions of the country (Fig. 1.6).

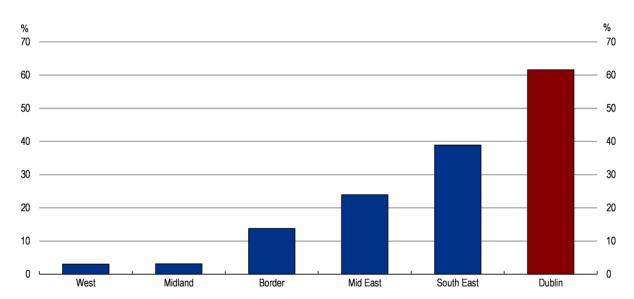


Fig. 1.6. Dublin has experienced particularly fast economic growth. Percentage change in estimated gross value added, 2010-17

Source: Central Statistics Office, OECD calculations.

URL: <a href="https://doi.org/10.1787/888934079782">https://doi.org/10.1787/888934079782</a>

These trends confirm the diffusion of technology in most sectors of the Irish economy. The OECD Going Digital Project has shown the importance of their importance for the development of the economy (OECD, 2019a).

# 1.3. Ireland's labour market and its participation in international migration processes

The high rate of economic growth resulted in a 3% growth in domestic demand (Fig. 1.7). Despite a slight decline in investment activity, growth in private consumption was robust. Tax revenues to the budget have increased.

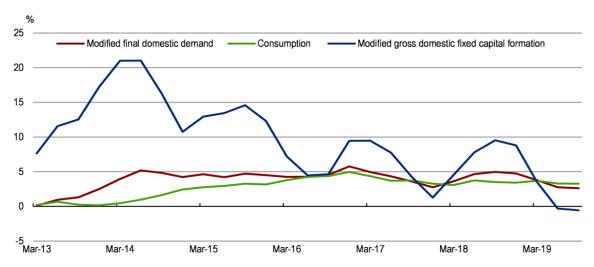


Fig. 1.7. The economy continues to expand vigorously. Annual percentage change Source: CSO, OECD calculations.

URL: https://doi.org/10.1787/888934079098

The situation on the labour market was positively influenced by the growth in consumption. Annual employment growth is approximately 3% since 2013. This situation has led to an increase in labour market participation (Figure 1.8, panel A), especially among the working-age population (25-54 years).

The Irish labour market is exceptionally open to international migration flows, thus making labour supply highly responsive to changes in cyclical conditions. Immigration provides the skills that the Irish economy needs. The crisis triggered a sharp reversal in migration flows, with immigration suddenly halting and emigration increasing. A large proportion of emigration is highly qualified, as is a high proportion of immigration. This pattern of "brain exchange" can contribute to reducing skills mismatches, but also raises the challenge of remaining attractive for skilled workers.

Between 2007 and 2010, immigration fell sharply due to the crisis. However, with the economic recovery, immigration in the labour market grew, especially in the most highly paid sectors of the economy. The Irish, in turn, emigrated to work abroad less actively. Ireland is a recipient of labour resources in the international labour market. Net immigration has been positive and has grown steadily since 2015. However, competition in the labour market has increased due to the decline in the unemployment rate. The number of vacancies increased, which influenced the dynamics of wages and increased requirements for the level of qualifications of employees.

Growth in average hourly wages has increased by 2.5% in recent years (Panel B). The result was a rise in prices, especially in the service sector. Inflation was constrained by the rise in the euro against the British pound following the Brexit referendum in 2016 (Economic Social and Research Institute, 2019).

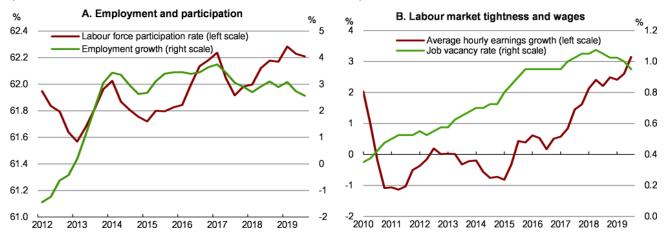


Fig. 1.8. Labour market conditions have strengthened

Source: CSO, OECD calculations.

URL: https://doi.org/10.1787/888934079117

The trend in the Irish labour market is an increase in the need for qualified personnel in the context of the introduction of new technologies. And this becomes a problem.

Investment in human resource development and training in Ireland has been marginal. Despite the high level of education, the professional skills of the Irish are not high.

The proportion of the population with tertiary education is close to the OECD average for people aged 55 to 64 and much higher for people aged 25 to 34 (Fig.1.9, panel A). However, literacy skills are at the OECD average, and numeracy and problem-solving skills are much lower (Fig.1.9, panels B, C, and D).

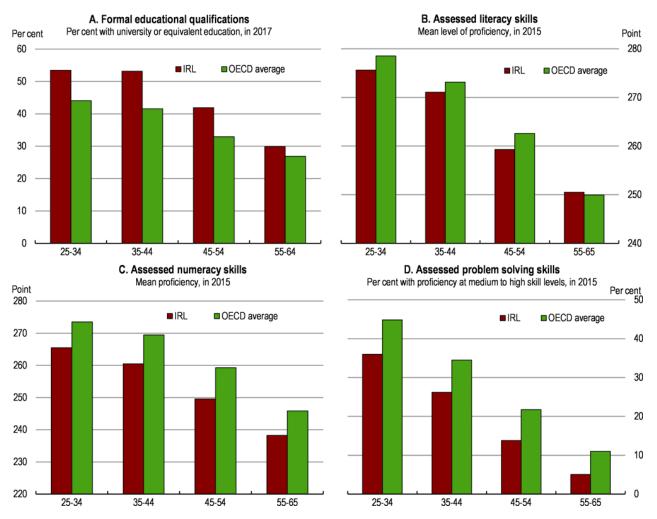


Fig.1.9. Skills of Irish adults are lower than indicated by formal qualifications Source: OECD Educational Attainment dataset, OECD Survey of Adult Skills (PIAAC).

URL: https://doi.org/10.1787/888934080048

The low level of qualifications of the Irish population causes an acute lack of skills in terms of technology implementation and is a factor in the immigration of highly qualified employees from other countries. The labour market has a need for all categories of skills (Fig.1.10).

Ireland now has a labour shortage and the ratio of new vacancies to unemployed is growing (Fig.1.11).

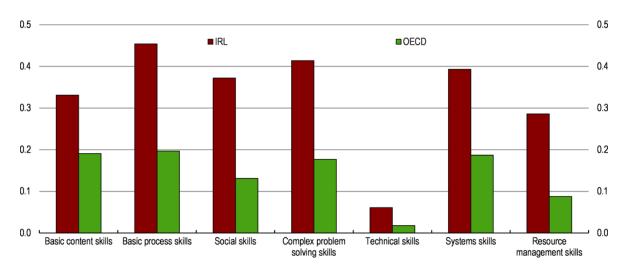


Fig.1.10. Skill shortages in Ireland stand out. Index normalised between -1 and 1, 2015

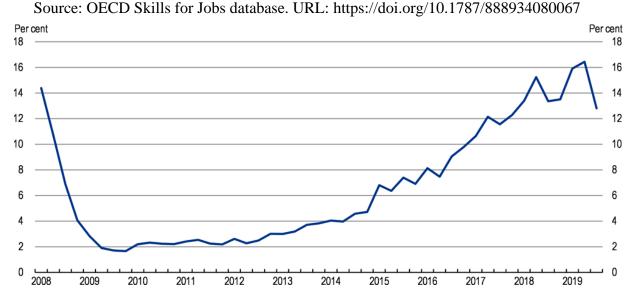


Fig.1.11. Number of new vacancies per unemployed worker

Source: CSO. URL: https://doi.org/10.1787/888934080086

Technological progress stimulates economic development and increases national welfare. New technologies change existing structures and affect the interaction of business participants. New sectors of the economy are emerging and new jobs are being created. The benefit to consumers is that technological advances open up access to new, innovative and cheaper products. The further diffusion of technology and will allow in the future to increase the competitiveness of the Irish economy. For foreign investors, the service sector, especially the high-tech sector, is favourable.

## CHAPTER 2. FOREIGN ECONOMIC ACTIVITY OF IRELAND: INTERNATIONAL GOODS AND CAPITAL MOVEMENT

#### 2.1. Export-import activity of Ireland

Ireland is an open economy dependent on global trade relations and crises. Trade accounted for 239% of Ireland's GDP in 2019, according to the World Bank.

