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Vedecký časopis pre medzinárodné  
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## CROSS-NATIONAL ANALYSIS IN THE EU: NORTH–SOUTH CLEAVAGES AS A CONCEPTUAL MAP OF THE EUROPEAN UNION

*Irah Kučerová*<sup>1</sup>

Despite seventy years of continued integration, membership of the European Union is still highly differentiated. The asymmetry of economic development concerns several areas. The aim of this analysis was to identify frequent disproportions in performance, as well as differences in the perception of these countries. The method was a comparison of selected EU member states according to Rokkan's approach of binary entities and Wallerstein's center-periphery model. However, objectively verifiable facts within the conceptual mapping of reality tend to be distorted by the creation of a mental map, when we automatically consider the original EU-15 to be more advanced than EU-13. The analysis carried out does not confirm this assumption.

Key words: cross-national analysis, North–South cleavages, developmental asymmetry, economic performance, technologies, centre-periphery model, conceptual map of the EU, mental map

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### 1 INTRODUCTION

The process of internal differentiation of Europe is affected by multiple factors. The distinctive differentiating elements include historical conditions, both politically and economically. Political and civic developments in the last two centuries in the Northern countries have been different from those in the Southern hemisphere of Europe. Despite the Era of Nazism and World War II, the more northerly EU states have long been anchored in a democratic system of pluralistic political scene, while southern countries have struggled with authoritarian regimes, some until the mid-1970s. Differences are also evident in the degree of secularization of the state, when, metaphorically speaking, the traditions of the more civil "Nordic Protestantism and Southern Catholicism" with a higher connection to the state administration stand against each other.

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Differences on the economic level are mainly due to the initial conditions of economic development, the availability of resources and the ability to use one's own potential. While the countries of the North used the possibility of massive industrialization from the very beginning, the countries of the South faced a relatively significant delay in technological development and are still addressing differences in the sectoral structure of economies with a lower share of high technologies. The performance and employment of the Nordic countries is nowadays concentrated in the service sector, which is accompanied by a highly diversified industry focused on the most advanced technologies and producing high added value. In contrast, the regions of the South logically, thanks to favourable climatic conditions, have an extensive agrarian sector, including a higher level of employment in it, followed by an industry focused more on consumer goods, the added value of which tends to be lower. But it is not only a matter of differentiation in the sectoral or industrial composition of economies, but also in other economic areas, such as in the implementation of economic policies, in the degree of state interventions in development, in the regulation of the labour market, including institutional protection of the workforce. All this is reflected in labour productivity, overall in macroeconomic stability. There are very significant differences in the real setting of social guarantees and environmental protection. All this creates distinct dividing lines across the European Union, cleavages.

The aim of this comparative analysis of the narrative type was to find out the development differences of individual countries both in the institutional and political level, as well as in terms of economic performance, technological maturity and also in the differences in the perception of these countries.

The application of Stein Rokkan's Cleavages theory outlines the axes of fission within the EU both in the west-east direction, through the lens of today's discourse, the old-new member countries, but then also the north-south lines. Conceptual map of Europe offers a model of internal differentiation of the membership base; with the use of theory of Immanuel Wallerstein we can also identify the country's core, semi-periphery and peripherals in the European Union.

The division of individual states or regions in the EU and thus the creation of cleavages is not only determined geographically or climatically, but of course also economically, politically, socially or culturally (Brunet 2002, p. 14-15), in terms of value (Flanagan, 1980). Therefore, we can work with the definition of the cleavages of the North and the South, or with the center-periphery-semiperiphery model of ad hoc analysis of individual variables.

Among the chosen variables are the cultural conditions emphasized by Rokkan, in addition to territorial aspects and economic performance. Commonly under this category we perceive the specifics given by ethnicity, language environment, religion, traditions, mentality - generally social conditions, institutional environment.

The used concept of center-semiperiphery-periphery or cleavages was to some extent verified by the elaboration of the White Paper on the Future of Europe (European commission, 2017), when one of the five considered scenarios of EU development was the idea of a multi-speed EU. In it, it is clearly stated that some EU states will converge to the center, some to the periphery (Xin 2020, p. 5).

This article is organized as follows: the application of selected theoretical models to the comparative analysis of EU member states, although both of their main authors did not deal with the European Union in their concepts. The intention is to use historical and political analysis tools to compare the EU member base. Chosen research method is a cross-national analysis of selected characteristics of both economic, political and cultural-historical aspects, including specific social manifestations. However, it is important to note the limitations of this cross-national comparison, as its scope is too broad and not all levels can be covered here. On the other hand, even with a narrowed portfolio, it will help us to understand the differences in approaches and ultimately performance between countries. Another limitation is that this approach raises questions about the validity of the characteristics being compared (Jackman, 1985).

## **2 THEORETICAL FRAMEWORK ANALYSIS: A MODEL OF CENTRE-PERIPHERY, IMMANUEL WALLERSTEIN, AND STEIN ROKKAN'S THEORY OF CLEAVAGES**

Theory of cleavage of Stein Rokkan accompanied to a certain extent the theory of centre-periphery of Immanuel Wallerstein. These two concepts, in certain cases, can be linked, and for the needs of the analysis specific regions, in our European cases. While the focus of the Rokkan's research is in political science, Wallerstein presents its concept from the position of the historian and the economist.

### **2.1 Immanuel Wallerstein**

Immanuel Wallerstein formulated historical/social system as a combination of historical development with its economic/social aspects (Wallerstein, 1974). Immanuel Wallerstein classifies the world economy into three basic entities – the centre, semi-periphery and the periphery (Wallerstein, 1979). Transferred to the European conditions it is about the breakdown of Europe by the performance of economic, technological, ideological and military.

Countries of the core, the centre, are the bearers of progress thanks to the invention of the intellectual, economic, or military. To a large extent determine future developments in the region. Thanks to their technological dominance of the focus on the production of commodities with higher share of value added, what is associated with a higher level of labour productivity, but also a higher wage level, which provides advanced economies with higher and more challenging aggregate demand, i. e. additional incentives for technological development. Higher dynamics lead to higher tax revenues, which ultimately allow core countries to set lower tax rates (Wallerstein 1979, p. 37-38).



Semi-periphery regions are those that are able to maintain a certain cultural, ideological autonomy, however, are influenced by the centre especially in the technology field. Their production orientation is associated with luxury goods. On the one hand, the states of the semi-periphery are used by the centre, which tries to keep it on top and thus transmits a number of unpopular steps to the intermediate actors. On the other hand, semi-peripheral states benefit from the periphery through unequal exchange relations, just as core countries do to them. But overall, the existence of a semi-periphery is actually a kind of stabilizing element of the system, because it prevents excessive polarization between the centre and the periphery (Wallerstein 1979, p. 23, 69).

In contrast, the peripheries are completely dependent on the innovation dynamics of the centres, on its decision-making processes, i.e., they are institutionally subordinate to – go through so called a-cultivation. The states of the periphery are strongly influenced by the core countries also ideologically, they become part of their promoted geo-culture (Wallerstein, 1979). This can be demonstrated quite well on the example of the European Union and the stratification of member states on fundamental problems of international relations, such as environmental responsibility, labour market protection, social guarantees, institutional standardization, all of which so significantly determine economic performance. From an economic point of view is the periphery the supplier of raw materials and commodities with lower added value, on the other hand, peripheral countries offer the centre extensive outlets for their products, but rather of the inferior type, because peripheral markets are undemanding. And even in those developed countries of the centre, lower quality products are being created, for which it is harder to find sales in developed markets (Wallerstein 1979, p. 20-26, 37-39).

The coexistence of all types of actors forming the structure of the system is therefore advantageous, but more so for the dominant economies. In short, while core countries make up advanced economies, the periphery is represented by less developed markets. The semi-periphery then creates a kind of buffer strip between the two poles of performance, maturity.

Applied to today's Europe, not only the EU, we can of course detect the core – centre, just as states in the periphery or semi-periphery, of course, not literally. According to Wallerstein's parameters of the economic core of the Europe in the present times, they are definitely Germany, Britain, the Benelux countries, France, Norway, Sweden, Switzerland, and thanks to their production, export and technological performance. It is not even necessary to emphasize their political and social stability. In the framework of the discussed perspectives of further development they moderate this debate and set the conditions for the others, i.e., that it's not just about their economic capacity, but also political power, negotiation skills. What Susanne Strange calls relational power, it means the ability of one actor to influence the decisions of the other in favour of the first (Strange 1996, p. 25-27). For accuracy, it is important to remember Robert Dahl, who thirty years earlier defined relational power as the ability to force another to do what he would not

even think to do, more precisely “make others do what they would not otherwise do” (Dahl 1957, p. 202-203).

Semi-periphery forms today, especially the two big countries of the southern wing of the EU – Spain, Italy in addition to Ireland, Finland, and Austria. These are countries with great potential, but is not fully realized either for reasons of incorrect economic policy, or in a certain path dependency, such as delay in industrialization or the restructuring of economies, or geographical location. These states, respectively their economies aren't innovative technology leaders, but they are powerful economies with modern sectors. A certain exception is Finland, which was an information tiger in the 90's (ad Nokia), but its innovative dynamics stopped in the first decade of the new millennium (Kučerová 2003, p. 84, 95, 106). According to Wallerstein, the non-utilization of their potential may also be due to historical aspects, political developments. Then, in the case of the southern countries, the chaos of the Italian political scene cannot be neglected for most of the 20th century, almost forty years of the totalitarian development of Spain under the leadership of Francisco Franco; historically conditioned dependence and subordination of Ireland on Britain and Finland on the Russia/Soviet Union; the collapse of the great empire of Austria and the ensuing unfortunate political development till the end of World War II.

The periphery of the EU consists mainly of the new EU member states also due to path dependency, in this case political-economic-institutional transformation of the alliance after the fall of the Iron curtain, lower economic performance and often still non-standards institutional environment. Yet, but not along with Wallerstein say that would periphery states of the EU have been politically or institutionally subordinate to countries of the centres. However, it is not just about states of the Eastern enlargement, those criteria Wallerstein's analysis meet even Greece and Portugal. The asymmetry of the real relations is apparent, despite the declared equality of all the member countries of the Union in decision-making processes.

In this case, does not apply strictly to the division of the EU on the cleavage West–East and North–South, but intertwined. Also, there aren't just a big strong centre, but also smaller centres, subject to those main - it's about the polycentric structure (Rokkan, 1970).

## **2.2 Stein Rokkan**

Although the theory of cleavages Stein Rokkan was formulated for the needs of political science and the exploration party systems (Hloušek, 2002, p. 398), even as a key conflict lines within and polity (Rokkan 1970, p. 102) can be this concept used in international relations for the needs of the economic-institutional analysis. Political science sees cleavages as the conflict lines, in the European studies we work with them rather as fissile, demarcation divides, that doesn't necessarily mean conflict, just a difference. In any case, it's about studying the relationship between territory and politics.

Each territory is divided into centre and periphery, which is to some extent subordinate, and even used parts of the territory compared to the privileged centre, and not only in the geographical context, when we are considering in the context of the horizontal dimension of the periphery within the group. The marginalization of the position of entities in the territorial system is associated with a substantive ability to influence the decision-making processes – we are talking about a behavioural concept, i.e., the vertical dimension of the periphery within the group (Rokkan, 1970).

Cleavages in Europe express the division of society and the different goals of social groups as a result of fundamental critical points of development, which include chronologically: the religious division into affiliation of the Catholic or Protestant Church since the 14th century; a national revolution since 1789 leading to secularization efforts, that is, the separation of church and state power; industrial revolutions widening the gap between urban and rural areas, between capital and labour, the respective employer and worker; ideological revolutions since 1917 leading to a division between democracy or totalitarianism, nationalism or internationalism (Flora 1999, p. 305).

Of course, Europe was never a homogeneous in total, to its more pronounced differentiation; perhaps even the polarization contributed two significant historical processes – the national revolution and industrialization. While the national revolution led to the creation of modern states mainly on ethnic and linguistic basis and they were actually decentralisation trends in Europe, the industrial revolution, while, on the one hand led to the polarization of states, but on the technological and economic basis, on the other hand industrialization has led to more intensive relations between the individual entities. So-called axis of Blue banana - economic zone, running from northern England through London over the Benelux countries and their metropolises, continuing through the Rhineland, Switzerland to Milan, Italy has been identified as the area that traditionally has shown the greatest development potential in Europe's geo-economy (Brunet 2002, p. 15-16; Hospers, 2002). In contrast to the countries of the so-called Sun Belt, the Mediterranean region except the northern Italian regions, the technological centres of the Blue Banana have been using their potential since the industrialization of the 19th century, and all predictions speak of their continuous development and competitiveness. And, of course, shifting the focus of economic performance to the high value-added services sector. The problem with the Blue Banana model is the fact that this zone does not include Paris, and France has been one of its main proponents since the beginning of industrialization. However, the development continues - the area of the Blue Banana is changing, it is also changing its shape - today it is supposed to be a form of so-called golden soccer ball concentrated in Central Europe – especially Germany, Austria, the Czech Republic, Slovakia or Poland, where the focus of industrial production, including development centres (Landesmann, 2013).

The current division of European nations and policies regarding access to transnational communities, in general to the phenomenon of globalization as such, cannot

be neglected either. On the one hand, it is mainly the states of the North of the EU that promote a liberal model of policies for international trade, capital and migration. On the other hand, we are witnessing a more protective approach of the states of the South in the sense of maintaining internal control of development. This conflict over transnationalism involves both cultural and economic dimensions (Marks et al. 2021, p. 173).

The classification of Europe in the variously powerful, and otherwise influential, or dependent entities is based on similar considerations as in the fissile lines between the individual entities. For these purposes you can use the parallel lines theory, and territorially-economic dimension of cleavage – centre-periphery, city – countryside, of course, other cleavages – functional: the church – state, democracy – totalitarianism, the employer-employee, it means owner-worker (Lipset and Rokkan 1967, p. 13-19).

Cleavage centre-periphery has already been largely described above. The differences or disparities in economic performance and resulting living standards between the economic-administrative centres and outlying regions of the European community tried to address almost from 60's year's 20th Century through regional and structural policy, since the 90's years and using other policies – agricultural, social, cohesion. Yet the strategic objective of balancing the levels between the (macro) regions, despite massive funding from the structural funds is not yet achieved. In the political arena is the conflict of views between the centre and periphery manifested also in the states with a broader ethnic composition, when some of them in the extreme case, promote their secessionist interests, such as the Basques or the Catalans in Spain, Corsicans in France, Scots in the UK. The referendum on the independence of Scotland took place in 2014 and a clear result for a stay within the UK, while the referendum on the break-up of Catalonia from Spain in autumn 2017 ended in a result of independence but has not yet been resolved legally in Spain. Compared to the Scottish referendum, the result of the UK-wide plebiscite was the opposite, namely Britain's exit from the EU.

Are the member countries of the EU, where the disproportion between the centres and periphery is significant enough that we are talking about the territorial dualism of the state, which may be the reason for the centrifugal tendencies of the "more successful" part of the country, the region. This is certainly about Italy, who's the division of North and South did not even 60 years of European integration and more than 50 years of financial flows from Brussels to Rome. Another example of breakdown is Belgium with pronounced performance disparities between Flanders and Valois. Territorially-economic differentiation applies to Romania. A specific example is the status of the Eastern countries, the former Soviet occupation zone and later German democratic republic. When in 1990 there was the reunification of Germany, the labour productivity was and the overall performance of the former GDR on roughly 30-40 % of Western Germany and even to this day failed to smooth out differences (Kučerová 2015, p. 148-150).

The conflict between the countries of the centre and the periphery is in the practice of the European Union, inter alia, associated more with economic requirements on fiscal and monetary discipline, that smaller and less developed countries are often not able to meet. But on the other hand, it is mostly smaller states from the EU<sub>15</sub> that follow the rules given by the Maastricht criteria. Of course, they also include Germany as a large, largest country, and the medium-sized Netherlands. In terms of macroeconomic stability and responsibility, Ireland, Finland and Austria are healthy economies compared to countries with a somewhat benevolent approach to meeting conditions - see Greece, Portugal, etc. To the fullest this was expressed in the context of creations economic and monetary union in the 90's years when the countries of the periphery of the Union, therefore, of the EU-15 had a problem with the fulfilment of the Maastricht criteria. Greece not fulfil even one of the five, Italy, Spain, Portugal, but also France or Belgium had weaknesses in the fiscal area, possibly with the requirement of price stability. On the contrary, Germany, the Netherlands, Ireland, but even then, the freshly received small economies of Luxembourg, Austria, and Finland complied with all the criteria required (EMI, March 1998). Greek fraud in 2004 confirmed not only the inadequacy of the EU control mechanisms, but especially the weakness of the Greek economy and its economic policy (Kučerová 2010, p. 219-221). Other differences in the interests of the countries of the EU's North and South manifested themselves in macroeconomic (in)stability during the Eurozone crisis of 2009-2013, in some Southern countries until 2016, when they needed financial assistance, at the expense of the whole. The attitude referred to as politics against politics (Schmidt 2019, p. 1018-1036) manifested itself in full force, when national governments, out of concern for their position on the domestic field, began to use the EU as a scapegoat and mobilized their voters against Brussels. Political fragmentation within the EU thus grew (Zeitlin, Nicoli and Laffan, 2019).

Split lines, cleavages of the city – the countryside has its beginning deep in the history in connection with the development of crafts and trade, which has driven urbanization. At the time of the industrial revolution has taken the dynamics of urbanization rapid pace, began a massive migration from the countryside to the cities. In the second half of the 19th Century began to some cities and some large businesses to provide certain social programs for their residents/employees, thus the standard of living in the cities increased significantly. But also, in the country were modernizing changes – during the first half of the 19th Century ended virtually everywhere in Europe of serfdom, which led on the one hand, leaving parts of the population into the cities and their factories, while the remaining portion of the peasants most often operated as independent peasants whose standard of living also increased. On the other hand, rapid social changes, including the gradual emancipation of women and secularization arising from industrialization were not in the country accepted. This sometimes latent, sometimes open conflict between country and city, noted the development of the European nations virtually up to now. To this day in most European countries is evident faculty of

economics and administration-social the difference between country and city, which is reflected in different electoral preferences (Rokkan 1970, p. 102, 131, 134). European integration developed a number of tools to mitigate the differences, yet still fail this conflict potential eliminates. However, there are differences between member states: while the smallest perceived differences are in the UK, Germany, Netherlands, Sweden, Italy (there it is rather the cleavage centre-periphery), the Czech Republic, on the contrary, a significant difference can be found in most new EU member countries – Poland, Hungary, Romania, Bulgaria, but also in Greece, Portugal, Spain.

Just on the edge – cleavage city – countryside is today mainly associated with developing countries, where we are talking about the socio-economic dualism as the encountering of two different life strategies in the city and in the countryside, often with tragic connotations of national conflicts. Today in Europe already, fortunately there is no danger.

Another Lippset-Rokkan's cleavage is the church – state. Historically it was the position of the church in Europe, i.e., in this case the Catholic Church, the dominant from 10th Century, when church and state began to blur together in one strength. The interpretation that the secular ruler is blessed by God and therefore is subordinate to the Holy See, led in Europe to the conflict continued another few centuries. Religious wars, the reformation from the 14th century, subsequently the counter-reformation and the violent catholic reformation plunged Europe into the Thirty year's war, whose ending brought the peace of Westphalia in 1648 with one practical conclusion – cuius regio, eius religio, i. e. the who territory, his religion.

Nevertheless, the period of secularization had yet to come. The first bearer wasn't the French revolution in 1789, but the edict of tolerance of the Austrian emperor Joseph II., at the year 1781, who were Protestants, and Jews emancipated to the Catholics. In addition, it meant this edict and the de facto subordination of the church to the state as in the organizational, economic plane (Kučerová 2015, p. 55). The real secularization of European societies legislatively-based came to in 20th Century; however, continue to be in some EU countries visible religious differentiation, perhaps most notably in recent times on the island of Ireland between the Irish Catholic's and North's protestants. Newly but in some western European states emerged a cleavage between Islam and the secular state establishment – see France, Belgium, but also Netherlands, Germany, often with tragic consequences. In this case, it is indeed a conflict zone. Overall, however, the decline in the importance of churches in the overall societal environment is different in the northern countries of the EU (and of course it also differs between the new member states) and the southern countries. The EU internal market with its liberalization of labour and spatial mobility of people and institutions has weakened the social ties that bind individuals to traditional social strata (Marks et al. 2021, p. 174).

The conflicting lines of the democracy – totalitarianism in European civilization long seemed to be overcome. While many European countries underwent

democratization's attempts centuries ago, at least in connection with the transformation of the absolute monarchy in a constitutional, later, with the dismantling of the monarchy, many European states have unfortunate experience with totalitarianism in the twentieth century. 30. years 20th Century are a period in which bloomed a totalitarian ideology – from the Iberian Peninsula through Italy, Norway, Germany, later also in Greece. So much of Western Europe, called Eastern Europe for more than forty years under the yoke of communist ideology and state dictatorship. Unfortunately, this is not a surmounted by cleavage, as in recent years has intensified the populist and the far-leaning parties, and that's across the whole of Europe. And it's not only about the over-reaction to Islamic terrorism and migration crisis 2015-2016 – the first truly populist party in the parliamentary election get into government, was the Freedom Party in Austria in the year 1999.

We could also include the tendencies of national secessions in the political arena, but this does not entirely correspond to the North–South division. This is because they are Basques or Catalans in Spain, Corsicans in France or Scots in the UK. Currently, the hottest issue is Catalonia and its political elites, who are facing criminal charges for sedition after the 2017 referendum (ČTK, 2002). It must be added that the European Union, through leading politicians such as Ursula von der Layen and Charles Michel, has repeatedly made it clear that even potentially successful secessionist states would not automatically become new EU members, but would have to go through a standard admission procedure. Which would have to be approved by the member states unanimously - it is hard to assume that Spain or France would agree.

The last of us observed cleavage is an employer – employee relationship, which has its potential for conflict (Rokkan 1970, p. 102-103), although today is significantly regulated by legislation, both national and communitarian. Rapid industrialization in 19th Century did offer to provide work to millions of displaced people, but at the same time the working conditions were dismal – long working hours (12-14 hours a day six days a week), the employment of children for half the wages when the same claims on job performance, minimal safety standards, often the absence of social protection. The situation began to slowly but surely change – he created the first workers' associations, trade unions. As the first in England 1824, then in France and some German lands in the mid-19th Century, or indications of the development of employee participation is e.g., in the German regions have emerged already as a effect of the revolutionary year 1848, but realistically until 1891 (Sekerák 2013, p. 163). At the same time, but also some great-industrialists have begun to provide some social protection to its employees.

