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«The Impact of Economic Nationalism in the European Union on the Economic Development of Member States: A Comparative Empirical Analysis»

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1 Introduction

In recent years, the topic of economic nationalism has surged across the globe, including within the European Union (EU) (Born et al., 2019). Researchers argue that, after the Cold War, economic security has become more important to governments than military security (Baughn & Yaprak, 1996). This is the basis for the policy of economic nationalism to take root, spreading to countries around the world. In addition, economic nationalism, together with economic liberalism and Marxism, has become one of the three major ideologies of modern political economy (Nakano, 2004).

This resurgence of economic nationalism presents a complex puzzle with regard to its political and economic implications. This phenomenon is particularly interesting in the context of the European Union, where it seems to contradict the fundamental principles of free movement and single market integration. At the same time, economic nationalism has been rarely considered by the academic community in terms of its impact on real economic results in countries. Most often, this policy has been studied in applied research under the lens of nationalism and the narratives of powerful politicians, without attempting to measure its economic consequences. However, the most striking example of economic nationalism is the departure of the UK from the EU, also known as Brexit. This event epitomises the tangible effects of economic nationalism (Rubanov, 2023).

This study aims to dissect the relationship between economic nationalism and the economic development of EU member states through a comparative empirical analysis covering the period from 2003 to 2021, which has never before been considered in the literature as will be demonstrated below.

The **relevance** of this research is underscored by the growing prominence of economic nationalism, its potential clash with the EU's internal market principles, and the lack of clarity regarding its outcomes. Notably, economic nationalism's relationship with political authoritarianism remains ambiguous, adding layers to its implications.

The European Union is an interesting case to consider in terms of the economic implications of the policy of economic nationalism. It is interesting primarily because this supranational association is the first successful example of a unified market based on the complete freedom of the movement of goods, services, people, and capital. The researchers acknowledge that the European single market (ESM), which was established in 1993, has had a significant impact on economic integration. This is particularly evident in terms of increased trade and foreign direct investment (FDI) for countries in Central and Eastern Europe that have joined the ESM compared to, for example, other countries of Organisation for Economic Cooperation and Development (OECD) that were not a part of the ESM (Fournier, 2016).

Also, analysts from S&P Global Ratings (Broyer & Guez, 2023), in a recent report, discuss the intra-European movement of private capital flows. They write about the positive impact of regulators such as the European Central Bank (ECB), which has a better ability

to hedge against crises and contribute to the development of initiatives for a banking union on these flows. However, they also mention the incompleteness of the process of integrating capital markets and banking sectors of the EU countries by 2023.

At the same time, economic nationalism is becoming more prevalent in the EU, including in the founding countries of the union (Zettelmeyer, 2019a). This contradicts the principles of the single market and the foundations of the EU. For example, researchers at the Peterson Institute for International Economics (PIIE) have been studying the trend of EU politicians pushing for policies that emphasise national sovereignty and oppose multilateralism and focusing on creating "European champions„ at the expense of competition within the EU. A researcher from PIIE J. Zettelmeyer (2019b) argues that this approach could undermine the economic success of the EU and even its credibility in promoting an open, rule-based international order. M. de Bolle and J. Zettelmeyer (2019) also describe a shift in the policy platforms of major political parties towards policies that emphasise national sovereignty and the rejection of multilateralism, and the advancement of national interests. In this paper, the authors evaluate these changes with regard to trade policy, FDI, immigration, and multilateral organisations. They highlight significant changes towards restrictions on immigration, trade, and macroeconomic populism, which could have potentially negative consequences for the EU's economic model and broader political and social trends associated with nationalism.

Thus, the rise of economic nationalism within the European Union poses a paradoxical challenge to the principles upon which the supranational organisation was founded. The core of this challenge lies in a conflict between the EU's inherent commitment to open markets and the return of certain member states to insularity and protectionism, which may be motivated by a desire to improve country's economic performance without looking at the success of the entire political community. This revival of economic nationalism, with the potential to undermine the internal market principles of the EU, necessitates a comprehensive analysis of its implications, since the rupture of economic unity may be followed by political disagreements. The growing prominence of economic nationalism, especially in the context of a union based on the free flow of goods, services, people, and capital, cannot be ignored. Although the single market has traditionally facilitated increased trade and FDI, benefiting the countries of Central and Eastern Europe in particular after integration, the emergence of economic nationalism poses a threat to reversing these gains. It is logical to assume that such a discrepancy in the values declared by supranational authorities and the policies that contradict them should provoke a counter-reaction from the EU authorities or other member states of the union in order to bring such "violators„ back into the common course of action in the interests of all members of the supranational organisation.

The European Central Bank and other regulatory bodies have played a crucial role in stabilising the EU's economy. Some researchers (Bradford, 2020) even highlight the term "The Brussels Effect„, emphasising that the European Union is the only global regulatory

power, having the ability to unilaterally set standards in various sectors (from personal data protection to environmental regulation) without resorting to formal international agreements or direct coercion, and forcing large companies to consider it more practical and economically feasible to adopt EU standards across their entire, rather than adapting their operations to less stringent regulations in other markets. According to A. Bradford (2020), this happens due to the large size of the EU market (the second largest in the world), the developed regulatory capacity and stringent standards, the political will to enforce strict regulations, the focus on inelastic targets, and the principle of "non-divisibility„. This policy differs from other popular regulatory regimes: China's "Beijing Effect„ and the US "Washington Effect„.

Yet, the incomplete integration of capital markets and banking sectors previously mentioned poses a question of resilience: how robust is the EU framework against the growing tide of nationalistic policies? The potential clash between the burgeoning trend of economic nationalism and the EU's foundational principles raises significant concerns. It is a trend that not only calls into question the economic coherence of the EU but also its political solidarity. These considerations set the stage for a crucial investigation into the repercussions of nationalistic economic policies on the broader economic structure of the EU.

It is reasonable to assume that supranational institutions are at a point where strategic measures, both formal and informal, need to be considered. These interventions aim to maintain the integrity of the Union's economic policy, and reduce the risks posed by individual national policies that could destabilise the collective economic framework. At the same time, these measures should lead to negative economic consequences for countries that implement them, which may also have an adverse effect on the overall economic development of the EU, since the economy of the European Union equals the sum of the economies of all its constituent countries.

Given this context, it becomes essential to investigate the outcomes of economic nationalism and its inconsistency with the EU's vision. The basis of this research lies in the assumption that policies that contradict the principles of the Union not only disrupt internal harmony but also hinder the economic progress of individual member states. Therefore, the aim of the study is to examine the economic trajectories of those EU member states that have taken the path of economic nationalism, and to analyse whether these policies have had an impact on their economic well-being. Consequently, the research seeks to uncover the complex interaction between national economic strategies, and supranational economic directives, laying the groundwork for the formulation of the research problem.

This study aims to investigate the **research problem** of the impact of economic nationalism policies in the European Union on the economic development of EU member states from 2003 to 2021.

The general **research question** of this study is how did economic nationalism policies in the European Union by member states affect their economic development in 2003–2021? Its *clarification* is as follows: what, if any, relationship was there between economic nationalism

measures and economic development? How did this effect behave over time? How did the factor of economic integration influence the strength of this relationship?

The **subject** of the research is the policy of economic nationalism on the part of the member states of the European Union in 2003-2021. And the **research goal** is to identify the presence or absence of a relationship between the economic nationalism policy measures of EU member states and their economic development in 2003–2021, as well as to analyse its nature.

To achieve this research goal, I set myself the following **research objectives**:

1. At the theoretical level, identify the mechanisms of the relationship between the policy of economic nationalism and economic development indicators for the EU countries in order to link theoretical knowledge about the subject of the study to its specific empirical dimensions.

2. Identify manifestations of economic nationalism policies in EU states in specific political and economic decisions and indicators during the period from 2003 to 2021 for further regression analysis.

3. Assess the relationship between the identified measures of economic nationalism and economic development in EU member states to test the hypotheses.

4. Analyse the temporal aspects of the relationship by distinguishing between short-term and long-term effects, and identify the role that economic integration has played in it.

5. Make conclusions about the presence of a relationship and its nature, qualitatively correlate the results of quantitative analysis with theory, and answer the research question.

Conceptualisation of Basic Concepts

Economic Nationalism

Following the ideas of Friedrich List, one of the main founders and theorists of **economic nationalism**, in this work I understand this term as a "science which limits its teaching to the inquiry of how a given nation can obtain (under existing conditions of the world) prosperity, civilization and power„ (List, 1904, p. 97). These ideas were opposed to the liberal school of political economy, whose representatives (François Quesnay, Adam Smith, John Stuart Mill, David Ricardo, Richard Cobden) created a "science that teaches how the entire human race may attain prosperity„ (List, 1904, p. 97).

Unlike many scholars of the 20th century, I do not contrast List's ideas about economic nationalism with economic liberalism, but I focus on the concept of "nationalism„, from which the fundamental concept of the nation as the main interested party in the economy came to economic nationalism, as well as the key idea of putting the interests of the nation,

as a collective community, above the interests of the individual when conducting economic policy.

Similar to the works of researchers in the field of international relations and international political economy (Abdelal, 2001; Crane, 1998; Mayall, 1990; Shulman, 2000; Szporluk, 1988), I argue that important goals of economic nationalism policy are to strengthen the wealth and power of the state, closely identified with the nation as a collective community (i.e., not in the statist or realist manner), and also to strengthen the sense of national glory and identity through economic development. Thus, according to economic nationalism, the interest of the nation, national prosperity, is more important than the economic needs of the individual and especially humanity as a whole.

According to the theory, such goal-setting in economic policy should lead to greater results than focusing on each individual (and not a citizen, i.e., a person considered apart from the state) or on larger formations, including unions and humanity as a whole.

Economic Development

In the context of this study, **economic development** is conceptualised as the process through which a nation enhances the economic, political, and social well-being of its people. This definition aligns with the broader understanding in economic theory where economic development is often seen not merely as an increase in national income or output but as an improvement in the quality of life and standard of living of the population (Sen, 1999). Fundamental to this concept is the notion that true development goes beyond mere economic growth, encompassing social and environmental dimensions that contribute to the well-being of individuals within a society (Stiglitz, 2012).

However, for the purposes of empirical analysis in this thesis, economic development is measured more narrowly through specific, quantifiable economic indicators that reflect key aspects of a nation's economic health. The three primary indicators used are GDP growth rate, unemployment rate, and inflation rate. These metrics are widely recognised and employed due to their ability to provide a clear snapshot of economic performance and stability within a given time-frame (Friedman, 1992; Kuznets, 1966).

1. *GDP Growth Rate*: GDP growth is a fundamental indicator of economic health, reflecting the total value of all goods and services produced over a specific period. It is a comprehensive measure that provides insights into the overall economic activity and vigour of a nation. A robust GDP growth rate is often associated with improved living standards, as it implies higher employment levels and better income prospects for the citizens (Solow, 1956).

2. *Unemployment Rate*: The unemployment rate is a critical social and economic indicator that reflects the percentage of the labour force that is jobless and actively seeking employment. High unemployment rates are typically seen as a sign of economic distress,

indicating underutilisation of labour resources, which can lead to lower living standards and social discontent (Schmieder & Wachter, 2016).

3. *Inflation Rate*: Inflation, measured by the rate at which the general level of prices for goods and services is rising, is another key indicator of economic stability. Moderate inflation is often associated with healthy economic growth, while hyperinflation can erode purchasing power and savings, destabilising the economy. Conversely, deflation can lead to decreased production and an increase in unemployment, reflecting economic stagnation (Fisher, 1933).

Together, these indicators provide a multi-faceted view of economic development, each reflecting different aspects of the economy's health and contributing to a comprehensive analysis of how national economic policies impact the economic welfare of a nation. This approach to measuring economic development allows for an empirical assessment of the extent to which economic nationalism influences the economic trajectories of EU member states, examining whether these policies align with or contradict the broader goals of enhancing national prosperity and power.

Defence Statements

Taking into account the identified research problem and the objectives for its disclosure, I put forward for myself the following **statements of the defence**:

1. The policy of economic nationalism contradicts the basic political and economic principles of the EU as a supranational association based on the principles of the free movement of goods, services, capital and information between borders. Its implementation by individual member states should provoke a negative reaction on the part of the EU institutional authorities and other members of the union in order to reduce risks and prevent the spread of these values.

2. This policy has strong theoretical roots and is popular among contemporary politicians, but it has never been investigated in terms of the real economic consequences for the state and the nation (both in the context of a single country and a group of countries), which makes the study unique.

3. The policy of economic nationalism among the EU member states is empirically manifested by reducing duty-free import, increasing import tariffs, increasing trade balance, and decreasing the number of foreign workers, which goes against the core values of the EU.

4. The implementation of economic nationalism policy in the EU context leads to short-term positive economic results (this year), taking advantage of the non-proliferation

of such measures, as well as the unreadiness of other European actors to confront it instantly.

5. In the long-term (from one year), the implementation of economic nationalism policy among the EU member states leads to negative economic consequences due to contradiction with the basic EU principles, as well as inclusion of European regulators and other actors designed to "pacify„ the country introducing measures under this policy.

6. The level of economic integration is a moderator of the relationship between economic nationalism policies and their economic consequences and is therefore a factor in the "success„ of economic nationalism policy in the EU.

7. In general, the policy of economic nationalism has negative economic consequences for most EU member states. The results obtained are robust and significant. The relationship found has both practical and academic applications. For example, it allows policy makers to identify optimal economic strategies adapted to the specific conditions of each EU country depending on its background. It can also serve as a basis for a discussion on possible reforms of the EU institutional design in order to modernise the mechanisms for the development of economic integration and strengthen the integration of the member states as a whole, as well as to reduce the political risks to the association posed by the threat of union dissolution (what a policy of economic nationalism can lead to, as we have seen with Brexit). It may also serve as a good starting point for evidence in favour of the existence of economic elitism and economic hierarchy within the EU, as well as economic inequality, which may allow some EU countries to pursue aggressive economic policies while others do not. It also opens up a discussion on the effectiveness of staying in the EU for countries that joined at different times.

Structure of the Paper

The structure of this paper is organised as follows: **Chapter I** presents the theoretical and methodological framework, detailing the economic nationalism theory underpinning the study, and the empirical research on this topic. **Chapter II** explains the empirical strategy, describes the data, and discusses the methods employed to test the hypotheses. This chapter also elaborates on the specific models used, the variables included, and presents the results of the regression analyses providing their interpretation with reference to the hypotheses put forward. **Discussion** section highlights implications of the findings for institutional and economic policy within the European Union, and the broader field of economic nationalism. This section also suggests avenues for future research, and discusses the limitations of the study, including robustness and endogeneity concerns in relation to the research. Finally, in the **Conclusion** section the paper concludes with a summary of the findings, reiterating

how the study contributes to our understanding of the impacts of economic nationalism on the economic development of EU member states, and reflecting on the broader implications of these results.

2 Chapter I: Theoretical and Methodological Framework of the Study

Chapter I, "Theoretical and Methodological Framework of the Study,,, comprehensively explore the concept of economic nationalism and the analytical frameworks guiding the study. Subsection 2.1, "Economic Nationalism Research,,, consists of the two parts: 2.1.1 "Theory,,, which outlines the historical and theoretical foundations of economic nationalism as seen through influential figures and theories, and 2.1.2 "Empirical Evidence,,, which presents empirical studies that have examined economic nationalism's manifestations in various regions and periods. Subsection 2.2, "Theoretical Framework of the Study,,, discusses the dual theoretical lenses of Rational Choice Theory (RCT) and Neo-Institutionalism, providing the basis for analysing state decision-making within EU institutions. Lastly, the subsection 2.3 "Formulation of Research Hypotheses,, introduces and details the three hypotheses that will guide the empirical investigation, linking the theoretical discussion to anticipated research outcomes. Each subsection builds upon the previous to establish a solid foundation for the empirical research that follows.

2.1 Economic Nationalism Research

2.1.1 Theory

Traditionally, the German economist and politician Friedrich List is considered one of the main founders and theorists of the theory of economic nationalism. In his key 1844 work "The National System of Political Economy,, he criticised economic liberalism for its focus on individuals and the welfare of humanity as a whole and "bottomless cosmopolitanism,,, emphasising in his analysis of economic policy the nation and nationality (List, 1904, p. xliii). In this landmark work, he defined the ideological core of economic nationalism: the commitment to examine how economic policy could be used to help a given nation obtain "prosperity, civilization, and power,, (Helleiner, 2002, p. 322).

Researchers note that at the core of economic nationalism was an ontological point. This ideology started from the standpoint that the world was divided into nations, each with distinctive national interests defined not just in materialist terms but also in terms of power and the expression of national culture and identities. Although individuals had their own private economic interests, more important from List's standpoint was their shared interests as members of the same nation. If private and national interests did not coincide, he believed the latter should prevail (Helleiner, 2002).

At the same time, it cannot be said that economic nationalism was focused exclusively on national states and nations. For example, List himself wrote that, in addition to the prestige and prosperity of the nation, the goal of economic nationalism was to "prepare it for admission into the universal society of the future,, (List, 1904, p. 142). But representatives

of economic liberalism, focusing on the individual, wanted to immediately move to a single world community. For instance, D. Ricardo, advocating for free trade, believed that its benefits "pursuit of individual advantage is admirably connected with the universal good of the whole... the universal society of nations throughout the civilized world„ (Ricardo, 1821, p. 139), and for J.S. Mill, free trade was "the principal guarantee of the peace of the world„, and carried "the economical benefits of commerce are surpassed in importance by those of its effects which are intellectual and moral„, which would lead to "uninterrupted progress of the ideas, the institutions, and the character of the human race„ (Mill, 1923, pp. 581–582).

However, List, on the contrary, believed that a human community larger than the nation could only be achieved on the basis of strong and equal nations. That is why he considered that a system of protectionism is the only way to equalise power among nations and this economic program, rather than free trade, is "the most efficient means of furthering the final unions of nations„ (List, 1904, p. 103; Helleiner, 2002, p. 313).