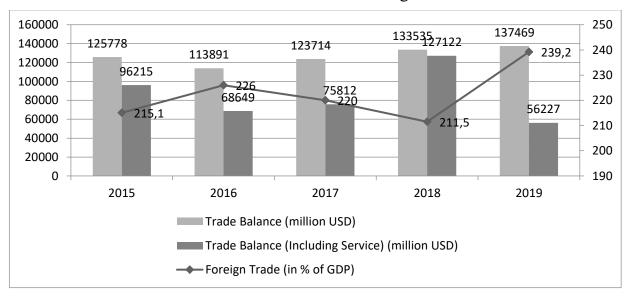


Fig. 2.1. The main foreign trade indicators of Ireland

Source: World Trade Organisation (WTO)

In 2020, due to the COVID-19 pandemic, Ireland's imports fell 12.1% from 2019. Exports increased by 1%.

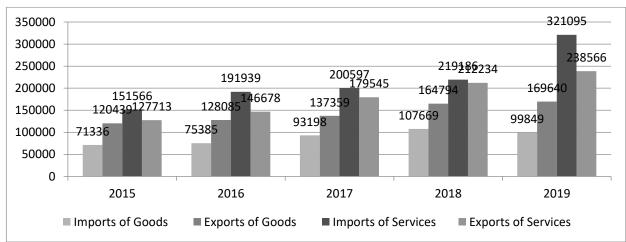


Fig. 2.2. The main foreign trade values of Ireland, million USD

Source: World Trade Organisation (WTO)

Ireland's trade surplus is structurally positive. In 2019, Ireland's merchandise exports totalled \$ 169.6 billion and imports totalled \$ 99.8 billion, according to the WTO.

The main indicators of imports and exports in Ireland are in fig. 2.3-.2.4.

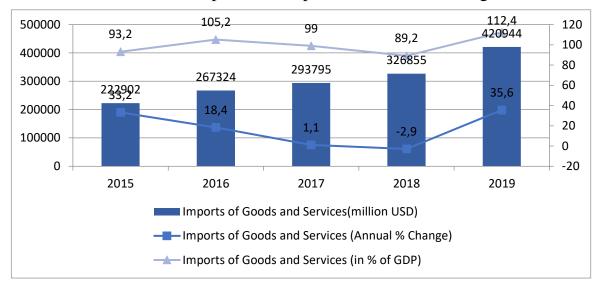


Fig. 2.3. The main indicators of imports in Ireland

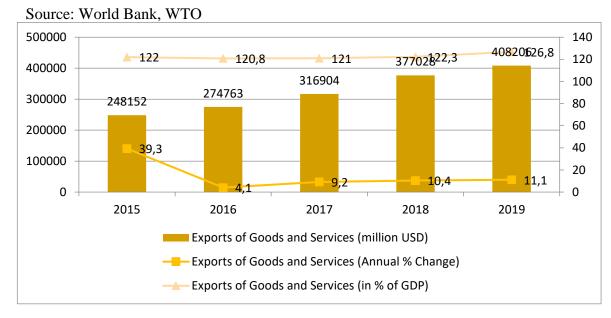


Fig. 2.4. The main indicators of exports in Ireland

Source: World Bank, WTO

Ireland's key trading partners are the EU countries, with the United Kingdom being the main import and second largest export market, the United States, China and Switzerland.

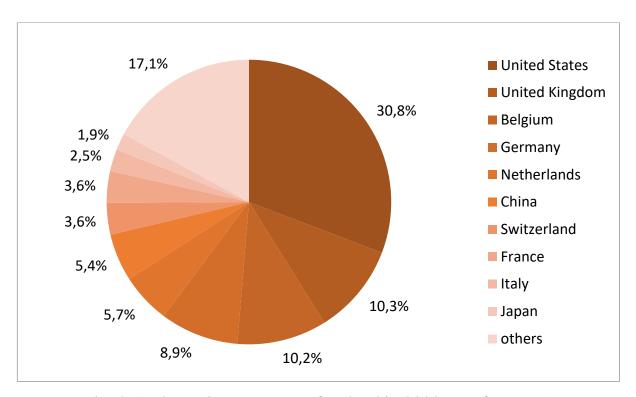


Fig. 2.5. The main customers of Ireland in 2020 (% of exports)

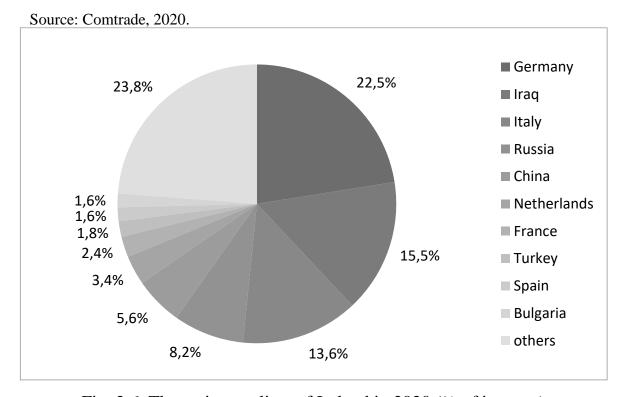


Fig. 2.6. The main suppliers of Ireland in 2020 (% of imports) Source: Comtrade, 2020.

Brexit has an impact on trade between Ireland and the UK. Ireland's export volumes are forecast to decline and exporters will suffer losses due to the depreciation of the pound

sterling. Ireland's trade may also be affected by US protectionism and a new tax regime that benefits US companies.

In terms of trade in services, exports of services totalled US \$ 238.6 billion in 2019 and imports US \$ 321.9 billion.

According to the World Bank, the trade balance in 2019 was positive and amounted to USD 137.5 billion. Due to the fall in imports due to the pandemic, the trade balance increased in 2020.

The main positions of exports and imports considering goods are in fig.2.7-2.8.

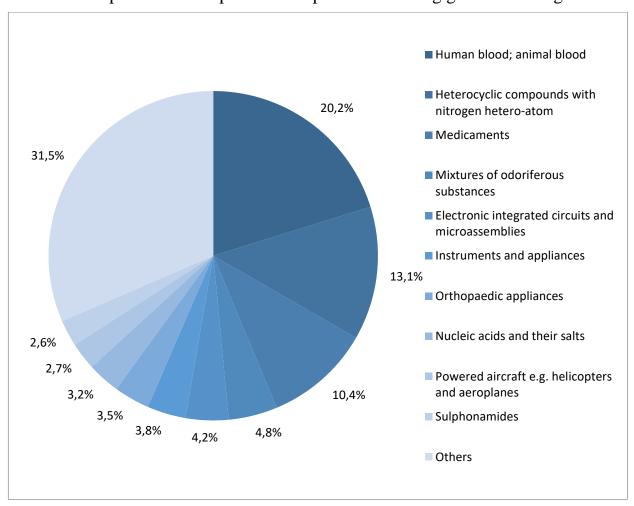


Fig. 2.7. The main goods of export of Ireland in 2020

Source: International Trade Center, 2020.

The country imports mainly aircraft, biological materials, medicines, automatic data processing machines, oil and petroleum products, and automobiles.

The main export commodities are biological materials, medicines, industrial raw materials and medical devices.

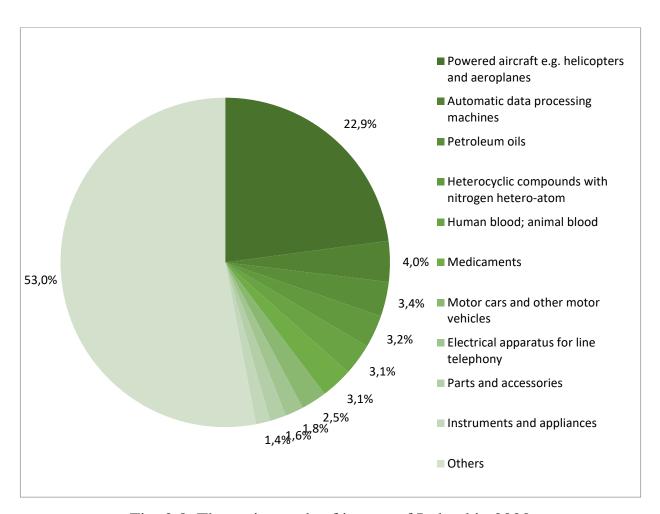


Fig. 2.8. The main goods of import of Ireland in 2020

Source: International Trade Center, 2020.

The main positions of exports and imports considering services are in fig.2.9-2.10.