Despite these relatively favourable steps towards the workers remained their position very uncertain. A fundamental change brought about changes in the wake of the Great depression 30. Years 20th Century. After this and after the Second World War, labour legislation and social protection for the staff expanded virtually throughout Europe, most notably in Scandinavia. However, there is a noticeable difference between

the countries of the North and the South, where the Scandinavian model, much like the German and especially French is rather bloated and leads to rigidity of the labour market. In contrast, in the Southern states – perhaps after the experience with totalitarianism – the working conditions for a long period of time were not comparable with those in the more northern lying countries; often there was an increase in social security under the pressure of the implementation of the EU internal market (Kučerová 2010, p. 249-251). In general, however, it can be traced that social conflict lines are defined primarily in terms of social attitudes and social behaviour, the stratification of which reflects the stratification of society (Hloušek 2007, p. 365).

Back to history of solution cleavage owner - worker: not only the workers, generally employees started to fight back by pooling in protective and negotiating organizations, but also later, even employers have started to create your professional chamber, where they follow the conditions of their work, i.e., including requirements for their employees. This cleavage is reflected in the politicization of both sides of the conflict and the setting up of political parties that should defend the interests of his electorate, thus the conflict has moved from the professional and social plane to a political one. Indeed, Rokkan this cleavage regarded as crucial and potentially the most explosive (Hloušek 2002, p. 400). The differences of opinion of the members of the individual cleavages create a conflicting potential for the whole society, because their sharpness of opinion is rooted in collective identities. Shared mutual community solidarity has become an obstacle to the smoothing of cleavages (Hooghe and Marks 2018, p. 111).

But there are topics dividing the company according to other criteria than the classic cleavages, or overlapping issues, which may eventually conflict's raise. We are talking then about the so-called cross-cutting cleavage (Rokkan 1970, pp. 109-110). As a logical example offers binary relationship centre – periphery and urban – rural, where often we find the same lines of conflict, but often with different connotations. History confirms that the same intersecting interests can be found in cleavages the state – church and town – countryside. In contrast, I am not convinced that ethnicity and religiosity may be an example of a cross-cutting cleavage; on the contrary, it's about the correlation link. As a typical example of a functional crossing processes causing at least a temporary barrier can be used in parallel ongoing processes of industrialization, logically and urbanization and democratization of society, including secularization. To generalize, we can understand economic and value cleavages as cross-cutting, as overarching, because they connect the fundamental motives of voters' decision-making in political competition (Flanagan, 1980), as well as the everyday decision-making of citizens. It is true that the definition of individual cleavages must necessarily change according to the development of society and the economy, when the effect of previous institutions weakens from generation to generation. Then new cleavage lines can, and do arise, which either complement or cover the old cleavages (Marks et al. 2021, p. 175).



From the beginning of the 90'20. century, after the end of the Cold War and the onset of economic globalization, we are witnessing the emergence of new cleavages, namely the national - transnational level. Its essence is the perception of the role of the nation state, government and national society in the era of transnationalism (Marks et al. 2021, p. 189-190). This fission line was particularly evident in connection with the resolution of the crises of the last decade.

Transmitted to a comparison of the development of the member countries of the EU, where we work with the concept of cleavages adapted for analysis of the differences of the North and the South, it will be necessary to the original Lipset-Rokkan´s models to modify.

Due to the coincidence of three major European crises in the last decade - the Euro zone crisis, the migration and pandemic crisis, which has turned into a macroeconomic crisis thanks to the lockdowns, that is, about a combined crisis with a synergistic effect (Kučerová 2021, p. 21, 23, 28) – the traditional concept of cleavages has been supplemented by another transnational cleavags (Hooghe and Marks 2018, p. 116-117). The pandemic crisis has contributed to further differentiation of the membership base - each country has approached the handling of the pandemic differently, so the macroeconomic or social impacts will also be different (Kučerová 2021, p 20). The solution to these deep crises did not make it possible to use traditional decision-making concepts at national level, and therefore also in the context of binary relations between the individual social partners. In all of these crises, the countries of the South were hit very hard, while the countries of the North were able to cope with the instability much better. The effects of these crises have shown the fragility of the Southern economies, so that the Union's traditional division into East and West has ceased to apply in full, rather so fiscal austerity measures and structural reforms categorized states according to the North–South division (Landesmann 2013, p. 20). Nevertheless, there was a need for transnational solidarity and, above all, for a solution at Community level. Intergovernmental approaches have failed, as have national attempts to resolve them. Despite the strengthening role of integration institutions in times of crisis, the result of public perception was a contradiction between the North and the South as between creditor and debtor societies (Laffan, 2016).

### **3 CONCEPTUAL MAP OF THE EU AS A MODEL OF THE INTERNAL DIFFERENTIATION OF THE EU**

If we understand the conceptual map as a means of structuring the research problem, or entities, as the analysis of internal context and interdependencies, then we can use it for the needs of the analysis of the internal differentiation of the EU, as a tool of systematization of the examination. Conceptual map reflects the individual vision, however, is based on the facts and has led to generalizations. We're here to work with the conceptual map of Europe, more closely to the European union, as a territorial

arrangement on the basis of the historical - political, or geopolitical and logically and geoeconomic, cultural-institutional aspects, likewise as created a conceptual image of Europe Rokkan on the basis of historical-sociological Makro model Europe (Flora 1999, p. 86).

Of course, that in the examination and especially the comparison of the European union, or its individual parts, i.e., the member states, where appropriate, of the regions we are considering, often rather in the framework of the mental map than the conceptual maps. While the mental map works with the subjective approach to the environment, including the geographical (Cabada and Jurek 2010, p. 7) and reflects the individual opinion or interests clearly, even regardless of the fact (Buzan 2007, Lynch 1960), then a conceptual map trying to detect the relationships between the individual entities of the analysis, without disregarding the reality. The framework of the rendering of a conceptual map is a *nexus causalis*, or the relationship of causality between the phenomena and processes of the examined object, in our case the European Union.

Creating a mental map of Europe is associated with its internal differentiation, while we tend to identify with some aspects and vice versa to define yourself to others – to a large extent this is logical: each of us "on the basis of their experience creates a mental map, thus a unique vision of the world determined by many factors, the most important is that the cultural-civilization competence" (Romancvov 2004, p. 408). Dividing the world into "Us" and "Them" has to do with our conscious identity, with a deliberate affinity to a particular entity. But it does mean that by deliberately staking out to others with the belief of their own superiority – sometimes. The point is that on the one hand there is the so-called European identity, the mentality often associated with the Eurocentrism like the concept of European civilization dominance in the world. On the other side but our individual mental map can lead to voluntary submissive on the basis of lack of self-confidence. An example might be the attitude of a person from Eastern Europe to German performance his political influence within the EU.

The conceptual map has to be a theoretical model, a working tool for the analysis of the examined object. Rokkan's conceptual map of Europe outlines the mutual relations between centres and peripheries in the context of the historical development of while watching the three planes, namely economic, territorial and cultural, or ethnic realities, geoeconomic and the geopolitical context (Hloušek, 2004).

#### **4 DIFFERENTIATION BETWEEN THE NORTH AND SOUTH OF THE EUROPEAN UNION**

Not only in the present enlarged EU towards the East, but already in the course of 20<sup>th</sup> Century, many consider diametrical differences in performance and the living standards of the countries of the West and the East. The differences result mainly from the sectoral structure of the economies, when the then East was practically a purely agrarian versus industrialized the West. The solution had to be industrialization development model, which suggested already in 1943, Paul Rosenstein-Rodan and whose

instrument was supposed to be the so-called big push in the form of massive inflow of investments into the development of the industry (Rosenstein-Rodan 1943, p. 209). Time has moved on, yet they are the new member countries of the EU economically less developed with a number of structural problems, therefore, it is even today valid Rokkan's cleavage West–East, respectively EU-15 – EU-13. What is to some extent associated with the baseline of the territorial cleavage of Europe, i.e., West – East, but is traceable also in the cleavage North–South. Differentiation of Europe has been indicated already above, for clarification – the countries of the South are actually four Mediterranean states (Slovenia and Croatia geographically belonging to the South, to the Mediterranean, are sorted to the political East, nevertheless, their economic structure, economic performance, macroeconomic stability, and social conditions correspond to the countries of the South.). We will consider in the context of territorially-economic plane, and institutional, because so-called value cleavages have been shown as one of the most important criteria on the voting behaviour (Flanagan, 1980).

The cause of the persistent differentiation of Europe lies in the historical aspects of different development, both in political, and economic. For the required analysis are defined the following variables – political regime (democracy versus authoritarian systems), religion and position of churches in society, urbanization, industrialization, sectoral structure of the economies.

Regarding the setting of the political regime, are between the North and the South of Europe in the 20<sup>th</sup> Century more pronounced differences. Countries of the North have at least since the end of World War II anchored democracy with a pluralism of political parties, which alternate in power based on democratic elections. Yes, of course, Germany, partly also in Norway it bears to this day the path dependency in the context of Nazism, the more emphasis on democracy. Sweden has not been since the year 1813, from the Napoleonic wars actor is no war and in the political line continues to a constitutional monarchy, where the monarch is rather representative of the society, as in Denmark, the Netherlands, Belgium or Luxembourg.

The specific case is the development of Finland 20<sup>th</sup> Century, when the Finns negotiated immediately after the Great October revolution, 1917 in Petersburg gaining independence from Russia, their freedom but did not last long because Stalin on the eve of the Second World War had a crush on some North Sea ports belonging to Finland, the Winter war 1939-40 and the Continuation war of 1941-44 the Finnish fate have sealed. The problem was in the negative experiences of the Finns with more than a hundred years of the dominion of the Russians since 1809, so in the Continuation war better fought with the USSR for the support of Hitler's Germany. And Stalin then with the Finns closed his account – by the year 1955 he drove the USSR to Finland as its “protectorate”, and even then, it retained a significant influence on the further development of Finland. The so-called Finlandization or subordination of a small state in the foreign policy of a stronger neighbour, walked into the political science terminology, nevertheless, this term is not

accepted in Finland itself due to the risk of mixing subordination with cooperation or concessions to Moscow (Vares, 2014), Finlandization did not mean Sovietization, not voluntary at all. The fall of the Iron curtain, but for the Finns marked the impetus to break away from Moscow and monitoring of Scandinavian political development completely in the democratic contours (Kučerová 2003, p. 83).

The countries of the Southern wing have their experience with authoritarian regimes, where appropriate, with dictatorship and fascism longer, up to 70's Years – of course, Italy, which came to terms with Benito Mussolini's fascism relatively quickly. Although resentments directly related to the person of Mussolini persist in part of Italian society to this day - see, for example, the celebrations of the centenary of the March on Rome on October 28, 2022 (Glisníková, 2020).

On the Iberian Peninsula managed to keep fascistic regimes until the mid-70's Years. In Portugal practically since 1932, ruled by General António de Oliveira Salazar authoritatively combination of nationalism, conservatism and corporatism under the strong support of the Catholic Church – like it was in Spain and Italy. Salazar, although he died in 1968, but his vision of the New State continued until the Carnation revolution in April 1974, which Salazar's regime toppled.

Spain is also in the 30's Years mired in political instability, whose culmination was the outbreak of the civil war 1936-39, in which clearly stood against the democratically elected government of general Francisco Franco. The civil war won and the other thirty-six years he controlled all social, political, and logically also the economic development of Spain. Spain, like Portugal, was a neutral country in World War II, but sympathies for strong-arm rule and fascism led to covert support for the Nazi Third Reich, at least through mutual trade. On the other hand, this collaboration of industry circles with Germany also involved Sweden. Greece also during the 20<sup>th</sup> Century has undergone turbulent development. First occupied by Mussolini's army, then Hitler, then the communist uprising of 1949 and the civil war, what ended with the victory of Western-oriented part of the Greek society. The democratic development of the Greek monarchy since 1952 was terminated by the military coup in 1967 and until 1974, ruled fascist the dictatorship of the so-called Black colonels. The Greek dictatorship lasted the shortest period of time; however, it still bears its sin and it in a divided Cyprus. The black colonels were trying to annex the whole of Cyprus in 1973, to which Turkey reacted strongly with the deployment of their army. Unfortunately, Cyprus has been a divided island to this day.

Since the mid of the 70<sup>th</sup> Years all the Southern European states committed to democracy, however, the path dependency of the totality is reflected to a large extent so far, what, for example, was reflected in bankrupt Greece in 2009-2013 by war and anti-German reminiscences. German Chancellor Angela Merkel's demands for fiscal restraint and willingness to reform have evoked long-hidden memories of the war and the Hitler rampage in Greece. Therefore, a transnational solution was acceptable to the Greeks

rather than a purely German, i.e., national approach. This confirms Hoogh's and Marks' hypothesis of transnational cleavage (Hooghe and Marks, 2018, p. 116) .

The role of religion in modern time the European society are highly secularized, which in practical terms means separation of church from the state. If fifty years ago differences such as social class and religion were important determinants of voting behaviour, the influence of religion in voter decision-making has gradually weakened, on the contrary, it strengthens the political cleavage across social groups, when belonging to a social class does not automatically guarantee leaning towards a certain type of political party (Goldberg 2019, p. 68, 85). Back to the religion - of course, that the church still plays a significant role in the company, in the pastoral and charitable plane, but should not participate in the exercise of state power. However, the position of the Church between the states of North and South is quite a bit different. It can be stated, that nowadays mostly the church openly does not interfere in the socio-political developments, with some exceptions, which but aside from this cleavage North–South. Very strong position of ministers and in the political dimension still has the Catholic Church in Ireland and Poland, which was reflected, inter alia, upon the approval of the Charter of fundamental rights of the EU of December 2000, respectively at the time of ratification of the Lisbon treaty, however, it is the states cleavage West – East.

The position of the church in society are still very significant in the countries of the South, today it's no longer in Austria, but also today no longer normative. A long time for the countries of the South, characteristic of the interconnection of church and state, or its political elites, as the Catholic or the Orthodox Church in Greece has still the character of a supra-state institution - Orthodox dogma has the status of an official religion (Kolář, 2000, p. 20). Just the religious jurisdiction of the Greek population, therefore, at least partly, the similarity of the institutional environment, it is worth warm feelings towards Bulgaria, Serbia, Russia, which was reflected in disagreement with the military actions of the Allies toward Serbia during the war in the former Yugoslavia, 90<sup>th</sup> Years, against the European sanctions to Russia for annexation of Crimea in 2014, etc. While today's Nordic Protestants cooperate well with the Catholics to the South-lying countries of the Union, and on the contrary, the Orthodox church is looking for – apparently logically - ally in the East, outside of Europe, unfortunately, even at the expense of European interests. In Italy or Spain plays the Catholic Church to this day active social role, not in the sense of charity, which is imminent to the church everywhere, but offering actively in the social services supplementary to the state pillar.

Urbanization is the accompanying phenomenon of economic development; the city became the centre of crafts, trade already from the ancient times, including the Italian city-states since the Renaissance era. Industrialization initially developed depending on the available raw materials, whether from its own available resources or from the colonies. The beginnings of industrialization, we can fully connect with the states of the North, which were able to take advantage of its potential – in Europe as the first of

England, soon Belgium, Sweden, France, Germany, Austria only of the Czech historical lands; not the south of Italy, but only the northern triangle defined by the towns of Genoa-Turin-Milan (Kučerová 2003, pp. 79-81). Industrialization led to fundamental economic and social changes, whose effect is manifested in the restructuring of economies towards industrially-agrarian and in the emergence of a new social class, the proletariat. Each change has a potential conflict, therefore, arose even in the process of the industrial revolution, new cleavages, or was compounded by the already existing. Is a testament to the concentration of economic activities and the increasing wealth in Italy from 9<sup>th</sup>, or 10<sup>th</sup> Century. 11<sup>th</sup> Century became the Apennine peninsula centre of Mediterranean trade, from 16<sup>th</sup> Century but partially under the dominion of the Spanish Habsburgs. The importance of the Mediterranean cities reduced the fratricidal fight among themselves, leading to the fragmentation of state units on one side, but to their right in more ways than one on the other side. Originated the so-called city belt, which speaks Rokkan, a belt of strong cities, in which concentrated economic power, and who among themselves compete (Hloušek, 2004). To some extent required the emergency room, the predictability is somewhat drained from further modernisation challenges. Therefore, was created almost from scratch a new centre in the former periphery, i.e., compared to the antiquity and the Middle Ages north of the Alps and from the medieval centre of Europe gradually became the periphery. The development of the cities of the North was initially moderate also the nobility as in the South, but with the industrial revolution and the rich burghers, the bourgeoisie. The process of urbanization has become an accompanying phenomenon of the intensification of trade, the development of the crafts industry. In 19<sup>th</sup> Century, the pace of urbanization is so rapid that the city not only as the living and working zone, but also as administrative centres expanded. But rather in the North of Europe, the South was the industrialization of at the time almost untouched. Therefore, the share of the urban population, share of rural and agricultural activities in the South did not change much compared to the countries of the North.

Industrialization as a variable of our analysis is the significant factor. Countries of the North have undergone continuous industrialization since the second half of the 18<sup>th</sup> Century through the whole of 19<sup>th</sup> Century and didn't miss even further development in the 20<sup>th</sup> and 21<sup>st</sup> Century. It is therefore a continuous evolution built on the continuous upgrading and maintenance of comparative advantages. In a nutshell – the land of the North are actors first (the end of the 18<sup>th</sup> Century), second (end of 19<sup>th</sup> Century), the third industrial revolution (half of the 20<sup>th</sup> Century), actually already the fourth (21<sup>st</sup> Century).

While in Portugal in the 17<sup>th</sup> Century are notable elements of the pre-industrial revolution in the manufacturing stage, thanks to their extensive colonial domination and the use of its advantages, the gradual degradation of Spain thanks to the inadequate governance of the country led to the economic rigidity. There is still a noticeable gap in industrialization between the Northern and Southern EU states, or in the sectoral structure of the industry and its technological level. It is evident in one of Wallerstein's criteria of

the center-(semi)periphery model: We associate innovation dynamics with the North of the Union. The result is a different sectoral structure of the economy, when the countries of the South play a significantly more important role of the agrarian sector, both in employment and in the formation of the product.

Shortly only on the sectoral composition of economies – for the countries of the North has long been the dominant service sector, contributing over 70 % to employment, while the industry hovers under 20%, and agriculture around 4%. In the countries of the South is the proportion of different – while it is the dominant services sector, but it is rather a service of another nature than in the countries of the North: it's not primarily the financial services, software, but rather tourism, trade, transport. Even so, it works in the service of only around 6 % of the workers; in agriculture relatively more, in Greece to over 10% (Eurostat, 2021).

The sectoral focus of the economies of the North and the South over the long term is expanding, it is true that in Spain in the 90's years there was a boom of electrical engineering and IT services, but the crisis since 2008, it has inhibited. The sectoral structure of economies due to globalisation approximates, but still are noticeable differences between the North and South of the EU. Mainly in the indicators of employment and performance it is.

All this translates into lower economic performance, both in production level and export, and resulting living standards: Just a few illustrative numbers – if the states of the Euro area, to which belongs but all the analysed countries of the South, i.e., that it reduces their overall diameter, has a GDP per capita 104% of the EU average in 2021, then the result of the countries of the North must be, after deduction of the countries of the East significantly higher. Ten countries of North of the EU-15, i.e., the country before the Eastern enlargement, the reach in the parameter of GDP per capita averaged 130% (except UK with 104%), compared to the countries of the South in an average of just 82%, which is clearly less than the Czech Republic with its 91% in 2021. The eastern states of the EU reach an average of 78% within the EU (Eurostat, 2021).

Inside the structure of the European Union is not just about participation in real governance of the Union, but there are differences in the implementation of legislation by member states. And although the Czech Republic was in the so-called transposition's deficit in the long term (2006-2012) to the least disciplined members of the Union, e. g. and therefore, the following note may act inappropriately, applies even within the EU different law enforcement - *Quod licet Iovi non licet bovi* (What is permitted to God, non- isn't permitted to ox). To the new member countries are often subject to higher claims, mainly in connection with the building of the internal market, than the original member states. Unlike the attitude Brussels' centre to the new member countries, they are often the most Southern example of privileged access to the implementation of regulations - very often have a longer time for the adoption of legislation, e. g. for reasons of territorial

differentiation (Italy, Spain) and the fragmentation of the territory (Greece) (Kučerová 2010, p. 135-141).

## 5 CONCLUSIONS

Differences between the Northern and the Southern wing of the European Union are still evident, unfortunately, it seems that even growing. Cleavage North–South in the framework of the old EU countries, i.e., the EU<sub>15</sub> it is an indisputable contradiction in the political and institutional area (development of the political regimes, the status of churches in the state structure, value differences, often inclinations towards other political programs), in the economic dimension (the processes of urbanization, industrialization, sectoral structure of the economies). The original models of I. Wallerstein (centre-periphery) and S. Rokkan (cleavages) were used to understand the persistent differences in economic, but also political and social development, partially supplemented by their modern application to the era of globalization in the post-Cold War era.

As it was said together with I. Wallerstein, it is possible to identify the performance core of the European Union, the semi-periphery and the peripheral states. However, then we come across the political correctness of European comitology, despite apparently provable facts such as macroeconomic data, the institutional environment, incl. election results, social tension (which was not the subject of this study). Nevertheless, on the basis of the Wallerstein characteristics used, it is possible to determine where the individual member states of the Union belong - whether they form the centre or belong to the semi-periphery or which EU countries are the peripheral ones.

When comparing the individual national economies of the EU countries, a politically incorrect consideration of the winners and losers of the European integration process is offered. Why do some states, clearly southern from our analysis, show disproportions in performance, fiscal and monetary development? Why are these economies more often and more deeply affected by economic crises? It can be traced that the causes lie in not quite systemic economic policies, above all in lower fiscal discipline. However, thanks to the principle of solidarity and the mitigation of disproportions - the "losers" as classic free riders rely on EU solidarity. This gives them an advantage that negates their classic indentation from others.

The use of S. Rokkan's cleavages model made it possible to expand I. Wallerstein's economic and technological level by rather political and institutional dimensions of the differences of member countries. The original five cleavages have been updated with additional cleavage lines. Although the setting of cleavages is undergoing development in accordance with the whole of society and technology, the subjects analysed by us have proven their validity. Unfortunately, the format of this study does not allow for a more detailed analysis.

We have a tendency to consider the full EU-15 for the advanced economies, but reality may be different. Our conceptual map is often wide of reality. Today the Czech



Republic e.g., has a higher GDP per capita than Greece or Portugal, and despite the intervention of the Czech central bank, which intentionally weakened exchange rate of the Czech crown over three years. Yet it is the performance of the Czech economy, higher than Portugal or Greece, only 4% weaker than Italy and it's pushing the average across the EU. Thanks to more than 60 years of integration process, the map of Europe can be unified geographically, but economically not only remains fragmented, but the differentiation often increases. Cross-country analysis according to selected criteria, or cross-cutting cleavage, shows different perceptions of individual countries according to established mental maps. The public perceives the different attitude of the individual EU member states towards solving crises as a North-South rift, which has sharp edges and feeds on simplistic national stereotypes (Mylonas, 2012). As in every other crisis, integration mechanisms and above all the status of integration institutions were strengthened.