Discussing specific measures proposed by Friedrich List within the framework of economic nationalism, trade protectionism is most often mentioned, particularly in relation to infant industries. However, it is important to note that, in certain situations, he also advocated for free trade when it was beneficial for nations. As an example, he always cited Great Britain, which, through this policy, acquired a "world-manufacturing monopoly„ (List, 1904, pp. 296–297). Thus, according to List's ideas, it is difficult to identify specific measures, as they could vary significantly depending on the context of each nation's existence. However, they should always be aimed at promoting its prosperity and wealth.

Among other prominent representatives of 19th-century economic nationalism, English politician and member of the "Birmingham School of Economics„, Thomas Attwood, can be noted. He also advocated for the development of national power, but focused more on criticising the gold standard and advocated for the creation of an inconvertible currency, which was an unpopular opinion in Britain at the time. In his view, this would stimulate employment in the country, make the currency independent, and increase national cohesion and loyalty to the state (Attwood, 1964; Helleiner, 2002). Similar ideas were expressed by American economist Henry Carey (Nugent, 1968; Sharkey, 1959) and Canadian politician Isaac Buchanan (Buchanan, 1879).

19th-century economic nationalists who leaned towards authoritarian ideas can also be distinguished, such as Johann Fichte (1762—1814), who envisioned not just macroeconomic planning but also a high level of microeconomic planning including guarantees of work and strict regulations over wages and prices, and Adam Muller (1779—1829), who touched on issues of economic sociology, considering a market and money as a means to establish connections between people, which should bind citizens and the national state (Helleiner, 2002).

During the 20th century (especially in the interwar period), the term "economic nationalism„ became umbrella-like and boundless moving away from its original meaning. It was more often used by critics of this concept than its proponents, as a nonliberal policy and

a polemical tool. It often encompassed everything that did not fall under liberal economic policy and Marxism (like other major ideologies of modern political economy). The term "economic nationalism„ began to be used as an analogue to realism in international relations, but in economics and political economy (as a state-centric definition in the spirit of statism and mercantilism), losing its focus on the nation, nationality, and nationalism (Helleiner, 2002; Nakano, 2004). However, overall, this theory remained in the shadow of debates between liberalism and Marxism for most of the 20th century.

At the end of the 20th and the beginning of the 21st century, there was an increase in research in the field of economic nationalism. Many researchers immediately called for a theoretical rethinking of this theory and a return to its original connection with the nation (Abdelal, 2001; Crane, 1998; Helleiner, 2002; Mayall, 1990; Shulman, 2000; Szporluk, 1988). Partly, this increased popularity can be called a "drift„ effect due to the growing popularity of research in the field of nationalism and its manifestations as a separate phenomenon in political science.

Finally, T. Nakano in the paper "Theorising Economic Nationalism„ argued that economic nationalism traditionally was measured as a set of attitudes, but instead it can be systematically theorised by integrating Durkheim's concepts of the state and society with the concept of the nation in political economy (Nakano, 2004). In this paper, he presented a comprehensive theoretical framework for understanding economic nationalism as a whole theory highlighting the role of nationalism in shaping economic policies and practices and critiquing the conventional view of economic nationalism as an incoherent mix of mercantilism, statism, and protectionism. He also proposes a shift in a perspective that distinguishes economic nationalism from mere state-centric policies by focusing on the nation and its cultural and social identity as the core of economic policy-making.

T. Nakano (2004) emphasises two main factors in the success of the economic nationalism policy: the state's function in creating a unified national market and the necessity of nationalism for mobilising resources and achieving economic development. Furthermore, Nakano explores how economic development, in turn, reinforces the social imaginary of the nation, strengthening nationalism. He argues that these policies not only aim at enhancing national economic power but also at fostering national unity and autonomy, reflecting the intrinsic link between economic practices and nationalist objectives.

Thus, the theoretical underpinnings of economic nationalism trace back to the 19th century, with Friedrich List's seminal work providing a cornerstone for the ideology. List's "The National System of Political Economy„ critiqued economic liberalism's global outlook, advocating instead for a focus on national prosperity and power. He posited that economic policies should serve national interests, which encompass not only economic prosperity but also cultural identity and national power. This period also saw figures like Thomas Attwood and Henry Carey, who, while diverging on specifics, shared the theme of bolstering national economic independence and power.

As the 20th century unfolded, the term "economic nationalism„ expanded beyond its original scope. It became a catch-all category used more by critics than proponents, encompassing various nonliberal economic policies and often conflated with state-centric approaches like mercantilism and statism. This period witnessed the concept's dilution, as it was often invoked in opposition to the prevailing economic ideologies of liberalism and Marxism. Despite this, economic nationalism persisted as a distinct, if not fully articulated, school of thought within the broader debates of political economy.

Entering the 21st century, there was a resurgence of interest in economic nationalism, driven in part by the broader appeal of nationalism studies. Scholars called for a return to the theory's roots, emphasising its relevance to the nation and its implications for economic policy-making. This reinvigorated approach sought to differentiate economic nationalism from mere state-centrism, focusing instead on the intertwining of economic policy with national identity and culture. T. Nakano's influential work proposed a systematic theoretical framework that integrated societal and cultural dimensions with economic policy, reinforcing the notion that economic nationalism was as much about fostering national unity and autonomy as it was about enhancing economic power.

Throughout these developments, economic nationalism has displayed a chameleon-like ability to adapt and redefine itself in relation to the prevailing economic and political climates. It has remained a vibrant and contentious strand of economic thought, reflecting the enduring tension between global economic integration and the persistent pull of national sovereignty and identity. From List's advocacy for protectionism to Nakano's cultural-economic synthesis, the path of economic nationalism illustrates a dynamic interplay between theory and practice, ideology, and policy.

2.1.2 Empirical Evidence

Regarding empirical research on economic nationalism, there are a number of studies from this field that examine the manifestations of this policy in different regions I've interested in.

For example, the paper "Economic Nationalism in Mergers and Acquisitions„ by S. I. Dinc and I. Erel (2013) examines the phenomenon of economic nationalism in the context of corporate mergers within 15 EU countries[1] from 1997 to 2006. The study is significant for its use of hand-collected data on the largest 25 merger targets by market capitalisation of target firms within the specified period. The focus on these particular countries and years enabled the researchers to study a critical period in EU economic integration and governmental responses to cross-border mergers and acquisitions. The authors took into account government reactions to large corporate merger attempts, and they researched the presence of preference for domestic ownership over foreign in the face of merger bids. This

[1]These countries are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom, or member states of the EU prior to enlargement in 2004.

preference is particularly pronounced in periods and regions where far-right parties are strong and governments are weak.

S. Dinc and I. Erel provide a detailed analysis of government interventions in mergers and acquisitions, showing that such actions are not merely political statements but have real economic effects. These interventions not only influence the direct outcomes of targeted mergers but also deter future foreign bids, affecting international investment and capital flows. The paper elaborates on various methods governments use to implement economic nationalism policy, including moral suasion, golden shares in privatised companies, and offering financial support to domestic bidders. The research also explores the sociological and political factors behind economic nationalism, identifying a stronger preference for domestic ownership when nationalist sentiments among the populace are high, as indicated by the vote share of extreme right parties. Furthermore, weaker governments and those holding the rotational presidency of the EU are found to exhibit stronger nationalist reactions. This knowledge is very important in the context of my research for the specification of variables that will reflect the policy of economic nationalism in the EU countries.

Significantly, the paper demonstrates that economic nationalism has both direct and indirect economic impacts. Directly, government interventions can alter the success rate of mergers and acquisitions, while indirectly, they can discourage future foreign bids, thereby affecting the market economy and international investment dynamics.

The authors suggest that economic nationalism, while reflecting a preference for domestic over foreign economic activities, can have detrimental effects on economic efficiency and the free flow of capital. They argue that such nationalism is motivated more by sociological and political factors than by economic considerations, shedding light on the complex interplay between national interests, government policy, and the global economy. These conclusions once again underline the inconsistency of such a policy in the context of the EU single market.

Thus, this comprehensive study provides valuable insights into the role of government interventions in corporate mergers within the EU, contributing to our understanding of economic nationalism and its implications for international business and economics. Nevertheless, being written more than 10 years ago, its focus stops in 2004, which, on the contrary, I consider as a starting point for my research due to the significant expansion of the number of EU countries.

In the recent article "The Surge of Economic Nationalism in Western Europe,, by I. Colantone and P. Stanig (2019) there is an extensive analysis of the rise of economic nationalist and radical-right parties across 15 Western Europe[2] from the early 1990s to 2016. The authors explore the economic shocks and their political effects, such as globalisation, technological change, financial crises, and immigration, to explain the political shift toward economic nationalism and the decline of established political structures.

[2]These countries included Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

The authors begin by outlining the concept of "embedded liberalism„ — a post-World War II social contract where liberal policies were expected to broadly improve living standards. However, since the 1990s, confidence in this model has waned, leading to a rise in economic nationalism, characterised by isolationism, economic conservatism, and a nationalist narrative focused on regaining national control. I. Colantone and P. Stanig document these shifts through election data in the studied Western European countries, observing an increase in support for economic nationalist parties, especially during the Great Recession, the euro crisis, and "China shock„ (the impact of surging Chinese exports and the consequent industrial displacement in the West). They also discuss the role of automation and technological changes, which have similar divisive economic effects, potentially leading to political consequences. This rise is also reflected in a growing voter base for isolationist leftist parties, particularly in Southern Europe.

Speaking about the migration factor, which is often a central theme in the narratives of radical-right parties, the authors argue that while the direct economic effects of immigration are minimal, immigration acts as a catalyst for the political consequences of economic distress.

Although this article has a high-quality theoretical elaboration, its methodological part deserves criticism. The researchers do not clearly declare the methodology they use. In addition, the authors use descriptive statistics tools rather than serious statistical inference, besides, it is also limited to 15 countries in Western Europe, as well as the study above. However, it is important to note that this work provides good theoretical prerequisites for understanding the main drivers of support for parties pursuing a policy of economic nationalism in EU countries.

It is also worth mentioning a number of studies that focus on specific EU member states. For example, in the article "Economic Objects as Cultural Objects: Discourse on Foreign Investment in Post-Socialist Europe„, based on a qualitative methodology, N. Bandelj (2008) examines how economic phenomena, specifically foreign direct investment, are imbued with cultural meanings connected with economic nationalism in post-socialist Slovenia.

Bandelj's analysis is based on a content analysis of newspaper texts focusing on public debates over foreign investment attempts between 2001 and 2003. She finds that discussions about foreign investment are largely framed in relation to national interests, but the interpretation of how FDI affects these national interests varies widely, reflecting the multivocality of cultural resources. Bandelj identifies three main clusters of arguments in the debate: the liberal (welcoming foreign investment as beneficial for the national interest), the protectionist (resisting foreign investment to protect the national interest), and the particularistic (differentiating between types of foreign investments based on various criteria). Furthermore, Bandelj points out that uncertainty surrounding economic globalisation and FDI contributes to the diversity of interpretations and justifications provided by different actors, who rely on their cultural toolkits to assess potential strategies of action.

Separately, it is worth mentioning the Brexit case, which is considered by some researchers as a natural macroeconomic experiment and an example of economic nationalism policy's consequences (Born et al., 2019). In this study, Born et al. used the Difference-in-Difference methodological paradigm and the concept of "synthetic doppelganger,,, which is popular in modern political science (Abadie et al., 2015). They created a synthetic counterpart of the United Kingdom based on data from OECD member countries that are most similar economic and political structures to the UK and were growing at a similar rate. Before the UK officially left the EU, the authors estimated that Brexit would have cost 2.4 percent of GDP (PPP) or approximately £55 billion by 2018 since the official vote on the UK membership in the EU in 2016.

In my previous research (Rubanov, 2023), I continued the work of Born et al., conducting a study using a similar methodology extending the study period to include the time after the UK actually left the EU. I came to the conclusion that, due to actions in line with the policy of economic nationalism, the UK has lost $197.2 billion, or 7.07% of GDP (PPP) in 2015 by 2023 since the official vote. According to my forecast, the UK will receive less than $262.2 billion, or 9.40 percent of GDP (PPP) in 2015, by 2025. These figures show the great negative impact on economic development that the policy of economic nationalism can have in individual countries that are tightly integrated into EU institutions.

It is important to highlight the research that has been conducted on this topic at the individual level. For example, in the article "Economic Nationalism: Conceptual and Empirical Development,, C. C. Baughn and A. Yaprak (1996) measured economic nationalism at the individual level, connecting it to broader social, psychological, and economic orientations. The authors found that economic nationalism is closely linked to perceptions of economic threat from foreign competition, which in turn is related to personal job insecurity, authoritarianism, and intolerance of ambiguity. Conversely, it is negatively correlated with individual cosmopolitanism. In addition, the authors distinguish the concepts of economic nationalism, patriotism, and general nationalism.

The authors of this research emphasised the paradox of the phenomenon of economic nationalism in the period of 1990s, when the world was striving to unite economies and expand the free movement of goods, services, capital and information between borders. Looking back on these years, we can say that this thesis is not so obvious, because in reality not the whole world adhered to the principles of globalisation in the economy. Besides, the sample of this study was formed only by undergraduate students from the USA. However, in a similar way, in my study I raise the question of the inconsistency of this policy within the EU, a supranational association that formally declares these values, putting them at the basis of its existence.

Another article exploring the problem of economic nationalism at the individual level is a paper titled "Neo-nationalism in Western Europe,, by M. A. Eger and S. Valdez (2015). The authors examine the ideological shift and increasing popularity of radical right parties

in Western Europe from 1970 to 2010. Utilising data from the Manifesto Project Database from 1970 to 2010 and the European Social Survey from 2002 to 2010[3], the authors analyse the election platforms of parties traditionally identified as radical right, political attitudes of voters in relation to the platforms of the radical right parties and argue that these parties have changed qualitatively over the period in question, particularly in their emphasis on nationalist claims from traditional right-wing economic policies to ones that prioritise nationalist concerns. This evolution reflects a broader trend towards economic nationalism, which is characterised by policies and rhetoric that emphasise national interests, identity, and sovereignty, especially in economic matters, which are one of the key components in the policy of economic nationalism.

The research finds that contemporary parties differ fundamentally from their predecessors by prioritising nationalist over economic issues. Earlier radical right parties emphasised free-market capitalism and traditional economic orthodoxy, whereas modern parties are more focused on welfare state expansion, environmental protection, and law and order, reflecting a turn towards welfare chauvinism — supporting social spending and welfare state protection for co-ethnics while restricting benefits to immigrants. The authors use the term "neo-nationalist„ to describe these contemporary parties, distinguishing them from their radical right predecessors. Neo-nationalist parties represent a new era of nationalism characterised by a primary concern for protecting the nation state against perceived threats from increased ethnic heterogeneity and supranational authorities like the EU, which brings them closer to the Eurosceptics. M. A. Eger and S. Valdez claim that many radical right parties exhibit a strong opposition to the European Union and other supranational entities. This is aligned with economic nationalist sentiments that oppose transferring control over economic policies to international bodies.

The article analyses electoral results from various Western European countries, noting instances where these parties have been legitimised in parliament. It also highlights demographic trends among voters of these parties, who tend to be native-born, working-class, and male, with lower levels of education. In their methodological approach, the authors use cross-national data to reveal general patterns and avoid focusing on the specificities of individual countries or parties.

The study concludes that the coherent political ideology of these parties, termed neo-nationalism, may explain their electoral successes. It suggests that this family of parties is distinct from earlier radical right movements, with nationalism being the driving force behind their policy preferences. The authors propose that the label of "neo-nationalist„ more accurately reflects these parties' ideologies and their focus on boundary-maintenance

[3]The countries included in their analysis span a wide range of Western European nations, such as Austria, Belgium, Switzerland, Denmark, Finland, France, Germany, Italy, Luxembourg, Netherlands, Norway, Sweden, and potentially others that were part of the European Social Survey in the specified time frames. It is also worth mentioning that in order to avoid selection bias the authors included attitudes of voters from all the participating countries in the survey, whether or not a radical right party was represented in the parliament of a given country.

in established nation states.

Thus, the literature review on empirical research concerning economic nationalism policy highlights a multifaceted analysis of how this policy may influence economic development on different levels, particularly within the European Union. It encompasses studies on government interventions in corporate mergers, the rise of nationalist and radical-right parties, cultural interpretations of foreign investments, and the economic repercussions of such policies, notably illustrated by Brexit. This collective body of work reveals the economic, sociopolitical, and cultural dimensions of economic nationalism, offering insights into government preferences for domestic ownership, the driving forces behind the resurgence of nationalist sentiments, and the substantial economic impacts of policies like Brexit. Furthermore, individual-level analyses delve into perceptions of economic nationalism and the ideological shift of radical right parties towards prioritising nationalist concerns over traditional economic policies.

Adapting these findings to the current study enriches the analysis of economic nationalism within the EU. Dinc and Erel's criteria for identifying economic nationalism through government actions can guide the operationalisation of economic nationalism in real observable measures and indicators. Colantone and Stanig's exploration of the sociopolitical underpinnings provides a theoretical framework to understand the rise of nationalist sentiments. Bandelj's cultural analysis of economic policies suggests examining public perception and discourse surrounding economic nationalism, although it is not the key focus of current research. The Brexit case offers a model for quantifying the economic impact of nationalism policies, applicable to other member states and a very good example of a quantitative study aiming to assess the impact of economic nationalism policies in concrete numbers. Lastly, individual-level insights underscore the importance of understanding the drivers behind economic nationalism, suggesting a comprehensive approach that combines quantitative and qualitative analyses to capture the complex impact of economic nationalism on the economic development of EU member states. This integration of methodologies and theoretical perspectives aims to contribute a nuanced understanding of the interplay between nationalism and economic policy within the context of a closely integrated economic union like the EU.

2.2 Theoretical Framework of the Study

The study employs Rational Choice Theory (RCT) and Neo-Institutionalism according to D. North as its theoretical lenses, exploring the decision-making processes of states from a rationality standpoint and examining how EU institutions shape economic outcomes through formal and informal mechanisms. This dual-framework aids in understanding the intricate balance between individual state rationality and collective EU goals.

2.2.1 Rational Choice Theory

I consider rationality as policies leading to an increase in state wealth and economic growth. According to this understanding, RCT asserts that states (like individuals) make decisions based on their assessments of the best set of actions to achieve their goals, even if these decisions prioritise their national interests over collective benefits. They calculate that the benefits of such policies, perceived through the prism of their national interests, outweigh the costs imposed by EU institutions.