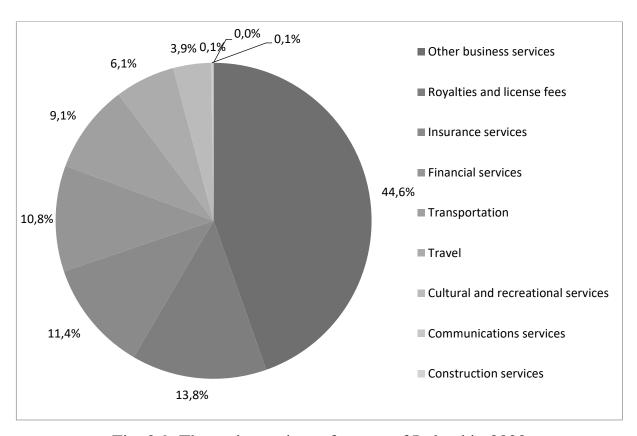


Fig. 2.9. The main services of export of Ireland in 2020

Source: International Trade Center, 2020.

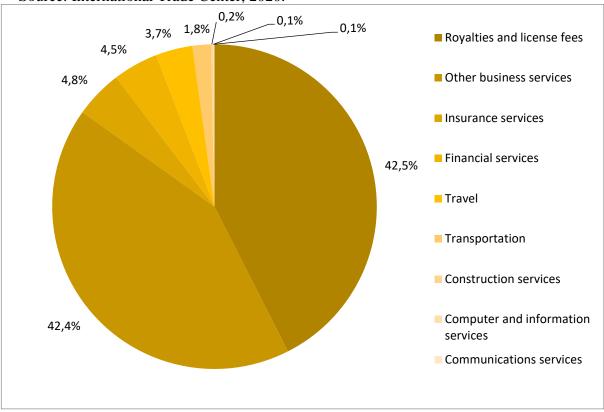


Fig. 2.10. The main services of import of Ireland in 2020

Source: International Trade Center, 2020.

According to IMF forecasts, exports will grow in 2021 (+5.3%) and 2022 (+5%). The growth of imports will be +6% in 2021 and +5.5% in 2022 (fig. 2.11).

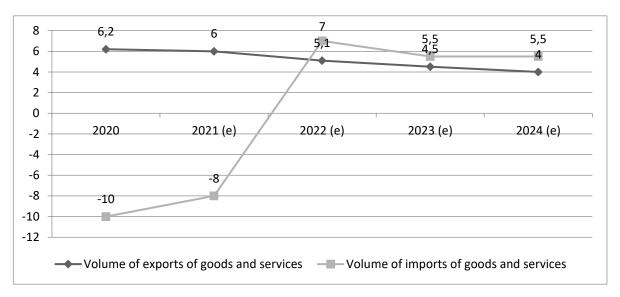


Fig. 2.11. The forecasts of main indicators of foreign trade in Ireland, annual % change

Source: IMF, World Economic Outlook

Note: (e) Estimated Data

It can be concluded that Ireland's international trade plays an significant role in the economic development. Despite the negative impact of the global pandemic on the Irish foreign trade, the export of goods and services grows. The country has a highly developed consumption market and stable trade relations with the EU countries, which makes Ireland a promising investment destination. In my opinion, the most promising trade in IT services, which are the country's competitive advantage in the world market.

#### 2.2. Foreign direct investment activity in Ireland

Data on the value of foreign direct investment (FDI) inward flows in Ireland from 2013 to 2020 shows that FDI inward flows in Ireland fluctuated during the period observed from 50.6 million U.S. dollars in 2013 to over 33.3 million USD in 2020 (fig. 2.12).

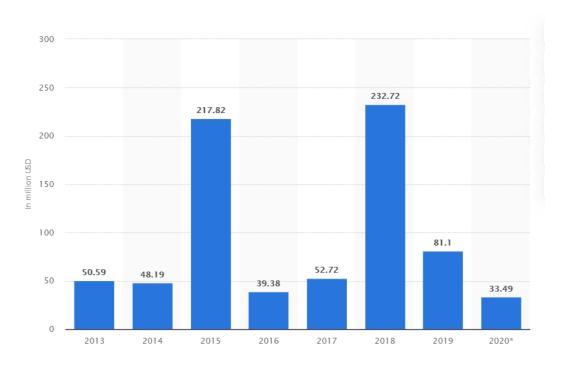


Fig. 2.12. Value of foreign direct investment (FDI) inward flows in Ireland from 2013 to 2020\*(in million US dollars)

Source: Statista 2021. URL: <a href="https://www.statista.com/statistics/933307/value-of-foreign-direct-investment-inward-flows-in-ireland/">https://www.statista.com/statistics/933307/value-of-foreign-direct-investment-inward-flows-in-ireland/</a>

Let's do a detail analysis of the Irish FDI over the last 2 years according to the CSO Ireland data.

Foreign Direct Investment of Ireland, € million

FDI indicators	2018	2019
Flows - Abroad	8,146	-14,858
Flows - In Ireland	-13,630	72,447
Positions - Abroad - end year	845,336	966,641
Positions - In Ireland - end year	915,849	1,025,789
Positions - Net - end year	-70,513	-59,148
Net Income Flows	-58,115	-71,075

Source: CSO Ireland

Direct investment in Ireland increased by € 72bn in 2019 (fig.2.13)

Table 2.1

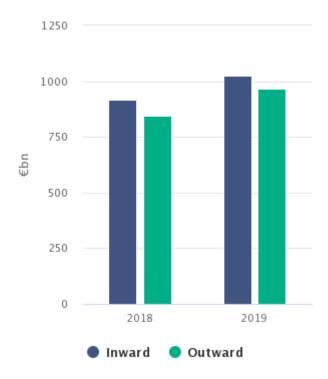


Fig. 2.13. Total FDI stock in Ireland

Source: CSO Ireland

Ireland's FDI abroad increased from 845 billion to 967 billion euros in 2018-2019. In Q4 2019, FDI included equity and reinvested earnings of  $\in$  963 billion and other capital of  $\in$  3 billion. The decrease in other capital ( $\in$  95 billion) was offset by an increase in equity and reinvested earnings ( $\in$  216 billion).

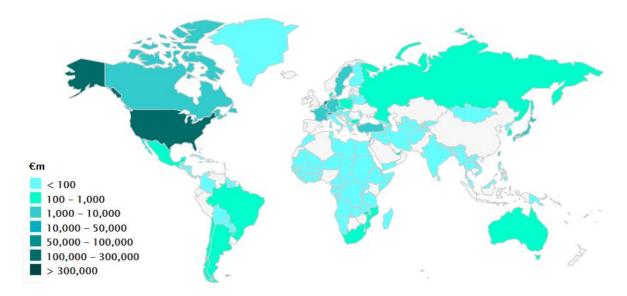


Fig. 2.14. Direct Investment Abroad (end year positions) 2019

Source: CSO Ireland

The decrease in other capital was caused by a decrease in investment activity in the EU, for example, investments in Luxembourg and the Netherlands fell by 30 billion euros and 38 billion euros, respectively. The growth in equity capital and reinvested earnings was driven by an increase in investments in Luxembourg, the Netherlands, the United States by  $\in$  121 billion,  $\in$  25 billion and  $\in$  31 billion, respectively. These fluctuations in the number of Irish investments abroad were mainly caused by Redomiciled PLCs.

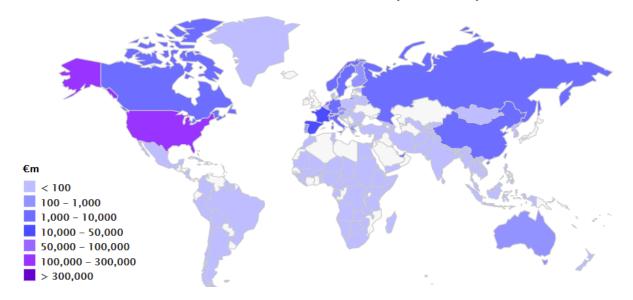


Fig. 2.15. Direct Investment in Ireland (end year positions) 2019

Source: CSO Ireland

Inbound FDI to Ireland increased in 2018-2019 from € 916 billion to € 1,026 billion. Investments from Luxembourg and the United States decreased by 106 and 74 billion euros, respectively. Instead, investments from the Netherlands, Switzerland, Asia and Central America increased to 103 billion euros, 18 billion euros, 18 billion euros and 154 billion euros, respectively.

Ireland's net foreign liability was € 59 billion at the end of 2019, down € 12 billion from 2018 (€ 71 billion).

Next, we will analyse the investment position of immediate and ultimate investors.

The distribution of FDI by territories in Irish statistics is based on the country of location of the immediate investor's enterprise.

