1 Introduction

The investment flows have historically depended on the country's monetary, investment, and innovation policies. However, recent trends in environmental protection, the EU's sustainable development policy, the strengthening of EU-China trade relations and the discussion of investment and trade relations between the EU and China affect the volume and terms of direct financing of enterprises in these countries. China actively invests in companies in various sectors and is one of the largest investors in the manufacturing and information and telecommunications sectors of EU countries. Overall, in 2020, China directed 1.20 billion euros of direct investment in various sectors of the EU (European Commission, 2021). Investment and trade cooperation has led to a policy discussion within the EU on trade in services with China, technology transfer and direct investment.

Attracting foreign investment in Europe depends largely on the investment policy of the European Parliament, which regulates the procedure for cooperation with foreign partners. In particular, the General Agreement on Trade in Services (GATS) provides China with easy access to service industries in Europe. The EU-China Comprehensive Agreement on Investment (CAI) discussion of investment rules between the EU and China highlights the problem of identifying how technology transfer affects direct investment and national security. CAI in particular provides a ban on technology transfer by force, transparency in enterprise subsidies and commitments to sustainable development, better competition conditions for European enterprises in China's domestic market, is constantly growing. CAI stipulates the prohibition of these types of requirements: the requirement of technology transfer to a partner in a joint venture; prohibition of interference in technology licensing; protection of confidential information (e.g., product certification) from unauthorized access (European Commission, 2021). This requires identifying the extent to which technology transfer determines the amount of direct investment. The aim of the article is to identify the main factors of the investment climate and attraction of foreign investment in the EU.

To achieve this goal, the following tasks are defined:

1. Analyze trends in foreign direct investment in Germany, Great Britain and Italy.

2. Assess the relationship between foreign direct investments, taxation, real interest rates, growth in the share of ICT exports from EU countries.

To assess the relationship between EU technology transfer and direct investment in the EU, the study selected the indicator ICT service exports (% of service exports, BoP), which reflects the country's current transactions with other countries and current transfers, as well as capital and financial transactions for the transfer of capital, acquisition of assets.

2 Literature review

The investment climate of a country depends on factors of political, economic, social, and institutional environment (Schwarzenberg Zilberstein, 2020). Among the most important factors in attracting investment are fiscal, monetary (Evers, Spengel & Braun, 2015), investment policy (taxation regime, real interest rate, depreciation charges), policies to encourage research and development (Baneliene & Melnikas, 2020), policies to attract foreign investors to acquire assets to stimulate economic growth (Meunier, 2014), sustainable development policies (Kardos, 2014). For example, in the EU, the responsibility for implementing investment policy is vested in the European Parliament, empowered since 2009 to allow foreign investors to enter the domestic market and finance domestic enterprises (Meunier, 2017). The European Parliament's supranational competence over foreign investment policy in the EU has led to increased investment from China (Meunier & Morin, 2017). Therefore, the academic literature discusses the issue of direct investment from China into the EU, especially in the information telecommunications and communications sector through a potential threat to national security (Meunier, 2014; Nicolas, 2014; Zhang & Van Den Bulcke, 2014).

Taxation has a negative impact on the investment climate of the country: when the tax rate (on income, profit, capital gains) increases, the cost of capital for real investment, i.e. the price of attracting investment by enterprises, rises. When the cost of capital (the price of attracting real investment by an enterprise) exceeds the interest rate in the capital market, investment tends to decrease (Evers, Spengel & Braun, 2015). The reduction in investment can be associated with the growth of bank lending, subject to long-term growth can lead to overcrediting the economy and reducing the level of importance of bank financing (Tang, 2015). Trade integration is also a factor in the growth of direct investment, including integration factors such as the size of markets in different countries and the skills of the labor force (Martínez-San Román, Bengoa & Sánchez-Robles, 2016). Institutional determinants such as corruption control, political stability, bilateral FDI agreements, WTO membership, and a country's progress in transition significantly determine domestic FDI flows (Dauji, 2015). Bayar & Gavriiletea (2018) found a short-term causal relationship between financial sector development in Europe and FDI inflows. Additional investment factors may be additional incentives for investors from different countries to invest. For example, the European Union has seen a proliferation of "golden visa" programs that allow investors to reside in a country in exchange for financial contributions (Sunak, 2020).

EU investment policies also determine investment flows from different countries around the world (Meunier, 2014; Nicolas, 2014). Equally important is the structure of the economy, which determines the sector in which investors invest. In general, in Europe, more funds are invested in the manufacturing and services (ICT) sectors. For example, Italy's manufacturing sector attracts the largest amount of investment from the United States and China (Mangano, 2020). The higher level of domestic foreign investment flows in the services sector has a positive impact on local patent activity in knowledge-intensive business services in Italy (Antonietti, Bronzini & Cainelli, 2015). Within the EU, the ICT sector is developed, and the dynamic stimulation of research and development by national governments provides an influx of investment from countries that need technology transfer and innovation (Nicolas, 2014). Policies to stimulate
research and development in the EU energy sector to ensure the sustainability of the economy also stimulate increased investment in this sector (Paramati, Alam, Hammoudeh & Hafeez, 2020).