From an RCT perspective, these institutional mechanisms can be viewed as factors that member states rationalise within their decision-making processes. The theory helps explain why, despite the constraining frameworks and informal rules set by EU institutions, member states can still pursue economic nationalism policies. It suggests that these states calculate that the benefits of such policies, perceived through the prism of their national interests and autonomy, outweigh the costs imposed by EU institutions, including potential sanctions, reputational damage, or loss of influence within the EU.

The reason for this "irrational rationality„ is a matter of discussion, but it can be viewed as a response to internal pressures, such as political populism, economic protectionism, or national security considerations, which may prompt states to pursue policies diverging from EU integration goals. In this context, the rationality of striving for economic nationalism is defined by a complex calculation of political survival, economic autonomy, and social stability, rather than the benefits of purely economic integration. However, this can result in missed additional economic benefits and lost opportunities.

2.2.2 Neo-Institutionalism

Neo-Institutionalism, in the understanding of political institutions according to D. North (Gadzhiev, 2015), offers a basis for understanding how EU institutions affect the economic outcomes of member states by creating formal constraining frameworks and informal "rules of the game", limiting manifestations of economic nationalism through establishing clear rules and penalties for non-compliance, promoting a culture of cooperation and integration.

The following features of the policy view are directly taken from Neo-Institutionalism in the context of RCT research: considering politics as a series of dilemmas of collective action, emphasising the role of strategic interaction between political institutions in determining

political outcomes, and the organisational structure of the institutions is explained by how it minimises transaction, production, or management costs (Hall & Taylor, 1996).

Thus, the study, integrating RCT and Neo-Institutionalism, touches upon the complex *interaction* between the individual rationality of the state and the collective rationality embodied in EU institutions. This allows analysing how member states cope with the contradictions between their immediate national interests and the long-term goals of integration into the EU. This theoretical base provides a foundation for exploring the conditions under which economic nationalism is considered a rational choice for member states, despite the constraints imposed by the EU's institutional structure.

This approach recognises the inherent contradictions and tensions within the EU, where the pursuit of economic nationalism by member states can be seen as both a challenge to the union's institutional architecture and a product of its functioning. It offers a comprehensive approach to studying how the dynamics of rational choice and institutional constraints combine, shaping the trajectories of economic development of EU member states involved in economic nationalism.

2.3 Formulation of Research Hypotheses

Based on theoretical and methodological framework of the study I put forward the following substantive hypotheses in my research.

2.3.1 Hypothesis 1

H1 Economic nationalism policy among EU member states in 2003–2021 led to a short-term improvement in economic indicators, reflecting the immediate benefits of protective measures.

Drawing from Friedrich List's foundational ideas, economic nationalism is theorised to safeguard nascent industries through strategic protectionism, potentially yielding immediate economic benefits such as job preservation, increased domestic production, and price protection. These benefits align with the short-term metrics of economic health.

Modern empirical examples, such as the government interventions in economic affairs within the EU discussed by Dinc and Erel, highlight how these nationalistic measures can temporarily enhance economic conditions by favouring domestic over foreign interests, thereby potentially stabilising local economies in the face of global market fluctuations. This hypothesis posits that, consistent with List's theories, the protective measures inherent in economic nationalism can generate immediate benefits, although they may entail longer-term economic costs.

2.3.2 Hypothesis 2

H2 In the long-term, EU member states that pursued economic nationalism policies in 2003–2021 had a negative impact on economic development due to contradictions with the EU's principles of integration.

While economic nationalism may provide short-term economic relief, it inherently conflicts with the European Union's principles of market openness, economic and political integration. List's critique of protectionism, though beneficial in the short run, suggests it often leads to economic stagnation or decline over time. This stems from industries becoming complacent and less innovative due to lack of international competition and the inefficiencies introduced by market distortions and resource misallocations. Over time, these factors can significantly hinder economic growth and development.

The empirical research by Colantone and Stanig supports this, showing how shifts towards economic nationalism and protectionism correlate with long-term economic challenges, particularly in the context of global economic shocks and integration.

Furthermore, the theoretical underpinnings from neo-institutionalist perspectives suggest that such policies, while aiming to protect national interests, often contradict the principles of economic openness and cooperation that underlie the European Union's integration efforts.

This hypothesis contends that in the long-term, EU member states adhering to nationalist policies face a decline in overall economic health, hampered by reduced integration and the negative repercussions of isolationist economic practices.

2.3.3 Hypothesis 3

H3 The "success„ of economic nationalism policy among EU member states in 2003–2021 depended on the state's level of integration into the EU single market, with more integrated states experiencing more significant negative consequences of this policy.

This hypothesis builds on the idea that the impact of economic nationalism is modulated by the degree of a state's integration within the EU's economic structures. States with deep integration in the EU's single market are hypothesised to experience more severe negative impacts from nationalist policies due to their high dependence on intra-EU trade, labour mobility, and capital flows. Disruptions caused by nationalistic policies — such as trade barriers and restrictive migration policies — can disproportionately harm these economies, undermining the benefits of single market mechanisms and of the political integration.

The empirical backdrop for this hypothesis is richly illustrated by the Brexit scenario, analysed by Born et al., where the UK's departure from the EU led to substantial economic losses, underscoring the detrimental effects of severing deep economic ties. Similarly, Nakano's theoretical exploration into the sociopolitical dynamics of economic nationalism provides insight into how deeply integrated economies might suffer more from the retrenchment of nationalist policies due to the abrupt disruption in established economic and social networks.

In summary, this hypothesis suggests that the more deeply a member state is woven into the EU's economic fabric, the more detrimental the impact of adopting nationalist policies, reflecting a complex interplay between national actions and supranational economic dependencies.

I would also like to emphasise that, in this study, the terms "short-term„ and "long-term„ effects are used to delineate the temporal impact of economic nationalism measures on various economic indicators. The "short-term effect„ refers to the immediate outcomes of economic nationalism policies, manifesting within the same year they are implemented. This encapsulates the initial, direct responses in economic variables to policy actions, providing a snapshot of the instantaneous economic repercussions. Conversely, the "long-term effect„ denotes the outcomes that materialise one to several years after the measures are enacted. These effects capture the sustained or delayed consequences of policies, extending beyond the year of implementation but not exceeding a few years. This distinction allows for a nuanced analysis of how economic nationalism influences economic dynamics both in the immediate aftermath and over a slightly extended horizon, shedding light on the transient versus enduring economic and political shifts prompted by such policies.

3 Chapter II: Data Analysis

Chapter II, "Data Analysis„, delves into the empirical investigation of the research, structured into several key subsections. Subsection 3.1, "Empirical Base„, details the scope of the study, describing the economic indicators and policies relevant to economic nationalism across selected EU member states, along with the data sources utilised. This also includes a discussion of data collection methods and the description of both dependent and independent variables used in the analysis. Following this, subsection 3.2, "Empirical Strategy„, outlines the statistical models employed for the regression analysis, specifically the Autoregressive Distributed Lag (ADL) and the Finite Distributed Lag (FDL) models, and explains their relevance and application to the study's time series cross section data. Lastly, subsection 3.3, "Results„, presents the findings from the empirical analysis, examining the impact of economic nationalism on various economic outcomes within the EU, which include GDP growth rate, unemployment rate, and inflation rate. Each model's implications are discussed in depth, with a focus on how economic nationalism influences these economic indicators over time and across different degrees of economic integration as a factor determining the strength of the relationship between economic nationalism policy and its economic outcomes.

3.1 Empirical Base

3.1.1 Scope of the Study

The research will utilise annual data on economic indicators and policies reflective of economic nationalism according to the considered theory across 24 current EU member states (excluding Bulgaria, Roumania and Croatia[4]). The time frame of the work includes the period from 2003 to 2021 inclusive. Data for 2003 will be used as prior year information for the 2004 reporting year. This choice of years is due to the last major expansion in the number of EU member states, when in 2004 10 states joined it: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.

3.1.2 Data Description

Data collection methods will not be employed in the study as it will utilise existing datasets from Eurostat[5], and The World Bank[6].

The study will use annual data from the Time Series Cross Section (TSCS) format, having both spatial (between states) and temporal (between years) variability. A positive feature of the study is the fact that the data collected from Eurostat, the statistical office of the European Union, has a common methodology for the EU countries: the European System of

[4]This decision was made for data completeness since Bulgaria and Roumania joined the EU in 2007 and Croatia in 2013.

[5]The statistical office of the European Union. (n.d.). *Eurostat.* https://ec.europa.eu/eurostat/.

[6]World Bank Open Data. (n.d.). *The World Bank.* https://data.worldbank.org/.

National and Regional Accounts (ESA 2010), which is the newest internationally compatible EU accounting framework for a systematic and detailed description of an economy[7]. A more detailed description of the data used in the research can be seen in **Appendix A** in a handy table. Information on descriptive statistics and data distribution of the main variables can be found in **Appendix B**. While access to the data itself for replication of the study results can be found in **Appendix C**.

So, a set of 3 indicators was selected as *dependent variables* for analysis in line with the conceptualisation of the concept of "economic development„, which comprehensively describe the economic development of the state, and at the same time are publicly available.

Explained variables are as follows:

1. *GDP (PPP): growth rates.* This indicator excludes inflation because it is derived from chain linked volumes, which are derived as previous year prices, after which growth rates are calculated directly from the chain linked volumes[8].

2. *Unemployment rate.* For these data, monthly unadjusted data (i.e. neither seasonally adjusted nor calendar adjusted data) on unemployment were collected and aggregated to an annual rate. The indicator was calculated as a percentage of population in the labour force total for males and females and for the total working-age population[9].

3. *Inflation rate.* This indicator is taken on the basis of harmonised index of consumer prices, calculated according to the EU methodology, which allows for correct comparisons between different EU countries[10].

It is assumed that 3 models will be evaluated for each of these dependent variables. In addition, it is important that such a data format will avoid bias, as the scales in which these values are measured will not differ greatly from country to country (as would be the case, for example, with absolute values of GDP or GDP per capita).

Indicators reflecting various aspects of economic nationalism policy, taken from the theory, were selected as *independent variables.*

Direct trade restrictions. Data are from The World Integrated Trade Solution (WITS) project of The World Bank and United Nations Conference on Trade and Development (UNCTAD)[11]. WITS allows users to access and retrieve information on trade and tariffs. The following direct trade restrictions policy-relevant indicators are selected for the study:

[7]Reference Metadata in Euro SDMX Metadata Structure (ESMS). (n.d.). *Eurostat.* https://ec.europa.eu/eurostat/cache/metadata/en/nama10_esms.htm#.

[8]GDP and main components (output, expenditure and income). (n.d.). *Eurostat.* https://ec.europa.eu/eurostat/databrowser/view/nama_10_gdp/.

[9]Unemployment by sex and age – monthly data. (n.d.). *Eurostat.* https://ec.europa.eu/eurostat/databrowser/view/une_rt_m/.

[10]HICP - annual data (average index and rate of change). (n.d.). *Eurostat.* https://ec.europa.eu/eurostat/databrowser/view/prc_hicp_aind/.

[11]World Integrated Trade Solution (WITS). (n.d.). *The World Bank.* https://wits.worldbank.org/.

- *Effectively Applied Weighted Average (%) Tariff.* This indicator is calculated by countries as the average of tariffs weighted by their corresponding trade value[12]. In many ways, it is tariffs that have been singled out by researchers and policy makers as one of the main instruments of economic nationalism policy. The literature predicts that this rate should increase to comply with the policy of economical nationalism.

- *Duty Free Imports (US$).* This indicator is calculated as effectively applied duty-free imports (i.e. at a 0% tariff) in US Dollars[13]. In this case, according to the literature, this figure must be lower for the policies implemented to fall under the ideology of economical nationalism.

Attitude towards globalisation and third countries. The data for this section were taken from Eurostat, discussed above, namely:

- *Number of Foreign Workers in the Local Labour Market.* Reflects the extent to which a country is willing to give foreigners access to the local labour market[14]. According to the policy of economic nationalism, the country needs to reduce this indicator in order to provide places in the labour market for the local population increasing their productivity, and to foster local industry.

Economic integration indicators. The data for this section were also taken from the WITS project, namely the following indicators:

- *HH Market Concentration Index.* Hirschman-Herfindahl index is a measure of the dispersion of trade value across an exporter's partners. A country with trade (export or import) that is concentrated in a very few markets will have an index value close to 1. Similarly, a country with a perfectly diversified trade portfolio will have an index close to 0[15].

- *Index of Export Market Penetration.* It is calculated as the number of countries to which the reporter exports a particular product divided by the number of countries that report importing the product that year[16].

- *Trade Balance (% of GDP).* This indicator is calculated as exports of goods and services (% of GDP) minus imports of goods and services (% of GDP). In turn, exports/imports of goods and services (% of GDP) represent the value of all goods and other market services provided or received to/from the rest of the world. They exclude only compensation of employees and investment income (formerly called factor services) and

[12]Ibid.
[13]Ibid.
[14]Employment by sex, age and citizenship (1 000). (n.d.). *Eurostat.* https://ec.europa.eu/eurostat/databrowser/view/lfsa_egan.
[15]World Integrated Trade Solution (WITS). (n.d.). *The World Bank.* https://wits.worldbank.org/.
[16]Ibid.

transfer payments[17]. In order to be able to correctly compare different economies in terms of size, they were considered as a percentage of GDP. According to the literature, this indicator should be higher under a policy of economical nationalism, but it is important to note that one cannot judge a country's policy adherence solely on this indicator.

Relevant control variables were also selected for the study, which are not related to the key independent variables, but they prevent model bias estimates and help to correctly parameterise the models by explaining factors such as the general macroeconomic situation in the world, financial flows and investments in and out of the country, etc. (the full set of control variables can also be found in **Appendix A**).

[17]Ibid.

3.2 Empirical Strategy

For the empirical analysis of this study, two distinct but complementary models models for regression analysis have been selected: the **Autoregressive Distributed Lag** (ADL) model and the **Finite Distributed Lag** (FDL) model. These models were chosen based on their theoretical relevance and statistical robustness, accommodating the specific needs dictated by the available data format and the theoretical framework of the study. Both models are particularly suited for TSCS data in political science, as recommended by methodological literature (Beck & Katz, 2011; Boef & Keele, 2008). Hereinafter, the notation and the terminology adopted in these methodological studies in political science regarding regression analysis will be used.

Autoregressive Distributed Lag Model

The specification of the ADL model generally looks like this (for the case with one main predictor):

$$y_{i,t} = \alpha + \sum_{j=0}^{p} \beta_j^{ADL} \cdot x_{i,t-j} + \sum_{k=1}^{q} \theta_k^{ADL} \cdot y_{i,t-k} + \langle \vec{\gamma} \, , \, \vec{Controls} \rangle + \epsilon_{i,t} \tag{1}$$

where

- α is a constant term common for regression analysis,
- $y_{i,t}$ denotes the true value of the dependent variable for the current period (t) and the current country (i),
- $x_{i,t}$ represents the predictor value for the current period (t) and the current country (i),
- p and q are the numbers of time lags considered for the predictor and the dependent variable, respectively,
- β_j^{ADL} and θ_k^{ADL} are the parameters at the predictor and the dependent variable for different time periods (lags),
- $\vec{\gamma}$ and $\vec{Controls}$ are the vector of parameters at control variables and the vector of values of control variables, respectively. The expression $\langle \vec{\gamma} \, , \, \vec{Controls} \rangle$ means a dot product (i.e., an algebraic operation that multiplies and sums two equal-length sequences of numbers returning a single number as result) of the two vectors,
- $\epsilon_{i,t}$ is the random error for the current period (t) and the current country (i).

Finite Distributed Lag Model

Contrasting with the ADL model, the FDL model does not incorporate autoregressive components (i.e., it does not include previous values of the dependent variable). This model is chosen when the theoretical and empirical evidence suggests that the inclusion of past dependent values may not be necessary or appropriate.

The general specification for the FDL model with one main predictor is:

$$y_{i,t} = \alpha + \sum_{j=0}^{p} \beta_j^{FDL} \cdot x_{i,t-j} + \langle \vec{\gamma} \ , \ \vec{Controls} \rangle + \epsilon_{i,t} \tag{2}$$

where:

- all variables retain their definitions as in the ADL model, but without the lagged terms of the dependent variable.

Advantages and Limitations

ADL model advantages include the following:

- Taking into account time lags for both predictor and explained variables. It gives the ability to assess the initial effect that changes over time, i.e., to consider **short-term and long-term impact** for both dependent and independent variables. The depth of the selected time effects (i.e., how many values backward I will use to explain the value a country receives today) will be controlled by the parameters p and q, but the choice of the specific depth will of course be primarily guided by theory as well as statistical considerations.

- The use of multiple exogenous variables, i.e., time series (let me remind you that the formula above shows an example for one predictor), enhancing the model's explanatory power. This is also true for the FDL model.

FDL model advantage is:

- Suitable for analysing the impact of predictor variables without the potential confounding effects of the dependent variable's past values. It is convenient when it does not follow from theory and empirical considerations that the current value of the dependent variable is in any way related to its previous value. This **simplifies** the model, potentially increasing clarity when autoregressive components are not theoretically justified.

It is also worth mentioning the common limitation of these models:

- Both models assume that the time series are stationary. The data will necessarily be checked against this limitation and, if they do not meet it, they can be transformed

in accordance with the methodological literature: for example, TSCS data can be cointegrated (Beck & Katz, 1995).

Also, in order to analyse the role of economic integration as the factor determining the strength of the effect of the economic nationalism policy on county's economic development, *interaction variables* will be added in the specification of both models to assess the **moderation effect** of economic integration. That is, the key predictors reflecting the policy of economic nationalism will also be multiplied by indicators reflecting the degree of economic integration of the country in order to understand how the strength of the effect of the economic nationalism on economic development highlighted above depend on the degree of economic integration of the country into the EU single market and in the world trade market. It is important to note that both models handle those types of variables with equal success.