Fig. 2.16 shows the distribution of investments in Ireland depending on the territorial location of the immediate investor's enterprise.

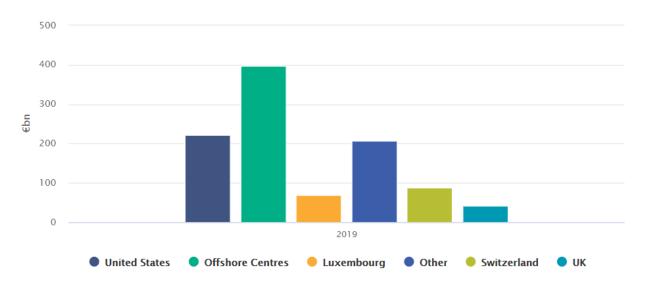


Fig. 2.16. Stock of Inward Direct Investment by Immediate Investor 2019 Source: CSO Ireland

Fig. 2.17 shows the distribution of investments in Ireland depending on the territorial location of the ultimate investor.

In 2019, the number of investments from the USA as the ultimate investor was 734 billion euros, that is 512 billion euros more than the investments in the USA represented by the immediate owner (222 billion euros). This means that while the majority of investments in Ireland come from European countries, these investments flows come to the country from enterprises located in the US.

The investments from Ireland as the ultimate investor in the amount of 92 billion euros is mainly represented by former US corporate structures now located in Ireland (Fig. 2.17).

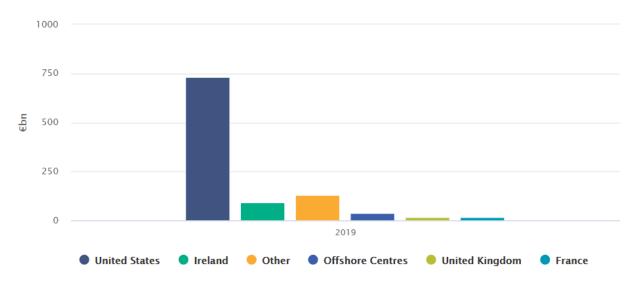


Fig. 2.17. Stock of Inward Direct Investment by Ultimate Investor 2019

Source: CSO Ireland

FDI flows to Ireland increased by 72 billion euros in 2019. The sources of growth were: growth in reinvested profits (63 billion euros), other capital investments (23 billion euros). At the same time, equity flows decreased by 13 billion euros. The rise in FDI to Ireland was driven by an increase in flows from the Netherlands and Bermuda in the amount of 81 billion euros and 119 billion euros, respectively.

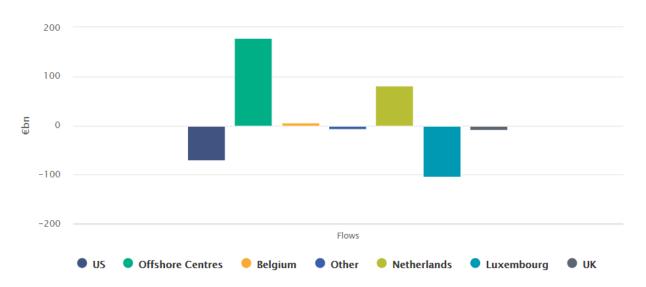


Fig.2.18. Inward Direct Investment Flows 2019

Source: CSO Ireland

Fig.2.19 shows the dynamics of inward direct investment flows to Irish economy in 2012-2019.

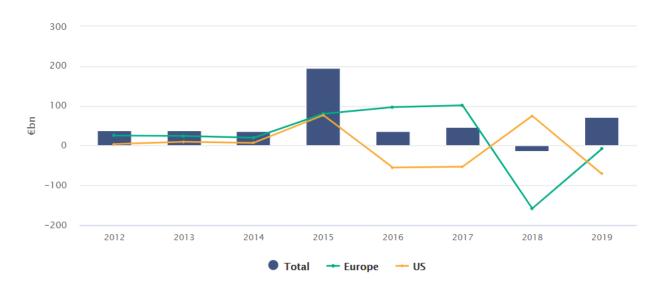


Fig.2.19. Inward Direct Investment Flows 2012-2019

Source: CSO Ireland

FDI growth in the Irish economy peaked in 2015 at € 196 billion. The main investing countries were EU (80 billion euros) and the United States (76 billion euros). This trend is caused by the financing of intellectual property, as well as the onshoring of other assets.

Earlier it was said that FDI to Ireland increased by 72 billion euros in 2019. The reason for the € 71 billion decline in US FDI in 2019 was corporate restructuring and investment in other countries.

Irish FDI abroad decreased by  $\in$  15 billion in 2019, mainly driven by a decline in investment in the Netherlands (-33 billion  $\in$ ). In 2018, the decrease in investment outflow was 8 billion euros. Reinvested earnings abroad and equity investments abroad totaled  $\in$  16 billion and  $\in$  63 billion, respectively. At the same time, other investments abroad decreased by 94 billion euros.

Let's analyze the most promising industries for investment.

Irish businesses invest abroad mainly in the service sector. The investment position of 801 billion euros at the end of 2019 is 96 billion euros more than at the end of 2018 (706 billion euros). The total investment in the service sector in the EU amounted to 466 billion euros (69% in the investment structure). The investment position of the manufacturing sector was 133 billion euros.

The Irish service sector is the most attractive for foreign investment - at the end of 2019, the investment position was 625 billion euros, which is 81 billion euros more than in 2018 (555 billion euros).

Investment position in Irish financial services increased from 203 billion euros in 2018 to 212 billion euros in 2019. The investments to administrative and support activities increased from 60 billion euros in 2018 to 70 billion euros in 2019 (fig. 2.20). Investment in the manufacturing sector increased by 30 billion euros to 400 billion euros in 2018-2019.

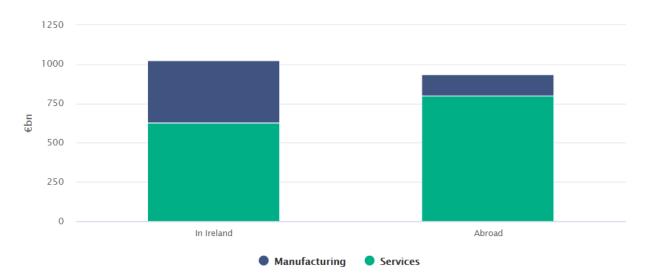


Fig.2.20. Stocks of Direct Investment Activity Breakdown 2019

Source: CSO Ireland

Income outflows of foreign owned direct investment enterprises were € 92bn in 2019, an increase of € 12bn compared with 2018. Earnings of European owned companies were € 63bn in 2019, up € 7bn on the 2018 figure. Income earned abroad by investors located in Ireland was € 21bn in 2019 down € 0.7bn from 2018. The income earned abroad was predominantly from Luxembourg (€ 11bn), the Netherlands (€ 6bn), the UK and offshore centres (€ 1.7bn & € 1.1bn).

Analysing the latest data, we see that Ireland FDI registered a fall equal to 21.0 % of the country's nominal GDP in Dec 2020, compared with a fall equal to 19.7 % in the previous quarter. The data reached an all-time high of 212.3 % in Dec 2015 and a record low -59.0 % in Jun 2018 (fig.2.21).



Fig. 2.21. Ireland's Foreign Direct Investment: % of GDP

Source: Ceicdata. 2021. URL: https://www.ceicdata.com/en/indicator/ireland/foreign-direct-investment--of-nominal-gdp

In the latest reports of Ireland, Current Account recorded a surplus of 8.5 USD bn in Dec 2020. FDI fell by 23.7 USD bn in Dec 2020. Ireland Direct Investment Abroad fell by 16.6 USD bn in Dec 2020. Its Foreign Portfolio Investment increased by 147.5 USD bn in Dec 2020. The country's Nominal GDP was reported at 112.1 USD bn in Dec 2020.

## 2.3. Assessment of Ireland's investment climate and the degree of its attractiveness to Ukrainian investors.

Economic freedom in Ireland is very high, with a score of 81.4 in 2020. The country ranks 5th in the 2021 ranking. In the past year, the assessment of the effectiveness of the judicial system has increased, according to which Ireland is ranked 2nd among 45 EU countries and is among the world leaders with the fairest judicial system. Table 2.2 contains the elements of Ireland's economic freedom.