Where are the causes of backwardness? In the trap of dependency totality, the delay in the industrialization of it already cannot be. Inappropriate economic policy? The specific institutional environment? These are questions for further research, across the whole European Union, i.e., comparing also cleavages between the West and the East of the Union.

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## SMART CITY SOLUTIONS AND THE AIR QUALITY IN THE COVID TIMES – CASE STUDY OF BRATISLAVA

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The aim of the paper is to determine the status of adoption of smart city initiative in Bratislava, capital of Slovakia, in relation to the air quality in the context of the current COVID-19 pandemic and its cost. Consistent with recently published studies, the results of our analysis did not show a significant improvement in all pollution parameters. The only significant improvement was observed for the NO<sub>2</sub> pollutant. Following this fact, the results of an informant interview with the city of Bratislava can be interpreted, which unfortunately confirmed that the city lags significantly behind smart solutions to support air quality, although the pollution rate in Bratislava is relatively high and did not decrease significantly during 2020. Moreover, the economic costs of the effects of pollution are higher than its prevention.

Key words: smart environment, smart city, air quality, pollution cost, Bratislava, COVID-19

JEL: Q50, Q53

### 1 INTRODUCTION

Congested traffic, constant traffic jams, poor quality of the environment, lack of housing – these are just some of the main problems that plague the capital of Slovakia, Bratislava. The population of cities is growing, as well as daily commuting to work places. This increases the pressure on existing infrastructure and brings not only

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discomfort but also economic losses. The ever-increasing number of cars in cities is contributing to the deterioration of air quality. In addressing these and many other problems, cities across the world are adopting different solutions within smart cities concepts. Smart City is an approach to the development of cities and urban regions, their management and planning aiming to provide the urban quality of life. By 2013, more than 140 cities around the world had launched their Smart City strategy. At the beginning of 2014, 240 European cities with more than 100 000 inhabitants had such a strategy, and this growth continues. In 2017, already almost all Western European cities applied comprehensive solutions of their own Smart City concept. Despite the fact that the concept of smart city has been alive for almost 20 years, in recent times many places have been moving from theory to reality, i.e. to the applications of individual models. This is also the case in Slovakia, where the issue of smart cities has long been in the background. It must be emphasized that the speed of response to ongoing global urban change also depends to some extent on the size of the city. However, smart city is not just a concept of big cities, although we perceive the mentioned problems more intensively in these.

The presented article focuses on the adoption of smart city initiatives in the capital of Slovakia, Bratislava. Specifically, it deals with one of the city's most serious problems, and that is air quality. Even with regard to the current pandemic, it has been shown that air quality has improved significantly in most cities, mainly as a result of reduced traffic - especially passenger traffic. On the other hand, anti-pandemic measures and lockdowns have required an increase in local government spending and changed the focus on critical areas. Our goal is to find out the progress in the adoption of intelligent solutions in connection with the improvement of air quality in Bratislava in the context of the current pandemic.

## **2 LITERATURE REVIEW AND THE CHARACTERISTICS OF BRATISLAVA**

Just as there is no doubt that still no single acceptable definition of smart city exists (Ristvej, Lacinák and Ondrejka, 2020), there is no doubt that most of the literature agrees that the concept of smart city can be identified with the adoption of smart technologies to improve and enhance city life. Smart city is strongly related to urban growth. The issue of urban growth had been addressed in the literature before we encountered the concept of smart city. Smart city concept thus naturally followed up on theories of urban growth (Caragliu, Del Bo and Nijkamp, 2011). It consists of six main dimensions which form a unified image of a modern and sustainable city – namely smart economy, smart mobility, smart environment, smart people, smart living and smart governance (Moura and de Abreu e Silva, 2019). Other authors also add a seventh dimension – smart architecture (Giffinger et al. 2010, Stübinger et. al. 2020, Cantuarias-Villessuzanne et. al, 2020). Many of the approaches are bottom-up and they arise from experience with certain problems (Dameri, 2017). Smart city is moreover a multidisciplinary paradigm (Betis et al., 2018). Even the concept of smart city has not

been without criticism, especially as far as ICT is concerned. Hollands (2008) for example points out criticism for the dominance of the entrepreneurial version of smart city concepts, relying blindly on ICT instead of people. Today, therefore, academic research is beginning to place much more emphasis on a people-centered approach, because smart city has primarily served to improve the quality of life of people in cities.

One of the dimensions of the smart city concept is the smart environment (Orlowski and Rosinka, 2018). Green technologies can have a direct impact on the urban environment when actively cooperating with people (Radovic et al, 2021). Within the smart city concept, smart environment uses ICT to manage natural resources of the urban area – air quality, green spaces, natural resources, urban biodiversity. The state of the urban environment is the result of many factors, as a city or urban area is an ecosystem which is an interactive organism involving various interdependencies. Smart environment usually tries to cope with the most negative impacts on human life in the city, such as increasing level of carbon emission and worsening the air quality (due to growth of citizens and the transportation); increase of produced waste (and the problems of recycling problem and waste management) and the worsening of water resources quality (illegal dumping, an ageing infrastructure of water pipes) (Thorpe, 2018).

In bigger cities, air pollution is mostly caused by PM<sub>2.5</sub> and PM<sub>10</sub> particles. Both particles are part of the traffic exhaust gases, street dust, asphalt, tires and brakes of cars or results from burning the wood. In addition, these particles are transportable through long distances. It is already scientifically proven that the high concentration of these ultra-fine particles, especially long-term exposure to this pollution, for example in city life, causes several diseases of civilization – allergies, cardiovascular diseases and lung diseases, including cancer. These particles can also carry other contaminants or allergens. As most of this pollution comes from transport, the solution to improving air quality is precisely measures that seek to reduce transport. Here we see a clear intertwining of the individual dimensions of a smart city, which cannot be separated from each other. Smart transport – i.e. measures to make transport more efficient, which is to become more pleasant for the population, is also an indirect tool of the smart environment dimension.

## **2.1 Main characteristics of Bratislava**

The capital of Slovakia, Bratislava, lies in the west of the country in the Danubian Lowland, on the border with Austria. Its strategic location lies at the crossroads in good transport accessibility and close to other world capitals, especially Vienna (65 km), Budapest (200 km) and Prague (330 km). The number of citizens represents 432 864 (Statistical Office, 2020), but together with the suburbs, the number increases up to 600 000 citizens. If we count the daily commuters, we get to the number 730 000. The population density is about 1 163,53/km<sup>2</sup>. Green area represents 13 000 ha. Bratislava is the center of job offers in Slovakia. Their sufficiency causes many people to come to the capital for the so-called weekly shifts, as significant regional differences in Slovakia do



not allow people to work in some parts such as the south of central Slovakia or the east Slovakia. Although the concentration of labor supply in the capital is not unusual, it is undesirable to the existing extent, because in addition to the pressure on the real estate market, transport, air pollution also creates the problem of depopulation of some areas. In addition to several key industrial companies that belong to the critical infrastructure in Slovakia (such as the oil company Slovnaft, power plants, waterworks, the Volkswagen car concern), there are also 41 Shared Service Centers in Bratislava (out of 65 in Slovakia) (SARIO, 2019).

### *2.1.1 Traffic*

As for the traffic characteristic, there are 322 753 cars and 880 public transport vehicles registered in Bratislava (Statistical Office, 2020b). Of the public transport vehicles, 524 buses have the largest share, followed by 162 trolley buses and 194 trams. The high share of bus transport and the low share of rail transport is an important milestone in improving public transport in the capital, as buses are also among the vehicles which, together with passenger cars, are the main air pollutants in terms of transport. Bratislava does not have a built metro. One of the busiest arteries is the intersection of Trnavské mýto and Križna street in the city center. Measurements of the Slovak Hydrometeorological Institute regularly show alarming air quality here.

### *2.1.2 Environment*

There are 2 national nature reserves and 9 natural reserves in Bratislava. Protected areas (14), natural monuments (4) are also important natural resources. The most important watercourses include the Danube and Little Danube rivers and the Morava river. Lakes, gravel pits and natural reservoirs as well as wetlands of a rare protected area of floodplain forests are important water features. Bratislava has 6 water reservoirs, which are used for recreation and relaxation.

### *2.1.3 Air quality*

The most polluting substances in the capital are emissions of sulfur dioxide, nitrogen oxides, carbon monoxide and solid pollutants. The average value of emissions of sulfur dioxide in tones for 2020 was 3 332, emissions of nitrogen oxides 2 624, and emissions of carbon monoxide 660 tones. As for the solid pollutants, the total amount represented 129 tones (Statistical Office, 2020b). In addition to emission values, the concentration of ultra-fine particles concentration is also important. The pollution in Bratislava is mostly caused by PM<sub>2.5</sub> particles. This is due to the fact, that Bratislava region is quite heavily industrialized. Slovnaft, or Volkswagen are among the biggest polluters. However, the main cause of current air pollution is emissions from domestic heating and transport emissions as well as high background concentrations (pollution where it is not possible to directly determine the source of emissions). PM<sub>10</sub> particles, which represent street dust, are also significant polluter in Bratislava, especially on the main roads.

#### *2.1.4 Housing*

As for 2020, there were 223 394 apartments in Bratislava, out of which 11 321 were under construction (Statistical Office, 2020a). Housing construction in Bratislava is quite stagnant, there is a shortage of flats, demand is higher than supply, which keeps flat prices at a multi-year maximum. For comparison, in 1975, 22 flats per 1000 inhabitants were completed in Bratislava; in 1985, 14 flats per 1000 inhabitants; and in 2019, this number represented 6.5 flats per 1000 inhabitants (Statistical Office, 2020b). The most densely populated parts of the city are Staré mesto, Karlova Ves, Dúbravka, and Petržalka followed by Ružinov, Nové Mesto and Vrakuňa.

#### *2.1.5 Economic activity*

There are currently 71 038 companies operating in Bratislava, of which 32 478 are self-employed (Statistical Office, 2020b). In terms of establishment, limited liability companies make up the highest percentage. In terms of focus, professional, scientific and technical activities (i.e. work with higher added value), wholesale and retail trade, information and communication technologies, real estate activities, construction and industrial production predominate. Micro enterprises and small enterprises with up to 50 employees have the largest representation. As of 31 December, a total of 354 155 natural persons were employed in Bratislava. The average nominal monthly wage was 1 713 euros for men and 1 474 euros for women. However, it should be noted here that many employees do not even reach this gross wage. For perfuming, the average nominal monthly wage in Slovakia was 1 113 euros. The highest earnings are achieved by employees in the information and communication technology sector.

#### *2.1.6 Tourism*

The tourist capacity represents 279 accommodation facilities, which together provide 8 427 rooms. 1 395 896 tourists visit Bratislava every year, of which up to 69% are foreign tourists. The capacity of accommodation occupancy in 2019 was just over 40%. Unfortunately, the coronavirus pandemic has hit tourism in Bratislava very significantly (several cultural and social events and traditional Christmas markets have not taken place) – however, the processed statistical data are not yet available.

## **2.2 Bratislava smart city ranking**

The smart city ranking was developed by International Institute for Management Development (IMD). In 2019, Bratislava ranked on the 76th place out of 102 rated cities. It's overall rating is CC (out of the range AAA-D; Bratislava belongs to the 3rd quartile) (IMD, 2020). This result is, of course, extremely unsatisfactory for the capital of Slovakia. The ranking consists of five main components – health, mobility, activities, opportunities and governance. However, estimates of a year-round decline in tourist visits reach more than 50%. Bratislava lags behind especially in air quality, low-quality transport and persistent traffic jams as well as weaker digital services for the population, thus lacking the active involvement of the population in the process of creating a smart city.

### 3 METHODS

The purpose of this research is to find out the progress in the adoption of intelligent solutions in connection with the improvement of air quality in Bratislava in the context of the current pandemic. The methodology of the research considers three steps. In the first two chapters we introduce the literature review on the concept of smart city with the relevance to smart environment dimension of smart city. We characterize Bratislava in the context of traffic, environment, air quality, housing, economic activity and tourism because knowledge of these basic parameters is a key starting point for understanding the position of the city in the Slovak economy as well as for understanding the problems that the capital has been facing for a long time and cannot yet solve them effectively.

In the following sections we focus on the empirical research, specifically, the second step in the methodology is the analysis of the current state of air pollution with respect to the most common pollutants, namely nitrogen dioxide  $PM_{2.5}$  and  $PM_{10}$  particles. We compare the change in air quality with the period before the pandemic. Data from the European Environmental Agency (measured by the Slovak Hydrometeorological Institute) were used, which measures air quality in the capital at 4 measuring stations. In our analysis, we compare the development of the concentration of monitored pollutants, specifically  $NO_2$ ,  $PM_{2.5}$  and  $PM_{10}$  particles. We focus on weekly daily values in 2020, which we compare with daily average values measured in 2019. Our objective is to answer the basic question, namely whether and how the established lockdown affected the air quality. We determined the significance in differences in concentration of selected pollutants in 2019 and 2020 by conducting a pairwise t-test with normalized log-transformed data. The null hypothesis assumed that the true mean difference between the paired samples was zero, while the alternative hypothesis assumed that the true mean difference between the paired samples was not equal to zero. We chose  $\alpha = 0.001$  to determine statistical significance. For each pollutant, we focused on the five standard periods during the year – pre-lockdown, 2 lockdown periods, 2 post-lockdown periods, namely:

1. pre-lockdown period; 1 January–12 March 2019 / 1 January–12 March 2020;
2. lockdown 1 period; 13 March–5 May 2019 / 13 March–3 June 2020;
3. post-lockdown period; 6 May June–23 October 2019 / 6 May June–23 October 2020;
4. lockdown 2 period; 24 October – 30 November 2019 / 24 October – 30 November 2020;
5. post-lockdown 2 period; 1 December – 31 December 2019 / 1 December – 31 December 2020.

In terms of the dispersion of pollutants in the air, the most relevant meteorological parameters are wind speed, humidity and thermal stratification of the atmosphere. We considered these parameters when comparing the weather condition in 2019 and 2020 to be able to distinguish air quality analysis from possible meteorological impacts. Comparison of indicators between years did not show statistical significance at the  $\alpha = 0.05$ .

In the third part we apply the method of key informant interview. The key informant interview is a method of data collection that involves interaction (verbal) between the researcher and the specialist in the field of study (Allen, 2017). The purpose of the conducted key informant interview was to collect valuable data and information regarding the application of smart environment solution in order to reduce the air pollution and thus to improve the quality of environment in Bratislava. The questions of the informant interview were designed to take into account information on already implemented projects, projects that are currently being implemented as well as planned projects. The aim of the interview was to determine the effects of the pandemic on the municipal budget for the implementation of these projects and the perception of changes in air quality due to traffic reduction, which came naturally as a result of several lockdowns.

Below are the questions of the key informant interview that we asked the City of Bratislava in February 2021:

1. What does the discussion and priorities of Bratislava in the field of air quality within the concept of smart city look like?
2. Do you see any changes in these priorities due to the ongoing coronavirus pandemic?
3. Have certain projects been suspended due to the pandemic? What is the expected date of their recovery?
4. Does the capital have any air quality solutions within the smart city concept? Have they already been implemented? At what stage of implementation are the planned ones?
5. What steps does the city plan to take in order to ensure the ecological and sustainable mobility of the population? In what time horizon? Have the approximate costs been quantified?
6. How does the municipality plan to motivate citizens to move from cars to public transport?
7. Does the capital intend to promote the concept of smart city more in order to raise citizens' awareness of its (not only) environmental aspects?

## 4 RESULTS

Limit values of polluting particles in Slovakia are regulated by Decree 244/2016 Coll. (as amended by No. 296/2017 Coll., 32/2020 Coll.). Limit values for the protection of human health and the dates of their achievement are given in Table 1.

Table 1: Limit values for pollutants

<i>Pollutant type</i>	<i>Period</i>	<i>Limit value</i>
PM <sub>10</sub>	1 day	50 µg / m <sup>3</sup> must not be exceeded more than 35 times per calendar year
	1 year	40 µg / m <sup>3</sup>
PM <sub>2,5</sub>	1 year	until 1 January 2020: 25 /g / m <sup>3</sup> from 1 January 2020: 20 /g / m <sup>3</sup>
NO <sub>2</sub>	1 hour	200 µg / m <sup>3</sup> must not be exceeded more than 18 times per calendar year
	1 year	40 µg / m <sup>3</sup>
CO	The highest daily 8-hour mean	10 mg/m <sup>3</sup>
SO <sub>2</sub>	1 hour	350 µg / m <sup>3</sup> must not be exceeded more than 24 times a calendar year
	1 day	125 µg / m <sup>3</sup> must not be exceeded more than 24 times a calendar year

Source: Decree 244/2016 Coll.

Although the concentration of harmful substances regularly increases in the winter months and vice versa, in the summer months it reaches the lowest concentration, in 2020 there is a decrease to some extent in the concentration of measured pollutants in the air that can be observed at all measuring stations in Bratislava.

### 4.1 NO<sub>2</sub>

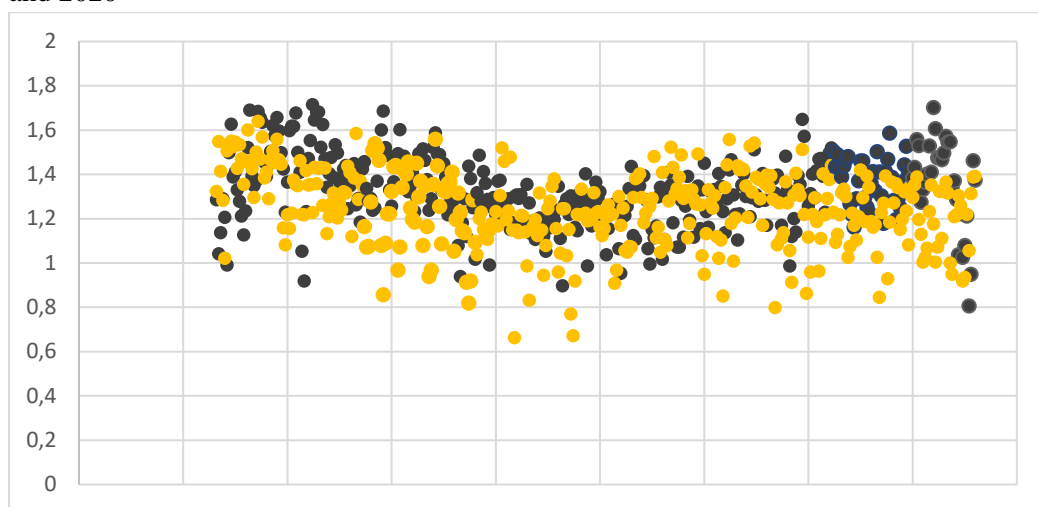
As for NO<sub>2</sub> concentration, comparing 2019 and 2020, changes in concentration for the pre-lockdown period are not statistically significant at the  $\alpha = 0.001$ . However, the statistical significance was confirmed for the rest four periods- lockdown, post-lockdown, lockdown 2 as well as post-lockdown 2. When monitoring the NO<sub>2</sub> concentration indicator, it can be stated that in 2020, compared to 2019, the value of the indicator decreased in the 10 monitored months (average month values). The results of the two-sample test for NO<sub>2</sub> are presented in Table 2 and Figure 1.

Table 2: Output of the two-sample t-test for NO<sub>2</sub> in µg / m<sup>3</sup> in Bratislava

<i>Period</i>	<i>Mean 2019</i>	<i>Mean 2020</i>	<i>P value</i>
1. pre-lockdown	26.3	23.44	0.046
2. lockdown 1	22.9	16.98	0.0003
3. post-lockdown	18.19	16.21	0.0021
4. lockdown 2	23.44	16.21	<0.0001
5. post-lockdown 2	22.9	15.48	0.0002

Source: authors' own processing in STATA/MP 16.0.

Figure 1: Scatter chart of the two-sample t-test for NO<sub>2</sub> in µg / m<sup>3</sup> in Bratislava, 2019 and 2020



Source: authors' own processing.

#### 4.2 PM<sub>2,5</sub>

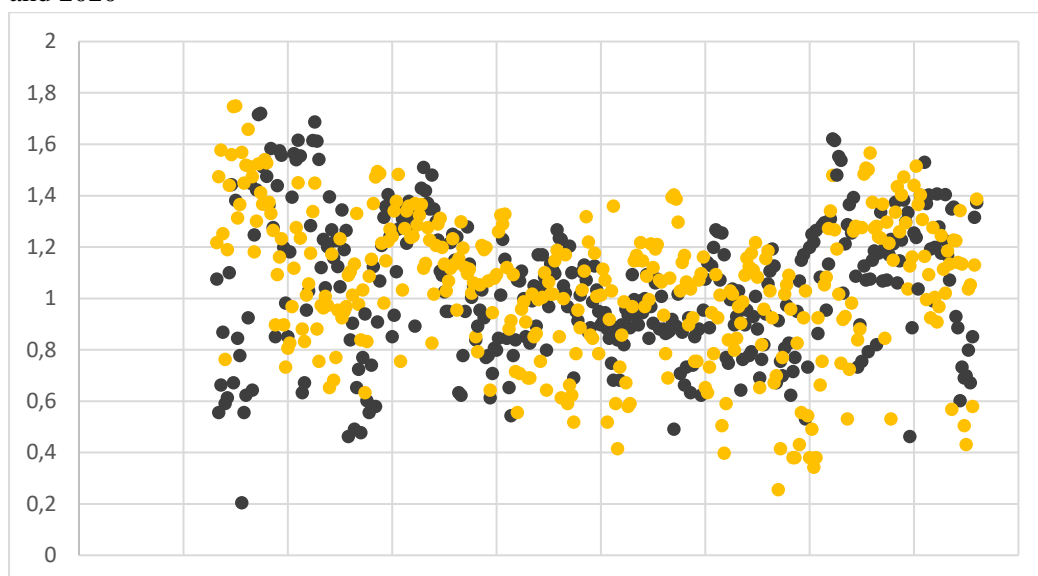
As for PM<sub>2,5</sub> concentration, comparing 2019 and 2020, changes in concentration for all of the monitored five periods are not statistically significant at the  $\alpha = 0.01$ . In the case of PM<sub>2,5</sub> particles, we observe a slight decrease only in 5 monitored months during the whole year (average month values). The results of the two-sample test for PM<sub>2,5</sub> are presented in Table 3 and Figure 2.