To summarise, this section presented the general specifications of the two models: ADL and FDL. The choice between them will be guided by theoretical considerations and empirical testing. Each of the models will be adapted to the specific theory and hypothesis to be tested. By carefully selecting the appropriate model based on the nature of the dependent variable and the theoretical framework, this study ensures robust and theoretically sound conclusions. As a statistical justification for the number of lags taken for the dependent and independent variables, graphs showing the *Autocorrelation Function* (ACF) and the *Partial Autocorrelation Function* (PACF) for the key variables can be found in **Appendix B**.

3.3 Results

In this subsection, I will present the results of my empirical analysis examining the impact of economic nationalism within the European Union on the economic development of its member states. This analysis considers the changes in this relationship over time, as well as its dependence on the degree of economic integration of the country, specifically addressing the moderation effect of economic integration on the relationship between policy measures of economic nationalism and the economic development of EU members during the period of the research.

To appropriately capture the dynamics of economic indicators reflecting the main aspects of economic development — namely GDP Growth Rate, Unemployment Rate, and Inflation Rate — I utilised two distinct statistical models based on the data characteristics and theoretical underpinnings as described above. Specifically, the *FDL* model was estimated for GDP Growth Rate to focus on the immediate and distributed impacts without the recursive structure of the dependent variable. Conversely, the *ADL* model was employed for both Unemployment and Inflation Rates to account for the inherent autocorrelation and the influence of past values on these indicators as well as the key independent variables.

Each model is meticulously specified to isolate the effects of economic nationalism while controlling for other influential factors that could affect these indicators. The full set of control variables can be seen in **Appendix A**, whereas the estimates obtained for them (as well as for all other variables), are described in detail in **Appendix D**.

The following analysis delineates specifications of each model, discusses statistical significance and coefficients of the regression estimates. Notably, this section will also provide information on the *marginal effects* obtained for the interaction variables which is crucial as it represents the most accurate method to infer conclusions about the moderation effect for multiplicative interaction models in social sciences examining whether the relationship between an outcome and an independent variable changes with a moderating variable (Brambor et al., 2006; Hainmueller et al., 2019). As well as it is the main way to test interactive hypotheses in regression analysis (Kam & Franzese, 2007) Conclusions regarding the validity of the previously proposed substantive hypotheses which elucidate the implications of these findings will be presented in the subsection 3.4 that follows.

Additionally, for those interested in replicating or further exploring the empirical results obtained in this research, a link to a repository containing the code and the data used is available in **Appendix C**. This ensures transparency and provides an opportunity for scholarly verification and critique of the methodologies employed and conclusions drawn.

3.3.1 GDP Growth Rate

For the analysis of GDP growth rates among EU member states, the **FDL** model was selected. Unlike the ADL models used for unemployment and inflation rates (as will be discussed in more detail below), the FDL model was deemed more suitable for GDP growth due

to its theoretical alignment with the hypotheses and the absence of significant autocorrelation within the GDP growth data meaning that past GDP growth rates do not significantly affect current growth. Thus, this choice allows to focus on the immediate and distributed impacts of economic nationalism policy without the recursive influence of past GDP growth rate values.

The model specification for GDP Growth Rate incorporates several key predictors that reflect different features and nuances of the policy of economic nationalism, highlighted in the classic literature on this topic:

- Logarithm of Duty-Free Imports (at 0% tariff rate): This predictor is included for both the current year and with a one-year lag to capture the immediate and short-term effects of changes in trade openness.
- Average Tariff: Included for the current year and the previous one as interaction variable (as detailed below) to assess the direct impact of protectionist trade policies on GDP growth.
- Trade Balance (as % of GDP): This variable is included for the current year to measure the direct economic outcome of trade policies on the nation's economy.
- Interaction Variables:
  - Interaction between the Logarithm of Foreign Workers Number (for the previous year) and the Logarithm of Export Market Penetration Index (for the current year). This interaction term is crucial for testing one of the hypotheses, which posits that the effects of economic nationalism vary depending on a state's level of economic integration into the EU single market and the global economy. According to the policy of economic nationalism, the country needs to reduce the number of foreign labour force in order to provide places in the labour market for the local population and raise their productivity increasing the country's GDP.
  - Interaction between the Average Tariff (for the previous year) and the Logarithm of Export Market Penetration Index (for the current year). This interaction further explores how protective measures interact with economic integration to impact GDP growth as stated in the hypotheses.

The inclusion of these predictors, alongside other control variables listed in the **Appendix D**, is designed to robustly test the formulated hypotheses and discover short- and long-term relationship between economic nationalism policies and their economic outcomes as well as the moderation of these effects by economic integration processes.

It is also important to note that the methodological literature (Gujarati, 2004) tells us that when logarithmising the independent variables (which are in this specification) we can, for ease of interpretation of the estimated coefficients, interpret them (while additionally

dividing the coefficient value by 100) as the absolute change in the dependent variable by the one percent increase in the independent variable. This will help not to focus on the concept of "absolute one-unit increase„ of the independent variable, which may not be fully intuitive in the case of its logarithmisation.

The model was estimated with robust standard errors using the HC3 formula to address potential issues with influential observations. This adjustment ensures that the standard errors are correctly estimated, providing more reliable significance tests for the coefficients. The results of this model estimation, which detail the impacts of economic nationalism on GDP Growth Rate while accounting for the moderation effects of economic integration, are presented in the Table 1.

Table 1: GDP Growth Rate Model (FDL)

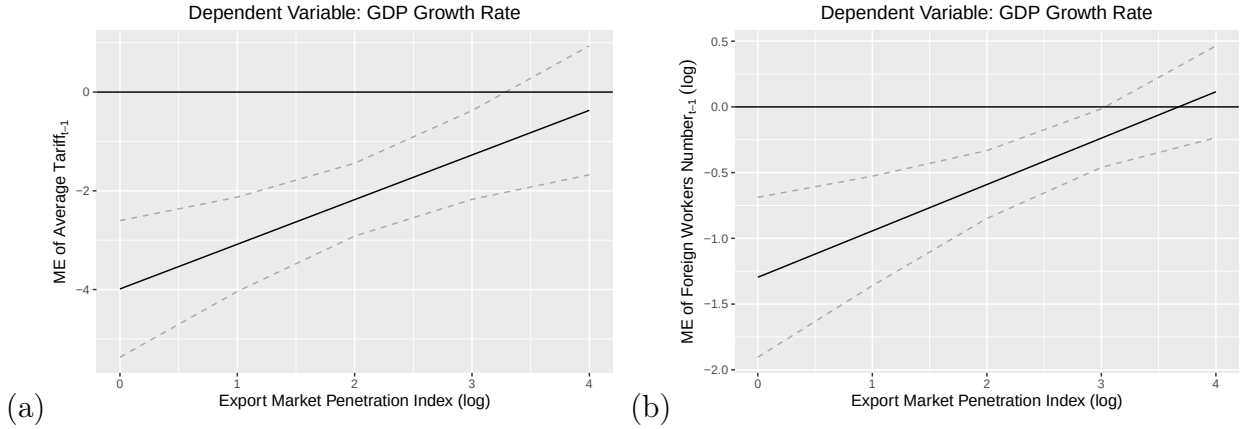
	GDP Growth Rate
Duty Free Import $(\log)_{t-0}$	4.104^{***}
	(1.412)
Duty Free Import $(\log)_{t-1}$	-3.628^{**}
	(1.426)
Trade Balance (% of GDP)	0.095^{**}
	(0.044)
Average Tariff_{t-0}	2.955^{***}
	(0.918)
Average Tariff_{t-1}	-3.987^{***}
	(1.403)
Foreign Workers Number $(\log)_{t-1}$	-1.296^{***}
	(0.449)
Export Market Penetration Index (log)	-9.832^{***}
	(2.312)
Average Tariff_{t-1}	0.904^{*}
× Export Market Penetration Index (log)	(0.487)
Foreign Workers Number $(\log)_{t-1}$	0.353^{**}
× Export Market Penetration Index (log)	(0.152)
Controls	Yes
N	418
R-squared	0.466
Adj. R-squared	0.445
Residual Std. Error	3.042 (df = 401)
F Statistic	21.890^{***} (df = 16; 401)

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

Note: a) Robust standard errors are reported in the parentheses. b) I did not report the coefficient estimates of the constant as well as the parameters at control variables.

Also, graphs showing the marginal effect of the Average Tariff and the Foreign Workers Number on the GDP Growth Rate can be seen in the Figure 1.

Figure 1: Conditional marginal effect of (a) Average Tariff Rate$_{t-1}$ and (b) Foreign Workers Number$_{t-1}$ (log) on GDP Growth Rate



The regression analysis results highlights significant at 0.01 and 0.05 levels of significance relationships between the GDP Growth Rate and all the key predictors, including the Logarithm of Duty-Free Imports, the Average Tariff, the Trade Balance, and the Logarithm of Foreign Workers Number. The regression model for the current dependent variable also yields several significant findings regarding the impact of economic nationalism on economic development.

As we can see, the coefficient for the current year's Logarithm of Duty-Free Imports is significant and positive ($\beta = 4.104$, $p < 0.01$), indicating that a one percent increase in the Duty-Free Imports is associated with a rise in GDP Growth Rate by 0.041, holding all other variables constant (we obtained this value by dividing the original coefficient value by 100 as noted above). Conversely, the lagged value (one year prior) has a significant negative effect ($\beta = -3.628$, $p < 0.05$), suggesting that the positive impact of increased 0% tariff imports may be short-lived and possibly reversed in the subsequent year. In other words, the positive effect of the increase of this indicator in the current year will be somewhat decreased by the negative effect in the next year, but in total its one percent increase still gives a positive effect in the form of an increase in GDP Growth Rate by ≈ 0.005 (we obtained this value by summing the coefficients for the current and previous years and also dividing by 100), which is not in favour of the policy of economic nationalism aimed at reducing this indicator.

Trade Balance as a Percentage of GDP shows a minor positive association with GDP growth ($\beta = 0.095$, $p < 0.05$), indicating that a favourable trade balance contributes modestly to economic growth.

We can also see that the effect of the Average Tariff for the current year ($\beta = 2.955$, $p < 0.01$) show significant initial positive impact on the GDP Growth Rate.

The values of the coefficients for the other key predictors should be considered not separately, but in conjunction with the Figure 1, since they reflect not an independent effect, but a conditional one, due to the inclusion of the moderation effect in the model through the addition of interaction variables. At this stage, it is important to note the choice of the scale

of values of the Logarithm of Export Market Penetration Index to visualise: it is due to the fact that the interval from 0 to 4 inclusive includes all the values that this variable takes in the available data (more detailed descriptive statistics are available in **Appendix A**).

Firstly, we see that at zero value of the moderator variable (the Logarithm of Export Market Penetration Index), i.e. at weak economic integration of the country, the lagged value of the Average Tariff show significant negative effect ($\beta = -3.987$, $p < 0.01$) with one-unit increase and holding all other variables constant (recall that the effect of this variable for the current year was equal to 2.955). Secondly, Panel (a) in the Graph 1 displays the marginal effect of Average Tariffs on GDP Growth Rate as a function of the Export Market Penetration Index. The interaction term between the Tariff and the Export Market Penetration coefficient ($\beta = 0.904$, $p < 0.05$) suggests that the effect of tariffs on GDP growth becomes less negative as market penetration increases, and we can see this slope on the graph. Thus, with weak economic integration, the initial positive effect is followed by a stronger negative effect in the following year, reflecting the possible immediate protective benefits that turn into disadvantages over time. It can be observed that this negative "catch-up„ effect gradually diminishes and becomes insignificant once the Logarithm of Export Market Penetration Index reaches a value greater than 3 (or slightly greater than 20 in the original non-logarithmic scale). The slope indicates that as market penetration increases, the negative impact of tariffs on GDP growth diminishes, turning slightly positive at higher levels of market penetration. This could suggest that in more globally integrated economies, the protective benefits of tariffs might outweigh their restrictive costs.

As for the Logarithm of Foreign Workers Number (for the previous year), Panel (b) in the Graph 1 illustrates the marginal effect of this predictor on GDP growth rate, also moderated by market penetration. This conditional relationship with the dependent variable is conceptually similar to that between the Average Tariff (also for the previous year) just discussed. Thus, at zero value of the moderator variable (i.e. at weak economic integration), the Logarithm of Foreign Workers Number for the previous year has a negative relationship with the GDP Growth Rate ($\beta = -1.296$, $p < 0.01$), other things being equal. However, interaction term between Foreign Workers and Export Market Penetration shows a positive and significant relationship ($\beta = 0.353$, $p < 0.05$), indicating that the marginal negative effect of increased foreign workers on GDP growth rate is mitigated in economies with higher economic integration. The "borderline„, when this negative marginal effect dissipates in this case is almost the same as for the interaction term between the Tariff and the Export Market Penetration: it is about 3 (or 20 in the original non-logarithmic scale). The positive slope suggests that in contexts of higher market penetration, the impact of foreign workers becomes less negative, likely due to the beneficial roles these workers play in more open and integrated economies or perhaps it could mean a portentous return to a "normally„ large number of foreign workers in the context of the EU single market.

Thereby, the results from the GDP Growth Rates Model provide substantial evidence that

economic nationalism has complex, multifaceted impacts on economic development. Short-term benefits from protectionist measures like increased tariffs and reduced duty-free imports are overshadowed by negative (and more powerful) longer-term effects. Moreover, the role of economic integration, as captured by export market penetration, critically moderates these effects in shaping GDP growth trajectories. At the same time, some measures within the framework of the policy of economic nationalism, such as reducing duty-free imports, can be generally harmful: regardless of the degree of economic integration of the country, because under all conditions, their increase result in a positive impact on the GDP growth. Nevertheless, from the analysis of the marginal effect of the two key indicators reflecting the policy of economic nationalism, it can be assumed that a number of countries (with weak economic integration) are extremely disadvantageous to apply measures related to this policy, because their initial positive effect on GDP growth rates is compensated by a stronger negative effect a year later. At the same time, countries with strong economic integration (with a value of the Logarithm of Export Market Penetration Index greater than 3) practically do not feel the negative catching-up effect, which suggests that they may not incur large costs from this policy or even benefit from it.

3.3.2 Unemployment Rate

For the analysis of the relationship between the policy of economic nationalism and the unemployment rate, the ADL model was selected, contrasting with the FDL model used for GDP growth rates. The choice of the ADL model for this dependent variable is driven by theoretical considerations and the observed autocorrelation patterns within the data. Unemployment rates often exhibit inertia, where previous periods' rates influence the current rate. Autocorrelation was found for both one and two lags backward, making the ADL model an appropriate choice for capturing these dynamic effects while aligning with the formulated hypotheses.

The specification for the ADL model examining unemployment rates focuses on the following key predictors that reflect the policy of economic nationalism:

- Average Tariff: Included for both the current year and with a one-year lag, this variable captures the effects of direct protectionist trade policies on unemployment.
- Logarithm of the HH Market Concentration Index: This measure, included for the current year, provides insight into the dispersion of trade value across an exporter's partners, which may influence employment dynamics in the context of economic nationalism policy.
- Trade Balance (% of GDP): This variable, also for the current year, reflects the economic health of a country's trade sector, which can impact unemployment rates.
- Interaction Variable: The interaction between the Logarithm of Foreign Workers Number (for the previous year) and the Export Market Penetration Index (for the current

year) tests how economic integration moderates the effect of foreign workers on unemployment.

Incorporating these predictors aligns with the theoretical framework and helps test the hypotheses. The inclusion of lagged terms and interaction variables allows the model to capture both immediate and evolving effects of economic nationalism on unemployment, identifying the role which economic integration influence this relationship. Control variables have also been fitted to the model, and their details can be found in the **Appendix D**.

It is also important to note that the dependent variable (Unemployment Rate) has been logarithmised to better approximate a normal distribution, which is crucial for meeting the statistical assumptions of regression models. This transformation helps ensure that the model's residuals behave appropriately, enhancing the reliability of the regression estimates. The distribution of the transformed variable can be examined in the **Appendix B**.

I would also like to point out that due to the fact that in this model both the dependent variable and some independent variables are logarithmised, we have, according to the methodological literature (Gujarati, 2004), the possibility to interpret the estimated coefficients not in terms of "one-unit increase„ but in percentages for a clearer interpretation, which makes these estimates similar to the *elasticity* of one indicator to another. In this case, if the independent variable is not logarithmised, the coefficient estimated and additionally multiplied by 100 for it will reflect the percentage change in the dependent variable per one-unit increase in the independent variable, which is known in the literature as the concept of *semielasticity* or log-linear model.

The results of estimating this ADL model, along with robust standard errors using the HC3 formula to account for influential observations, are presented in the Table 2 below.

The regression model for the Logarithm of Unemployment Rate provides significant insights into the impacts of economic nationalism on employment dynamics. Also, graphs showing the marginal effect of the Logarithm of Foreign Workers Number on the dependent variable can be seen in the Figure 2.

So, as for the autoregressive terms of the model, the coefficients for the one-period ($\beta = 1.547$, $p < 0.01$) and the two-period ($\beta = -0.666$, $p < 0.01$) lagged values of the logarithm of unemployment rate are significant. We can interpret these values as follows: a one percent increase in the previous year's unemployment rate would increase this year's unemployment rate by 1.547 percent indicating some persistence in the unemployment rate, while an increase two years ago — would decrease this year's unemployment rate by 0.666 suggesting a correction effect over time.

Speaking of key predictors, the Average Tariff's current ($\beta = -0.047$, $p < 0.05$) and lagged ($\beta = 0.052$, $p < 0.01$) values have opposite effects on the unemployment rate. The initial negative effect indicates a protective benefit, while the lagged positive effect suggests a subsequent rise in unemployment, which overrides the positive instant effect in total. Summing up, a one-unit increase in the Average Tariff value leads to a rise in the Unemployment

Table 2: Unemployment Rate Model (ADL)

	Unemployment Rate (log)
Unemployment Rate $(\log)_{t-1}$	1.547^{***}
	(0.053)
Unemployment Rate $(\log)_{t-2}$	-0.666^{***}
	(0.053)
Average Tariff_{t-0}	-0.047^{**}
	(0.020)
Average Tariff_{t-1}	0.052^{***}
	(0.017)
Trade Balance (% of GDP)	-0.001
	(0.001)
HH Market Concentration Index (log)	-0.055^{***}
	(0.020)
Foreign Workers Number $(\log)_{t-1}$	0.038^{***}
	(0.013)
Export Market Penetration Index (log)	0.047
	(0.057)
Foreign Workers Number $(\log)_{t-1}$	-0.010^{**}
$\times$ Export Market Penetration Index (log)	(0.004)
Controls	Yes
N	401
R-squared	0.940
Adj. R-squared	0.938
Residual Std. Error	0.112 (df = 388)
F Statistic	506.724^{***} (df = 12; 388)

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

Note: a) Robust standard errors are reported in the parentheses. b) I did not report the coefficient estimates of the constant as well as the parameters at control variables.