The elements of Ireland's economic freedom

Table 2.2

RULE OF LAW Property Rights Judicial Effectiveness Government Integrity REGULATORY EFFICIENCY	Score 86.0 72.4 82.0	GOVERNMENT SIZE Tax Burden Government Spending Fiscal Health OPEN MARKETS	Score 76.6 81.1 93.1
Business Freedom Labour Freedom Monetary Freedom	81.5 76.1 84.4	Trade Freedom Investment Freedom Financial Freedom	84.0 90.0 70.0

The Irish economy is also developing thanks to many reforms of the Government, which are aimed at increasing the transparency and independence of the legal and judicial system, the development of the banking and financial services sector. Following Brexit, Ireland is strengthening its free economy status and attracting trade and investment flows.

Ireland is characterized by a high level of protection of property rights of both tangible and intangible assets. Investment contracts are highly reliable.

Ireland has a low level of corruption, which is severely punished when detected. In 2020, laws were introduced to tighten the regulation of post-government service lobbying.

Anti-corruption measures play a huge role in enhancing investor confidence. Control scores and corruption risks suggest that Ireland is ranked middle in the OECD. But the country has a better situation in corruption than many EU countries and countries such as Canada and New Zealand (Fig. 2.22, panels A, B and C). The Irish authorities are committed to fighting corruption in order to increase business transparency and create conditions for attracting foreign investment.

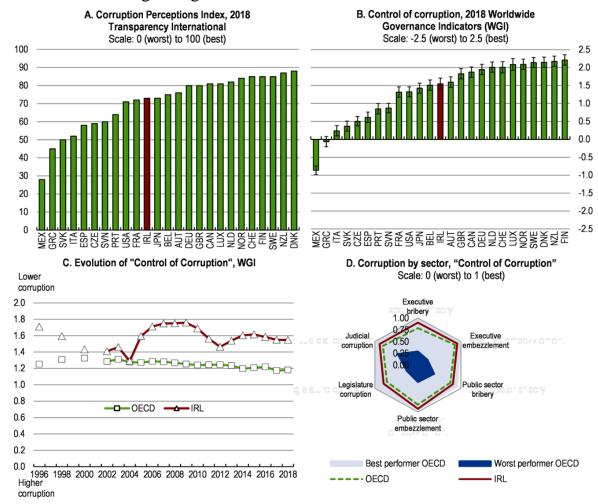


Fig.2.22. Ireland ranks in the middle of the OECD in terms of perceived risks of corruption

Source: World Bank; Transparency International; Varieties of Democracy Institute; University of Gothenburg, and University of Notre Dame.

URL: https://doi.org/10.1787/888934079668

According to a survey by the European Commission, 68% of Irish citizens believe that corruption is widespread (European Commission, 2017b). At the same time, 70% of Irish citizens believe that high-level corruption cases are not handled properly. These results are similar to the results of the surveys and the assessment of the corruption situation in the EU. 89% of companies do not see corruption as an obstacle to business and believe that corruption in government is not punishable (European Commission, 2019b). In Ireland, the fight against illicit enrichment is not always prosecuted and the perpetrators are punished (Fig. 2.23, Panel B). In 2019 Ireland has striven to comply with the recommendations of the Financial Action Task Force. The impact of measures on the effectiveness of anti-corruption measures will be assessed in 2022.

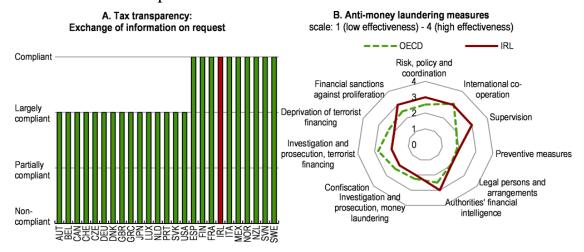


Fig.2.23. There is scope to strengthen enforcement of Irish anti-corruption laws

Source: OECD Secretariat's own calculation based on the materials from the Global Forum on Transparency and Exchange of Information for Tax Purposes, OECD, and Financial Action Task Force (FATF).

URL: https://doi.org/10.1787/888934079687

Ireland has implemented reforms in this area. For example, this is the Criminal Justice (Corruption Offenses) Act 2018. In 2017, the Anti-Corruption Unit of the National Police (Garda Síochána) was created. These measures have strengthened the anti-corruption regime.

The country has a favourable tax system. The highest individual income tax rate is 41%, and the highest corporate tax rate is 12.5%. Other taxes include value added tax and capital gains tax. The total tax burden is 22.3% of the total domestic income.

The cost of registering property has increased due to an increase in the stamp duty on the transfer of non-residential property. Building permits have also become more expensive.

The country has a fairly liberal labour market, labour relations are based on cooperation. Financing subsidies in the state budget for 2020 is equivalent to 0.4% of GDP.

Ireland is a member of the EU and has 45 existing preferential trade agreements. The weighted average tariff rate (common for EU members) is 3%, with 639 EU-mandated non-tariff measures in force.

Ireland has a high standard of living of the population, which is caused by high rates of economic development and increased employment. Average real wages in Ireland are higher than those in the OECD more than 15%. Due to the redistributive tax system, income inequality is minimal. The country has a high level of environmental safety, as well as personal safety of citizens and social well-being (fig.2.24).

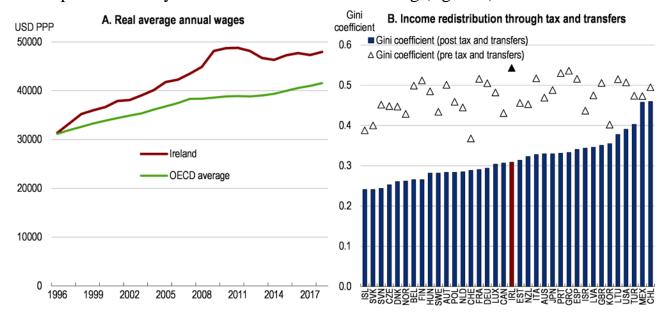


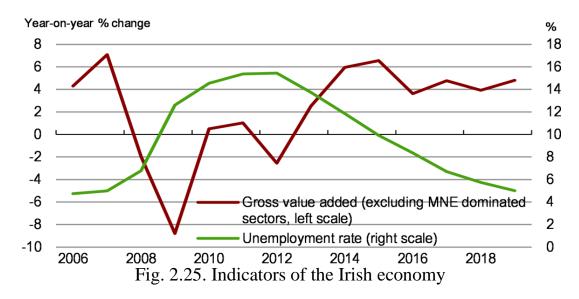
Fig.2.24. Rising Irish incomes have been shared through the tax and transfer system

Note: In Panel B, data are for 2017 or the most recently available year.

Source: OECD Economic Outlook database; OECD Income Distribution database.

URL: https://doi.org/10.1787/888934079060

The unemployment rate has dropped by more than 10 percentage points since 2012 to about 5% (Fig.2.25).



Source: OECD, OECD Economic Outlook database. MNE stands for multinational enterprises. *URL:* https://doi.org/10.1787/888934078984

Household consumption has increased in recent years. The creation of new jobs and an increase in wages have led to the development of the labor market and an increase in its attractiveness for highly qualified workers.

Household income growth was driven in part by savings. Investment growth is being constrained by Brexit and the weaker growth of the economies of Ireland's major trading partners. Housing construction is increasing, but the population is still not fully provided with affordable housing.

Education is more accessible than in other OECD countries. The gender wage gap is also low. Ireland is attractive to foreign investors because of its stable political system, a high level of English proficiency among the working population and a favorable legal and tax regime. It is promising to invest in the Irish economy for those who use the opportunities of technological progress (fig. 2.26).

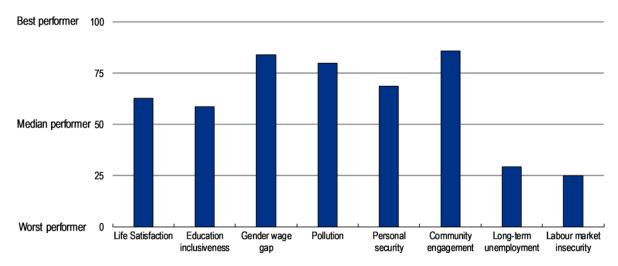


Fig.2.26. Wellbeing is high across multiple dimensions. Dimensions of wellbeing, Index (50=OECD median performer)

Source: OECD Better Life Index database; OECD Gender Data Portal; OECD PISA 2018 database.

URL: https://doi.org/10.1787/888934079079

The economic growth had negative consequences. Capacity constraints, skills shortages and pressure on infrastructure are holding back economic development.

Ireland's rapidly aging population is driving government spending and a decline in corporate tax revenue from labour taxes. Populations over 65 are projected to rise compared to OECD countries (Fig.2.27).