Table 3: Output of the two-sample t-test for PM<sub>2,5</sub> in µg / m<sup>3</sup> in Bratislava

<i>Period</i>	<i>Mean 2019</i>	<i>Mean 2020</i>	<i>P value</i>
1. pre-lockdown	12.88	14.79	0.26
2. lockdown 1	13.18	14.79	0.2
3. post-lockdown	8.7	8.5	0.46
4. lockdown 2	14.12	14.45	0.93
5. post-lockdown 2	13.18	12.3	0.52

Source: authors' own processing in STATA/MP 16.0.

Figure 2: Scatter chart of the two-sample t-test for PM<sub>2,5</sub> in µg / m<sup>3</sup> in Bratislava, 2019 and 2020



Source: authors' own processing.

#### 4.3 PM<sub>10</sub>

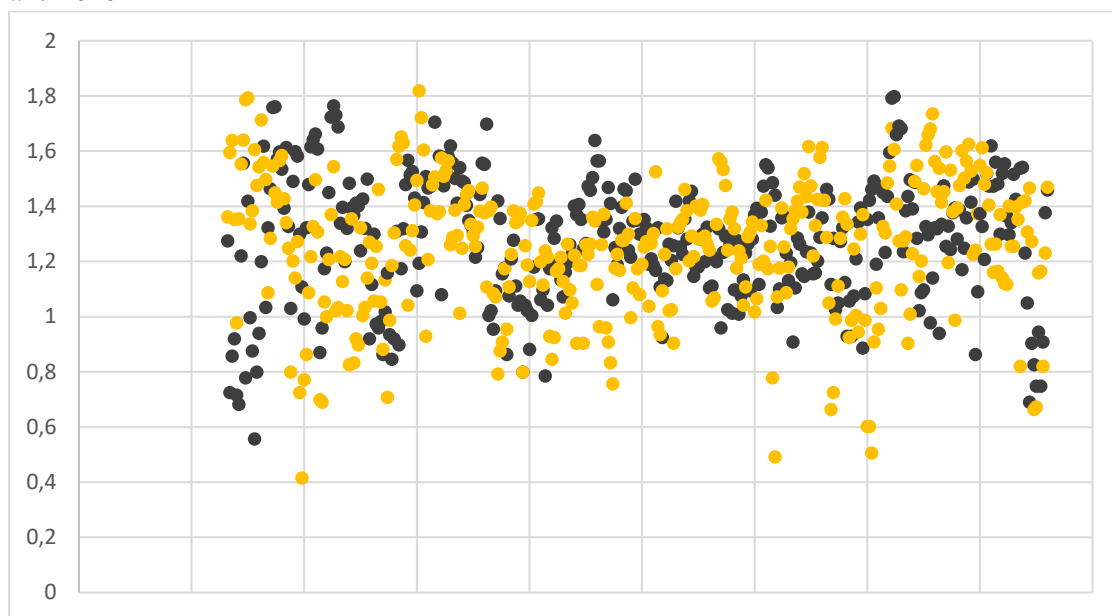
In the case of PM<sub>10</sub> particles it is 6 monitored months, when we monitored a slight decline in average month values. However, there is no statistical significance as a result of two-sample t-test for these particles. In other months, on the contrary, the value in 2020 exceeds the value from 2019. The results of the two-sample test for PM<sub>10</sub> are presented in Table 4 and Figure 3.

Table 4. Output of the two-sample t-test for PM<sub>10</sub> in µg / m<sup>3</sup> in Bratislava

<i>Period</i>	<i>Mean 2019</i>	<i>Mean 2020</i>	<i>P value</i>
1. pre-lockdown	18.62	16.98	0.41
2. lockdown 1	21.87	20.41	0.59
3. post-lockdown	17.37	15.84	0.03
4. lockdown 2	20.89	25.11	0.13
5. post-lockdown 2	19.05	17.37	0.3

Source: authors' own processing in STATA/MP 16.0.

Figure 3: Scatter chart of the two-sample t-test for PM<sub>10</sub> in µg / m<sup>3</sup> in Bratislava, 2019 and 2020



Source: authors' own processing.

It seems that at the beginning of 2020 the declared rapid improvement in air pollution in Slovakia is not fully supported by data as far as Bratislava is concerned. One of the reasons for the capital is the rapid decline in the use of public transport and suburban transport to satellites around Bratislava and their exchange for transport by car, especially due to the fear of the pandemic. Another reason, especially for the particles *PM*<sub>2,5</sub> concentration is the presence of the biggest industry polluters in the area of Bratislava. The biggest industrial polluter in the city is the Slovnaft refinery. Another major polluter is the Volkswagen factory, but also city's waste management and heating solutions play a major role in air pollution in Bratislava.

In the following third part of our research, we focused on the key informant interview with the representatives of the City of Bratislava. The aim was to find out to



what extent the city of Bratislava is implementing or planning to implement intelligent solutions to reduce air pollution, which is, in some parts of the city, alarming. Due to the lockdown in place when writing this paper, the key informant interview, originally planned as an in-person encounter, had to be conducted online. The team from the environment department of the City of Bratislava informed us about important discussions and working groups to take place in 2021, the purpose of which will be to reflect on a new law proposal concerning the air. Currently, the most critical problems regarding air quality are linked to the traffic and dust. In accordance with the amendments to the new law, competencies of the municipalities should be strengthened. Hence, the City is expecting qualitative improvements in comparison to the previous law. Many measures aimed at air quality improvement are already being implemented. An example is the project 10 000 trees; activities focusing on growing plants; reconstruction of parks. Moreover, the City is attempting to strengthen public transportation, however, this is being challenged by the ongoing pandemic. As for public transportation, the objective is to design new bus lanes, tram routes, cycling routes, and similar. All relevant information will be made available to the public as well as to experts. The presented research has been limited by the announced legislative changes to be made by the end of 2021. Therefore, further monitoring of the situation is needed, as well as subsequent evaluation of the impacts of the implemented amendments. Our intention is to reflect on this development in our next paper.

The disappointment that the interview brought is the fact that the municipality was currently unable to provide a specific answer to any of the questions asked. On the other hand, this fact did not surprise us so much, as all the measures so far that we could call "smart" were planned and applied rather unconceptually. The result is only partial success and chaos, which is also related to changes in city management. The solutions that have been adopted so far are rather fragments of a comprehensive concept of a smart city. Although the current situation of the pandemic creates enormous pressure on local governments, which are forced to provide comprehensive testing at their own financial expense, in the case of Bratislava it also reflects how little has been done so far in connection with the implementation of smart solutions. Bratislava ranks last in the global rankings of smart cities and cannot compete with other European capitals in any way. A summary of the measures taken within the smart environment is given in Table 5.

Table 5: Smart environment solution adopted by the City of Bratislava as of February 2021

<i>Initiative</i>	<i>Solution</i>	<i>Goal</i>	<i>Results</i>
10 000 trees	Planting greenery	10 000 trees by 2022	2020 – 1339 trees and 4598 shrubs planted 2019 – 531 trees and 738 shrub shrubs planted
Bus lanes	creation and extension of reserved bus lanes of two types – type I. with the prohibition of entry of any vehicle and type II. with the possibility of use for taxis	encourage the use of public transport and reduce time spent in traffic jams	construction of new bus lanes continues
New tram lane	construction of a new tram line presupposes the connection of the city center with the most populous part of Bratislava-Petržalka and thus significantly reduces the use of passenger car transport	4,2 km	01/2021 planned termination of public procurement 09/2021 beginning of construction
Bike paths	15 new bike paths	71,8 km 25 km until 2022	construction of new bike paths continues

Source: key informant interview.

## 5 DISCUSSION AND CONCLUSION

The COVID pandemic has brought with it, in addition to difficult times, the hope of improving the air quality on the planet. Similar assumptions prevailed in Slovakia. While initial researches focusing on the data from the first lockdown in March-April 2020 showed a significant improvement in air quality, the analysis we performed with the paired t test in the STATA program at a significance level of 0.001 did not show

a significant improvement in all pollution parameters. The only significant improvement was observed for the NO<sub>2</sub> pollutant. However, our results suggest that the decline in vehicle-related NO<sub>2</sub> has not coincided with a significant reduction in PM<sub>2.5</sub> and PM<sub>10</sub> particles. These results are correspondents with the findings of several other studies, e.g. with the (Donzelli et. al, 2020) or (Dobson and Semple, 2020). However, we believe that this situation is the result of the presence of major polluters in the area of Bratislava, namely Slovnaft and Volkswagen.

Nevertheless, these are serious findings. The health effects of the particles are very well described and are very serious, in the long run including cardiovascular disease, pulmonary illness and stroke. All the more important is the evaluation of the city's approach to improving air quality. As mentioned in the methodology, Bratislava has four air quality monitoring stations, some of which (of course for relevant reasons) are located on the busiest arteries of the city. These areas are highly polluted by air pollution. The concentration of pollutants here is often higher than the norms set by law during rush hour on a working day. Therefore, the city has long announced various solutions that should be part of a larger concept of smart city.

It was the implementation of smart air quality solutions that we dealt with in the next part of the research, where we used the key informant interview method. The aim of the paper was to determine the status of adoption of smart city initiative in Bratislava, capital of Slovakia, in relation to the air quality in the context of the current COVID-19 pandemic. It was the insufficient significance of the improvement of air quality that indicated that even in times of a pandemic, the implementation of such smart solutions cannot be forgotten. Unfortunately, the interview brought disappointment. Insufficient funding, inconsistencies in policies, changes in city management, the complexity of managing a pandemic associated with constant testing resulted in a failure to fully implement the plans intended for 2020. The city announces a change in 2021, but whether it will actually take place is questionable. In addition, the proposed solutions require a longer period of time for their implementation. What we are currently seeing in Bratislava is the implementation of various small sub-projects, which cannot be described as bad, but from the point of view of creating an intelligent environment, they are only small steps. Thus, in the time sequence of several proposed smart plans, it seems that Bratislava has made almost no progress. A more significant element, the longer it will lighten the first time, is only the completion of electric tracks.

The pandemic has shown us that reducing air pollution is not impossible, but it is not easy. Despite the reduced mobility, Bratislava faces the presence of important polluters, and therefore it will be crucial that the solutions to reduce significant pollution start to be implemented as soon as possible. The question remains to what extent this implementation will be possible at a time when the money in the city budget is restricted.

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## **TRADITIONAL ECONOMISTS OR THIRD WORLDISTS? THE EFFECT OF INTELLECTUAL PROPERTY RIGHTS ON ECONOMIC GROWTH IN DEVELOPING COUNTRIES**

*Gökhan Demirtaş<sup>1</sup>, Atahan Demirkol<sup>2</sup>*

This study investigates the effect of Intellectual Property Rights (IPRs) on economic growth in 76 developing countries using panel data analysis over the period of 2008-2019. IPRs and the economic growth relationship have been discussed in the empirical literature. On the other hand, Third World Approach to International Law (TWAIL) scholars promote the idea that international law is a hegemonic tool of developed countries, and IPRs may be subjected to their arguments due to the Trade-Related Aspects of Intellectual Property Agreements (TRIPs). Results provide that IPRs positively and significantly affect economic growth in developing countries, whereas there is no U-Shaped relationship between them. The study suggests that IPRs protection should be highlighted in developing countries to achieve greater economic growth, and approves the perspective of traditional economists' approach over TWAILers.

Key words: intellectual property rights, economic growth, Third World approaches to international law, panel data model

JEL: C33, O34, O47

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## 1 INTRODUCTION

How do the Intellectual Property Rights (IPRs) impact on developing countries economic growth? The gaining significance and attention paid on developing countries to enlighten this issue has been trending recently (Le et al., 2022). Hence, IPRs and economic growth have been discussed in the empirical literature (Forero-Pineda, 2006; Falvey et al., 2006; Gould and Gruben, 1997; Park and Ginarte, 1997; Sattar and Mahmood, 2011; Wu, 2010; Yueh, 2007), and it has been a continuous debate in policy making and research fields, suggesting various implications from country to country (Furukawa, 2007; Reichman, 2014). The basic assumption is that imitation is costless, and stronger IPRs protection decreases the possibility of imitation production (Kwan and Lai, 2003). Yet, the data, methodology, and sample provide diverse results about IPRs' effect on economic growth. Whereas a number of studies provide the result that IPRs stimulate growth (Janjua and Samad, 2007), some of the research suggests that the relationship is not an easy task to analyze and discuss. Furthermore, as Clague et al. (1999) noted, some studies suggest that a lack of security of property rights and contract enforcement severely impacts growth.

According to a group of scholars, IPRs' effect on economic growth is generally ambiguous or not clean-cut (Falvey et al., 2006; Furukawa, 2007; Horii and Iwaisako, 2007). As growth is usually dependent on innovation and knowledge, it could be concluded that IPRs' effect on economic growth is a significant issue to analyze. However, as mentioned, the results suggest a complicated linkage between IPRs and economic growth, and the relationship is complex (Maskus, 2000). The IPR debate started and was triggered by Trade-Related Aspects of Intellectual Property Agreements (TRIPs) (Falvey et al., 2006). Due to the TRIPs Agreement and World Trade Organization (WTO) members' responsibility to protect and strengthen IPRs, the focus on the growth debate has increased, and higher levels of IPR protection have been urged (Park and Ginarte, 1997).

The developed and developing countries' nexus regarding IPRs protection and economic growth linkage has led us to focus on the difference between these two groups of countries. As Sell and May (2001, p. 470) have underlined "*[t]he history of intellectual property protection reveals a process that has vacillated between dissemination and exclusion*". Therefore, it is crucial to critically approach IPRs protection and growth in developing countries. One of the fitting framework for this perspective is the Third World Approaches to International Law (TWAIL). TWAILers criticizes the mainstream approaches to international law and provides an idea regarding the difference between developed and developing countries concerning IPRs protection and economic growth. The non-hierarchical and anti-hegemony nature of TWAIL (Mutua, 2000) attempts to make scholars think out of the box of mainstream understandings of international law. According to Mutua (2000), international law has been a tool of Eurocentrism.

Furthermore, it is a framework that has been shaped under the colonial experience (Haskell, 2014).

This study explores the impact of IPRs protection on economic growth in 76 developing countries over the period of 2008-2019. Albeit a number of research investigate this relationship, the current study diverges itself through utilizing updated data on IPRs protection and comparing traditional and third world or TWAIL approach on IPRs. To do so, we aim to contribute to the existing literature via the theoretical framework and data coverage. Our findings suggest the statistically significant and positive effect of IPRs protection on economic growth in developing countries, thus, they do clearly refute the Third World approach.

Most of the studies have used diverse sources for IPRs data. Falvey et al. (2006) have taken the data from Ginarte and Park (1997), Leblang (1996) has utilized two proxies to measure IPRs, Lewer and Saenz (2005) have employed Gwartney and Lawson's (2004) Property Rights Index, and finally Goldsmith (1995) has used the data from Heritage Foundation's Index of Economic Freedom through Johnson and Sheehy (1995). However, IPRI provides the most updated yearly data to measure IPRs protection. The unique value of the study derives from using the updated yearly data of IPRI covering 2008-2019 and focusing on the developing countries to test whether there is a non-linearity following Falvey et al. (2006).

The remainder of this paper is organized as follows. The second section is on the theoretical framework. The third section provides the literature review on the IPRs protection's impact on economic growth. Fourth section indicates the data and methodology. In the fifth section, we document the empirical results, and finalize the study at the sixth section with the discussion and conclusion.

## **2 THEORETICAL FRAMEWORK**

The argument about IPRs and economic growth relies on technological innovation and Foreign Direct Investments (FDIs). Janjua and Samad (2007) provided that IPRs protection is regarded as a triggering mechanism for economic growth. Moreover, Horii and Iwaisako (2007) highlighted that stronger IPRs are expected to stimulate the incentives to innovate, thus, enhancing economic growth, yet the weak relationship between IPRs protection and economic growth might be an indicator of a negative impact of IPRs on growth. However, the level of development is the key factor for the effect of IPRs protection on economic growth (Janjua and Samad, 2007). Accordingly, Sattar and Mahmood (2011) suggest that IPRs and economic growth relationships are more significant and positive in developed countries than the developing ones.

Furthermore, the new growth theory emphasizes that research and development (R&D) and innovation are vital for growth (Grossman and Helpman, 1993; Rivera-Batiz and Romer, 1991; Romer, 1990). These models assume that investments in R&D have



been made through the expectation of profit from inventions (Falvey et al., 2006). The conventional wisdom is, therefore, that stronger IPRs protection encourages investments and R&D activities (Kwan and Lai, 2003). The lack of secure IPRs may result in hesitation to trade and investment (Goldsmith, 1995) as they generally lower the transaction costs and provide a feeling of security to investors (Leblang, 1996). De Soto (1990, 2007) points out that property rights are the vital core of economic growth as they pose an economic institution. De Soto hypothesis assumes that growth is related to IPRs security; thus, property rights directly affect economic growth as they contribute to innovation (Lewer and Saenz, 2005).

According to De Soto (1990, 2007), there is a distinction between property rights in developing and developed countries or in competitive versus less competitive markets (Gould and Gruben, 1996). Similarly, in their meta-analysis study, Neves et al. (2021) states that this effect changes according to the development level of the countries. Developed countries present an environment that protects property rights, whereas vice versa in developing countries. De Soto (2007) argues if property rights are not secured in a country, it is not possible to turn them into capital or investment. Such as Corraera (2005), there are scholars advocating that IPRs are burden on developing countries since they have economic consequences to foster the rapid development. In other words, the developing countries become disadvantaged under the terms of IPRs, which obviously raise the costs (Park and Lippoldt, 2008) or create dependency on private knowledge (Pagano, 2014). The raising imitation costs and attraction of FDIs are keypoints to comprehend IPRs impact on economic growth in developing countries. The adverse effect of stronger IPRs on developing countries' economies has been underlined by various researchers as they claim the overwhelmingly increasing imitation costs tend to harm innovation in terms of R&D and technology transfer (Adams, 2009; Kumar, 2003; Helpman, 1993; Glass and Saggi, 2002, Kim et al., 2012). Yet, there are also other scholars have found that stronger IPRs protection may fuel developing countries' exports, promote long-term economic growth or support the developing countries to turn their assets in capital (Maskus, 2001; Janjua and Samad, 2007; Yang and Maskus, 2009). The positive impact of stronger IPRs on developing countries typically linked to enhancing FDIs attraction (Le et al., 2022).

IPRs might also be subjected to TWAILers' criticisms as a component of international law. Okediji (2003) approaches the IPRs protection as a problematic since the nineteenth century through the channel of multilateral agreements to protect industrial properties. Accordingly, the TWAIL perspective suggests that the development of international law has been related to the imperialist project (Chimni, 2007). Chimni (2006) advocates that international law has always served the interests of powerful countries. Therefore, from the perspective of TWAIL, IPRs might be another area for reflection on power relationships between developed and developing countries. The TWAIL perspective considers that as a part of international law because of TRIPs,

protection of IPRs has been dictated by developed countries over developing countries. There are four channels for TWAILers' readings of IPRs (Upreti, 2022). Firstly, they approach IPRs as colonial regulations. The colonial nature of IPRs derive from TRIPs Agreements overwhelmingly domination on strong IPRs protection and free markets that fuels developed countries' benefits whereas hampering developing countries via the increasing costs. Secondly, the internationalization of IPRs is per se an imperialist project. As Upreti (2022, p. 223) puts it "...TWAILers believe that elevating property regulations to the international level will result in a loss of state control over property regimes". Thirdly, the hegemonic feature of developed countries persists through internationally elevated IPRs protection. Lastly, the TRIPs Agreements have been criticized by TWAILers. The TRIPs Agreements, in general, did not satisfy the less developed or developing countries as they are more favorable for developed countries' interests (Yu, 2006).

### 3 LITERATURE REVIEW

The existing literature provides diverse results for the IPRs' effect on economic growth. In the following studies, there are two strands of literature. First group of studies document a positive impact of IPRs protection on economic growth, whereas the second group consist of research presenting negative effect of IPRs on economic growth.

Examining 79 countries through threshold regression analysis, Falvey et al. (2006) concluded that IPRs protection's effect on growth is related to the country's development level. They reported a positive effect of IPRs protection on growth for high-income and low-income countries, whereas the effect is not the same for middle-income countries due to imitation production. Therefore, they argue that the effect of IPRs protection might be diversely related to the development levels of countries.

Goldsmith (1995) analyzed 59 less developed and transitional countries via the cross-section method and stated that democratic institutions and property rights are positively associated with medium-term economic growth where the democratic and property-oriented regimes have greater growth. More democratic countries grow faster as they also offer better protection of IPRs. Leblang (1996) did the pooled cross-sectional and time-series design panel over the period of 1960-1990 for three decades of different country groups and reported that IPRs absolutely have a positive effect on economic growth in the countries that protect IPRs when they are compared to those that do not protect IPRs.

Lewer and Saenz (2005) utilized fixed effects panel data methodology for 101 countries from 1990 to 2002 and found that high-level IPRs protection positively affects real economic growth rates. The results are similar when the sample is split into two OECD countries and LDC. In the two samples, regression results are positive for property rights on economic growth. However, the coefficient of property rights for LDCs is twice as large as in OECD countries.

Gould and Gruben (1996) utilized the cross-country data over the period 1960-1988. They presented that stronger IPRs protection results in higher levels of economic growth. Moreover, they also indicated a difference among less competitive and highly protected markets, relatively closed markets, highly protected and uncompetitive markets, and open markets. The levels of innovation in those diverse economic structures result in varying impacts on innovation and economic growth relationship.

Adams (2009) examined the IPRs effect on economic growth in 73 developing countries between 1985-2003 using cross-section panel data set over five-year periods. In their research they documented a negative impact of strong IPRs protection on growth. They clearly suggested the result that strengthening the IPRs in developing countries may hamper the economic development.

As a result of this brief theoretical framework and empirical literature, we have decided to analyze the effect of IPRs on economic growth in developing countries using the Intellectual Property Rights Index (IPRI) data covering the period from 2008-2019 in 76 developing countries. Doing so, we have also attempted to test the non-linear relationship between IPRs and economic growth following Falvey et al. (2006). The study of Falvey et al. (2006) investigating a threshold level for IPRs' effect on economic growth and the predominant results in the literature suggesting a positive effect of IPRs on economic growth and the research by Adams (2009) has led us to test the U-Shaped relationship between the two variables. Additionally, TWAILers' arguments regarding international law are a hegemonic tool of developed countries over developing ones to limit them have triggered us to seek the non-linearity between them. Therefore, we tried to test whether there is a non-linearity to understand if the positive effect of IPRs on economic growth occurs after a threshold level.