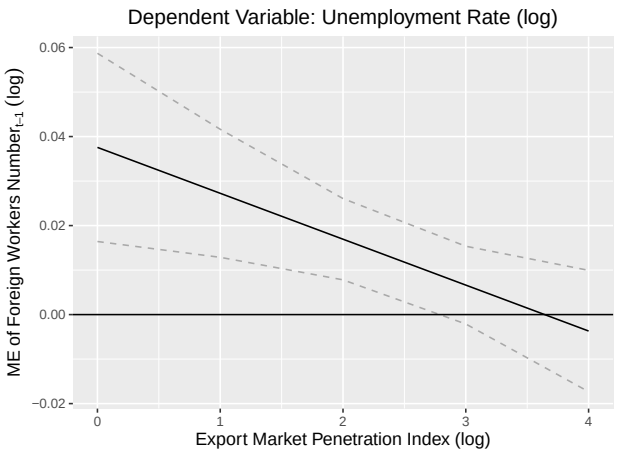
Rate by 0.5 percent (we obtained this value by summing the effect of the current year and the previous year and multiplying it by 100, as mentioned above), holding all other variables constant and no matter the economic integration of the country is.

The Logarithm of HH Market Concentration Index shows significant negative coefficient ($\beta = -0.055$, $p < 0.01$) indicating that higher market concentration is associated with lower unemployment rates, possibly due to market stability in concentrated industries. Thus, a 1 percent increase in this index leads to a 0.055 percent decrease in unemployment, all other things being equal.

Trade Balance variable shows a non-significant relationship with the Logarithm of Unemployment Rate, implying that this measure does not directly affect unemployment in this context.

For a correct interpretation of the remaining coefficients it is necessary to refer to the Figure 2, since, as in the previous model, we are dealing with a conditional effect. So, we can see that at weak economic integration of the country (i.e. at zero value of the moderator variable) the lagged value of the Logarithm of Foreign Workers Number show significant positive effect ($\beta = 0.038$, $p < 0.01$) at the Logarithm of Unemployment Rate indicating a 0.038 percent increase in unemployment with foreign workers number one percent growth and holding all other variables constant. Moving on, it's worth noting that the marginal effects analysis, depicted in the accompanying graph, illustrates the varying impact of the Foreign Workers Number on the dependent variable. Thus, the interaction term between the Logarithm of Foreign Workers Number (previous year) and the Logarithm of Export Market Penetration Index is significant and negative ($\beta = -0.010$, $p < 0.01$) reflecting that the marginal effect of foreign workers on unemployment is initially positive but decreases as the level of economic integration of the country increases. This positive relationship becomes insignificant when the moderator variable takes values approximately greater than 3, as in the case of the previous model for GDP Growth Rate.

Figure 2: Conditional marginal effect of Foreign Workers Number$_{t-1}$ (log) on Unemployment Rate (log)



Also, the high R-squared value of 0.940, along with an adjusted for the number of predictors R-squared of 0.938, indicates that this model explains a significant portion of the variation in the unemployment rate underscoring the model's strong explanatory power. I suggest that the included predictors and their interactions are relevant and meaningful in explaining the dynamics of unemployment.

Summing up, the regression model for the unemployment rate reveals nuanced insights into how economic nationalism related policies impact employment dynamics among EU member states. The findings say that economic nationalism policy measures have a negative relationship with this economically and politically important indicator of the structure of the labour market, highlighting the importance of economic integration in moderating these impacts. As in the case of the previous model, the initial positive effect in the form of a reduction in the unemployment rate is overcome by a stronger opposite effect that occurs one year later increasing it in a result. The model's strong explanatory power affirms the robustness of the results, providing a solid foundation for further interpretation and conclusions regarding the validity of the hypotheses put forward.

3.3.3 Inflation Rate

For the analysis of inflation rates among EU member states, the ADL model capturing dynamic effects of economic nationalism policy both for dependent and independent variables was estimated. Given the nature of the inflation as an economic indicator, which is inherently influenced by past values due to price adjustments and policy reactions, this model was deemed the most appropriate approach than the FDL model. Also, statistical analysis indicated pronounced autocorrelation in the inflation rate data, necessitating the inclusion of lagged dependent variables to adequately model this time series characteristic.

Initially, three different models with the first three, the first and the third, and the first two lags on the dependent variable were estimated to determine the optimal lag structure. All the three options were identified based on theoretical and statistical considerations (details of the autocorrelation plots can be found in **Appendix B**). The decision to choose a model specification with the first two lags was driven by robustness checks and the aim of achieving a balance between capturing sufficient historical effects and maintaining model parsimony. This choice aligns with theoretical expectations and enhances the statistical properties of the model, avoiding overparameterisation which can complicate interpretation and reduce the model's generalisability.

The specified model includes several key predictors that reflect the facets of economic nationalism and its interaction with the level of integration into the EU's economic structures:

- Logarithm of Duty-Free Imports: Included for the current year and with a lag of one year, this predictor helps gauge the effect of trade openness under economic nationalism, capturing both immediate and short-term lagged effects.

- Average Tariff: This predictor, also for the current year and with a lag of one year, directly reflects protective economic policies, allowing the model to assess the impact of trade barriers on inflation.

- Interaction Variable: The interaction between the Logarithm of Foreign Workers Number and the Logarithm of Export Market Penetration Index, spanning the current year,

and lags of one and two years, is crucial. This terms test the moderation effect by the degree of economic integration on the relationship between economic nationalism policy and the inflation rate (as one of the key indicators of the economy), as hypothesised. Including multiple lags for this interaction term enables the model to capture varying temporal dynamics in how economic integration influences the outcomes of economic nationalism.

This comprehensive model specification directly addresses the hypotheses by analysing both the short-term benefits and long-term consequences of economic nationalism, as well as the differential impacts based on the extent of a country's economic integration into the EU market and the global economy.

As stated above, after rigorous testing, the model with the first two lags on the dependent variable was selected over the three-lag and the first-third lags model. The results from these models, along with robust standard errors corrected using the HC3 formula to address influential observations, are presented in the Table 3 below.

This table demonstrates the stability and reliability of the results obtained, confirming the steadiness of the conclusions drawn during this empirical study, as well as proving the possibility of choosing a version of the model with fewer lags on the dependent variable. This decision was substantiated by the robustness of the estimates, which remained consistent across models with varying numbers of lags. The first two model not only showed stability in its parameters but also presented better statistical properties, such as reduced complexity and enhanced clarity in interpreting the effects. Also, including only the first two lags does not reduce the sample as much. Choosing a more compact model facilitates a clearer understanding of the key dynamics without sacrificing the integrity of the statistical analysis, ensuring that the model remains sufficiently comprehensive to test the hypotheses effectively.

The regression model for the inflation rate provides valuable insights into the effects of economic nationalism on inflation dynamics. On top of that, the graphs showing the marginal effect of the Logarithm of Foreign Workers Number on the Inflation Rate (for different periods) can be seen in the Figure 3.

When talking about the interpretation of regression coefficients, I should start from the autoregressive terms of the model. So, the coefficients for the one-period ($\beta = 0.537$, $p < 0.01$) and two-period ($\beta = -0.073$, $p > 0.1$) lagged values of the inflation rate indicate significant autocorrelation for the one-period lag and non-significance for the two-period lag[18]. This suggests that only the previous past inflation rates significantly influence the current rate, which is still consistent with the theory behind the selection of the ADL model.

The coefficient for the current year value of the Logarithm of Duty-Free Imports is positive and significant ($\beta = 1.063$, $p < 0.1$), indicating that increases in duty-free imports are associated with higher inflation. However, the lagged value ($\beta = -1.005$, $p < 0.1$) is negative

[18]It should be noted that before correcting the significance of the coefficients by using robust standard errors, the estimate of the second coefficient (for the second lagged value of the inflation rate) was also significant.

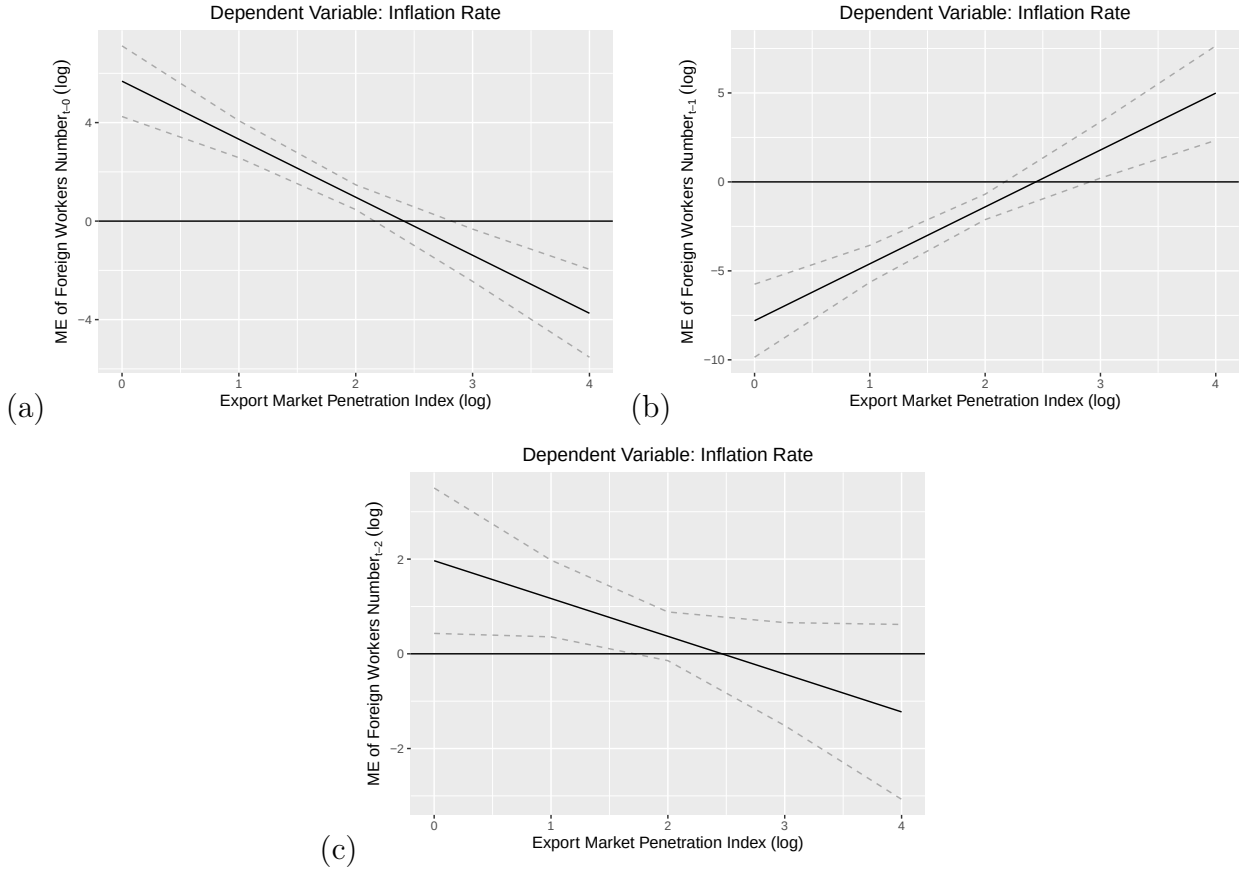
Table 3: Inflation Rate Models (ADL)

	Inflation Rate		
	Model 1	**Model 2**	**Model 3**
Inflation Rate$_{t-1}$	0.550***	0.500***	0.537***
	(0.055)	(0.047)	(0.053)
Inflation Rate$_{t-2}$	−0.114		−0.073
	(0.078)		(0.068)
Inflation Rate$_{t-3}$	0.097**	0.054	
	(0.049)	(0.051)	
Duty Free Import (log)$_{t-0}$	0.875	1.039*	1.063*
	(0.618)	(0.629)	(0.568)
Duty Free Import (log)$_{t-1}$	−0.843	−0.999	−1.005*
	(0.613)	(0.621)	(0.563)
Average Tariff$_{t-0}$	−0.522*	−0.630**	−0.446*
	(0.284)	(0.279)	(0.243)
Average Tariff$_{t-1}$	0.353	0.480*	0.246
	(0.255)	(0.258)	(0.214)
Trade Balance (% of GDP)	−0.025**	−0.025**	−0.026**
	(0.010)	(0.010)	(0.010)
Foreign Workers Number (log)$_{t-0}$	5.665**	5.789**	5.681**
	(2.480)	(2.573)	(2.469)
Foreign Workers Number (log)$_{t-1}$	−7.611***	−7.556***	−7.801***
	(2.493)	(2.583)	(2.417)
Foreign Workers Number (log)$_{t-2}$	1.762*	1.597	1.966**
	(1.051)	(1.157)	(0.936)
Export Market Penetration Index (log)	−0.811	−0.722	−0.818
	(0.742)	(0.757)	(0.694)
Foreign Workers Number (log)$_{t-0}$	−2.427**	−2.500**	−2.356**
× Export Market Penetration Index (log)	(1.011)	(1.041)	(0.993)
Foreign Workers Number (log)$_{t-1}$	3.141***	3.136***	3.198***
× Export Market Penetration Index (log)	(1.091)	(1.112)	(1.035)
Foreign Workers Number (log)$_{t-2}$	−0.668	−0.595	−0.798*
× Export Market Penetration Index (log)	(0.518)	(0.546)	(0.462)
Controls	Yes	Yes	Yes
N	376	376	395
R-squared	0.706	0.700	0.693
Adj. R-squared	0.687	0.682	0.675
Residual Std. Error	1.045	1.054	1.047
	(df = 353)	(df = 354)	(df = 373)
F Statistic	38.474***	39.297***	40.039***
	(df = 22; 353)	(df = 21; 354)	(df = 21; 373)

***p < .01; **p < .05; *p < .1

Note: a) Robust standard errors are reported in the parentheses. b) I did not report the coefficient estimates of the constant as well as the parameters at control variables.

Figure 3: Conditional marginal effect of (a) Foreign Workers Number$_{t-0}$ (log), (b) Foreign Workers Number$_{t-1}$ (log) and (c) Foreign Workers Number$_{t-2}$ (log) on Inflation Rate



and also significant, indicating that the impact of increased duty-free imports reverses after one year.

As for the Average Tariff's current year's coefficient ($\beta = -0.446$, $p < 0.1$) it is negative and significant. The lagged value of this indicator ($\beta = 0.246$, $p > 0.1$) is positive but not significant. It means that increased tariffs slightly reduce inflation already this year, holding all other variables constant, and the effect of their increase is unlikely to be spread over time.

Trade Balance's coefficient also shows negative and significant ($\beta = -0.026$, $p < 0.05$) effect on the inflation. This means that an increase in the share of exports as a percentage of GDP relative to the share of imports as a percentage of GDP does lead to a decrease in inflation. However, as it was said earlier, when interpreting this indicator, it is important to remember that its increase alone cannot indicate that the country adheres to the policy of economic nationalism.

To interpret the remaining coefficients, I would like to refer to the marginal effects depicted in the Figure 3. There are three interaction variables included in this specification. They discover the interaction between the Logarithm of Foreign Workers Number and the Logarithm of Export Market Penetration Index for different lags:

1. Current Year: At low economic integration, the effect of the one-unit increase in the Logarithm of Foreign Workers Number the effect on the Inflation Rate is positive and

significant ($\beta = 5.681$, $p < 0.05$). But as we can see at the Panel (a) of the Figure 3 as the value of the moderator variable responsible for the level of economic integration increases, the marginal effect of the Logarithm of Foreign Workers Number (current year) weakens ($\beta = -2.356$, $p < 0.05$) and changes its sign from positive to negative between the Logarithm values of the Export Market Penetration Index equal to 2 and 3.

2. Lagged 1 Year: We see the opposite picture at the Panel (b) compared to the current year's value marginal effect. Thus, at low economic integration there is negative and significant ($\beta = -7.801$, $p < 0.01$) relationship between the Logarithm of Foreign Workers Number and the Inflation Rate (which is stronger than the positive effect for the current year). However, with the growth of the Logarithm of Export Market Penetration Index conditional effect of the the lagged value grow too ($\beta = 3.198$, $p < 0.01$) and change its sign from negative to positive between the moderator variable values equal to 2 and 3, just as the effect for the current year.

3. Lagged 2 Years: In the case of weak economic integration, the relationship is positive and significant ($\beta = 1.966$, $p < 0.05$), however it is the weakest compared to the current year and one lag backward. At the Panel (c) we see that this relationship does not change as dramatically as in the previous two scenarios ($\beta = -0.798$, $p < 0.1$), but after the value of the moderator variable is close to 2, it becomes insignificant and then, although the estimate changes sign from positive to negative, it no longer becomes significant again.

Thus, analysing the marginal effect of the Logarithm of Foreign Workers Number on the Inflation Rate we see that it varies over time and highlights the complex trade-offs between the short-term and the long-term benefits associated with economic nationalism policy. Nevertheless, if we look at the magnitude of this effect, over all values of the level of economic integration, the total effect of attracting people on the inflation remains negative, which is not in favour of the economic nationalism.

As for the model's explanatory power its high R-squared value of 0.693 and adjusted R-squared value of 0.675 indicate that this model effectively explains a substantial portion of the variance in the inflation rates underscoring the robustness of the model and suggesting that the chosen predictors and their interactions meaningfully explain the dynamics of inflation among EU member states.