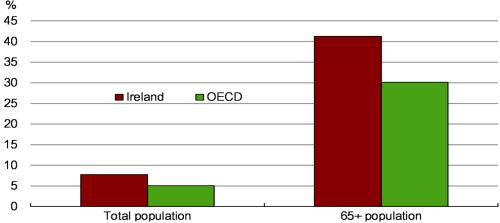


Fig.2.27. The rate of ageing of the Irish population. Projected percentage change, 2018-2030

Source: United Nations World Population Prospects 2019.

URL: https://doi.org/10.1787/888934079003

This will lead to an increase in public health and pension spending by 1.5% of GDP by 2030 and 6.5% of GDP by 2060. Therefore, the Government must improve the efficiency of government spending and revenue sources.

The structure of the economy has changed significantly. Enterprises in Ireland are more active in adopting new technologies than other OECD countries. However, most companies did not see significant productivity gains. The Irish economy is at risk in the conditions of increasing global uncertainty and crisis, high public debt, instability in the banking sector and high long-term unemployment.

The Irish government is responding to these challenges with a series of reforms. There is a nationwide Ireland 2040 economic planning system. In addition, Future Jobs in Ireland focuses on a strategy to support businesses to embrace technological innovation in the high-tech services sector. The priorities of the economy are the transition to a low-carbon economy, the development of human capital and intellectual property.

It can be concluded that public finances have been more stable after the crisis, but it is necessary to plan and allocate budget finances more efficiently, especially against the background of an aging population. Capacity constraints in a growing economy can be mitigated by increasing labour productivity and staff training. This is facilitated by the introduction of technologies by enterprises, political stability, a favourable competitive environment and a liberal labour market. Ireland is attractive to foreign investors in the IT services sector. A high level of qualifications of the workforce, a favourable legal and tax system, support for firms working in high-tech service sectors allow us to conclude that investing in the Irish economy is promising.

As a result of the growth of technology and innovation in Ireland, the share of intangible capital in the value of assets increased (Figure 2.4, panel A) from 3% in 2000 to over 15% by 2018. Innovation activity has increased, and the number of new patents per capita has increased. The most successful innovative achievements are in the ICT sector and biotechnology. However, the level of scientific developments in the field of environmental protection is much lower. According to the 2018 OECD Economic Survey of Ireland, most innovations are driven by foreign-owned companies. Research staff account for less than 1% of the workforce in local companies. According to the OECD FDI Qualities and Impacts in Ireland, 80% of all patents in Ireland are owned by foreign-owned companies (OECD, 2020). Most companies strive to innovate.

Digital technologies are especially in demand. In 2019, the Digital Economy and Society Index ranked Ireland as the top EU country for digital integration. The share of companies using cloud computing, social media and big data is higher than the OECD average (Figure 2.28, panel B). However, less than one third of companies use enterprise resource planning or customer relationship management systems to improve operational efficiency and sales.

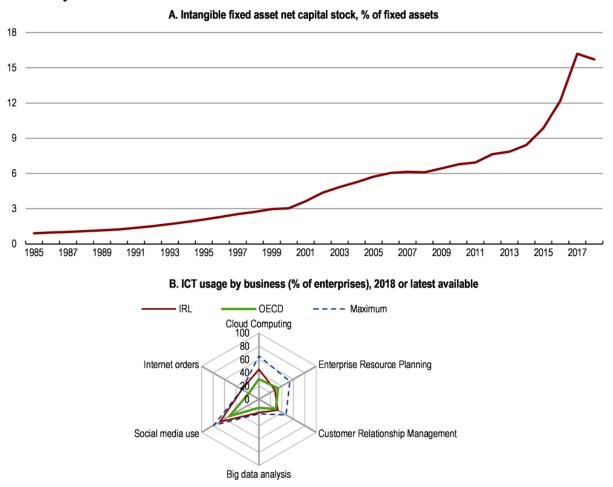


Fig.2.28. Intangible capital accumulation has risen notably

Source: Central Statistics Office, OECD ICT Access and Usage by Businesses database, International Federation of Robotics, OECD calculations.

URL: https://doi.org/10.1787/888934079801

Thus, the use of technology in Ireland has expanded significantly in recent years. In the future, there will be opportunities for wider implementation of digital technologies in the public sector, business and all areas of activity.

The introduction of new technologies in Ireland requires guaranteeing digital security as a public policy priority. Therefore, the Government of Ireland implements

policies based on ensuring open access to data and knowledge, stimulating competition and innovation, respecting requirements for information confidentiality, ethics, economic benefits and intellectual property rights (OECD, 2019f). The digital economy will bring results only with the full trust of consumers and the protection of their data.

In May 2018, the EU General Data Protection Regulation was implemented, which is also governed by Ireland. The document regulates data protection in the EU countries, ensures transparency of data collection and processing, minimum storage time and full control.

The Irish government fully complies with this regulation, since the country's economy is based on the development and export of IT technologies. In addition, the largest technology companies in the world are located in Ireland.

Digital security is becoming a priority both at the EU level and at the level of each individual state (OECD, 2018e).

In 2015, the Irish government developed a Cybersecurity Strategy, which was updated in 2019. The strategy aims to develop the capacity of the National Cybersecurity Centre, the main cybersecurity body in the country. The capabilities and resources of the centre have expanded, and its functions have been officially enshrined in law. The shortage of staff with cybersecurity skills remains an important issue. The government funds the training of the best employees of companies and attracts private investment to strengthen national cybersecurity as a priority joint task of the state and business.

# CHAPTER 3. DEVELOPMENT OF AN INTERNATIONAL INVESTMENT PROJECT TO ESTABLISH AN IT DEVELOPMENT COMPANY

#### 3.1. Analysis of IT market of the world

Currently, the whole world is based on information technology. People simply cannot imagine their life without social networks, online stores and online cinemas. Any companies, enterprises and organizations carry out their activities with the help of information. This is the most demanded product in our time, which helps to rapidly develop business in a wide variety of industries. To operate with data, receive it, process and transfer it, a number of equipment, software and services are required, which are provided by IT companies.

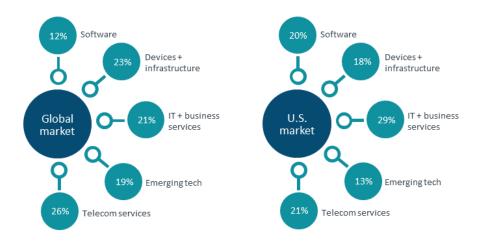


Fig. 3.1 Information Technology Sector

Source: https://connect.comptia.org/content/research/it-industry-trends-analysis

The US market was not chosen by chance for comparison with the global one, since more than 33% of the total will be attracted to the IT market of this country. Despite this, the majority of technology spending (67%) occurs outside the United States. This is due to the wide availability. The development of the internet connection and high-speed networks has led to the fact that the boundaries have been erased and at the moment an employee from any country can participate in the life of the company without being tied to a place. As you can see in the Fig. 3.1, software development and IT + business services together occupy 33% of the world market. This is exactly the area where it is important and necessary to develop your company. Why? Because the constant technological development creates more and more opportunities. At the moment, services have flooded

our lives and are needed everywhere. For some workers, these are professional tools and management systems, for example, Jira, while others use YouTube and Spotify. These are all services and need to be maintained. Of course, the competition for the user is great, but some platforms are eventually replaced by others that can offer a more perfect and user-friendly design along with improved performance.

#### 3.2. Justification of an investment project for the creation of an IT company

The adoption of digital technologies is happening faster than the introduction of any other innovative development in the history of mankind. The use of technology that enhances communication and access to financial, commercial and government services makes life easier for large numbers of people around the world. It is not surprising that everyone needs developers, since almost every business wants to have its own website, or better, an application that would simplify work with clients. Services within the company are also always needed, such as programs that collect statistics, management systems within teams, automatic reporting, etc. This allows you to get rid of monotonous work and direct the efforts of all employees to create and provide the best service, since they will not need to bother and they will always have a good tool to do it for them.

Ireland is an ideal country for those who want to implement their business projects. Young businessmen are looking for support for their start-ups. Having proved that the project proposed by them for consideration is in the category of "high potential" and represents an original and innovative business idea, they will receive an investment. It doesn't matter in what area it will be a start-up. Most of them still require the participation of IT specialists, since they have a "digital" part of the project. Often, at the time of attracting investments, the team does not yet have developers at its disposal, except in cases with IT projects. But even in this situation, they will attract additional employees to complete the project. Often, they are looking for a contractor to carry out the work. We will provide services to such start-ups. These projects require support and further development. Therefore, a job well done on the part of the company will motivate us to renew the contract and support our company. This will ensure a steady flow of funds.