3 Materials and research methods

The study used statistical analysis of the World Bank data for 2000-2019 years. The work built linear dependence models and based on the coefficient of determination revealed the level of relationship between foreign direct investment (net inflows) in the economy of Germany, Britain, Italy and taxes on income, profit, capital gains, real interest rates, the share of exports of ICT services. The statistical analysis was carried out using the following indicators:

- Foreign direct investment, net inflows (% of GDP).
- Taxes on income, profits and capital gains (% of revenue).
- Real interest rate (%) and Long-term interest rates (OECD, 2021).
- ICT service exports (% of service exports, BoP).

4 Results

Foreign direct equity investment from residents of other countries in Germany averaged 2 % of GDP over the period 2001-2019, with the exception of 2000, when the figure was 12.73 %. In the UK, direct investment flows averaged 4.1 % over 2001-2019 (9.9 % in 2000), with peaks in 2001-2002, 2004-2008, and in 2016 (12.06 %). In Italy, foreign investment flows averaged 1.22 %, with no significant increase (Fig. 1).

![Figure 1 – Foreign direct investment, net inflows (% of GDP)](source: World Bank (2021a))

In Germany, Great Britain, and Italy, there is a linear relationship between taxes on income, profits, and capital gains and the share of FDI in GDP (Fig. 2). Meanwhile, in Germany, the average tax rate was 16.14 % of corporate income over 2000-2019, increasing by 17.71 % over 2016-2019. The tax-dependent investment model (Figure 2a) explains the 5.69% change in the share of investment as a function of changes in the tax rate. In the U.K., the tax rate on income, profits, and capital gains averaged 35.51 % over 2000-2019 with a peak in 2009 (37.01 %), falling to 32.79 % in 2019. A model of the relationship between investment and the UK tax rate explains the 17.44 % change in the share of investment in GDP (Fig. 2b), which means that taxation in the UK, compared to Germany, determines the country's investment climate to a greater extent.

![Figure 2 – Dependence between taxes on income, profits and capital gains (% of revenue) and foreign direct investment, net inflows (% of GDP) in Germany, UK and Italy in 2000-2019](source: World Bank (2021a), World Bank (2021b))
In Italy, compared to Germany and the United Kingdom, the tax rate on income, gains, and capital gains averaged 33.3% of income from 2000 to 2019, with peaks in 2001 (35.59%) and in 2007-2008 (35.5%), reaching 31.62% in 2019. A model of the relationship between investment and Italy's tax rate explains the 0.35% change in the share of investment in GDP (Figure 2c). This means that Italy's taxation has little or no effect on the country's investment climate. The real interest rate under tight monetary policy leads to the risk of reduced direct investment due to a potential increase in inflation, reducing consumer demand. Consequently, in Germany, the average real interest rate through 2000-2019 was 2.61%, gradually declining from 200 (5.26%), to 2019 (-0.25%). Consequently, German policy has promoted alternative capital raising by domestic enterprises – bank resources. A model of the relationship between the real interest rate and direct investment indicates a direct linear relationship between the indicators and explains the change in investment as a function of the interest rate by 7.54% (Fig. 3a).

![Figure 3](image)

*Figure 3 – Dependence between real interest rate (%) and foreign direct investment, net inflows (% of GDP) in Italy in 2000-2019*


The FDI and interest rate relationship model reflects an inverse linear relationship between the indicators and explains the 5.31% change in FDI as a function of monetary policy (Figure 3c). Thus, while monetary policy in Germany and the UK is aimed at lowering interest rates, monetary policy in Italy is aimed at maintaining the interest rate, so Italy has a low level of FDI from GDP. In Germany, the UK and Italy the average value of ICT services exports over 2000-2019 was 8.56%, 6.13% and 7.37%, respectively. At the same time in all countries, there was an increase in the share of exports of ICT services in Germany by 5.39%, in the UK by 2.85%, in Italy by 2.28%. In the UK, the real interest rate averaged 1.03% over the years 2000-2019, also gradually declining except for the crisis year 2007-2008 (rising to 2.73% in 2007). Between 2009 and 2014, the interest rate was negative with an average of -1.2% rising to 1.9% in 2015. In 2019, the interest rate was 0.94%. A model of the relationship between the interest rate and FDI in the UK indicates that 29.91% of the change in FDI in GDP is due to changes in the interest rate. In Italy, the real interest rate was 3.24% on average over the years 2000-2019, and the decline only occurred in 2016-2019 (in 2016 the rate was 2.34%, in 2019 it was 1.78%). Consequently, the constructed linear models of the relationship between the share of exports of ICT services and the share of FDI in GDP show a negative relationship between these indicators. Consequently, for Germany the dependency model would explain the variation of FDI as a function of the share of ICT exports by 8.44%, for the UK by 5.05%, and for Italy by 1.23%. Germany's investment climate depends more on ICT sector stimulus policies and monetary policy, somewhat less on corporate income taxation policies. The UK investment climate depends more on corporate income taxation policy, less on monetary policy and policies to stimulate the ICT sector. Italy's investment climate is more dependent on monetary policy, despite a relatively high real interest rate in the ICT worlds sector (Fig. b, c).