Overall, the regression model for the inflation rate provides a nuanced understanding of how economic nationalism influences inflation among EU member states. The significant results emphasise the importance of economic integration in moderating the effects of this policy measures. This model has the largest autocorrelation part among the other two, which makes it stand out in comparison with the first and second models. In part, this may be due to the fact that inflation is a rather complex economic indicator, the impact on which may

not occur immediately and may persist for a long period of time.

3.4 Interpretation of the Results

This subsection synthesises the empirical findings from the regression analyses of GDP growth rates, unemployment rates, and inflation rates to interpret the results in relation to the three hypotheses. The research explored the impact of economic nationalism on the economic development of EU member states, with a focus on short-term and long-term effects, as well as how these impacts vary based on the level of economic integration. Drawing from Rational Choice Theory and Neo-Institutionalism, the study aimed to understand how member states navigate the balance between national interests and collective EU goals. The results confirm the hypotheses, demonstrating both the immediate benefits and longer-term drawbacks of economic nationalism, as well as the moderating effect of economic integration.

For the ease of inference as to the validity of the hypotheses put forward summary table with results of all models (without standard errors of the estimates) can be seen in the Table 4.

Table 4: Models summary

	GDP Growth Rate	**Unemployment Rate (log)**	**Inflation Rate**
	Model 1 (FDL)	**Model 2 (ADL)**	**Model 3 (ADL)**
Unemployment Rate $(\log)_{t-1}$		1.547^{***}	
Unemployment Rate $(\log)_{t-2}$		-0.666^{***}	
Inflation Rate$_{t-1}$			0.537^{***}
Inflation Rate$_{t-2}$			-0.073
Duty Free Import $(\log)_{t-0}$	4.104^{***}		1.063^{*}
Duty Free Import $(\log)_{t-1}$	-3.628^{**}		-1.005^{*}
Average Tariff$_{t-0}$	2.955^{***}	-0.047^{**}	-0.446^{*}
Average Tariff$_{t-1}$	-3.987^{***}	0.052^{***}	0.246
Trade Balance (% of GDP)	0.095^{**}	-0.001	-0.026^{**}
HH Market Concentration Index (log)		-0.055^{***}	
Foreign Workers Number $(\log)_{t-0}$			5.681^{**}
Foreign Workers Number $(\log)_{t-1}$	-1.296^{***}	0.038^{***}	-7.801^{***}
Foreign Workers Number $(\log)_{t-2}$			1.966^{**}
Export Market Penetration Index (log)	-9.832^{***}	0.047	-0.818
Average Tariff$_{t-1}$	0.904^{*}		
× Export Market Penetration Index (log)			
Foreign Workers Number $(\log)_{t-0}$			-2.356^{**}
× Export Market Penetration Index (log)			
Foreign Workers Number $(\log)_{t-1}$	0.353^{**}	-0.010^{**}	3.198^{***}
× Export Market Penetration Index (log)			
Foreign Workers Number $(\log)_{t-2}$			-0.798^{*}
× Export Market Penetration Index (log)			
Controls	Yes	Yes	Yes
N	418	401	395
R-squared	0.466	0.940	0.693
Adj. R-squared	0.445	0.938	0.675
Residual Std. Error	3.042 (df = 401)	0.112 (df = 388)	1.047 (df = 373)
F Statistic	21.890^{***} (df = 16; 401)	506.724^{***} (df = 12; 388)	40.039^{***} (df = 21; 373)

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

Note: a) Robust standard errors are reported in the parentheses. b) I did not report the coefficient estimates of the constant as well as the parameters at control variables.

3.4.1 Hypothesis 1: a Short-Term Effect

Hypothesis 1 posits that economic nationalism policies among EU member states lead to short-term improvements in economic indicators, reflecting the immediate benefits of the protective measures. The empirical results support this hypothesis across all the three models. In the case of GDP growth rates, increased tariffs and trade balance initially boost economic growth, aligning with Friedrich List's theory that protectionism safeguards industries, boosts production, and stabilises local economies. Only the reduction in duty-free imports at this year also leads to a reduction in GDP, which confirms the contradictory concept of economic nationalism within the EU as a whole. Similarly, the unemployment rate initially decreases with higher tariffs, while inflation decreases when tariffs increase, as well as when duty-free imports and the number of foreign workers in the local market decrease, which is in line with measures under the policy of economic nationalism.

Thus, this **hypothesis is confirmed**, as indicated by the high significance of all the dependent variables reflecting this policy in each model.

From a theoretical perspective, these findings align with Rational Choice Theory, suggesting that member states pursue economic nationalism as a rational response to immediate economic challenges, prioritising short-term gains to address domestic political and economic concerns. The short-term benefits align with national interests, such as job preservation and domestic production, providing immediate political capital for decision-makers facing global market fluctuations. Perhaps local politicians can capitalise on the rapid economic successes for their own purposes during election campaigns.

3.4.2 Hypothesis 2: a Long-Term Effect

Hypothesis 2 contends that in the long-term, EU member states that pursued economic nationalism policies experience negative economic outcomes due to the conflicts with EU integration principles. The results confirm this hypothesis, showing that the initial positive effects of economic nationalism are often overcome by stronger negative impacts within one to two years. In the GDP model, increased tariffs initially boost growth but lead to negative outcomes in subsequent years. The effect of increased duty-free imports, although becoming negative for the previous year, when combined with the effect for the current year, still makes a positive contribution to the GDP growth rate. This makes increased imports as a factor in GDP growth an "absolute good,, regardless of other variables undermining the arguments in favour of restricting it as one of the measures proposed by ideologues of economic nationalism. Similarly, the unemployment rate rises higher after the initial decline, while inflation also exhibits lagged effects that undermine the immediate benefits of protectionism.

It follows that this hypothesis is also found to be **confirmed** based on the results of the all three models reflecting different facets of economic development. In the case of GDP and unemployment, the long-term negative effect completely overcomes the initially positive effect, while in the case of inflation it almost completely reverses the positive results that

were obtained in the current year. Thus, in all cases the effect is negative from the point of view of economic development.

These long-term negative effects align with the theoretical critique of protectionism, which suggests that complacency and inefficiencies introduced by economic nationalism hinder innovation and long-term growth. From a Neo-Institutionalist perspective, the negative long-term effects stem from contradictions between nationalistic policies and the EU's institutional frameworks, which promote economic openness and integration. It is likely that this negative effect is due to the reaction of EU institutions that impose restrictions against countries that violate its principles. However, these contradictions create inefficiencies and disrupt market stability, leading to economic stagnation over time, which negatively affects not only the economic development of individual EU members, but also the organisation as a whole as a sum of the economies of its constituent states.

3.4.3 Hypothesis 3: Total Effect of Economic Nationalism Policy

Hypothesis 3 proposes that the "success„ of economic nationalism policies depends on the level of integration into the EU single market, with more integrated states experiencing more significant negative consequences. This hypothesis has been **partially confirmed**. Thus, the key success factor of the results of economic nationalism policies is indeed the level of economic integration, which most often also entails political integration. However, the particular results from the regression analyses suggest a nuanced picture: highly integrated states can actually mitigate or even reverse the negative effects of economic nationalism which is true for the all models, as confirmed by the analysis of marginal effects due to the interaction variables included in each of them. The marginal effect analyses show that as the level of economic integration increases, the negative effects of economic nationalism on GDP growth, unemployment, and inflation are mitigated or reversed.

This raises an interesting aspect of political and economic power dynamics within the EU. Countries with high economic integration often possess considerable economic and political influence, both within the EU and globally. It turns out that this influence may allow these states to shape economic policies to their advantage, even when such measures may initially appear contrary to the broader principles of the single market. These influential countries can negotiate terms or exert pressure to secure trade agreements, subsidies, or regulations that benefit their industries or address domestic economic challenges.

This moderation effect can be explained by a Rational Choice Theory perspective. Thus, these countries leverage their power to pursue policies that maximise their national interests, often achieving outcomes that align with their goals despite potential contradictions with EU integration principles. Their economic clout allows them to strategically balance between national and collective interests, effectively "forcing„ their partners to accommodate measures that are favourable to their own economies. This ability to influence policy outcomes reflects a rational calculation of their advantageous position within the EU structure.

Meanwhile from a Neo-Institutionalist viewpoint, this dynamic underscores the complexities of the EU's institutional framework, where power imbalances can lead to asymmetrical outcomes. Highly integrated states leverage their political and economic power to negotiate favourable conditions, which might not align with the collective interests of the EU. These states are able to navigate and even manipulate institutional mechanisms to serve their national interests, highlighting the tension between individual state rationality and collective EU goals.

Overall, this interpretation highlights the nuanced interplay between economic nationalism, political power, and EU integration, demonstrating that highly integrated states can leverage their influence to achieve favourable outcomes even within constraints (and opportunities) of the single market. This adds depth to our understanding of how economic nationalism operates within the EU, particularly for powerful member states.

4 Discussion

Scientific Contribution

This research has provided valuable insights into the paradox of economic nationalism within the European Union, a supranational entity designed for economic and political unity. By examining the complex interplay between state-level rationality and collective integration goals, the study advances our understanding of the nuanced effects of economic nationalism on economic development within EU member states. It sheds light on the contentious debate surrounding the economic impacts of EU integration policies, revealing both short-term benefits and long-term drawbacks, as well as the role of economic integration in moderating these effects.

Additionally, the research offers relevant insights into the fairness of the Brexit campaign, during which UK politicians cited negative effects of economic integration within the EU. The findings demonstrate how economic nationalism can have varied impacts based on a country's level of integration, potentially informing discussions on the consequences of such political decisions. Thus, it is conceivable that the UK, being one of the oldest members of the EU, as well as having strong economic integration with states both within the EU and outside this political organisation, could treat the beneficiaries of this economic regime in a way that contradicts the words of British politicians.

Furthermore, this study contributes to the field of economic nationalism by re-establishing the original theoretical context in which this phenomenon emerged, with a focus on the nation and the interest of the state as a whole. By aligning the research with the foundational ideas of economic nationalism, the study provides a nuanced analysis that balances individual state rationality with the collective goals of EU integration, enhancing our understanding of the intricate dynamics within the EU.

Expansion of the Study

The interpretation of the results has led me to consider several intriguing ideas that, while beyond the immediate scope of the study, merit further exploration and discussion. These insights may guide future research and inform policy decisions within the European Union.

Optimal Economic Strategies for EU Member States

One key finding from my analysis is that economic nationalism policies yield varying outcomes based on the degree of economic integration of a member state. This suggests that it is possible to identify optimal economic strategies tailored to the specific conditions of the each EU country. The policies examined in my research can be broadly categorised as follows:

1. "Obvious Benefits„: These are the policies such as duty-free imports and trade balance, which consistently produce positive economic outcomes irrespective of a country's level

of economic integration. These measures offer clear benefits to all member states, regardless of their integration status, and could be considered universally advantageous.

2. Options for "Integrated and Influential,, countries: The policies like tariffs rising and regulation of foreign workers lead to successful outcomes only when certain conditions are met, such as a specific level of economic integration. These measures are beneficial primarily for highly integrated and influential countries and might not offer the same advantages to less integrated states.

Given these two categories, it becomes evident that each EU member state could develop an optimal set of economic measures based on its integration and influence level. This tailored approach would align with the unique economic and political contexts of individual states, ultimately enhancing their economic development. The research findings highlight the importance of nuanced economic strategies that consider each member state's specific circumstances and strengths.

Economic Elitism and Inequality in the EU

Another interesting outcome of my analysis is the potential economic elitism within the EU. To illustrate this point, I provide the Table 5 showing which countries might benefit from economic nationalism measures and which do not according to the estimates of regression models.

Table 5: Countries that benefit and disadvantage from economic nationalism policy

Benefit	*Disadvantage*
Germany, Italy, France, Spain, Netherlands, Belgium, Austria, Sweden, Denmark, Poland, Czech Republic	Portugal, Finland, Hungary, Slovenia, Ireland, Greece, Slovak Republic, Lithuania, Estonia, Luxembourg, Latvia, Cyprus, Malta

The countries that benefit most from economic nationalism policies tend to be the most economically integrated and influential, often the longest-standing EU members (including all founding countries except Luxembourg). This suggests a potential economic hierarchy within the organisation, where certain countries enjoy more advantages due to their established integration and influence. This pattern also raises questions about economic inequality and elitism within the EU. Established members might leverage their political and economic power to shape policies to their advantage, possibly leaving newer or less integrated members at a disadvantage.

This finding has implications for the EU's internal cohesion and raises questions about whether the organisation's institutional structures adequately address such disparities or if reforms are needed to ensure a more equitable union.

Implications and Future Research

These insights have significant implications for both policy and future research. Policymakers could use this understanding to develop more nuanced economic strategies that account for varying levels of integration and influence among member states. Such a tailored approach could address potential economic inequalities and foster more balanced economic development within the EU.

Future research could delve deeper into the dynamics of economic elitism within the EU, exploring how political and economic power influences policy outcomes and affects member states. Such studies could examine whether the current EU structures adequately address this inequality or they need to be reformed to deal with it. Additionally, research could explore how newer or less integrated member states can improve their positions within the EU by adapting their economic strategies and leveraging their unique strengths.

I also find it interesting to consider and study the mechanisms for integrated countries that lead to the fact that measures within the framework of economic nationalism do not have negative consequences for these countries, and sometimes can even lead to positive results, because initially I assumed the opposite situation: that due to the strong integration such measures should hit them harder.

Robustness and Endogeneity Concerns

In this subsection, I would like to discuss robustness of the findings and main possible sources of endogeneity in this research to see how much we can trust the results obtained. It will be logically divided into several blocks reflecting the individual sources of concerns that I would like to discuss. I also note that one can read more about the diagnostics that will be described below in the **Appendix E**, as well as see their detailed results. As a reminder, to validate the results obtained, the data and the code used in the research can be found in **Appendix C**.

Robustness of Estimates

One critical aspect of ensuring the validity of econometric analyses is addressing potential endogeneity concerns that may bias the results. In this study, extensive robustness checks were conducted to ensure that the findings are not only statistically significant but also robust against various forms of econometric biases.

Initially, all models — focusing on GDP growth rates, unemployment rates, and inflation rates — were estimated with robust standard errors using the $HC3$ formula. The estimates above already take these into account. This approach is particularly effective in dealing with influential observations that might skew the regression outcomes. These estimations provided reassurance, as there were no substantive differences between the original results and those obtained with robust standard errors, partly because there are very few outliers in the data. The significance and the economic interpretations of the coefficients remained consistent, affirming the reliability of the conclusions drawn from the empirical analysis.

Further validation of the model robustness was achieved by re-estimating each model after the exclusion of outliers, which were defined using *Cook's Distance* measure. This measure identifies observations that have a disproportionate influence on the parameters estimated by the models. Removing these outliers from the dataset and re-analysing the data yielded results that mirrored those of the original estimations. This consistency across different model specifications indicates that the findings are robust and not subject to overfitting or undue influence from extreme values in the data.

An important part of the robustness check of the results is special attention to testing the detected *interaction effect*, which unfortunately is rarely given attention even in publications in leading scientific journals. Thus, for this purpose, diagnostics were conducted to assess the validity of the two main assumptions applied to multiplicative interaction models. Namely, the assumption of linear interaction effect and the threat of a lack of common support of the moderator (which could risk inappropriate extrapolation). These tests were done in accordance with the leading current recommendations from the methodological literature in the field of regression analysis in political science (Hainmueller et al., 2019). All three evaluated models more than successfully passed these tests. For them, we can confidently observe a linear conditional effect where economic integration factor play a role of the moderator as well as support in the data for the moderator variable throughout its range of values, which enables us to draw robust conclusions.

Multicollinearity Assessment

Multicollinearity among explanatory variables in regression analysis is a potential issue that can inflate the variance of estimated coefficients, leading to unreliable results. To evaluate this concern, the generalised variance inflation factors (GVIFs) were calculated for all variables in each model. The GVIFs are better suited for models with interaction variables (compared to the classical indicator VIF which is typically used for models without interaction terms), providing a more comprehensive assessment in such cases (Fox & Monette, 1992). GVIFs help identify whether one or more variables are highly correlated, which can undermine the individual significance of predictors and destabilise the model estimates.

In all the instances of GVIFs were well below the commonly used threshold of 10–11 values, which satisfies the most conservative thresholds (O'Brien, 2007), indicating that multicollinearity is not a significant concern in my models. This supports the individual significance of each predictor and the stability of the estimates provided.

Data Measurement Errors

Addressing the potential endogeneity due to measurement errors in the data also formed a crucial part of the methodology. It is possible that inconsistencies in how economic indicators are measured across different contexts could introduce biases. However, the sources used in this study all employ consistent methodology, particularly those sampling from the European Union, where data collection and reporting methodologies are highly standardised and regulated. This uniformity helps minimise the likelihood that measurement errors could

significantly influence my analysis.

Delimitations

The study acknowledges inherent delimitations that circumscribe its scope and implications. Firstly, the concentration on EU member states from 2003 to 2021 may not encapsulate the full historical breadth of economic nationalism in the EU or its effects in other global contexts. Furthermore, the research primarily utilises existing datasets, which imposes limitations related to the accuracy, completeness, and consistency of data across different sources. However, it is assumed that the data from the same sources have the same methodology for data collection, since the objects under study belong to the same geographical and political entity. Another delimitation arises from the focus on specific economic indicators, which, while comprehensive, cannot possibly capture all dimensions of economic development.

Methodologically, the employment of the ADL and the FDL models, while robust, is predicated on the assumption of stationary time series and may not fully account for all dynamics and complexities of economic behaviour. Additionally, the interaction variables introduced to assess linear moderation effects may not fully elucidate the myriad factors influencing the strength and direction of economic nationalism's impact.

In sum, while the study aspires to contribute significantly to the understanding of economic nationalism within the EU, it does so with a cognisance of its methodological and conceptual boundaries. These delimitations, while they do not undermine the validity of the research, do suggest a degree of caution in the extrapolation and generalisation of the findings. However, the meticulous approach to evaluating and ensuring the robustness of my results through various checks supports the reliability of the conclusions. By addressing potential sources of endogeneity and confirming the stability of the findings across multiple tests, I provide a solid empirical foundation for the assertions made regarding the impacts of economic nationalism within the European Union.