To open a company in Ireland, we need 8597 EUR. The amount is quite small, and for such a case, the best solution would be to attract a private investor. All calculations for the company are represented in the part 3.3.

Setting up a company that will provide such services is a pretty good and profitable process. Such a company has great flexibility in management and implementation. At the end of the development cycle, you can either accept a new order or, if you have an idea, start developing something of your own. In the event that there are not enough people, we will be able to hire employees or find them on outsourcing. This is a fairly popular practice that allows you to change the number of developers depending on the need, but on an ongoing basis only maintain the «skeleton» of the company.

Development of your own software or services is also a promising work. Being in an environment based on the development of something new, it will be much easier to identify weaknesses that already exist in the market, and then offer ready-made solutions. A good motivation for this is that since 2016 Ireland has introduced a preferential taxation regime for intellectual property - Knowledge Development Box. It should be noted that this benefit fully complies with international standards and its application is considered legitimate and ethical. The essence of the benefit is that a 50% deduction is granted on income earned by an Irish company from qualified assets, including software and patents. Thus, the effective tax rate of the company can be reduced to 6.25%, but it is imperative that the Irish company must independently develop the qualified asset.

# 3.3. Estimated income calculation and assessment of the economic attractiveness of the investment project

Even a cursory analysis allows us to conclude that a business in Ireland in 2021 will generate a stable income. In accordance with Irish law, a person of any nationality can register a business, regardless of citizenship and place of permanent residence. The only condition: he must be on the territory of the state legally, that is, have at least a business visa to Ireland or another. Name registration is carried out on the official website of the Companies Registration Office. It must be unique, the forms sent for consideration are signed by the applicant and sent in paper form. Open a checking bank account in any

institution in the country. Bank details are required to the tax authorities and register the company. You will need to indicate the type of entrepreneurial activity in the field you are interested in. In accordance with this, there will be a code according to which there will be individual taxation in relation to the enterprise.

#### **Calculation of investment size:**

Consider the project of opening an IT company in Dublin (Ireland) with a period of implementation of 3 years, and assess its economic efficiency. To launch the project, we need investments that will cover the following costs: rent (for 1 month), starting a business, purchase of equipment, advertising.

### **Registration:**

The amount for starting a business is 2650 EUR and includes other legal services: consulting, opening a bank account, seal, legal address, etc.

#### **Rent:**

Since our team is small, it will be enough for us to rent a working space in the coworking space (1750 EUR / 3 people), this will reduce the cost of cleaning, security and telecommunications services. The rental price includes: the use of office furniture, a bathroom, cleaning and security services. And also: telecommunications, fixed internet, wi-fi.

#### The advertisement:

The advertisement contains the company's website and a description of the direction: "Development and support of applications and sites." Advertising will be contextual and will be launched on Instagram, Facebook and Google.

These advertisements will be shown to people interested in building a website or app for their business or personal needs. Advertising on social networks will include useful information about the company and its main line of business. It will be also sent out emails to companies that do not have websites offering their services.

The initial plan of expenses is represented in the Table 3.1.

### General expenses on opening

To open LTD in Ireland	2650 EUR
Rent payment for the office	1750 EUR
Equipment (3 computers)	2697 EUR
Advertisement (online)	1500 EUR
Total	8597 EUR

So, for the opening the company it is needed 8597 EUR for the first payment. Monthly depreciation payments will be - 75 EUR

We will hire: 1st administrator, 2 IT specialists. It is important to note that the employer additionally pays a universal social tax of 4% for its employees. The expenditures are represented in the Table 3.2.

Table 3.2

# Salary expenditures

Job position	Number of people	Wage, EUR/month	Social contributions, EUR/month	Total, EUR/month
Administrator	1	2100	84	2184
IT specialist	2	3500	280	7280
Total				9464

The general salary fund, taking into account the fee for employees will be 10093 EUR per month.

Then it is important to calculate separately the expenses per month (Table 3.3) and per year (Table 3.4):

Table 3.3

#### Expenditures, EUR/month

Salary	9464
Rent	1750
Depreciation of equipment	75
Monthly Ads	500
Package of legal and accounting services	130
Basic product	250

Total	130
	17410

Table 3.4

Expenditures, EUR/year

	2021	2022	2023
Salary	113568	115726	118040
Rent	21000	21399	21827
Depreciation of equipment	900	917	935
Monthly Ads	6000	6114	6236
Package of legal and accounting services	1560	1590	1621
Basic product	3000	3057	3118
Other costs	1800	1834	1871
Total	147828	150637	153649

After simple calculations we get: sales per month - 17690 EUR, sales per year - 212280 EUR.

Table 3.5

# Estimated revenue

	Expected number of orders per month	Price, EUR	Total per month	Total per year
1. Premium Website Development	10	491,00	4910	58920
2. Content Management Website	5	791,00	3955	47460
3. Full CMS	7	791,00	5537	66444
4. Ecommerce Web Design Dublin	3	1096,00	3288	39456
Total			17690	212280

# Estimated revenue – 3 years

	2021	2022	2023
1. Premium Website Development	58920	60039	61240
2. Content Management Website	47460	48362	49329
3. Full CMS	66444	67706	69061
4. Ecommerce Web Design Dublin	39456	40206	41010
Total	212280	216313	220640

Let us calculate the net income for three years. The calculations take into account that in Ireland VAT is 23% and income tax is 12.5%.

Table 3.7
Net income – 3 years

	2021	2022	2023
Revenue of sales, EUR	212280	216313	220640
Value added tax 23 %, EUR	48824	49752	50747
Expenditures, EUR	147828	150637	153649
Profit before taxation, EUR	15628	15925	16243
Income tax 12,5%; EUR	1953	1991	2030
Net Income, EUR	13674	13934	14213

From the previous tables it is necessary to calculate the payback period of capital - the ratio of the average value of equity of the company to the value of net profit.

The inflation rate in Ireland in 2021 is 1.6%. The projected inflation rate in 2022 = 1.9%, and in 2023 = 2%.

Deposit rate for legal entities – 0.75%

Risk - 10%

#### **Discount rate:**

$$\mathbf{i2021} = (1 + 0.016) * (1 + 0.0075) * (1 + 0.1) - 1 = \mathbf{0.1260}$$

$$\mathbf{i2022} = (1+0.019) * (1+0.0075) * (1+0.1) - 1 = \mathbf{0.1293}$$

$$\mathbf{i2023} = (1+0.020) * (1+0.0075) * (1+0.1) - 1 = \mathbf{0.1304}$$

#### **Discount index**

$$2021 - 1/(1 + 0.1260) = 0.8881$$

$$2022 - 1/((1+0.1260)*(1+0.1293)) = 0.7864$$

$$2023 - 1/((1+0.1260)*(1+0.1293)*(1+0.1304)) = 0.6957$$

Preparing the data needed to analyse the effectiveness of investments. It is necessary to calculate the following indicators:

#### **NPV - Net Present Value:**

$$NPV = \sum_{k=1}^{n} \frac{P_k}{(1+i)} - I$$

$$NPV = \frac{-8597}{(1+0,1260)^0} + \frac{13674}{(1+0,1260)} + \frac{13934}{(1+0,1260)*(1+0,1293)} + \frac{14213}{(1+0,1260)*(1+0,1293)*(1+0,1304)}$$

#### PI – Profitability Index:

$$PI = \frac{NPV}{I}$$

$$PI = \frac{13674}{(1+0,1260)} + \frac{13934}{(1+0,1260)*(1+0,1293)} + \frac{14213}{(1+0,1260)*(1+0,1293)*(1+0,1304)} / 8597$$

#### **PP - Payback Period:**

$$PP = \frac{I}{\text{Average annual investment (AI)}}$$

$$AI = \frac{I + NPV}{3} = \frac{8597 + 24393}{3}$$

$$PP = \frac{8597}{16728}$$

The results of calculating are represented in Table 3.8:

# Calculation of economic efficiency

Period	Net Profit, USD	Discounted value		
Investment	-8597	-	NPV	24393
2021	13674	12144	PI	2,83
2022	13934	10958	PP	0,78
2023	14213	9888		

To assess the effectiveness of the project, we performed a number of calculations based on the results of which we received the following indicators:

- NPV is 24393 and it is more than 0, the value of company will grow;
- PI is 2,83 and it is more than 1, so that the investment is effective;
- PP is 9 month the project will pay off quickly.