#### **4 METHODOLOGY AND DATA**

This study examines the effect of IPRs on economic growth using the fixed effects model with the Driscoll-Kraay estimator for 76 developing countries from 2008 to 2019.<sup>3</sup> Model specification tests are used for an efficient and consistent model in panel data analysis. If the fixed effects model is effective and consistent according to these test results, diagnostic tests play an important role in specifying the estimator. In case there

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<sup>3</sup> The countries covered in the sample are as follows: Albania, Algeria, Armenia, Azerbaijan, Bahrain, Bangladesh, Belgium, Benin, Bolivia, Bosnia, Botswana, Brazil, Bulgaria, Burundi, Cameroon, Chad, China, Colombia, Costa Rica, Croatia, Cyprus, Dominican Republic, Ecuador, Egypt, El Salvador, Ghana, Guatemala, Honduras, Hong Kong, India, Indonesia, Jamaica, Jordan, Kazakhstan, Kenya, Kuwait, Macedonia, Madagascar, Malaysia, Mali, Malta, Mauritania, Mauritius, Mexico, Moldova, Montenegro, Morocco, Mozambique, Nepal, Nicaragua, Nigeria, Pakistan, Panama, Paraguay, Peru, Philippines, Qatar, Romania, Russia, Saudi Arabia, Senegal, Serbia, Singapore, South Africa, Sri Lanka, Tanzania, Thailand, Tunisia, Turkiye, Uganda, Ukraine, United Arab Emirates, Uruguay, Vietnam, Zambia, Zimbabwe.

are problems of heteroskedasticity, autocorrelation, and cross-sectional dependence, Driscoll and Kraay (1998) estimator is employed for the results of the fixed effects model. The empirical models based on Falvey et al. (2006) are as follows:

Main effect model:

$$\text{Log}Y_{it} = \alpha_0 + \alpha_1\text{LogCAP}_{it} + \alpha_2\text{POP}_{it} + \alpha_3\text{EDU}_{it} + \alpha_4\text{TRADE}_{it} + \alpha_5\text{INF}_{it} + \alpha_6\text{IPRI}_{it} + \varepsilon_{it}, \quad (1)$$

U-Shaped effect model:

$$\text{Log}Y_{it} = \beta_0 + \beta_1\text{LogCAP}_{it} + \beta_2\text{POP}_{it} + \beta_3\text{EDU}_{it} + \beta_4\text{TRADE}_{it} + \beta_5\text{INF}_{it} + \beta_6\text{IPRI}_{it} + \beta_7\text{IPRI}_{it}^2 + \mu_{it}, \quad (2)$$

Where  $i$  and  $t$  indicate the country and the year, respectively and  $\varepsilon_{it}$  and  $\mu_{it}$  represent the stochastic error terms. The definitions of variables involved in the full text are shown in Table 1. The U-shaped model, unlike the main effect model, includes square of IPRI. In equation 2, in case  $\beta_6 < 0$  and  $\beta_7 > 0$ , there is U-shaped effect between IPRI and  $\text{Log}Y$ .

Table 1: Definition of Variables

<b>Variable Symbol</b>	<b>Variable Name</b>	<b>Measurement Method</b>	<b>Source</b>
LogY	Economic Growth	The logarithm of GDP per capita (current US\$)	World Development Indicators
LogCAP	Capital Formation	The logarithm of gross capital formation (current US\$)	World Development Indicators
POP	Population	Population growth (annual %);	World Development Indicators
EDU	Education	The education index from Human Development Index	UNDP
TRADE	Openness	The sum of exports and imports of goods and services measured as a share of GDP	World Development Indicators
INF	Inflation	Consumer prices (annual %)	World Development Indicators
IPRI	Intellectual Property Rights	Index of IPRI	Property Rights Alliance

Source: processed by authors.

Descriptive statistics and correlations are provided in Table 2 and Table 3. This study uses a balanced panel dataset for 76 developing countries over a 12-year period (2008-2019), selecting samples and countries based on data availability of *IPRI*. The correlation results reveal that the dependent variable is not highly correlated with independent variables. However, *LogY* is also positively correlated with *IPRI*.

Table 2: Descriptive Statistics

	<i>LogY</i>	<i>LogCAP</i>	<i>POP</i>	<i>EDU</i>	<i>TRADE</i>	<i>INF</i>	<i>IPRI</i>
Mean	8.4119	23.5350	1.5409	0.6223	88.4775	5.2145	5.0425
S.D.	1.2071	1.7213	1.6117	0.1411	63.2039	9.4887	1.0689
Minimum	5.2900	19.1913	-1.7453	0.232	20.7225	-4.8632	2.5
Maximum	11.3513	29.4517	16.4755	0.924	442.62	255.305	8.462

Source: processed by authors.

Table 3: Correlation Matrix

	<i>LogY</i>	<i>LogCAP</i>	<i>POP</i>	<i>EDU</i>	<i>TRADE</i>	<i>INF</i>	<i>IPRI</i>
<i>LogY</i>	1.0000						
<i>LogCAP</i>	0.4018	1.0000					
<i>POP</i>	-0.0846	-0.0430	1.0000				
<i>EDU</i>	0.7740	0.2759	-0.4074	1.0000			
<i>TRADE</i>	0.5016	-0.0208	-0.0439	0.4102	1.0000		
<i>INF</i>	-0.1751	-0.0256	0.0289	-0.0867	-0.1038	1.0000	
<i>IPRI</i>	0.7238	0.3312	0.1079	0.4761	0.5999	-0.1488	1.0000

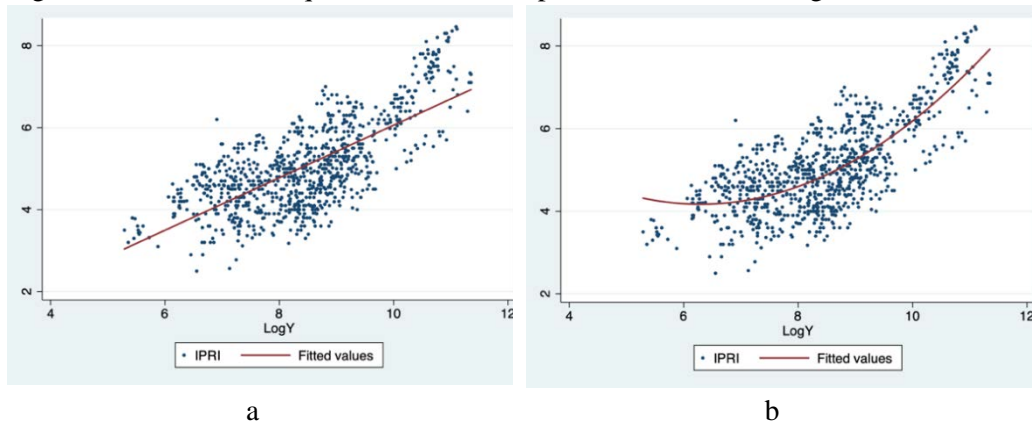
Source: processed by authors.

*IPRI* is the data providing information about the status of countries' property rights. It has been published yearly by Property Rights Alliance (PRA) since 2007. *IPRI* consists of Legal and Political Environment (LP), Physical Property Rights (PPR), and Intellectual Property Rights (IPRs). LP covers the information about a country's institutions regarding property rights. PPR and IPRs represent de jure and de facto opportunities in a country upon property rights. The scale of *IPRI* is constituted from zero to ten [0-10], where zero denotes the lowest and most negative value of the property rights system in a country. 2021 *IPRI* data includes 129 countries (Levy-Carciente and Montanari, 2021).

## 5 RESULTS

Prior to empirical estimation, Figure 1 plot a positive relationship between *IPRI* and *LogY* in both linear and quadratic, respectively. However, these variables have no U-shaped effect, according to Figure 1b.

Figure 1. The linear and quadratic relationship between IPRI and LogY



Source: processed by authors.

The results of the model specification tests are reported in Table 2. Firstly, the cross-section F test is used between pooled OLS and fixed effect models. F statistics' p-value is less than 0.05, which indicates fixed effect models to select the more conclusive and better model. Secondly, Breusch and Pagan LM test is conducted between the pooled OLS and random effect model. LM statistics' p-value is less than 0.05, indicating that the random effects model is appropriate in this case. Lastly, the Hausman test is applied between the fixed and random effect models. It is found that the null hypothesis of the Hausman specification test is strongly rejected, concluding that the fixed effects model is more consistent and efficient than the random effect model. These results show that the fixed effect model is appropriate to explain the outcomes of the model 1 and 2 (Table 4).

Table 4: Model Specification Tests

<i>Models</i>	<i>Cross-Section F Test</i>		<i>Breusch and Pagan (1980) LM Test</i>		<i>Hausman Test (1978)</i>	
	Statistic	P-value	Statistic	P-value	Statistic	P-value
Model 1: Main Effect	310.10	0.000	3572.94	0.000	411.13	0.000
Model 2: U-Shaped Effect	309.35	0.000	3619.02	0.000	334.02	0.000

Source: processed by authors.

Even though the fixed effect model is the consistent and efficient model for the analysis, linear panel data models commonly have heteroskedasticity, cross-sectional dependence, or serial correlation problems. Therefore, three diagnostic tests are obligatory to check the validity of the model. The results of these diagnostic tests are summarized in Table 5. Firstly, both models' test statistics (BP/CW and White Tests for heteroskedasticity) are significant at the 1% level, indicating the presence of

heteroskedasticity in the data set. Secondly, D-W and LBI test results show that there is a serial correlation problem for the estimation of both models. Finally, findings in Table 6 reveal that the null hypothesis of both Friedman and Frees tests for cross-sectional independence is rejected. In the light of the above explanations, diagnostic test results represent the presence of heterogeneity, serial correlation, and cross-sectional dependence. In this case, the Driscoll-Kraay estimator has robust standard errors to overcome these three problems in the fixed effects model.

Table 5: Diagnostic Tests

<i>Heteroskedasticity</i>	<i>Breusch and Pagan (1979) / Cook and Weisberg (1983) Test</i>		<i>White (1980) Test</i>	
	Statistic	P-value	Statistic	P-value
Model 1: Main Effect	6.19	0.012	294.76	0.000
Model 2: U-Shaped Effect	5.59	0.018	339.09	0.000
Serial Correlation	Bhargava et. al. (1982) D-W Test		Baltagi and Wu (1999) LBI Test	
	Statistic	P-value	Statistic	P-value
Model 1: Main Effect	0.4944	–	0.7758	–
Model 2: U-Shaped Effect	0.4982	–	0.7811	–
Cross-Sectional Dependence	Friedman (1937) Test		Frees (1995, 2004) Test	
	Statistic	P-value	Statistic	P-value
Model 1: Main Effect	67.370	0.722	12.965	0.000
Model 2: U-Shaped Effect	72.350	0.563	12.647	0.000

Source: processed by authors.

The results in Table 6 obtained from the Driscoll-Kraay estimator show similar signs of coefficients for each control variable in both models. The coefficients of *lnCAP*, *POP*, and *EDU* are positive, whereas the coefficients of *INF* and *TRADE* are negative, which is consistent with our expectations except for *TRADE*.

Regarding the coefficients in the model 1 of Table 6, *IPRI* has a positive and statically significant effect on economic growth. Notably, a unit change in *IPRI* increases *LogY* by 0.1281% statistically at a 1% significance. Therefore, it is evident that *IPRI* promotes the GDP per capita growth process in developing countries. In model 2, whereas the coefficient of *IPRISQ* is positive and significant, the coefficient of *IPRI* is negative and insignificant. According to this result, there is no U-shaped effect from *IPRI* to *LogY*. These results based on the estimation of coefficients are consistent with the findings in Figure 1.

Table 6: Determinants of GDP per capita using Driscoll-Kraay estimator (FE: 76 Developing Countries, 2008-2019)

<i>Variables</i>	<i>Model 1: Main Effect</i>			<i>Model 2: U-Shaped Effect</i>		
	Coefficients	P-value	t-statistics	Coefficients	P-value	t-statistics
LogCAP	0.4335*	0.000	39.60	0.4336*	0.000	38.93
POP	0.0191*	0.009	3.18	0.0219*	0.005	3.48
EDU	0.5689*	0.007	3.31	0.5809*	0.007	3.32
TRADE	-0.0019*	0.001	-4.73	-0.0019*	0.001	-4.74
INF	-0.0004	0.681	-0.42	-0.0004	0.693	-0.41
IPRI	0.1281*	0.000	6.34	-0.0090	0.876	-0.16
IPRISQ	–	–		0.0143**	0.012	2.99
Constant	-2.6440*	0.000	-9.45	-2.3509*	0.000	-6.33
R-square	0.6407			0.6424		
F statistics	477.35			1160.03		
P-value	0.000			0.000		
Observ.	912			912		

Source: processed by authors.

## 6 CONCLUDING REMARKS

This study examines the effect of IPRs on economic growth using panel data analysis in 76 developing countries during the 2008-2019 period. The Driscoll-Kraay estimator is conducted for this purpose, considering heteroskedasticity, serial correlation issues, and cross-sectional dependence. The IPRs protection and economic growth debate has been a prolonged dilemma in the existing literature (Neves et al., 2021). Although various researchers have attempted to document the impact of IPRs on growth, we aim to comprehend the nexus in developing countries by utilizing the recent yearly IPRI data. The recent trends in innovation and R&D activities in developing countries have caught our attention to analyze the possible impact of IPRs on economic growth in developing countries.

Furthermore, we have diverged our study from the current literature through underlining the rivalry between traditional economy thought and critical economic perspective. The critical one, TWAIL perspective, has allowed us to emphasize the colonial rule of law in international relations. TWAILers typically refer to the international law as a tool of hegemonic relationship of First World countries over the Third World. In line, they also attribute TRIPs Agreements and IPRs protection as domination vehicles of developed countries on the developing ones. Hence, they claim that IPRs protection favors developed countries and hampers the economic growth in developing countries. This dilemma has led us to analyze the impact of IPRs on economic growth in developing countries with the recent data.

There are two main results of this study. First, the effect of IPRs on economic growth is positive. This result is in compliance with the expectations and consistent with existing studies such as Goldsmith (1995), Leblang (1996), and Lewer and Saenz (2005).



Second, there is no U-shaped effect between IPRs and economic growth, consistent with Falvey et al. (2006). This result indicates that the IPRs have no threshold effect on economic growth. Therefore, protection of the IPRs does not cause any cost to economic growth in developing countries. Also, this result does not support the perspective of TWAIL, in which Chimni (2006) claims that international law to protect the IPRs favors developed countries. This research indicates that the traditional economic thought finds its supporting point in the empirical analysis over the TWAILers' arguments that developing countries are victims of IPRs protection.

In future studies, we may focus on the comparison between developed and developing countries in terms of IPRs protection and economic growth to test the TWAIL arguments. As the yearly updated data may document diverging results from the existing literature, it is noteworthy to emphasize the critical and traditional economic thought perspectives in the future research. Hence, the developing countries should implement stronger IPRs protection to catch the attention from international businesses and producers to safely penetrate their economic structure. The investors, according to the results, generally seek for legal protection of their intellectual property before entering a developing country's market. The more strict IPRs foster the economic growth in developing countries as the R&D investments and innovation are more favored.

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## **NOVA EFFECT IN TURKISH FOREIGN POLICY: TURKISH-AMERICAN RELATIONS (1945-1964)**

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During the Cold War, which broke out between the Western Bloc and the Eastern Bloc after the Second World War, the Strategic Partnership was established between Turkey and the United States (US). As a result, the two states acted together against the Soviet Union threat. Turkish-American relations, which continued well from the early Cold War to the early 1960s, have been strained from time to time because of developments in the 1960s. These relations have also had some positive (lucky) and negative (unlucky) consequences for Turkey. This study reviews Turkish-American relations between 1945 and 1964. Turkish-American relations against the Soviet Union threat and communism, described as a common fall in the early years of the Cold War, were strained by what was written to Turkey by US President Lyndon B. Johnson in 1964, known as the Johnson letter. The study examines the breakdowns in Turkish-American relations during this period. We evaluate the impact of the development of Turkish-American relations on Turkey within the framework of the Nova effect, while the results of positive and negative development of relations were vaguely good or bad.

Key words: international relations, Turkish foreign policy, Nova effect, Cold War, Turkey, US

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## 1 INTRODUCTION

Turkish-American relations, commenced during the Ottoman Empire, continued up and until this day. Turkey pursued a non-war policy during the Second World War and was forced by allies to join the war. Although Turkey declared war on Germany towards the end of the war, the country was left alone against the Soviet Union in the early Cold War which began after the Second World War. Realizing how great the threat of the Soviet Union and communism was over time, the United States secured Turkey with the Western security by providing military and economic assistance to Turkey with the Truman Doctrine adopted in 1947, and the strategic partnership was established between Turkey and the United States (Çelebi ve Demirağ 2011, p. 42). That was because Soviet Union and communism became a common enemy both for Turkey and the US.

After the Truman Doctrine, Turkey was included in the Marshall Assistance launched in 1948, and economic development was achieved through aid to Turkey. With these aids, Turkey has become dependent on the United States for its U.S.-oriented and one-dimensional foreign policy while feeling safe from the threat of the Soviet Union (Erhan 1996, p. 285). Turkey understood the harms of this situation in the early 1960s with the problems in Turkish-American relations.

The Cuban Crisis between the United States and the Soviet Union in 1962 led to the beginning of a period of softening between the Western Bloc and the Eastern Bloc. In this process, the United States removed the Jupiter missiles placed on Turkish territory against the threat of the Soviet Union against Turkey's will without consulting Turkey. After this incident, Turkey realized that international policy was negotiable against its will and a mistrust of the United States emerged (Küçükmeral 2020, p. 80).

Similarly, the issue written by US President Johnson to İsmet İnönü in 1964, known as the Johnson letter, caused a trust problem in Turkish-American relations and strained relations between the two countries. After the tensions and conflicts in Cyprus, Turkey decided to intervene on the island, and US President Johnson, considering this situation contrary to his interests in the region, sent a letter to İsmet İnönü stating that it was unacceptable for two NATO member states to fight, and that NATO was reluctant to help Turkey when it came to the Soviet Union's intervention in Turkey after such an intervention. After this letter, Turkey gave up its intervention in Cyprus (Şahin 2002, p. 26). As a result of this issue, Turkey, as part of the Western Bloc, understood that its national interest was ignored when it contradicted the interests of the United States. For this reason, Turkey started to implement a multidimensional foreign policy with the effect of the softening period. This led to Turkey's cooperation with other countries and reduced its dependence on the United States (Sönmezoğlu 1995, p. 40).

These events in Turkish-American relations showed that a positive process would lead to an unexpectedly unlucky and negative process. In this context, this study will examine the relations between Turkey and the United States between 1945 and 1964 within the framework of the Nova effect. The Nova effect, used in psychology and

especially used in the field of international relations in Chaos theory, explains that an event considered as lucky (positive) among states can have a lucky (positive) result; if an event considered unlucky (negative), it will lead to unlucky (negative) result. The study will examine Turkish-American relations within this framework. The Nova effect is a method previously unused in the field of international relations, and this study claims to be the first to examine a foreign policy event in light of the Nova effect. However, the fact that no studies have been carried out in other areas associated with the Nova effect and the absence of a tangible scientific study has led to a limited explaining of the Nova effect. This study aims to provide a meaningful layer to the literature.

The study consists of four parts. In the first chapter, Nova effect will be explained even with limited possibilities. The second chapter will focus on the international environment in 1945 and Turkish-American relations. In the third chapter, the Cuban Crisis and Johnson letter events, where there are tense events in Turkish-American relations, and their impact on Turkish foreign policy will be evaluated. In the fourth chapter Turkish-American relations will be examined within the framework of Nova effect.

## **2 LITERATURE REVIEW**

Turkey's non-war policy in the Second World War, its absence from the war and its failure to provide the assistance expected by the allies were deemed by the allies as a late decision despite cutting ties with Germany and declaring war. In particular, the Soviet Union considered Turkey's non-war in the Second World War a movement that prolonged the war and changed its policy towards Turkey. The Soviet Union aimed to have a say in the Balkans and Straits region, a region the Soviets regarded as a post-war security belt. The Soviet Union wanted to make Turkey more disadvantageous in the region by separating it from the British and Americans (Armaoğlu 2020, p. 265). In this sense, the war finally began in the strategic struggle. In this struggle, Turkey became an important country. For example, the British Foreign Office and General Staff thought that Turkey needed the Soviet Union after the war. However, Winston Churchill was angry with Turkey because of Turkey's attitude during the war. Moreover, he believed that Montreux could change it during Churchill's meeting with Stalin in Moscow in 1944, and from this moment on, Turkey's greatest fear was that the allies would leave Turkey alone against the Soviet Union. In 1945, when the allied states were close to winning the war, the Turkish government was concerned (Ateş 2014, p. 175). That was because the Turkish government feared that the British would make concessions to the Soviet Union against Turkey at the Yalta Conference on February 4-11, 1945 (Ülman 1961, p. 26). As Turkey expected, the issue of Turkey was raised at the conference. Stalin, the leader of the Soviet Union, demanded that the crossings of the Straits be abandoned not only during wartime, but also in peacetime, at Turkey's initiative, and that Montreux be evaluated according to the conditions of the day. Roosevelt and Churchill agreed with Stalin and decided to raise



this issue at the first meeting of the foreign ministers of the three countries (Seydi 2006, p. 127).

As the allied states gained supremacy over Germany, Turkey's relations with the Soviet Union became strained. On March 19, 1945, Molotov summoned the Turkish ambassador, Selim Sarper, to his office and issued a note on the termination of the Turkish-Soviet Treaty on Friendship and Neutrality of December 17, 1925, which formed the basis of Turkish relations with the Soviet Union, on the grounds that it did not meet the requirements of the time. On June 7, 1945, Molotov invited Turkey's ambassador to Moscow, Selim Sarper, again, to indicate that a new agreement could be made to resolve the problems between the two countries, and expressed his desire for arrangements in favour of the Treaty of Montreux and the Straits in favour of the Soviet Union and the transfer of Kars and Ardahan (Seydi 2003a, p. 100).

Although the Soviet Union's demands from Turkey and its main purpose worried Britain and the United States, both states understood the importance of Turkey's territorial integrity for them. However, they did not react strongly in the face of intense pressure from the Soviet Union on Turkey and expected the conditions to mature. The Potsdam Conference, which was held from July 17 to August 2, 1945, also raised the issue of international status of the Straits, while Churchill and Henry S. Truman were sympathetic to this, they hold the same idea about Montreux's inability to meet current needs. However, although Truman did not object to the free passage of Soviet warships through the Straits, he turned down the Soviet Union's requests for bases (Seydi 2003b, p. 37).

In fact, Truman was the one who stood closer to the demands of the Soviet Union. For example, Truman conveyed his views on the Straits to Turkey on November 2, 1945, saying that all countries bordering the Black Sea should transit through the Straits in war and peace without their warships being subjected to any borders. Turkey considered this an acceptance of Soviet aspirations and continued diplomatic efforts to prevent it. On the one hand, Turkey aimed to bring together the views of The United Kingdom and the United States on the Straits close to it, while on the other hand it sought assurances from the United States that it would help Turkey's defence in the face of possible Soviet attacks. To achieve this objective, it was often stated that Turkey was the key country in terms of protecting Western interests in the Middle East and Mediterranean. Towards the end of 1945, the Soviets voiced their claims on Eastern Anatolia through different means, which helped to understand Turkey (Sadak 1949, p. 485-490).