5 Conclusion

This research investigated the impact of economic nationalism within the European Union on the economic development of its member states through a comparative empirical analysis from 2003 to 2021. The study was driven by the assumption that economic nationalism contradicts the fundamental principles of the EU, potentially affecting the economic development of member states that adhere to it. The research focused on three key economic indicators: GDP growth rates, unemployment rates, and inflation rates, which were examined using Autoregressive Distributed Lag and Finite Distributed Lag models.

The investigation was framed within Rational Choice Theory and Neo-Institutionalism. These theoretical lenses were chosen to explore how states make decisions based on rationality and how EU institutions shape economic outcomes through formal and informal mechanisms. The empirical analysis was based on existing datasets from Eurostat and the World Bank, employing annual data in a time series cross section format to explore relationships among key economic indicators.

The research tested three hypotheses:

1. *Short-term benefits of economic nationalism*: This hypothesis posited that economic nationalism policies among EU member states lead to short-term improvements in economic indicators. The results supported this hypothesis, showing that increased tariffs and trade balances initially benefited economic growth, while reducing duty-free imports initially lowered unemployment and inflation.

2. *Long-term drawbacks of economic nationalism*: This hypothesis suggested that economic nationalism policies would have negative long-term effects on economic development due to conflicts with EU integration principles. The findings confirmed this hypothesis, revealing that initial positive effects were often reversed by stronger negative impacts within one or two years. Increased tariffs initially boosted growth but led to more powerful negative outcomes in subsequent years. Similarly, initial reductions in unemployment were followed by increases, and inflation exhibited similar lagged effects that offset immediate benefits.

3. *Effect of economic integration*: This hypothesis posited that the success of economic nationalism depends on the level of integration into the EU single market, with more integrated states experiencing more significant negative consequences. The results partially supported this hypothesis, indicating that while economic integration moderated the effects of economic nationalism, highly integrated states could mitigate or even reverse negative consequences due to their economic and political influence. This finding highlighted the complex dynamics within the EU, where highly integrated states leverage their influence to achieve favourable outcomes.

Overall, the research confirmed that economic nationalism has complex and multifaceted

effects on the economic development of EU member states. In addressing the research question — how economic nationalism policy affected the economic development of EU member states — the study concluded that while such policy could offer short-term benefits, it often led to negative long-term outcomes, which overshadowed the positive ones, especially in less integrated economies. This, predictably, makes the policy of economic nationalism unattractive to most countries in the EU context. The results also underscored the importance of economic integration in moderating the impacts of economic nationalism and highlighted the nuanced interplay between national interests and collective EU goals.

This conclusion actually aligns with the foundational ideas of economic nationalism, which emphasise the importance of balancing national interests with broader economic integration but in the interests of the country itself (which was emphasised in the original literature on the subject, but was forgotten afterwards), not of some collective union or of humanity as a whole. Nor should we forget that the policy of economic nationalism has always been tailored to the specific conditions under which a nation can prosper.

It is important to note that the research opens avenues for further exploration. Future studies could investigate optimal economic strategies for EU member states based on their level of integration and influence. Moreover, the findings suggest potential economic elitism within the EU, warranting further examination of how power dynamics affect economic outcomes and disparities among member states. Future research could also delve deeper into the mechanisms that allow highly integrated countries to benefit from economic nationalism policy while mitigating negative consequences.

By systematically analysing the effects of economic nationalism within the EU, this research contributes to a deeper understanding of the complex dynamics at play within this supranational entity, providing valuable insights for policymakers and scholars alike.

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7 Appendix

7.1 Appendix A

In the Table 6, you can see a handy summary table that includes all the variables used in the study as well as a brief information about them: measurement scale, the source and its type (main or control).

Table 6: Variables used in the research

№	Variable Name	Scale	Source	Type
1	GDP Growth Rate	[−14.8; 24.5]	Eurostat	Main
2	Inflation Rate	[−1.7; 15.3]	Eurostat	Main
3	Unemployment Rate (log)	[0.7; 3.3]	Eurostat	Main
4	Average Tariff	[0.7; 6.1]	World Bank	Main
5	Duty Free Import (US$ log)	[19.7; 26.9]	World Bank	Main
6	Foreign Workers Number (log)	[7.8; 15.5]	Eurostat	Main
7	HH Market Concentration Index (log)	[−3.5; −1.2]	World Bank	Main
8	Export Market Penetration Index (log)	[0.9; 3.8]	World Bank	Main
9	Trade Balance (% of GDP)	[−20.6; 40.1]	World Bank	Main
10	Population Number (log)	[12.9; 18.2]	Eurostat	Control
11	FDI Net Inflows (% of GDP)	[−117.4; 449.1]	World Bank	Control
12	FDI Net Outflows (% of GDP)	[−137.3; 301.3]	World Bank	Control
13	World Trade Growth (%)	[−12.2; 12.6]	World Bank	Control
14	Country Trade Growth (%)	[−21.8; 45.7]	World Bank	Control

7.2 Appendix B

In the Table 7 below you can see the descriptive statistics of all the variables used in the research. For some of the variables that have been logarithmised, the statistics for both the original variable and its transformed form are given for clarity.

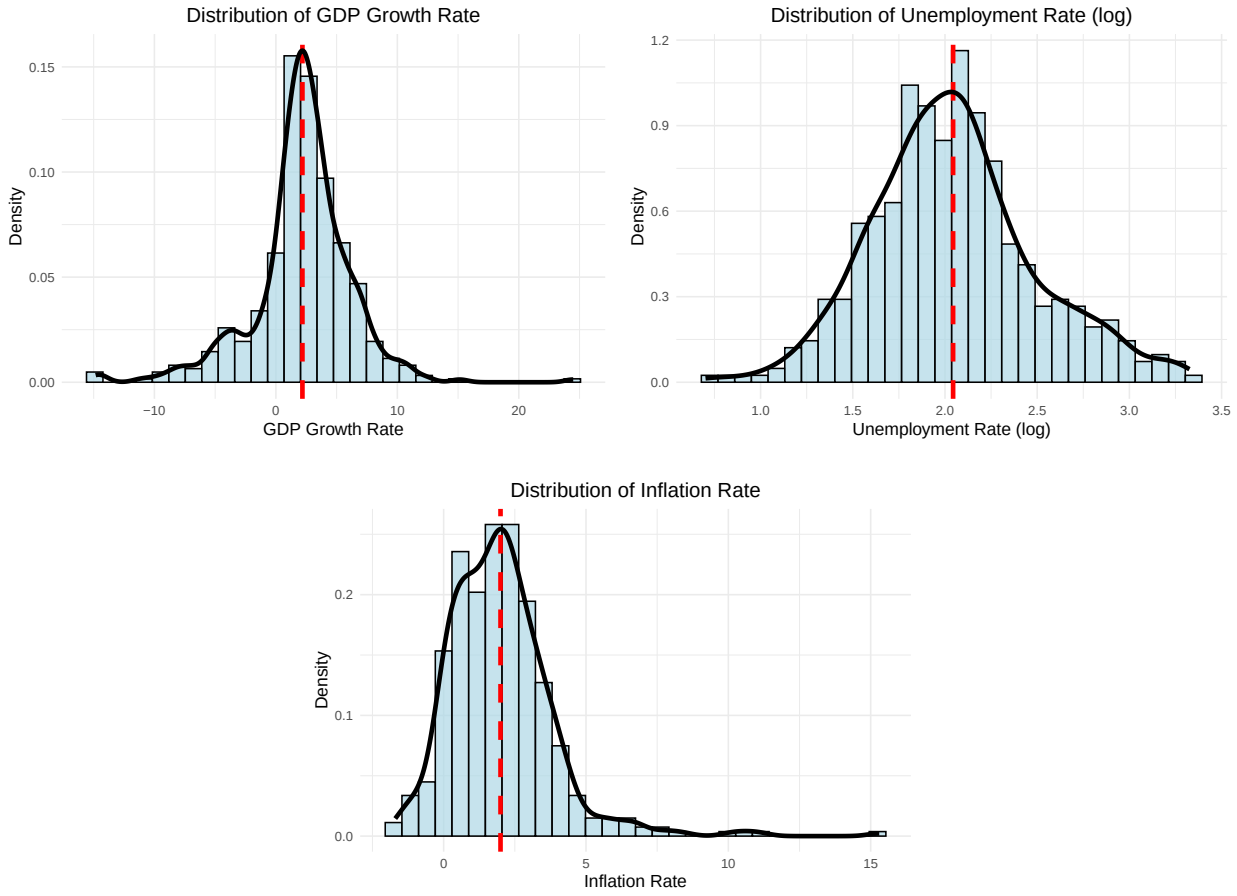
The Figure 4 below show the distributions of the target variables in the form of histograms with the density estimation superimposed on them (the black line). The red dashed line also indicates the mean value of the variable.

Speaking of the statistical justification for choosing a particular number of time lags for the model, the Figures 5 and 6 below show Autocorrelation Function (ACF) and Partial Autocorrelation Function (PACF) for the key variables. The blue line in the graphs indicates the 95% confidence interval for autocorrelation values. Autocorrelation, also known as serial correlation, refers to the correlation of a time series with its own past and future values. The ACF measures how a series is correlated with itself over successive time intervals, helping to identify the extent to which current values of the series are influenced by its past values. The PACF, on the other hand, measures the correlation between the series and its lags after removing the effects of earlier lags, providing insight into the direct effect of past values

Table 7: Descriptive statistics

Statistic	N	Mean	St. Dev.	Min	Max
GDP Growth Rate	456	2.185	4.053	−14.840	24.480
Inflation Rate	456	1.998	1.846	−1.700	15.300
Unemployment Rate	456	8.560	4.296	2.017	27.825
Unemployment Rate (log)	456	2.044	0.443	0.701	3.326
Average Tariff	450	1.938	0.680	0.660	6.140
Duty Free Import (US$ log)	450	23.651	1.563	19.721	26.859
Foreign Workers Number (log)	449	11.762	1.786	7.824	15.449
HH Market Concentration Index	456	0.072	0.028	0.030	0.300
HH Market Concentration Index (log)	456	−2.697	0.370	−3.507	−1.204
Export Market Penetration Index	456	16.154	11.653	2.580	45.700
Export Market Penetration Index (log)	456	2.507	0.773	0.948	3.822
Trade Balance (% of GDP)	456	3.221	8.514	−20.643	40.074
Population Number (log)	456	15.769	1.439	12.892	18.236
FDI Net Inflows (% of GDP)	456	13.654	45.105	−117.375	449.083
FDI Net Outflows (% of GDP)	456	10.786	41.059	−137.317	301.264
World Trade Growth (%)	456	3.436	6.331	−12.190	12.590
Country Trade Growth (%)	456	3.494	7.509	−21.810	45.700

Figure 4: Target variables distribution



on current values. In the context of time series modeling, ACF and PACF are critical tools used to determine the appropriate number of lags to include in models, such as ADL and FDL models used in this study. They are particularly useful because they statistically justify the selection of lags, ensuring that both dependent and independent variables in the models are specified with lags that are theoretically grounded and empirically validated. This methodical approach enhances the reliability of the models by ensuring that they capture the true dynamics of the data, after initially justifying the number of lags through theoretical considerations.

From these plots (primarily the PACF, as it is more informative in the context of selecting the number of lags for the model) one can see that all the lags included in the model are significant except for the second lag for inflation (but there was a theoretical basis for it). It can also be seen that there is almost no autocorrelation for GDP growth rates, which was the reason for the choice in favour of the FDL model for this dependent variable. It is also important to note that some distant lags in the PACF (greater than 5) are likely to be outliers influenced by large political and economic events: for example, major economic crises.

It should be noted that the ACF and PACF plots for individual countries are not presented in this appendix, as the values on them mostly followed the general pattern presented here. However, the autocorrelation values for each country were certainly analysed in detail during the course of the study.

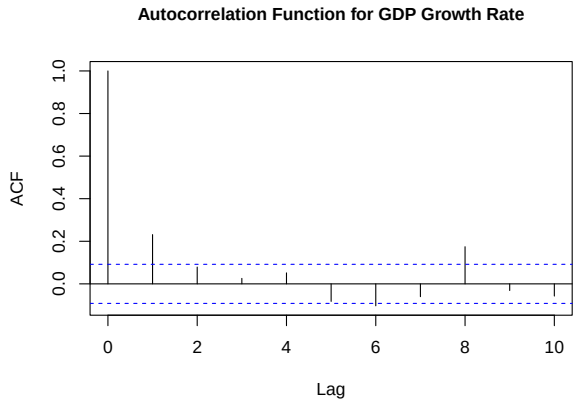
7.3 Appendix C

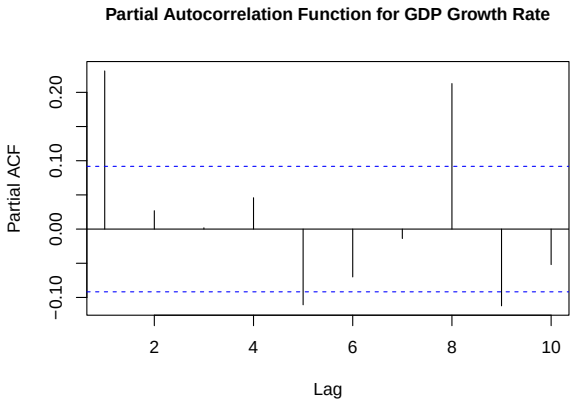
A link to the repository on GitHub where the data used in the study can be freely accessed, as well as the R code replicating the results of this study: https://github.com/VladRub1/thesis-economic-nationalism-in-eu

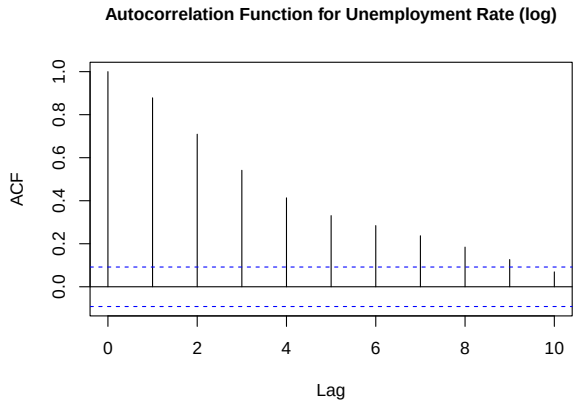
7.4 Appendix D

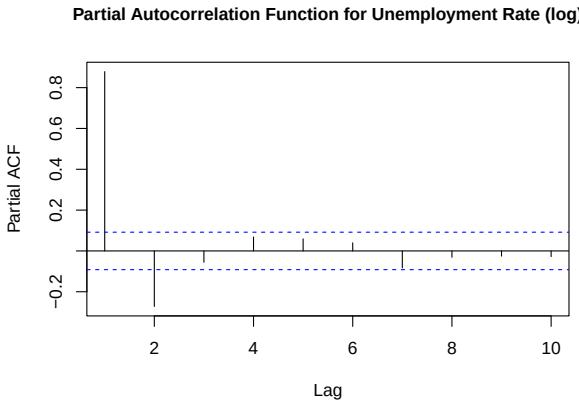
In the Tables 8 and 9 below one can see the estimates as well as their standard errors obtained for all variables for the all three models estimated in the research. This table also presents coefficient estimates of the constant as well as the parameters at control variables, which were not presented in the main part of the study due to low research interest.

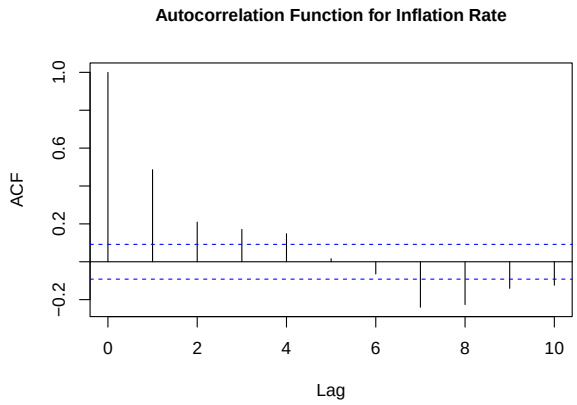
Figure 5: Autocorrelation and Partial Autocorrelation Function Graphs (beginning)

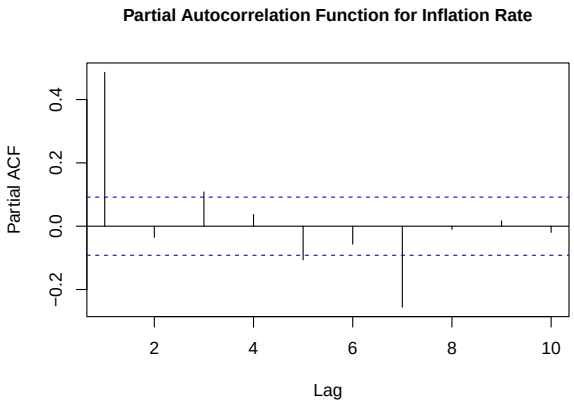


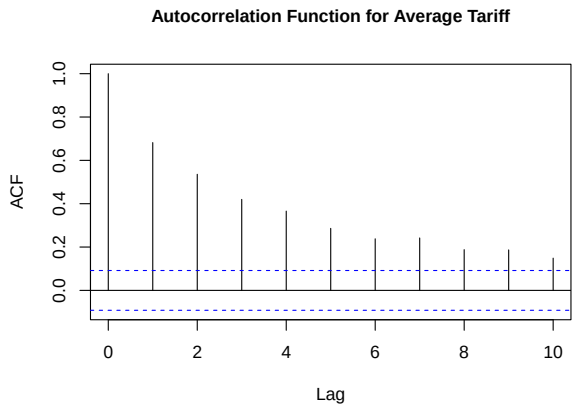












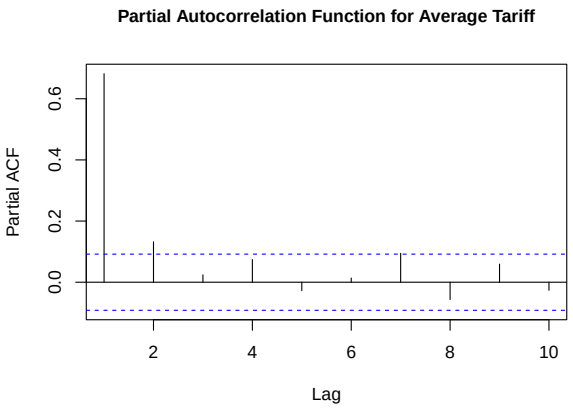


Figure 6: Autocorrelation and Partial Autocorrelation Function Graphs (continuation)