The UK's exit from the EU has had a significant impact on the country's investment appeal and climate: a PwC survey of 5,000 company leaders (CEOs) with various incomes over $1 billion in 2020 shows that the country is in fourth place for attractiveness due to certainty, stability and prospects for economic growth (Adler T., 2021). Germany remains the third most attractive country for investors according to the survey (Adler T., 2021). Favorable factors for the attractiveness of the UK are tariff-free and quota-free trade for all goods between the EU and the UK after the exit, but unfavorable non-tariff barriers (customs procedures, inspections, controls, compliance with certification and standardization requirements), which may complicate trade between the country and other countries. The fact that service providers in the UK will no longer use the country of origin principle, and therefore there will be no mutual recognition of professional qualifications between the two jurisdictions, may have a negative impact on investment attractiveness. Accordingly, service providers and professionals in the UK will have to adhere to different rules, procedures and permissions to conduct their own activities in each EU member state in which they operate, or move to the EU if they wish to operate in the single market. The UK-EU TCA does not cover the financial services relationship, and the taxation of financial transactions remains uncertain (IndusLaw, January 2021).
However, these unfavorable factors of the investment climate can be completely leveled, because the UK still remains attractive due to the openness of the economy, ease of doing business, a stable business and political environment, a powerful digital and physical infrastructure, a highly qualified workforce, cultural attractiveness, high-quality professional support services, competitiveness, tax environment, a developed intellectual property regime, membership in international forums, an established system of common law, respect for the rule of law and an effective framework for resolving disputes.

5 Discussion
This research proves the importance of growing the share of exports of ICT services to ensure a favorable investment climate in the country and to attract investment. The growth of the share of ICT services exports is characterized by an inverse linear relationship with foreign direct investment. This means that the discussion of EU-China Comprehensive Agreement on Investment (CAI) rules, which, in particular, caused by the definition of new rules of technology transfer from the EU to China, is important for the national security of the countries. It can be assumed that with the growth of technology transfer, the need for Chinese enterprises to invest in European countries is reduced, because one of the requirements when investing in EU enterprises is the requirement of technology transfer to a partner in a joint venture (European Commission, 2021). As exports of ICT services increase, the need to invest in ICT companies also decreases. The dissemination of knowledge about European technology in China can cause a decrease in investment in the long term. Therefore, active growth of investment from China into the EU economy was observed in 2008-2013 with an overall decline in investment worldwide (Meunier, 2014). At the same time, investment flows were insignificant, but reflected the growing level of interest of Chinese companies in new projects, mergers and acquisitions during the crisis. In comparison, between 2015 and 2017, China's share of EU FDI was 3.39 % in 2014, 2.68 % in 2015, 6 % in 2016, and 5.45 % in 2017 (Statista, 2020). At the same time, China's investment in the EU increased during the 2014-2017 period of declining economic activity.

China's investment growth in the EU occurred at the same time as sovereign debt in Europe and the general economic downturn in several EU countries (Meunier, 2014). This study also reveals an increase in FDI in UK GDP in 2016 during a period of declining business activity. The crisis and increase in investment allowed Chinese investors to take advantage of two types of deals: economic due to price reductions and put up for sale; political due to the easing of political resistance to deals (Meunier, 2014). Zhang & Van Den Bulcke (2014) attribute China's increased investment in the EU to "the adoption of technology-oriented companies, especially Chinese state-owned companies". Martinez-San Román, Bengoa & Sánchez-Robles (2016) argue that trade integration promotes investment due to knowledge and capital transfer, the dynamics of which depend on the partner market and Vienna for skilled labor.

The growth of investment from China to the EU requires systemic regulation of foreign investment to guard against the risk of protectionist drift within the EU and the likelihood of national security threats (Nicolas, 2014). Today, the EU uses a fragmented approach to investment regulation through a single supervisory process within the EU on the investment mechanism. Therefore, a systematic and coordinated use of competition policy is appropriate (Nicolas, 2014), as provided by the EU-China Comprehensive Agreement on Investment (CAI).

6 Conclusion
The study reveals the following main trends: the constancy of FDI in Germany, which averaged 2 % of GDP over the period 2001-2019, in the UK (4.1 % on average over 2001-2019, with peaks in 2001-2002, 2004-2008, in 2016 (12.06 %), the constancy of FDI in Italy (average 1.22 % with no significant increase in investors' equity investments in domestic Italian companies in 2000-2019). Germany's investment climate and FDI depend linearly on ICT sector stimulus policy (inverse link) and monetary policy (direct link), somewhat less on corporate income tax policy (direct link). The UK investment climate depends linearly on corporate income taxation policy (direct link), less on monetary policy (direct link) and ICT sector promotion policy (inverse link). Italy's investment climate is
more dependent on monetary policy (inverse link), given the highest real interest rate and stability of FDI share in GDP and ICT sector development (inverse link), and is virtually independent of taxation policy. Further research should focus on the new investment conditions between the EU and China, in particular the role of technology transfer requirements when European enterprises invest in the Chinese domestic market.

**Literature:**


**Primary Paper Section:** A

**Secondary Paper Section:** AH