As the Soviet approach grew, Washington gradually began to understand Turkey, so much so that it even received verbal assurances from America in the face of the Soviet threat. This was influenced by the expansionist policy pursued by the Soviets in the Balkans and Eastern Europe. Especially after the Moscow Conference in December 1945, Truman began to harden against the Soviets. Truman now took the reports of his diplomatic representatives in Turkey and the Soviet Union more seriously. Reports from

these centres insisted that Soviet policies in the region undermined American interests and helped these countries. With the American military authorities agreeing, Truman then began preparing his own public opinion for policies against the Soviets in the Middle East region and said that the Soviet Union threatened Turkey and Greece. In fact, the assurance given to Turkey was given indirectly. For example, the funeral of Munir Ertegün, who died when he was ambassador to Washington, was brought to Istanbul on April 5, 1946, on a warship called Missouri. This visit meant that the United States would not leave Turkey alone in the face of the Soviet attack (Rozakis and Stagos 1987. p. 123).

This was replaced by a Soviet note dated August 7, 1946. The Soviets wanted the Straits to be defended jointly with Turkey. This time, however, the UK and the United States supported Turkey. With this support, the diplomatic discussions about the Straits ended with the note given by Turkey on October 18, 1946, and Turkey's integration with the West accelerated (Donova 1977, p. 280). The United States had a better understanding of the Soviet Union's policies on Turkey, and the idea that the Soviet Union had influence over Eastern Europe, as well as the Soviets' support for the Communist-influenced Greek civil war, and in particular the Soviets' reluctance to leave Iran, led the United States to pay more attention to the countries of the region. The U.S. administration's public opinion that communism was a significant threat and Britain's loss of power required the United States to be more effective. Truman decided to pursue tougher policies against the Soviets, and by the beginning of 1947, the American public began to believe that there was a threat of communism. Truman, who managed to win public support, spoke at the convention on March 12, 1947, as an official declaration of the Cold War. Truman, whose ideas would be known as the Truman Doctrine, wanted Greece and Turkey to be supported in the face of Soviet expansionism. Truman's request for aid to Turkey and Greece was approved by Congress, in which Turkey received \$100 million in cash and almost all military supplies used in the war (Friedman 2007, p. 67).

The assistance provided within the framework of the Truman Doctrine was an indication that the United States would not leave Turkey alone in the face of the Soviets. But there was also criticism of these aid, particularly allegations that America's ability to control the use of its aid on the spot abandoned the principle of full independence (Harris 1972, p. 24). Because after these aids, American goods entered the Turkish market, and at the same time, American culture began to dominate Turkey. American-style life, which began to affect the whole world, began to take effect in Turkey with this help (Warner 1974, p. 90).

Turkey, which received assistance from the United States under the Truman Doctrine, also wanted to be included in the Marshall Plan announced by US Secretary of State George Marshall on June 5, 1947. Rather, this plan envisaged the rehabilitation of Europe, whose economic structure collapsed after the war. Thinking that Europe would be under the influence of communism if economic assistance was not provided urgently, Marshall asked European countries to offer them a package of requests. Thus, European

states aimed to maintain their independence in the face of communism (Isaac and Downing 1998, p. 75). However, the Soviets, who viewed the plan as creating a front against him, reacted and prevented eastern European countries from benefiting from it. To make the Marshall Plan effective, some European countries, including Turkey, met in Paris on July 12, 1947 and established the Conference on European Economic Cooperation. In fact, the Marshall Plan did not envisage assistance to Turkey, which was not subjected to any destruction because it did not initially go to war. However, the war had a serious impact on Turkey's economy. But, according to US officials, the Truman Doctrine was sufficient to meet Turkey's urgent needs. In fact, Turkey could not contribute to the development of Europe by receiving assistance from the Marshall Plan, but by meeting the agricultural product and mineral needs of Europe. Therefore, it was said that Turkey could be helped if the request for assistance was arranged to meet these needs of Europe, and it was included in the aid scope on July 4, 1948, after Turkey accepted this requirement (Denitch, 1990, p. 24). Between 1948 and 1952, Turkey received approximately US\$ 300 million in aid and often used it for the development of agriculture (Atmaca 2014, p. 24).

As in the Truman Doctrine, the Turkish government perceived inclusion in the Marshall Plan as an indicator of Western integration and avoiding isolation in the face of the Soviet threat. Although there was an economic revival in Turkey with Marshall's assistance, the use of aid in the agricultural sector and its supervision by the United States also provoked criticism. Because Turkey started to fall under the control of the United States. Rather than acting with its own resources, Turkey aimed to overcome the economic difficulty with outside aid, which led to increased American influence in foreign and domestic policy. Turkey's next foreign policy objective was to provide western military support (LaFeber 1980, p. 39). Although American support was obtained within the framework of the Truman Doctrine and Marshall Aid, they did not have the size to guarantee Turkey's defence, so they sought a place for itself in the security structures in the Western Bloc. As a result, he joined NATO on 4 April 1949 and took his place in the western security wing as a member in 1952 (Gönlübol 1971, p. 25). The Democratic Party, which came to power in 1950, worked hard to get Turkey into NATO and achieved this goal in 1952 (Kuniholm 1984, p. 43).

After joining NATO, Turkey's Foreign and Defence policies functioned within the framework of NATO's joint defence plan. Turkey's membership in NATO was vital in a sense for the West, especially the United States, because there were 219 divisions of the USSR against NATO's 14 divisions in Europe, and this overwhelming advantage worried European countries and the United States (Leffler 1980, p. 810). In this sense, Turkey's NATO membership, which controlled the Straits, served as a set for the Soviet landing in the Mediterranean during the Cold War, and was important to secure the vital interests of the West in the Middle East, Mediterranean and Balkans, together with the bases to be built on its territory (Albayrak 2002, p. 855-857).

In the early 1950s, Turkey devoted its foreign policy to building a security belt against the Soviets, while in the second half of 1950, the Cyprus issue began to be prominently raised. In the late 1950s, the United States became more interested in the Middle East (Uslu 2003a, p. 104). For example, the Eisenhower Doctrine led to a crisis between Turkey and Arab countries, especially in Egypt and Syria, and the Soviet Union. Already, 1957 and 1958 were the years when crises erupted, especially in Iraq, Jordan, Syria and Lebanon. These crises might not be against Turkey in order to gain the support of the United States in the first place, but because the United States needed Turkey to carry out its operations in the Middle East. As a matter of fact, after these crises, Incirlik Base was established in 1954. On the other hand, Turkey's security interests and the regional interests of the United States largely overlapped in these crises, so the number of U.S. aid increased significantly in this year (Bağcı 2001, p. 50). Therefore, this period was the best year of Turkish-American relations. For example, during this period, Turkey was elected to the UN Security Council for the first time by the vote of the United States (Kuneralp 1999, p. 76). In addition, a bilateral agreement was signed with the United States on March 5, 1959, under which the United States pledged armed assistance to Turkey in the face of any danger. In a sense, Turkey was well connected to the United States and ignored cold war policies and its own national strategies and policies. To prevent this situation, Turkey also tried to hold talks with the Soviet Union in 1959. However, the United States did not want this, thinking that its influence on Turkey would decrease. Turkey-Soviet Union relations already failed due to the coup in Turkey on May 27, 1960 (Göktepe and Seydi 2015, p. 216).

### **3 METHODOLOGY**

Nova effect, which explains that the situation of being lucky or unlucky is relative to the time and place in which it is located, is used to define that the evaluation of the events encountered in life according to the situation may also be uncertain. It is possible that an X event that a person thinks is lucky brings with it bad things, or a Y event that a person thinks is unlucky brings good things with it. Alan Watts says, until the future is fully realized, it's impossible to know if something is good or bad. That's exactly what the Nova effect is built on (Pinkson, 2021).

The Nova effect indicates that after an incident occurs, it would be wrong to evaluate or infer about it. There is an important story about this incident. According to this story, Eric goes for a morning walk with his dog Nova. Nova, a mobile dog, begins to run to catch the rabbit, which he sees behind a bush in the area where they are hiking. Suddenly he starts running, the owner gets rid of Eric and the rabbit and Nova disappear. Eric searches for his dog for a long time, but he cannot find it. In shock at his misfortune, Eric informs his relatives about the issue and asks them for help. He will put up search ads around. He will be looking for Nova for days. He would be sorry to lose Nova. He thinks if the rabbit had not been there at that time, or if he had not loosely held Nova's

collar, he would not have lost Nova. About a week later, a woman comes to Eric's house. She has found Nova. Eric and Nova hug right after they meet. Eric is very grateful to her for finding Nova. Thank you and meet them there. Our new character Vanessa is almost the same age as our main character Eric and is also very beautiful. After they meet that day, they meet a few times and then they become lovers. The couple, who are very happy to have put their lives together, actually know that Eric's loss of Nova caused this. If Vanessa hadn't been there at the time or seen the missing persons notice, they wouldn't have met Eric and been lovers. After a happy few month, Eric gets in the car and leaves to pick up Vanessa from his house. As he crosses an intersection, a vehicle coming from the other side of the road crashes into Eric's car. Eric opens his eyes in the hospital. When he wakes up, the doctor in front of him tells him that he has survived the accident cheaply, that a few checks need to be done before he is discharged, and he leaves the room. Eric thinks he would not have had this accident if he had not met Vanessa. Eric is going to have all the checks done in a few hours. After the results come back, the doctor walks into the room and tells Eric he has some bad news. After examining the MRI results, the doctor tells Eric that he has found a tumour in his brain. He adds that Eric is diagnosed early with a tumour after a very deadly accident, without letting him get alarmed. Eric survived a major accident on his way to pick up Vanessa, whom he met because of his lost dog. Indirectly, Eric has survived because he lost Nova (Chaparwal, 2021).

The lesson from Eric and Nova's story is that what we trivially ignore can shape our lives forever. But what has had a tremendous impact in the long run is that we are ignoring the small improvements we can make. Eric's life has changed after the rabbit jumped out of the bushes. However, such incidents take place out of your control and you can do nothing (Dubey, 2021).

The results of events should be used for positive elements, as there may be positive consequences, as well as the negative effect of the Nova effect. For example, when you think of the gym, you think that one day jumping makes no difference. But in a few weeks, laziness prevails and you never think about working again. Instead, even if you work only a few days a week, you get significant long-term benefits (Dorn, 2021).

The Nova effect, which examines the Chaos theory in international relations and is a more specific example of the butterfly effect, shows that the events and developments experienced will not depend on luck, while an event that seems lucky can lead to unlucky results, and an unlucky-looking event can lead to lucky results. Since the events and developments that occur are not interconnected in some cases, it is also difficult to know the consequences of the event.

The Nova effect is a method that emerged in psychology. Although this method is known by almost everyone in the field, no academic studies have been found on this subject. There are only a few on-line sources on the subject. Religiously, this method coincides with the logic that there is good in every evil in the religion of Islam. However, theologians have not done any studies on this method. In the field of International

Relations, although it is mentioned in the field known as Chaos theory, the butterfly effect has not found itself as much as the butterfly effect in the literature. In this sense, although the Nova effect is known by almost everyone, no academic studies have been done on it. This study claims to be the first study that tries to explain an event in Turkish foreign policy within the framework of the Nova effect. With the multidisciplinary studies gaining importance in today's world, the opportunity to publish the study will enable the study to receive citations from many fields, especially psychology, and to lead the studies to be done in this field.

#### **4 RESULTS**

After the military coup on May 27, 1960, Turkish-American relations continued to progress positively. It had already been emphasized that after the coup, the military regime would adhere to all the alliances and commitments that came before it, especially NATO and CENTO. Nikita Khrushchev, the leader of the Soviet Union, who thought that Turkey could follow a policy of neutrality after the coup, sent a letter to General Cemal Gürsel, but Gürsel responded negatively to the letter (Criss 2008:104). Because military leaders, like the rulers before them, continued to see the Soviet Union as a threat and continued Turkey's relations with the United States and other Western states without changing it (Yetkin 1995, p. 189). For example, in August 1960, Jupiter MRBM missiles were deployed in Turkey, and new radio stations were established in Turkey against radio stations spreading Soviet propaganda, especially in the Eastern Anatolia region. Moreover, the aid provided to Turkey by the United States continued to increase and the American aid made in the period from May 27 to January 12, 1961 reached US\$ 300 million (Uslu 2000, p. 104).

This situation in Turkish-American relations began to change with the Cuban Missile Crisis in 1962. In 1957, the Soviet Union launched Sputnik, alarming NATO member states and the United States. This development created a perception in the United States that it was lagging behind the Soviet Union in the nuclear race. Because the U.S. did not have a long-range missile. Due to this lack of us, the United States offered to deploy medium-range missiles to some NATO member states, NATO countries that feared Soviet pressure opposed the placement of the missiles in their territory (Göktepe 2005, p. 435). Britain, Italy and Turkey accepted the US offer. Turkey regarded the deployment of the missiles as a protection against the Soviet threat. Turkey believed that the importance of the country's geopolitical position would increase and would positively affect Turkey-US relations (Bölükbaşı and Burkett 1988, p. 56). The U.S. informed the Soviet Union that it wanted the missiles dismantled. Nikita Khrushchev wrote a letter to Kennedy informing him that if the U.S. were to lift the blockade on the island and not attack Cuba, it would remove the missiles from Cuba, and the crisis seemed to be over. But in a second letter sent the next day, he announced that he would withdraw the missiles after the United States withdrew its Jupiter missiles from Turkey (Fuelling 2017, p. 6).

Turkey rejected the US request to have the missiles removed. Turkey replied that the removal of the missiles would be a loss of public opinion. The United States did not ignore Turkey's objection and delayed the dismantling of the missiles. The dismantling of Jupiter missiles was the ultimate end under an agreement with the Soviet Union. But Turkey was unaware of the negotiations and sided with the United States during the Cuban Crisis. In the aftermath of the crisis, Turkey was forced to be convinced of the dismantling of the missiles and the missiles were dropped (Türkmen 2012, p. 33). The dismantling of the missiles actually benefited Turkey. When the missiles were removed, Turkey became the target point of the Soviet Union (Uslu 2012, p. 17). The decisions taken without Turkey's knowledge during the Cuban Crisis were the first factor that led to a lack of trust in Turkish-American relations. Turkey's subsequent negotiations between the United States and the USSR have affected bilateral relations and the American image in Turkish public opinion. At the same time, Turkey's security concerns were ignored in the U.S. negotiations with the Soviet Union and even its security was compromised. It has lost its status as a trusted ally in the United States (Bal 2008, p. 83).

After this incident, a letter sent by US President Lyndon Johnson to Prime Minister İsmet İnönü in 1964 known as Johnson letter implied that the United States and NATO would not be able to defend Turkey when it came to an intervention in Cyprus, causing tensions in relations between the two countries. Turkey lost its balance with the 1960 coup and all attention has been directed towards domestic politics. Foreign policy lagged behind in society, in the press and in the memory of administrators in all areas. However, the Greek attacks in Cyprus on December 21, 1963, and the fact that the future of Cyprus and the Turkish Cypriots were a problem, prompted the Turkish government and the Turkish people to deal with foreign policy (Erdem 2014, p. 309). With the Declaration of Independence by the Republic of Cyprus in 1960, tensions between the Turkish and Greek people were high on the island. Problems arose due to the formation of armed forces, tax collection, the creation of municipal borders. Makarios proposed that the constitution should be amended to solve the problems. The Turkish side did not want the change to be made and tensions have increased (İnce and Olson 1977, p. 274). In 1963, there was a conflict between the two communities. The UN sent peacekeepers to the island, but the events were not over. Turkish President Cemal Gürsel, wrote to letter to US president Lyndon B. Johnson asking the US to prevent further bloodshed. The United States, on the other hand, went beyond reassuring that it would support the guarantor states. This letter, written overnight by the US authorities and prepared as an ultimatum, negatively affected Turkish-American relations (Miller 2000, p. 108). Turkey took the decision to intervene on the island before the Guarantee Agreement was fully implemented. Turkey's intervention in Cyprus could pose a Soviet threat. In this case, NATO might not have supported Turkey. Turkey could not use the weapons it received from the United States because, under the aid agreement reached on July 12, 1947, Turkey could only use the weapons it received for defensive purposes (Bostanoğlu 1999, p. 28).

Johnson wrote in his letter that he would leave Turkey alone in a possible Soviet attack and would not support Turkey's decisions. The Johnson letter achieved its goal. No intervention was made on the island, and Turkey was once again left alone.

After these events, Turkey again turned to industrialization initiatives, but Western states, especially the United States, did not welcome these initiatives. The assistance needed to complete the investments was then provided by the Soviet Union. Turkey felt that its foreign relations should be diversified, especially in the face of the missile crisis and the US position on the Cyprus issue (Uslu 2003b, p. 102). In other words, after this incident, Turkey deviated from its one-dimensional foreign policy and began a new foreign policy approach. Within the framework of this new foreign policy, the Soviet Union began to establish close relations with eastern bloc countries and non-aligned countries. In such an environment, the United States started to take steps to repair strained relations with Turkey (Yılmaz 2010, p. 41).

## 5 DISCUSSION

In this part of the study, Turkish-American relations between 1945 and 1964 will be evaluated within the framework of Nova effect. Turkey pursued a non-war policy during the Second World War, faced the reaction of allied states at the end of the war and was left alone especially against the Soviet Union in the early years of the Cold War. Turkey, which had a difficult time due to the soviet union's demands for a change in Montreux from Turkey and the demands for bases and territory in the Straits, tried to take part in the Western Bloc and ensure its security. In the early years of the Cold War, the West and the United States, which wanted to make Turkey pay for its non-war policy, found the demands of the Soviet Union reasonable. However, realizing the magnitude of the policies of the Soviet Union and the scale of the threat of the Soviet Union, the United States and Western states began to support Turkey. With the Truman Doctrine adopted in 1947, Turkey received US\$ 100 million in aid and Turkey found itself under the umbrella of the Western Bloc against the threat of the Soviet Union by being part of the Western Bloc. Turkey, which was included in the Marshall Aid adopted in 1948, started to develop economically (Magid 2012, p. 4).

However, Turkey's involvement in the Western Bloc and its use of US assistance led to it leaving itself to the US in many areas, economically, politically and socially, in the face of the threat of the Soviet Union and becoming dependent on the United States. While Turkey had a chance with the help of the United States in the face of the threat of the Soviet Union, this led to the unlucky situation of Turkey creating a one-dimensional foreign policy that was fully focused on the United States. This was evident in the Cuban Crisis and the Johnson letter in the early 1960s (Ünlü-Bilgiç 2015, p. 261).

The US, which deployed Jupiter missiles on Turkish territory in response to the threat of the Soviet Union, demonstrated its side with Turkey while increasing the threat to the Soviet Union for Turkey. Moreover, in 1962, after the Cuban Crisis between the



United States and the Soviet Union, the Softening Period between the two sides began, during which time it removed Jupiter missiles without asking Turkey. With this incident, a mistrust of the United States began in Turkey and it became clear that the United States would leave Turkey alone if necessary for the sake of its interests. In contrast, the dismantling of Jupiter missiles from Turkish territory has eliminated the possibility of Turkey being a direct target for the Soviet Union (Berstein 1980, p. 102). In fact, an incident that could be called unlucky for Turkey caused a lucky incident.

It is possible to see a similar situation in the Johnson letter case. As a result of the policies of the Greeks against the Turks in the Republic of Cyprus, which was established after the London and Zurich Agreements in 1960, Turkey decided to intervene in Cyprus as a guarantor country. However, due to what US President Johnson wrote to Ismet Inonu in 1964, Turkey both stopped intervening in Cyprus and Turkish-American relations were severely strained. In the letter, Johnson said that if Turkey intervened in Cyprus, the United States would leave Turkey alone against the Soviet Union and prevented Turkey from intervening in Cyprus (Bölümbaşı 1993, p. 512).

After this event, Turkey realized that its one-dimensional and U.S.-oriented foreign policy was wrong and damaging. Because Turkey realized that events could occur against its will in these events and therefore understood that the country needed to develop a multidimensional foreign policy. These events, which caused tension in Turkish-American relations and could be considered unlucky for Turkey, also caused lucky events. After these events, Turkey, which pursued a unilateral foreign policy and realized that it was harmful, understood that it needed to pursue a multidimensional foreign policy and designed its new policies accordingly. After this incident, for example, Turkey began to get closer and establish economic relations with the Soviet Union, Eastern Bloc countries and non-aligned countries. As a result, the United States developed policies that prioritize Turkey's demands and tried to improve strained relations. This situation caused what could be called a lucky event after an unlucky incident for Turkey.

As a result, when the Turkish-American relations between 1945-1964 were handled with the Nova effect, Turkey's non-participation in the Second World War changed the perspective of the allied states, especially the Soviet Union, and Turkey was criticized for prolonging the war. In the last periods of the war, in response to the Soviet Union's demands from Turkey, the allied states left Turkey alone against the Soviet Union and Turkey faced a great danger. In fact, while it was a chance that Turkey was not involved in the war and was not invaded, it was seen as an unfortunate situation that it faced the threat of the Soviet Union at the end of the war.

Turkey, which felt the threat of the Soviet Union very seriously until 1947, was included in the Western Bloc when the US realized the threat of Communism. In this process, the US, which was disturbed and worried by the Greek civil war and the activities of the Soviet Union in Eastern Europe, decided to fight against Communism and helped Turkey and Greece with the Truman Doctrine. While the Truman Doctrine was ending

the civil war in Greece, Turkey entered the Western Bloc and secured itself against the threat of the Soviet Union. Turkey, which also benefited from Marshall Aid in 1948 after the Truman Doctrine, improved itself both economically and in terms of security. Moreover, it has been registered that Turkey is in the Western Bloc. On the other hand, Marshall Aid caused Turkey to be dependent on the West both economically and politically. When Turkey became economically dependent on the US, it did not produce anything. Since it procured everything from the US, it followed a US-oriented foreign policy politically. While Turkey's presence in the Western Bloc against the Soviet Union was considered as a chance, its dependence on the US was seen as a misfortune.

Because during this period, the US removed the Jupiter missiles it placed in Turkey without asking Turkey. Moreover, while Turkey was preparing for a military intervention in Cyprus in 1964, due to the letter written by the US President Johnson to the Turkish Prime Minister İsmet İnönü, the military intervention was abandoned and Turkish-American relations were damaged. After this event, Turkey started to follow a multidimensional and multilateral foreign policy. So much so that Turkey established relations with the Soviet Union and started to cooperate with it. He worked to improve relations with Middle Eastern countries. While the events in the 1960s were seen as bad luck, causing damage to Turkish-American relations, it was seen as an important chance because it caused Turkey to realize that its unilateral foreign policy was wrong and to pursue a multidimensional and multilateral foreign policy. In this sense, a reason seen as luck in foreign policy could lead to unpredictable and unpredictable unfortunate results, while a reason considered as bad luck can lead to an unpredictable result that may bring luck.