From all the above we can conclude that the proposed investment project is highly efficient and can be recommended for adoption.

#### **CONCLUSION**

Ireland is a country known for its loyal tax policy. This circumstance makes it attractive for both residents and foreign economic entities. In the Index of Economic Freedom, Ireland is ranked 5th in 2020, and in terms of foreign direct investment flows, Ireland is the leader among investments in the high-tech services sector. In terms of world GDP per capita, Ireland is ranked 4th out of 186 according to the IMF and 4th out of 187 according to the World Bank. Taxes in Ireland are traditionally characterized by low rates, therefore, a favourable regime for investment activities is being formed in the country.

To sum up, after the analysing the market, having made all calculations, analysing the competitors, it can be said that the project is quite interesting.

The payback period is approximately 6 months that is a very good indicator. In Ukraine it can be a bit bigger and more difficult, because of the unstable situation and poorly developed legislation. The demand is equal, because of the ability to work with customers around the world. On the other hand, the taxes in Ukraine are smaller in case of outsource workers but needed laws is on the stage of developing now. The conditions for the small businesses in Ukraine are better, but we want to establish brand, scale our business and bring it to the international market. There are many tech companies in Ireland. Being in such an environment accelerates the growth of the company, provides access to modern technologies and helps to quickly find projects for implementation. In 2016, Ireland introduced the Belgian regime of taxation of intellectual power - Knowledge Development Box.

The economy of Ireland develops fast and stable and Irish venture capital funds, government agencies, business incubators and accelerators, ready to provide financial support. Moreover, it must be remembered that the economy is based on technology and development. In Ireland, the creation and implementation of business projects, especially innovative ones, is valued. The COVID-19 pandemic has shown that no matter how advanced the tools and services are at the moment; it is not enough. This showed how many unfulfilled niches there are in this market, and the real demand. The main idea is creation of a company that will take over the digital side of start-up development, if necessary, transformable for the development of its own projects. It will be easier to make

money on such a service in Ireland due to the advanced environment and a large number of start-ups, and it will be easier to maintain such a business there, than in Ukraine.

#### REFERENCES

Andrews, D., Nicoletti G., and Timilotis C. (2018), "Digital technology diffusion: A matter of capabilities, incentives or both?", *OECD Economics Department Working Papers*, No. 1476, OECD Publishing.

Andrews, D. and C. Criscuolo (2013), "Knowledge-based capital, innovation and resource allocation", *OECD Economics Department Working Papers*, No. 1046.

Bassanini, A. and S. Scarpetta (2002), "Growth, technological changes and ICT diffusion: recent evidence from OECD countries", *Oxford Review of Economic Policy*, Vol. 18, No. 3.

Calvino, F. and C. Criscuolo (2019), "Business dynamics and digitalisation", *OECD Science, Technology and Industry Policy Papers*, No. 62, OECD Publishing, Paris.

European Investment Bank (2019b), European Investment Bank Investment Report 2018/2019: Retooling Europe's Economy. European Investment Bank.

Government of Ireland (2019a), Future Jobs Ireland 2019: preparing now for tomorrow's economy, Dublin.

Irish Competition and Consumer Protection Commission (2019), Annual Report on Competition Policy Developments in Ireland, Submission to the OECD Competition Committee, June.

Higher Education Authority (2019), Irish National Employer Survey: Final Report, January.

Lilien, D (1982), "Sectoral shifts and cyclical unemployment", *Journal of Political Economy*, Vol. 90, No. 4.

National Competitiveness Council (2018), *Ireland's Competitiveness Challenge* 2018, Dublin.

Nedelkoska, L. and G. Quintini (2018), "Automation, skills use and training", *OECD Social, Employment and Migration Working Papers*, No. 202, OECD Publishing, Paris.

OECD (2020), FDI Qualities and Impacts in Ireland, *Directorate for Financial and Enterprise Affairs*, forthcoming.

OECD (2019a), Going Digital: Shaping Policies, Improving Lives, OECD Publishing, Paris.

OECD (2019d), *OECD Economic Surveys: Luxembourg 2019*, OECD Publishing, Paris.

OECD (2019e), "Competition concerns in labour markets", Background note by the Secretariat, Directorate for Financial and Enterprise Affairs Committee, June.

OECD (2019f), Digital Innovation: Seizing Policy Opportunities, OECD Publishing, Paris.

OECD (2018a), OECD Economic Surveys: Ireland 2018, OECD Publishing, Paris.

OECD (2018e), Leading the Digital Transformation from the Centre of Government, 37th Meeting of Senior Officials from Centres of Government, Session Notes, Dublin.

United Kingdom Digital Competition Expert Panel (2019), *Unlocking digital competition: Report of the Digital Competition Expert Panel*, HM Treasury, London.

Bergin, A. and E. Kelly (2018), "The labor market in Ireland, 2000-2016", *IZA World of Labor*, 2017:410.

Blundell-Wignall, A. and C. Roulet (2017), "Foreign direct investment, corruption and the OECD Anti-Bribery Convention", *OECD Working Papers on International Investment*, No. 2017/01, OECD Publishing, Paris.

Breen, B., P. Brewster, C. O'Driscoll and A. Tsakiridis (2018), *The Implications of Brexit on the Use of the Landbridge*, Irish Maritime Development Office, Dublin.

Central Bank of Ireland (2018), Innovation Hub: 2018 Update, Dublin.

Connors, J., R. Duffy and F. Newman (2016), "Budgetary impact of changing demographics 2017-2027", *Staff Paper*, Department of Public Expenditure and Reform, September.

Department of Finance (2019a), "The Balance of Payments in Ireland: Two Decades in EMU", Economics Division, August, Dublin.

Department of Finance (2019b), "Analysis of private sector debt in Ireland", Economics Division, Dublin.

Department of Finance (2019d), Annual Report on General government debt in Ireland 2019, Economics Division, August, Dublin.

European Commission (2019b), "Businesses' attitudes towards corruption in the EU", *Special Eurobarometer*, No. 482, December.

European Commission (2017b), "Corruption", *Special Eurobarometer*, No. 470, December.

European Investment Bank (2019), European Investment Bank Investment Report 2018/2019: Retooling Europe's Economy, European Investment Bank.

Government of Ireland (2020), *Medium-Term Fiscal Strategy*, Department of Finance and Department of Expenditure and Reform, Dublin.

Government of Ireland (2019b), Future Jobs Ireland 2019: preparing now for tomorrow's economy, Dublin.

IMF (2019), *Ireland – Selected Issues*, IMF Country Report, No. 19/165, Washington D.C.

National Competitiveness Council (2019), *Ireland's Competitiveness Challenge* 2019, December. Dublin.

OECD (2020a), *FDI Qualities and Impacts in Ireland*, Directorate for Financial and Enterprise Affairs, forthcoming.

OECD (2019c), Education at a Glance 2019, OECD Publishing, Paris.

OECD (2019d), *Implementing the OECD Anti-Bribery Convention: Phase 1bis Report Ireland*, OECD Publishing, Paris.

OECD (2018a), OECD Economic Surveys: Ireland 2018, OECD Publishing, Paris.

OECD (2018b), Good Jobs for All in a Changing World of Work: The OECD Jobs Strategy, OECD Publishing, Paris.

# Request for approval of bachelor's thesis topic

To the Head of the Department of Global Economics Zadoya Anatoly From Serhii Hutsaliuk 292 International economic relations, IER-17e

Dear Sir,			
_	1 11		ving topic of my Bachelor's Thesis: ional investment project "IT company
01.02.2021			
(date)		(signature)	
Agreed:			
Supervisor			Kuzminov Serhii Vasilyevich
	(signature)		(surname, name, patronymic)

# ALFRED NOBEL UNIVERSITY DEPARTMENT OF GLOBAL ECONOMICS

# THESIS SCHEDULE

Academic year	
Mode of study_	

No.	Stages in the Thesis Process	Deadline	Notes
1	The student is assigned his/her thesis supervisor		
2	The student selects the topic of the thesis		
3	The thesis topic is approved by the Head of the Department		
4	The student gets the Thesis Assignment from the supervisor		
5	The student conducts a literature review and creates a bibliography		
6	The student completes Chapter 1		
7	The student collects materials on a company's performance		
8	The student completes Chapter 2		
9	The student completes Chapter 3		
10	The students draw out conclusions and recommendations		
11	The student formats the paper and receive the supervisor's review		
12	Thesis Pre-defence		
13	Thesis Defence		

Approved at the	he meeting	of the department
Minutes No	of	20
TT 1 641 1		
Head of the de	partment	