All positive and negative events in the international system were of course influenced by the situation in the international conjuncture. Although the events in the international conjuncture give information about what will happen about an event, they do not always give a correct result. Therefore, no matter how rational it is thought, there is always an uncertainty in the system. Although this situation is seen as disorder, it is actually order itself. From this point of view, the state of disorder that cannot be understood within the system creates an order.

## **6 CONCLUSIONS**

In this study, Turkish-American relations between 1945 and 1964 were examined within the framework of the Nova effect, known as the Good Luck Tragedy. The Nova effect, which can be used in Chaos theory and is a more specific use of the Butterfly Effect, uses it to explain that an event in foreign policy that may be lucky for states can also lead to an unexpectedly lucky outcome. In this context, Turkish-American relations between 1945 and 1964 and the positive (negative) events experienced both between the two states and in the international system during this period caused positive and negative consequences for Turkey from time to time. Moreover, it was not easy to predict the

consequences of these events. For example, Turkey, founded on October 29, 1923, worked hard to avoid entering the Second World War, which began with the attack on Poland by Germany and the Soviet Union on September 1, 1939, and pursued a non-war policy through the war. This was a lucky situation for Turkey. Because as a newly established state, Turkey's entry into the war could cause damage in many respects and put it in danger of being invaded.

During the Second World War, the warring states made many promises for Turkey to go to war. They even applied pressure from time to time. However, Turkey did not participate in the war after all. Although he declared war on Germany towards the end of the war, Turkey's non-war policy provoked a reaction from allied states and left him alone in the face of the threat of the Soviet Union in the early years of the Cold War period that began at the end of the war. Turkey's policy in the Second World War and the threat of the Soviet Union were unlucky for Turkey, which had a serious security problem in the face of the demands of the Soviet Union.

Realizing the scale of the threat of the Soviet Union and Communism over time, Western Countries and the United States began to develop economically and secured themselves within the Western Bloc against the Soviet Union by becoming a member of the Truman Doctrine in 1947, Marshall Aid, which began in 1948, and NATO, which was founded in 1949, within the framework of the Soviet Union's containment policy. It was a lucky situation for Turkey that the Soviet Union became a threat to the whole world and that Turkey was part of the Western Bloc in the face of this threat. However, Turkey's one-dimensional policy led to an unlucky outcome, as it made Turkey dependent on the United States in many areas, including political, military and economic.

Some developments between Turkey and the US in the 1960s unexpectedly caused strained and damaged relations between the two countries. This situation was detrimental to Turkey, which was in the Western Bloc in the face of the threat of the Soviet Union. Turkey understood that its one-dimensional policy did not benefit and tried to implement a multidimensional policy by taking advantage of the advantages of the new era created by the international system.

From this point of view, it was seen that the developments in Turkish-American relations between 1945 and 1964 had an unexpected number of consequences according to the conditions created by both the two states and the international system, and for Turkey, these results sometimes had positive and sometimes negative consequences.

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## ECONOMIC AND POLITICAL DEVELOPMENT OF UKRAINE: IMPORTANCE OF FOREIGN DIRECT INVESTMENT

*Anna Rivna*<sup>1</sup>

The purpose of this paper is to give an overview of the economic and political development of Ukraine, as well as to explain why foreign direct investment is important for Ukraine's economy. This study applies the qualitative method in order to investigate the issue and is based on both primary and secondary data. Qualitative interviews represent the primary data sources, conducted with individuals who are either investors or have high expertise of the topic. News articles, previous research papers and literature are used as a secondary data source. The results show that the biggest challenges in political development of Ukraine lie in the continuous war with Russia. Nevertheless its important to keep in mind that countries like Ukraine can only be rebuild with the help of foreing investors as they allow the transfer of technology – particularly in the form of new varieties of capital inputs – that cannot be achieved through financial investments or the trade of goods and services. FDI can also promote competition in the domestic input market. For that reason it is important to examine existing policies as well as look for new ways of increasing the foreign investment flow.

Key words: foreign direct investment, reforms, economic development, political development, Ukraine

JEL: F21, F30, F63

### 1 INTRODUCTION

As a country on the “borderland” between Western Europe and Russia, Ukraine has witnessed many different crises and reforms over the past decade: the disintegration of the Soviet Union in 1991, Orange Revolution in 2004, Majdan revolution in 2013, annexion of Crimea and large scale invasion in 2022. This article was completed before the start of the war in 2022 and does not, therefore, take the war into account.

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The disruption of commercial and production networks associated with the events in Ukraine over the last few years, affected the development of Ukraine's economy (Brown, Earle, and Telegdy 2006). The impact, political instability, and disruptions in Ukraine can be seen in the example of the automotive industry. Between 1960 and 1994 Ukraine's national cars, called "Zaporozhets" constituted one of the main sources of profit for Ukraine. Due to the disruptions and political instability over the past years, Ukraine's automobile industry declined and by the end of 2017, could only produce 1600 cars (Gnutzmann-Mkrtchyan, 2017).

In 2014, Ukraine experienced acute political and economic challenges, which led to new elections, changes in government and the restructuring of new political relationships with the western world. The Free Trade Agreement with the European Union allowed Ukraine to participate in the western business world and make investment in Ukraine more attractive to foreign direct investment. Today, many manufacturers from Japan and Germany produce parts of their cars in western Ukraine, turning the region into an integral part of Europe's vehicle industry. Nearly every car made in Germany has parts which were made in Ukraine (D'Anieri, 2016). To become even more open to the outside business world, Ukraine tried to improve the functioning of its economic institutions and the implementation of structural reforms, which allow Ukraine's economy to align with market prices. Moreover, many key instruments were provided to combat corruption within the country (D'Anieri, 2016).

Ukraine's open attitude towards business, its adoption of new technologies and know-how did not only help the country's automobile industry, but it also introduced transformation to other sectors. Such positive examples can be seen in agriculture and information technology. Within just a decade, Ukraine has become one of the leading exporters of grain. With more than 100.000 Microsoft certified software professionals, the IT sector has turned into one of the largest software development industries in Europe (Konings, 2003).

Despite positive development in some sectors, today, Ukraine is still considered to be a transition country, as some of the transformations which took place in the past quarter of the century still have a significant negative effect on growth. Foundations of the a new economy are still not strong enough to absorb the economic outcome of FDI, making the country less attractive in the eyes of potential investors (Kharlamova, 2014).

Nevertheless, the experience of the automotive industry shows that it is possible to overcome these challenges and achieve economic success. With the 'lesson-learned' from passed transformations, Ukraine has the potential to narrow the gap between its capabilities and the global requirements of foreign direct investment to make the investment in the country attractive (OECD, 2005).

To ensure a positive environment for business partners outside Ukraine and become a prosperous country, more needs to be done. This paper gives an overview of the main events and transformation processes present in Ukraine's current economic

situation and explains why foreign direct investment plays a crucial role in Ukraine's economy.

## **2 FOREIGN DIRECT INVESTMENT: DEFINING THE CONCEPT**

Foreign Direct Investment is a phenomenon in which a production or business investment is undertaken on foreign territory. The investment is either made by means of a company buyout or business expansion, e.g., by building a manufacturing or production station in a foreign country. Generally speaking, FDI refers to the inflow of capital from abroad and is usually preferred over other forms of external finance, since it doesn't necessarily create a debt for the host country, but still provides advantages, depending on the foreign project's performance. It, moreover, benefits both sides as it improves international trade, helps companies expand their market shares, transfers the knowledge and skills of their employees, and shares their technology.

Foreign Direct Investment gained popularity after the Second World War. According to economists, open trade, and the possibility to exchange products became very important for most countries, whereas the need for businesses to adopt a global mindset and enter different markets became a strong motivational factor for direct foreign investment.

The process of globalization intensified the importance of collaboration between international companies, which, in turn, offered huge opportunities for most developing countries to reach economic growth faster by bringing in new knowledge, technology and involvement in international production and trade networks. Some of the developing countries started to see FDI as the only way to achieve economic development and started to liberalize their investment regimes in order to attract more FDI, which would allow them to derive maximum benefits from the presence of the multinational enterprises in their country (Athukorala, 2003).

The importance of FDI can be seen through such channels as technological transfer, knowhow and new skills, an increase in production as well as export and import processes, resulting in general economic growth (Borensztein, De Gregorio, and Lee, 1998).

On the other hand, not all scholars agree on the positive effects of FDI. Gorg and Greenwood (2002) argue that FDI may crowd out local enterprises and harm the national economic development and, thus, has mostly negative effects. Lipsey (2002) concludes that the effects of FDI in general depend on the nature of the sectors as well as the behavior of the foreign country and its openness to attract and absorb the effects and use them to their own purpose. Hirschman (1958) furthermore, found that sectors such as agriculture or mining have only limited positive effects on the host country.

The effects of FDI for multinational corporations are diverse as well. Literature describes mostly positive effects on multinational companies as investment in a foreign country helps them expand their market shares, acquire new customers and expand their

employees' knowledge, all of which contributes to making the companies competitive against other multinational corporations.

The motivation for companies to invest in another country are diverse. According to Kindleberger (1969) foreign investment can only take place if:

- the proposed investments are economically viable for the company.
- the market in the home country is imperfect.

Understanding the effects of foreign direct investment for both parties has consequently become a critical topic in policy circles. In the face of so many opportunities and benefits, both developed and developing countries have tried to significantly reduce the barriers to FDI over the past past years and offer special incentives such as reduced taxes.

### **3 THEORETICAL BACKGROUND**

Foreign direct investment became one of the most important sources responsible for sustainable growth in developing countries. It supports them by providing new employment, technological progress, and improved productivity.

The major motivational factors for Multinational Enterprises (MNEs) to invest in developing countries are covered in the four main theories:

- Production cycle theory,
- Perfect capital or exchange market theory,
- Internationalization theory,
- Eclectic paradigm.

The product life cycle theory (PLC) finds its roots in Vernon's theory (1966). According to him, the product life cycle consists of four stages: the introduction (the product gets introduced to the home market), the growth of a product, maturity and finally, the decline (the product needs to be taken out of the assortment). When the product reaches the third stage, maturity, companies start looking for other opportunities to promote a product, usually by investing in another country. Since cost is an important factor here, businesses are mostly interested in developing countries, where the cost of the product, employment and production is overall lower than in their home country.

The exchange market theory, introduced by Cushman (1985) states that countries with a weaker currency attract more FDI, since production materials bought in the host country are cheaper in comparison to the home country. This theory can also be found in the work of Aliber (1970). However, it can only be applied in the case of a developing country. An investment made between two developed countries, where the currencies have equal strength, cannot be supported by such a theory.

According to the internationalization theory, developed by Hymer (1972) international companies invest in a developing country for two reasons: to reduce competition and to use the company's specific advantages. Even though the relocation of its activities to an international market might have disadvantages and is connected to additional costs, MNEs see the opportunity of not sharing the market with their competitors and using the imperfections of the market to their own advantage. The same explanation can also be found in the work of Buckley and Casson (1976).

According to Dunning (1977), the founder of the eclectic paradigm, MNEs take three aspects into consideration before FDI: ownership advantages, location advantages, and internationalization, which is also known as the OLI Theory in literature. "O" from Ownership advantages. The ownership advantage refers to the control over a company's resources when it invests in another country. This might be expressed in the ownership of natural or intangible assets such as patents or trademarks and technology, which helps businesses compete with other MNEs. "L" from Location advantages. Location advantages appear mostly in the form of lower taxes, operating and production costs as well as affordable employment costs. "I" from Internalization. Finally, the internationalization theory states that the greater the net benefits of internalizing cross-border intermediate product markets, the more likely a company will engage in foreign production itself, rather than license the right to do so.

#### **4 DATA AND METHODOLOGY**

The research objective of this study is to analyze the importance of FDI in Ukraine. This chapter concentrates on giving an overview of the methodology used to analyze the stated problem. In order to investigate the importance of FDI, the study executes secondary and primary data collections. Information gathered from the secondary data was sourced from existing literature, studies, economic journals and various newspapers articles and serves as background knowledge for this study.

Due to a relatively scarce amount of research on challenges and opportunities for FDI in Ukraine, a qualitative approach was regarded useful as it emphasizes words rather than numbers and focuses on specific situations or individuals (Maxwell, 2005). Furthermore, qualitative research enables the insightful investigation of the research objects as empirical data can be investigated with guidance from literature and helps to approach an in-depth analysis of a defined phenomenon (Berger-Grabner, 2013).

The chosen methodology consists of in-depth interviews which enable grasping the field of the topic in more detail and gaining additional information along with its background and justifications (Berger-Grabner, 2013).

The empirical data was gathered from 25 different in-depth interviews with different respondents who have connections to foreign investments in Ukraine. The participants were either founders, co-founders or supported and worked in the process of investment in Ukraine. The interviewees were between 30 and 70 years old. All of the

interviewees were not related to one another and operate in different sectors such as the bank industry, retail, media, agriculture and the consulting sector.

The interviewees were sourced via a Google search using key words such as “FDI in Ukraine”. Social media, such as Facebook and LinkedIn also served as a source of recruiting interviewees. Furthermore, the search was expanded through contacting organizations, such as UkraineInvest, which provide potential FDI with business information concerning investments in Ukraine.

Foreign direct investors who fulfilled the inclusion criteria for participation in the interview were asked via e-mail to participate in the interview. The e-mail correspondence included a brief description of the study and the personal motivation for researching this topic. Interviewees were invited to voluntarily contribute and were not forced or manipulated to participate in the process in any way.

The interviews started at the end of November and lasted until February 2020. They mainly occurred on-site, but occasionally were carried out via Skype. Each interview lasted between 30 and 60 minutes. The data analysis was done in two steps, according to Mehmetoglu (2016): data processing and data transformation. While data processing is based on encoding, indexing, sorting and retrieving the data, which can be done either manually or using software tools, data transformation is undertaken by interpreting the data and using secondary data in advance, to ensure a correct interpretation (Mehmetoglu, 2016).

## **5 ECONOMIC AND POLITICAL DEVELOPMENT**

To understand why Ukraine finds itself in the position it is currently in, it is important to give some historical background. For many years, Ukraine was under the control of the Soviet economy, whose roots go back to 1917. Influenced by the Bolshevik revolution and Joseph Stalin’s policies and reforms, Soviet economy aimed to introduce state ownership of the means of production as a part of the five-year plan (Danowitz, 2006).

The hierarchical system in general used to be quite complicated and required a high level of coordination. At the top of the ladder was the power of the party, followed by sector ministries which overlooked state-owned enterprises, such as industrial and agrarian organizations that took orders from their superiors from the so called “Gosplan”, i.e. State Planning Commission (Danowitz, 2006).

The entire money supply was controlled by “Gosbank”, the national bank, which was also responsible for the distribution of money and was the decisive organ for any capital investments in various enterprises. One of the significant strengths of the Soviet economy was the commitment to do research and enhance development. This is the time of many different inventions and important historical moments such as the launching Sputnik, free medical care, education, and transportation systems (Danowitz, 2006).

Nevertheless, despite the theory of “planning output” and beneficitation of the entire population, there were many flaws in the system that would lead the economy to collapse. Since one of the major focal points was leading the development of the military industry (due to the Cold War with the United States), the production of other items fell into the background, which, in turn, led to shortages and deficits. Orders that were given to factories could not always be fulfilled due to a lack of appropriate input materials. The absurdity of the situation lay in the fact that while some factories were forced to stop production for this very reason, others experienced huge surpluses of products. The lack of supervision, communication networks and effective systems to relocate and adjust shortages and surpluses led to inefficiency and the absence of high-quality products or a complete standstill in production. As a consequence, the money that had been divided between households could not be spent on desired products and invested back into the economy, which limited the multiplier effect growth on the national economy (Åslund, 2008).

Foreign investment was almost non-existent as the state currency, which at that time was the ruble, was also not convertible to other currencies. This led to the isolation of the countries within the Soviet Union from the outside world, preventing them from using the comparative or absolute advantage in the production of some products (Brown, Earle, and Telegdy 2006).

In the early 1980s, most states sensed the pressure and stagnation of the economy. As a consequence, Gorbachov, who was the president of the Soviet Union at that time, introduced “perestroika”, which aimed to restructure the political and institutional system within the Soviet Union. His plan and intention was to open the economy to international trade, which in his opinion had been isolated from the outside world for far too long, causing difficulties in efficiently setting up joint projects with foreign businesses. As a result, the Soviet Union as such collapsed in 1991 and its member states achieved independence although remaining in close cooperation with Russia (Mau, 1995).

In 1991, Ukraine, Russia and Belarus formed an independent association, known as the Commonwealth of Independent States, to create an official platform of cooperation to revive their economic and political structures towards democratic market economies. The CIS aims to support development and strengthen the friendship between the aforementioned countries. Later, nine other former Soviet countries joined the forum, including Armenia, Azerbaijan, Kazakhstan, Uzbekistan, Kyrgyzstan, Moldova, Turkmenistan, Tajikistan, and Georgia. Together, they constitute the world’s fourth largest producer of electrical energy. Similarities among the countries in terms of language, currency, close economic ties between enterprises and identical public infrastructures inherited from the Soviet Union made the new states extremely dependent on one another. Russia’s energy supply (e.g. gas) also meant political and economic domination. Just two years after becoming an independent state on August 24, 1991, Ukraine established its own parliament, which is also known as Verkhovna Rada. The

Parliament of Ukraine created a new constitution for the country in 1996, which in many ways reflected the core values of western market economies and democracies. The idea behind the constitution was to provide a more favorable economic environment for foreign investors, such as the right to private ownership of land and assets, transparent law structures and an independent judiciary system. Despite the promising configuration of the political system, some of the principles have not fully been implemented. The enforcement of the law failed for several reasons, such as the untransparent division of political power and corruption among many individuals of the parliament. As a matter of fact, the legislative system has failed to completely pass and implement laws which support the guidelines of the country's constitution. Even though the majority of political leaders agree as to the importance of establishing a favorable environment for foreign direct investment in Ukraine to attract foreign investors, the legislators have had a hard time implementing the necessary laws and business regulatory systems and providing a strong legal framework in the privatization of its state assets (Mau, 1995).

To strengthen the economic relationships with foreign countries, in 1993 Ukraine began to cooperate closely with the US in three main areas of international trade, investment and economic reforms. As a matter of fact, in 1994, the US supported Ukraine by providing the largest American aid program in the world, which helped develop Ukraine's infrastructure in Ukraine and thus support market-oriented export systems (Hamm, Stuckler, and King 2012).

In 1996, Ukraine introduced its own currency, the Ukrainian hryvna. With no clear economic reform agenda on top of corruption problems within the entire country, the government printed money and provided numerous loans to individuals and enterprises. Not having a clear monetary policy led to a significant increase in the money supply and hyperinflation, which first ruined the bank accounts of clients and then led to bankruptcy of the banks themselves. This event shattered the expectations of many people in the Ukrainian government as hyperinflation had a tremendously negative effect on the lifestyles, pensions, salaries, and other social incentives of the Ukrainian population (Radnitz, 2010).

In 1998, after the financial crisis in Russia, Ukraine became even more aware of its responsibility and the need for efficient economic reforms. The country slowly started to recover from the stagnation and in 1994 the government introduced new incentives for foreign and local investors. These reforms resulted in an increase of the value of exports, consumer spending power and a revival of the economy. In 2000, Ukraine experienced the largest GDP increase by 5,8% since its independence. Inflation rates also reached their lowest rate and were expected to decrease further. The Ukrainian currency, hryvna, stabilized in 2000 and equaled between 5.30-5.45 for US\$ 1. The decrease in interest rates of Ukrainian banks led to a greater demand for loans, greater purchasing power and an improvement of the economy overall through the multiplier effect. The stabilization of economic factors was reflected in greater industrial outputs, an increase in exports and

a higher demand for foreign businesses interested to transfer to Ukraine (Yuldashev, 2019).

Having experienced some positive economic results encouraged most parts of Ukraine to remain economically “pro-western Europe” until the elections in 2004. This presidential election was mostly run by the government candidate and then Prime Minister Yanukovich, whose campaign was supported by the Russian President Putin and his opponent Yushchenko, who aimed to become closer to the European Union. During the campaign, Yushchenko was poisoned by an unknown assailant, while his failure to win the majority was announced. One month later, this turned out to be a politically manipulated lie and the government was accused of holding an undemocratic election. This caused a significant turning point for Ukraine and led to the so-called Orange Revolution. At the beginning of 2005, new elections took place, showing Yushchenko’s clear victory (Kuzio, 2013).

As a pro-European country, Ukraine started the process of joining NATO in 2008, which led to confrontations from the east. Gazprom, the Russian gas company that was supplying Ukraine and other European countries with gas, raised their prices and even halted supplies to Ukraine, which affected some downstream European customers (Kuzio, 2008).

The disputes between the pro-western and pro-Russian parties within the Ukrainian Parliament as well as the rising challenges with the gas supply led to the collapse of the parliament and the election of a new president, Yanukovich, in the first half of 2010. In 2013, he rejected pursuing NATO membership and instead decided to strengthen economic relations with Russia. This led to demonstrations of Ukrainian citizens who favored joining the EU. The protests continued into 2014 and resulted in a stronger and brutal police intervention. At the same time, the eastern part of Ukraine, Crimea, was occupied by the Russian military, stating that this part of Ukraine voted for joining Russia (Bebler, 2015).

The ‘war’ between Ukraine and Russia continues until today, hindering Ukraine from concentrating on economic reforms included in its constitution.

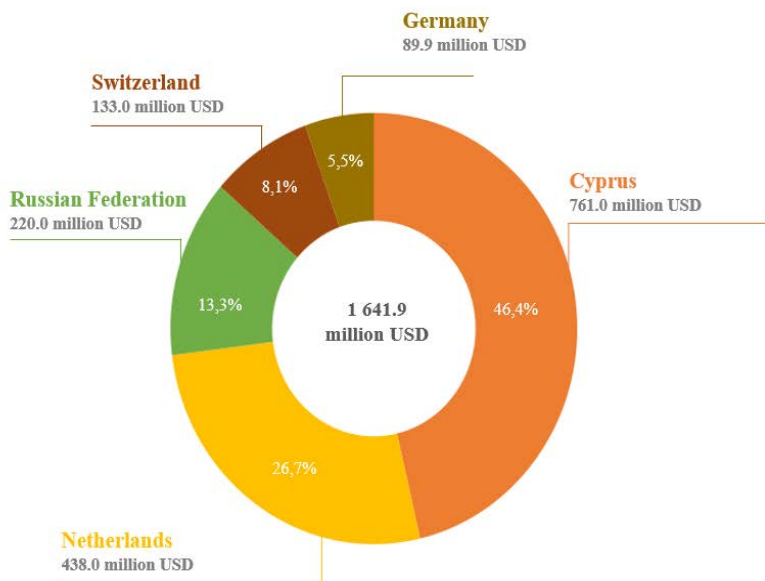
Over the past twenty-five years, Ukraine has experienced a tectonic shift from a planned to a market economy, from dependency to the Revolution of Dignity, a deep crisis to macroeconomic stabilization (Yuldashev, 2019).

In 2019, over 70% of the population voted for Volodymyr Zelensky to become Ukraine’s new president. The government now aims to start effective anti-corruption measures to ensure the transparency of public finances and expenditures. Moreover, the government plans to improve the educational, retirement and health system in Ukraine. By signing the “Free Trade and Association Agreement” with the European Union, Ukraine aims to integrate itself more into the European supply chains and institutions, which will consequently attract foreign investors to Ukraine (Korbut, 2020).



Foreign Direct Investment is undoubtedly an important factor in stimulating further economic growth in Ukraine. According to UNCTAD's World Investment Report 2020, Ukraine experienced a FDI stock decline in 2018 which is combined with the ongoing conflict in the Donbas region, political instability as well as capital account restrictions (UNCTAD, 2020). As a consequence, Russia, one of the main foreign investors in Ukraine, has withdrawn its assets causing an overall drop of FDI inflows. Nevertheless, the Ukrainian government has been undergoing some positive changes by actively engaging in reforms and making the country an easier place to do business. In June 2018, a new more transparent law was put into effect, ranking the country 64th in the World Bank's Doing Business Index (a seven-fold rise compared to the previous year). As a result, FDI flows to Ukraine in 2019 reached US\$ 3.07 billion which shows an increase compared to 2018 (US\$ 2.35 billion). The analyses by country show that Cyprus (46.4%) represents the largest investor in Ukraine, followed by the Netherlands (26.7%), Switzerland (8.1%) and Germany (5.5%) (State Statistics Service of Ukraine, 2019). According to 2019 data, the Russian Federation also remained a major player with 13.3%.

Figure 1: Main source countries of FDI to Ukraine in 2019

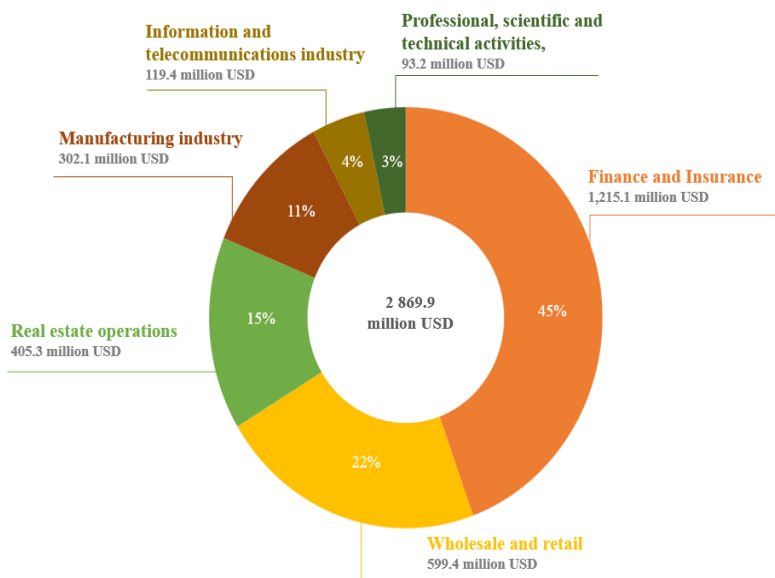


Source: State Statistics Service of Ukraine, 2019.

An analysis of the most profitable investment sectors reveals that in 2019 finance and insurance constituted the main interests of foreign investors. The inward equity FDI stock in this sector was worth US\$ 1.215 billion or 45% of the value of the total equity

FDI stock in Ukraine. Also, there have been large investments in the wholesale and retail industry (22%), real estate (15%) and manufacturing industry (11%) (State Statistics Service of Ukraine, 2019).

Figure 2: Inward FDI flow by sector and industry in 2019



Source: State Statistics Service of Ukraine, 2019.

Over the past years, the IT sector, agriculture, and automotive industry have witnessed the most growth, encouraging local and foreign investors to invest more in Ukraine. For instance, the Ukrainian IT industry has experienced a significant 40-fold increase over the last fifteen years, from US\$ 110 million in 2003 to about US\$ 4.5 billion in 2018, achieving an impressive cumulative average growth rate of 25% (State Statistics Service of Ukraine, 2019).

Historically, Ukraine has been a center for software development, technology solutions for data analysis and processing. A key role here is played by the level of technical skills, offering a high level of innovation technology in the area of Artificial Intelligence, Cyber Security, Big Data Analytics, Blockchain, and FinTech, making Ukraine one of the most important investment destinations in Central and Eastern Europe (Skavronska, 2017).

The agricultural sector appears to be another “export powerhouse”. Over the past 10 years, agro and food exports grew by 13% on average. With its attractive land rent prices, extremely fertile soil, competitive wages and logistics, the agricultural sector continues to be a key sector for investment (Skavronska, 2017).

The automotive industry offers another vast and sustainable opportunity for foreign investment. For many years, Ukraine has served as a supplier location for the German automotive industry. Due to its geographical location, skilled workforce and developed infrastructure, more and more foreign manufacturers from Japan, Austria or France are transferring their production capacity to Ukraine, which helps the sector improve and provide a stable business environment for future investors (UkraineInvest, 2019).

The fashion industry is yet another promising sector for investment. Over the past years, numerous global fashion brands such as Hugo Boss, Marks & Spencer, Tommy Hilfiger have opened production facilities in Ukraine (UkraineInvest, 2019). Furthermore, the pharmaceutical sector represents one of the most growing and crisis-resistant industries in Ukraine's economy. Here an enormous investment opportunity is provided by purchasing existing players or building cost-efficient new complexes in Ukraine (Dorovskoi, 2014).

## **6 ON VARIOUS REFORMS IN UKRAINE**

Ever since gaining independence in 1991, each Ukrainian government has been addressing the need for fundamental reforms. The latter could not always take place, the reasons being crises, civil wars and other critical events. Since the Revolution of Dignity in 2014, Ukraine has prioritized its need for reforms and macroeconomic stabilization. President Zelensky, elected in the summer of 2019, has committed himself to pursue changes in the economic system, which have been always considered both dysfunctional and detrimental. The reforms play an enormous role in achieving one of Ukraine's important goals, i.e. attracting US\$ 50 billion in foreign direct investment within the upcoming five years (Getzner and Moroz, 2020). This section provides six key areas that President Zelenskyy aims to reform.

**Judicial Reform.** Since Ukraine has been consistently identified as a country with the least trusted state institutions, the transparency and obedience to the law has always been one of the biggest concerns for international investors. The lack of credible judicial reforms as well as the distrust of investors constitute one of the largest obstacles to Ukraine's economic growth.

Every Ukrainian president tried to reform the judicial system, but the ultimate aim of their so-called reforms was often tighter political control over the judicial branch of government. Zelensky's predecessor, Petro Poroshenko, was the first politician to introduce a system of strengthening both the financial and organizational independence of the justice system and remove corrupt judges from it. This process was continued by President Zelensky in 2019. Zelensky furthermore dismissed the High Qualification Council of judges, the body responsible for the attestation and selection of judges to prevent the corruption cycle (Ciešlik and Gurshev, 2020).

**Law Enforcement.** Another important point on the reform agenda consists of the improvement of the police system and prosecution services, which, similarly to the judicial system, also form a part of Ukraine's rule of law architecture. Since 2014, several institutions responsible for fighting the high level of corruption in Ukraine have been established. Key milestones include the creation of the National Anti-Corruption Bureau in 2015, the Bureau of Investigation in 2017 and the country's Anti-Corruption Court in 2019 (Cieślík and Gurshev, 2020).

**Anti-Corruption.** As a starting point, one of the main achievements in the fight against corruption was the implementation of the "Prozorro" platform in 2016. This hybrid electronic system, which was co-developed by Transparency International Ukraine, government representatives, private actors, and anti-corruption activists, is based on an open-source model which aims to ensure transparency by providing free access to all public purchasing data on all tenders since 2016. This should provide a fair procurement procedure including transparency and effectiveness and bring Ukraine closer to a European and global standard (Zinchenko, 2018).

**Agricultural Land Market.** Even though Ukraine is considered to have one of the best types of soil for agriculture ("chernozem") in Europe, a lot is left to be desired in terms of land reforms. Ukraine is one of the few countries in the world that actually prohibits the sale of agricultural land due to the fear that private landowners will be exploited by large capitalist farmers, which already seems to be the case with existing leasehold systems. Nevertheless, the potential of the Ukrainian agricultural sector is enormous and proper reforms could push annual grain production from 60-70 million tons to 100 million tons. President Zelensky prioritizes reforming the agricultural sector and allowing investors to privatize land, which has the potential to become a powerhouse for the rest of the economy. In autumn 2019, the first reading of new agricultural land market legislation took place (Nahaylo, 2020).

**Healthcare.** The inheritance of the Soviet system's free public medicine left Ukraine with a lot of challenges such as budget deficits, pay cuts for doctors, which resulted in poor quality services. After 22 failed attempts over a span of 25 years, the Ministry of Health finally took a democratic and evidence-based approach to reform the health system in Ukraine. The new approach concentrates on the patient's needs. The motto "money follows the patient" means that the state will now only allocate money to hospitals for patients whose needs are documented, instead of financing doctors, hospitals, and beds without proper inspection (Yusiuk et al., 2020).

**Decentralization.** One of the most successful post-Maidan reform initiatives concerns decentralization, which allows each region to have direct responsibility for its development, as 60% of tax receipts are local. Prior to decentralization, the development and control of the regions, as well as their finances and administration were the responsibility of the central government. By giving each region the authority to make its own decisions, the decision-making process of local authorities regarding their strategic

planning became more efficient. This, therefore, should secure and provide financial transparency and, at the same time, reduce corruption within these regions. The legislation was passed in late 2019 and should be completed by autumn 2020 (Oleinikova, 2020).

There is a sense that the areas of the reform mentioned above have brought Ukraine to a turning point. The fulfillment of its laws could improve the outlook for economic growth and encourage locals and foreigners to invest. Nevertheless, a lot of obstacles and challenges still remained, which prevented and still prevent investors from entering Ukraine as an investment country.

One of the most important issues for potential investors in any new market is the stability of the domestic legal and political systems when it comes to the protection or enforcement of rights. Between 2014-2016, Ukraine implemented a wide range of reforms to improve its investment environment. Some of them include signing an Association Agreement with the European Union, which came into effect in January 2016 or other initiatives focusing on reducing administrative burdens and bribery, tax reforms, as well as the establishment of a Business Ombudsman institution, which was created right after the Maidan revolution in 2014 to improve the investment climate (D'Anieri, 2016).

Corruption also, still remains a serious challenge for foreign investors as well as the inadequate enforcement of anti-corruption legislation, which makes it difficult for foreign direct investment to understand the “rules of the game” and enlarges the risks associated with doing business in Ukraine (Egger and Winner, 2006).

The inadequate enforcement of existing legislation due to insufficient administrative and technical capacities of the responsible agencies and institutions still remain to be the major concern of foreign direct investors. As various agencies and individuals from different governmental levels need to be involved in the process of law implementation, a lack of harmonization and a risk of corruption is almost a given (Kokorina, 2008). Improving the quality of the public service is the first key step to ensuring a transparent and reliable system for foreign investors. In 2015, experts from EU-OECD provided Ukraine with methodological support and recommendations of how to proceed by introducing systematic competitive recruitment procedures, a transparent remuneration system as well as bonuses based on individual performance (OECD, 2015).

Other problems exist in the area of land ownership registration and other forms of property. Ukraine, as many other transition economies, has found it difficult to determine a formal ownership registration for land and other properties. Many property titles in Ukraine have not been formalized, which leads to the fact that some of the land cadasters are not yet operational. Therefore, foreign individuals and foreign legal entities are not authorized to own any agricultural land or forests. Even though buying a publicly owned plot is possible, it is still tied to complex procedures or even requires consent from

relevant ministries or the Parliament, which again is tied to a long waiting period (OECD, 2005).

In recent years, Ukraine has made some major progress in “registering” property, but according to the World Bank and its studies on “Doing Business”, Ukraine still lies far behind average European countries (World Bank, 2020).

Another important issue for foreign investors is the law of expropriation. Even though there have not been a lot of cases in Ukraine, it is still perceived to be a major political risk for foreign investors, as it puts them in the position where the state must be compensated quickly. Another important factor which deters potential foreign investors from investing in Ukraine lies in the privatization law. In Ukraine, a significant number of companies are owned by the state, which is considered to be the largest enterprise owner. Nevertheless, those companies are generally not operated well, as they are organized as “unitary enterprises” (a form of corporation without full legal personality which, among other things, does not have ownership of all its assets and does not have a board of directors). This reduces the competitiveness among other companies due to a lack of transparency and proper auditing standards, not to mention corruption. Due to the SOE Reform Action Plan, corporate governance of such companies might be improved by providing OECD Guidelines which focus on a more transparent and competitive, clear procedure of privatization. The State Property Fund of Ukraine has also put some measures into effect. These include hiring privatization advisors in leading investment banks to provide technical assistance in the privatization of certain large SOEs (OECD, 2019).

Another important factor which makes it difficult to do business in Ukraine may be attributed to the high level of corruption in the public procurement (Ciešlik and Gurshev, 2020). Even though legislation on public procurement has been amended many times in recent years, the effect on the levels of corruption was still minimal. In the previous four years, the abuse in tenders for public procurement has led to a reduction of the country’s GDP by 6-7%. In response to that, a number of actions have been taken, such as “e-procurement”, introduced by the Public Procurement Law in 2014. E-procurement provides an option to carry out procurement procedures in an electronic format to make the process fast, easy, and transparent (Kovalchuk, Kenny, and Snyder 2019).

Since 2016, Ukraine has had to put more than 70 investment treaties into effect. These treaties form a part of the international investment agreements with partner countries and provide a more suitable and trustworthy business environment for foreign investors (i.e. protection against expropriation and discrimination or giving foreign investors access to investor-state dispute settlement mechanisms).

Ukraine still has a long path ahead – with the election of the new president even more treaties, guidelines and laws were provided to ensure the sustainable development of business with foreign investors. According to economic studies, these investment

treaties might lead to more FDI flows by reducing barriers and restrictions for foreign investments.

## **7 RESULTS**

This chapter summarizes the empirical results of the analysis of the question, why FDI is important for Ukraine.

One of the most important reasons why FDI matters to Ukraine is the fact that FDI can improve the country's economic development in the long run. The positive economic impact of FDI on a host country is described through by the interviewees such as technology spillovers, human capital formation support, the enhancement of a competitive business environment, contribution to international trade and the improvement of enterprise development. Moreover, FDI can contribute to the environmental condition of a host country by introduction greener and cleaner technologies which lead to more socially responsible corporate policies. Further participants agree that the economic growth of a host country is also achieved through foreign capital flows.

Even though several aspects of FDI lead to the economic development of a host country, which, as a consequence, can alleviate poverty in Ukraine, the exact economic impact of FDI is difficult to measure with accuracy as it varies across countries, sectors and local communities.

Almost all of the participants agreed that Ukraine would enjoy an increase in employment by attracting more FDI in the future. The participants differentiate between direct and indirect effects on employment. The direct impact on employment is explained by the creation of new jobs through the establishment of foreign subsidiaries in the host country or by expanding existing ones. An indirect impact on employment could also be generated if both the foreign company as well as its distributors and suppliers invest in the host country and employ people from that country. However, the number of jobs which can be created in the host country depends on the industry. While some stronger effects could be found for industries such as the automobile industry and food processing, some weaker effects were found for the clothing, electronics, and mechanical engineering sector.

The effect of FDI on employment might also differ depending on how the foreign companies operate in the host country. If a company relocates to another country to pursue import-substituting production and thus take advantage of trade protection, it is more likely that such companies will hire employees who possess better skills or even relocate their current employees as they have the right knowledge. In this case, this type of company operation would not reveal any significant impact on the labor market.

Another important opportunity Ukraine might have as a host country is the fact that FDI facilitates a positive effect on the development of human capital. This aspect is

represented and supported by various participants, who explained the positive spillover effect the FDI might have on Ukraine.

One way of how human capital can be improved is that by employing local workers foreign workers will usually provide different trainings which will improve the knowledge of the labor force. Some of the participants even mentioned, that many employees could use the new obtained knowledge to create their own companies and then they will transmit their knowledge to the workers of this new firm, which in turn will contribute to the development of human capital in general.

Another opportunity Ukraine might enjoy as a host country is the fact that the cooperation with international companies gives Ukrainian citizens access to new technologies, new methods of management, managerial skills, and new ways of doing business. By investing in Ukraine, multinational firms are at the same time transferring a certain level of knowhow and technology to the host country, which could not be achieved otherwise. The host country can eventually make use of this technology by incorporating it in a production process to be more efficient.

Access to more advanced technology improves a country's economic performance as it contributes to an increase of the local firms' productivity. They further add that the increased performance of local firms contributes to the growth of the Gross Domestic Product.

By attracting more FDI to Ukraine, not only is the managerial and technological know-how transformed, but at the same time, Ukraine's customers are provided with access to a larger variety of goods and services, which might not have been available there before. As some specific products require specific production and know-how, companies will automatically create a new eco-system, involving suppliers. New market segments will be created, which will contribute to the economic growth.

Another opportunity the participants of the interview saw for Ukraine is the fact that by attracting more FDI and therefore more and more multinational corporations to the Ukrainian market, a certain level of competition might increase, and a more efficient market structure might be achieved. As argued by the participants, this could not only help break domestic monopolies and the oligarchy structure, but, most importantly, force local firms to be more productive and efficient, which as a consequence will contribute to economic growth.

The participants moreover agree that there is a clear link between the increase of FDI and the rapid integration into global trade. Foreign investors also have a higher level of knowledge about internationalization as they underwent several processes and transferred their knowledge concerning marketing, networking and development of international lobbies to local firms which integrated them into their processes as well.

Internationalization and, therefore, integration into the global economy can moreover be achieved by becoming one of the suppliers or subcontractors of the



international firm. Contact with a multinational brand is also useful in order to use the same channels this brand has already established in the international market.

Another form of integration into the international market is when FDI's start to include local firms in their strategy.

Some of the participants point out that foreign investors tend to include their suppliers or other partners who might come from the local firms in international networks as they have local knowledge. By doing so, local firms can be involved in the whole international system and network, which will provide them with additional knowhow and a connection to international entities with whom they can exchange other relevant international experiences.

By being actively involved in the global economy, either through foreign investment or by being a part of an international network, Ukraine will have the so-called demonstration effect, which arises when domestic firms copy international competitors unconsciously to become more productive, which can increase the output of production of Ukraine. The global integration of the host country into the capital markets will contribute to the spread of best practices which can be used by the host country itself to become more productive and efficient.

Moreover, because of the “demand” of multinational companies, local entities are sometimes forced to establish a certain infrastructure in order to make international trade possible. These infrastructures, particularly transportation, will benefit the international trade of a host country as it will allow more companies to come to Ukraine.

## **8 CONCLUSION**

The purpose of this paper is to give an overview of the economic and political development of Ukraine, as well as to explain why foreign direct investment is important for Ukraine's economy.

As for the first part of the research question – the economic and political development – it can be said that the history of Ukraine as well as the explanation of why Ukraine is in the economic situation it is right now goes back to the year 1917 when Ukraine was part of the Soviet Union and was influenced by the Bolshevik revolution and Joseph Stalin's policies and reforms. During the past several decades, Ukraine has experienced many wars and restructuring reforms which created an unstable situation in the country. Even though in 1991 Ukraine gained independence, it is still dependent on Russian facilities such as energy supplies, which due to the lack of significant structural reforms have made the Ukrainian economy vulnerable to external shocks.

Outside institutions such as IMF have encouraged Ukraine to set measures and scope reforms to foster economic growth. The reforms concerned especially on areas such as fighting corruption, developing capital markets and improving the legislative framework.

Sustaining the reforms which managed to come into force was difficult, if not impossible, due to the Orange Revolution, the constant change of the president and later the war in the eastern part of Ukraine. This instability was the main reason for deterring FDI.

The status quo of current FDI in Ukraine show that despite some legal and corruption issues, Ukraine remains an attractive investment destination thanks to its large internal market, proven agricultural potential, energy and mineral resources. Several government reforms led Ukraine to jump to 64th place in the ranking of the World Bank's Doing Business Index. The reforms concerned areas such as judicial reforms, law enforcement, anti-corruption, the agricultural land market, healthcare, and decentralization.

An analysis of investors according to the country where their business originates showed that Cyprus represents the largest investor in Ukraine, followed by the Netherlands and the Russian Federation. A study of the most profitable investment sectors showed that the main sectors of foreign investment are: finance and insurance, wholesale and retail industry, real estate and manufacturing industry. The empirical study also revealed that the Ukrainian IT sector is becoming more and more important for investors and has experienced enormous growth over the past fifteen years.

Even though Ukraine could show some progress in economic and political terms during the past several quarters, the fact that Ukraine is currently in a position of transition still creates some barriers, challenges and risks for foreign investors and the internal economy. Nevertheless, continuing to invest into the measures to attract the FDI to Ukraine might be an important step for the whole country.

Foreign direct investments are highly appealing for all countries in transition, including Ukraine as they promise economic growth, which couldn't be reached through domestic activities.

The economic development of Ukraine could be especially achieved through the fact that foreign companies create new jobs and more opportunities as they sometimes build new companies. This can lead to an increase of income and higher purchasing power of local people which, in turn, leads to an overall boost of the economy. They, moreover, contribute to the overall development of human capital as they usually provide additional trainings to the employee – best practices can then be passed on to other companies.

Foreign investors also give the society of the host countries access to new management expertise and technology which can also boost innovation within the country. In addition, they provide a wider range of goods and services that were not available to the country before.

The more foreign investors a country has, the higher the competition within the country, which again improves the economy in the domestic market. It also gives Ukraine the possibility to be engaged in international economy and build its own international network, which is necessary to achieve global success.

However, the net benefits from FDI do not occur automatically and their importance differs according to the host country and various conditions. In the case of Ukraine, several measures need to be taken to fully enjoy the opportunities and advantages of FDI.

To conclude, it can be said that Foreign Direct Investment proved to be an important factor in achieving economic growth in Ukraine and bringing the country closer to the European Union. It is, therefore, important to examine existing policies and their gaps and look for new ways of increasing the foreign invest flow in Ukraine in order to ensure a long-term economic boost in the future.

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# Medzinárodné vzťahy

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