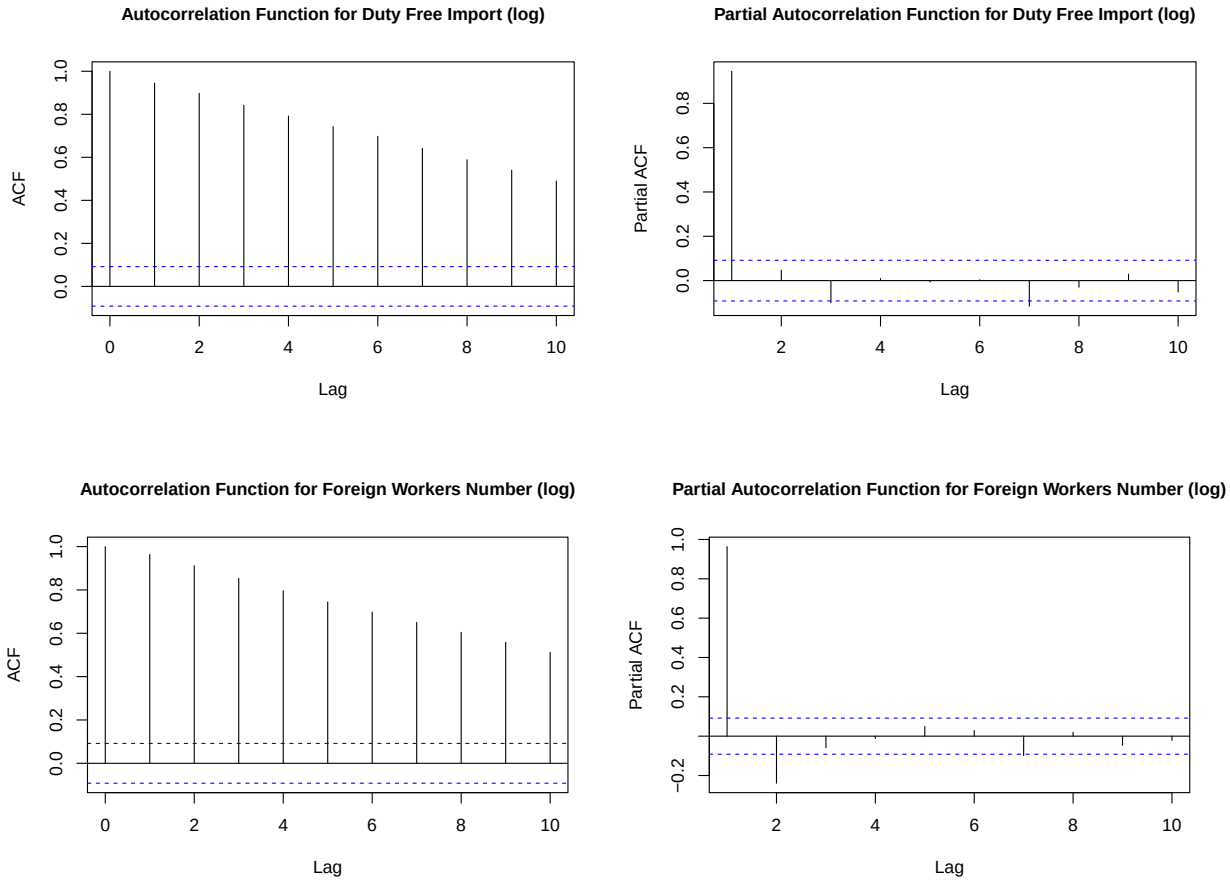


Table 8: Full models summary (beginning)

	GDP Growth Rate	**Unemployment Rate (log)**	**Inflation Rate**
	Model 1 (FDL)	**Model 2 (ADL)**	**Model 3 (ADL)**
Inflation Rate$_{t-1}$			0.537^{***}
			(0.041)
Inflation Rate$_{t-2}$			-0.073^{**}
			(0.037)
Unemployment Rate (log)$_{t-1}$		1.547^{***}	
		(0.038)	
Unemployment Rate (log)$_{t-2}$		-0.666^{***}	
		(0.037)	
Duty Free Import (log)$_{t-0}$	4.104^{***}		1.063^{***}
	(0.877)		(0.383)
Duty Free Import (log)$_{t-1}$	-3.628^{***}		-1.005^{***}
	(0.868)		(0.386)
Average Tariff$_{t-0}$	2.955^{***}	-0.047^{**}	-0.446^{**}
	(0.505)	(0.019)	(0.207)
Average Tariff$_{t-1}$	-3.987^{***}	0.052^{***}	0.246
	(0.841)	(0.017)	(0.187)
Trade Balance (% of GDP)	0.095^{***}	-0.001	-0.026^{***}
	(0.024)	(0.001)	(0.008)
HH Market Concentration Index (log)		-0.055^{***}	
		(0.019)	
Export Market Penetration Index (log)	-9.832^{***}	0.047	-0.818
	(2.023)	(0.059)	(0.619)
Average Tariff$_{t-1}$	0.904^{***}		
$\times$ Export Market Penetration Index (log)	(0.342)		
Foreign Workers Number (log)$_{t-0}$			5.681^{***}
			(0.872)
Foreign Workers Number (log)$_{t-1}$	-1.296^{***}	0.038^{***}	-7.801^{***}
	(0.370)	(0.013)	(1.247)
Foreign Workers Number (log)$_{t-2}$			1.966^{**}
			(0.933)

Table 9: Full models summary (continuation)

	GDP Growth Rate	**Unemployment Rate (log)**	**Inflation Rate**
	Model 1 (FDL)	**Model 2 (ADL)**	**Model 3 (ADL)**
Foreign Workers Number $(\log)_{t-0}$			-2.356^{***}
× Export Market Penetration Index (log)			(0.468)
Foreign Workers Number $(\log)_{t-1}$	0.353^{***}	-0.010^{**}	3.198^{***}
× Export Market Penetration Index (log)	(0.129)	(0.005)	(0.687)
Foreign Workers Number $(\log)_{t-2}$			-0.798
× Export Market Penetration Index (log)			(0.492)
Population Number (log)	1.420^{***}	0.035^{**}	0.063
	(0.403)	(0.014)	(0.146)
FDI Net Inflows (% of GDP)	-0.003		-0.007^{***}
	(0.007)		(0.003)
FDI Net Outflows (% of GDP)	-0.003		0.008^{***}
	(0.007)		(0.003)
World Trade Growth (%)	0.132^{***}	-0.016^{***}	0.113^{***}
	(0.048)	(0.001)	(0.018)
Country Trade Growth (%)	0.137^{***}		0.006
	(0.037)		(0.013)
GDP Growth Rate$_{t-0}$			0.003
			(0.019)
Unemployment Rate $(\log)_{t-0}$	-2.312^{***}		-0.781^{***}
	(0.424)		(0.150)
Inflation Rate$_{t-0}$	-0.417^{***}	0.022^{***}	
	(0.109)	(0.004)	
Constant	-0.275	-0.720^{***}	2.888
	(8.193)	(0.248)	(2.989)
N	418	401	395
R-squared	0.466	0.940	0.693
Adj. R-squared	0.445	0.938	0.675
Residual Std. Error	3.042 (df = 401)	0.112 (df = 388)	1.047 (df = 373)
F Statistic	21.890^{***} (df = 16; 401)	506.724^{***} (df = 12; 388)	40.039^{***} (df = 21; 373)

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

Note: Standard errors are reported in the parentheses.

7.5 Appendix E

In this subsection, you can read more about the results of the robustness checks of the models.

In the Graph 7, you can see the results of the **Cook's Distance** calculation for all three models. Cook's Distance is a measure used in statistics to identify influential observations in a regression analysis. These influential observations are the data points that have a disproportionately large effect on the estimation of model coefficients. This measure integrates two key concepts: Studentised Residuals and Hat-Values. Studentised Residuals are the residuals (or differences between observed and predicted values) adjusted for their variability, providing a standardised measure of how much each data point deviates from the expected value. Hat-Values measure the leverage of each observation, indicating how atypical the independent variables are for a specific data point compared to the overall data set. Observations with high leverage can disproportionately influence the model's fit, while outliers are unusual or extreme values of the dependent variable.

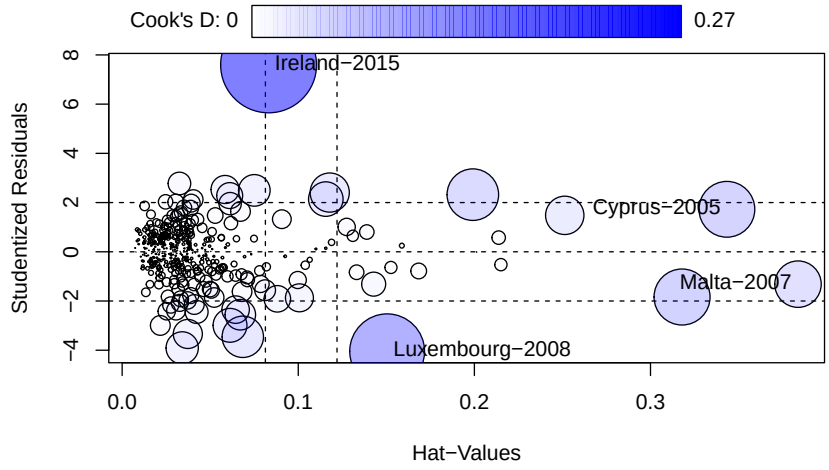
Monitoring Cook's Distance is essential because it helps identify outliers and points of high leverage that can unduly influence the regression model, potentially leading to skewed or biased results. It combines the effects of both leverage and outliers to determine the impact of each data point on the fitted values across the entire model. In robustness diagnostics, it's common to reassess models by excluding observations where Cook's Distance exceeds a certain threshold, typically $\frac{4}{n}$, where n is the number of observations. This ensures the robustness and reliability of the model's conclusions by confirming that no single observation unduly influences the results.

In this study, all models were re-estimated after excluding observations with high Cook's Distance, using the traditional criterion of Cook's Distance greater than $\frac{4}{n}$. These exclusions, which affected only 1-3 observations for each model[19], did not result in any meaningful changes to the model outcomes. This exercise confirms the robustness of the findings, demonstrating that the conclusions drawn from the models are stable and not overly sensitive to individual data points, thereby enhancing the credibility of the analysis.

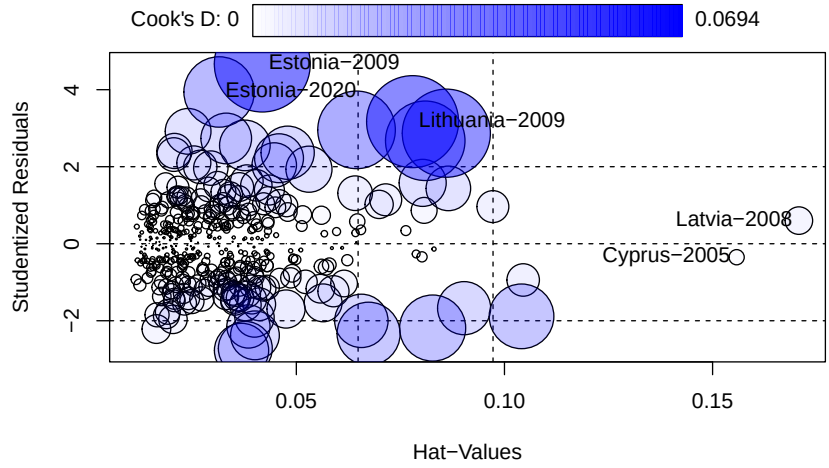
In the Tables 10, 11, 12 below you can see the generalised variance inflation factors (**GVIFs**) that were calculated for all variables in each model. The GVIF measures multicollinearity in models where variables interact or have more than one degree of freedom (Df). The value $\text{GVIF}^{1/(2*Df)}$ is a transformation of the GVIF, which standardises the inflation factor to account for varying degrees of freedom across different variables. This adjustment is crucial because, in models with interaction terms or categorical variables with multiple levels, the standard GVIF can overestimate multicollinearity. The transformed value, addresses this by adjusting for the number of degrees of freedom, making it easier to interpret the relative level of multicollinearity. By the low values of this indicator you can verify that

[19]Ireland-2015, Luxembourg-2008, and Greece-2011 for GDP Growth Rate; Estonia-2009, and Estonia-2020 for Unemployment Rate; Lithuania-2008 for Inflation Rate.

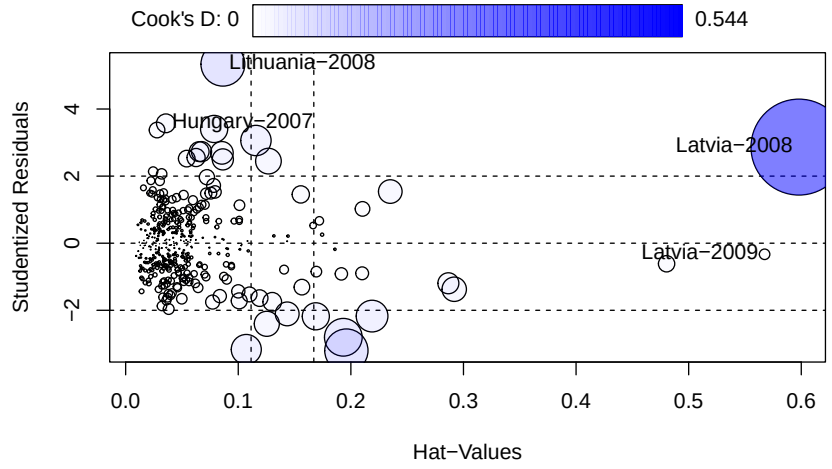
Figure 7: Cook's Distance for (a) GDP Growth Rate, (b) Unemployment Rate (log), and (c) Inflation Rate Models



(a)



(b)



(c)

the models are not subject to high multicollinearity, as argued in the **Discussion**.

Table 10: GVIFs for GDP Growth Rate Model

№	Variable	Df	$GVIF^{1/(2*Df)}$	Interacts With (№)
1	Duty Free Import $(\log)_{t-0}$	1	9.104653	–
2	Duty Free Import $(\log)_{t-1}$	1	8.995980	–
3	Trade Balance (% of GDP)	1	1.310748	–
4	Average Tariff_{t-0}	1	2.032094	–
5	Average Tariff_{t-1}	3	2.638578	7
6	Foreign Workers Number $(\log)_{t-1}$	3	1.949366	7
7	Export Market Penetration Index (log)	5	1.585477	5, 6
8	Population Number (log)	1	3.817625	–
9	FDI Net Inflows (% of GDP)	1	2.018846	–
10	FDI Net Outflows (% of GDP)	1	1.897681	–
11	World Trade Growth (%)	1	2.054206	–
12	Country Trade Growth (%)	1	1.833114	–
13	Unemployment Rate $(\log)_{t-0}$	1	1.263180	–
14	$\text{Inflation Rate}_{t-0}$	1	1.330597	–

Table 11: GVIFs for Unemployment Rate (log) Model

№	Variable	Df	$GVIF^{1/(2*Df)}$	Interacts With (№)
1	Unemployment Rate $(\log)_{t-1}$	1	2.990543	–
2	Unemployment Rate $(\log)_{t-2}$	1	2.893998	–
3	Average Tariff_{t-0}	1	1.968394	–
4	Average Tariff_{t-1}	1	1.971898	–
5	Trade Balance (% of GDP)	1	1.326839	–
6	HH Market Concentration Index (log)	1	1.252741	–
7	Foreign Workers Number $(\log)_{t-1}$	3	1.594548	8
8	Export Market Penetration Index (log)	3	1.594548	7
9	Population Number (log)	1	3.483326	–
10	World Trade Growth (%)	1	1.238529	–
11	$\text{Inflation Rate}_{t-0}$	1	1.369243	–

In the robustness analysis of the interaction effects in the models, I employed diagnostics recommended by Hainmueller et al. (2019) as was mentioned in the **Discussion**, which suggest using Conditional Marginal Effects (CME) from both Binning and Kernel Estimators to assess the validity of these effects. Briefly, the difference between the two is as follows:

- CME from Binning Estimator which you may see for all interaction variables in the Figure 8 partition the data into bins based on the range of the moderator variable, calculating the average predicted values of the dependent variable for each bin. This approach helps in visualising how the relationship between the outcome and the predictor varies across different values of the moderator, providing a straightforward,

Table 12: GVIFs for Inflation Rate Model

№	Variable	Df	$\text{GVIF}^{1/(2*Df)}$	Interacts With (№)
1	Inflation Rate_{t-1}	1	1.453730	–
2	Inflation Rate_{t-2}	1	1.313984	–
3	Duty Free Import $(\log)_{t-0}$	1	11.223157	–
4	Duty Free Import $(\log)_{t-1}$	1	11.330515	–
5	Average Tariff_{t-0}	1	2.331358	–
6	Average Tariff_{t-1}	1	2.268562	–
7	Trade Balance (% of GDP)	1	1.309393	–
8	Foreign Workers Number $(\log)_{t-0}$	3	8.694987	11
9	Foreign Workers Number $(\log)_{t-1}$	3	11.224150	11
10	Foreign Workers Number $(\log)_{t-2}$	3	9.241811	11
11	Export Market Penetration Index (log)	7	1.304332	8, 9, 10
12	Population Number (log)	1	3.895545	–
13	FDI Net Inflows (% of GDP)	1	1.929190	–
14	FDI Net Outflows (% of GDP)	1	1.858543	–
15	World Trade Growth (%)	1	2.128039	–
16	Country Trade Growth (%)	1	1.833986	–
17	GDP Growth Rate_{t-0}	1	1.456260	–
18	Unemployment Rate $(\log)_{t-0}$	1	1.277554	–

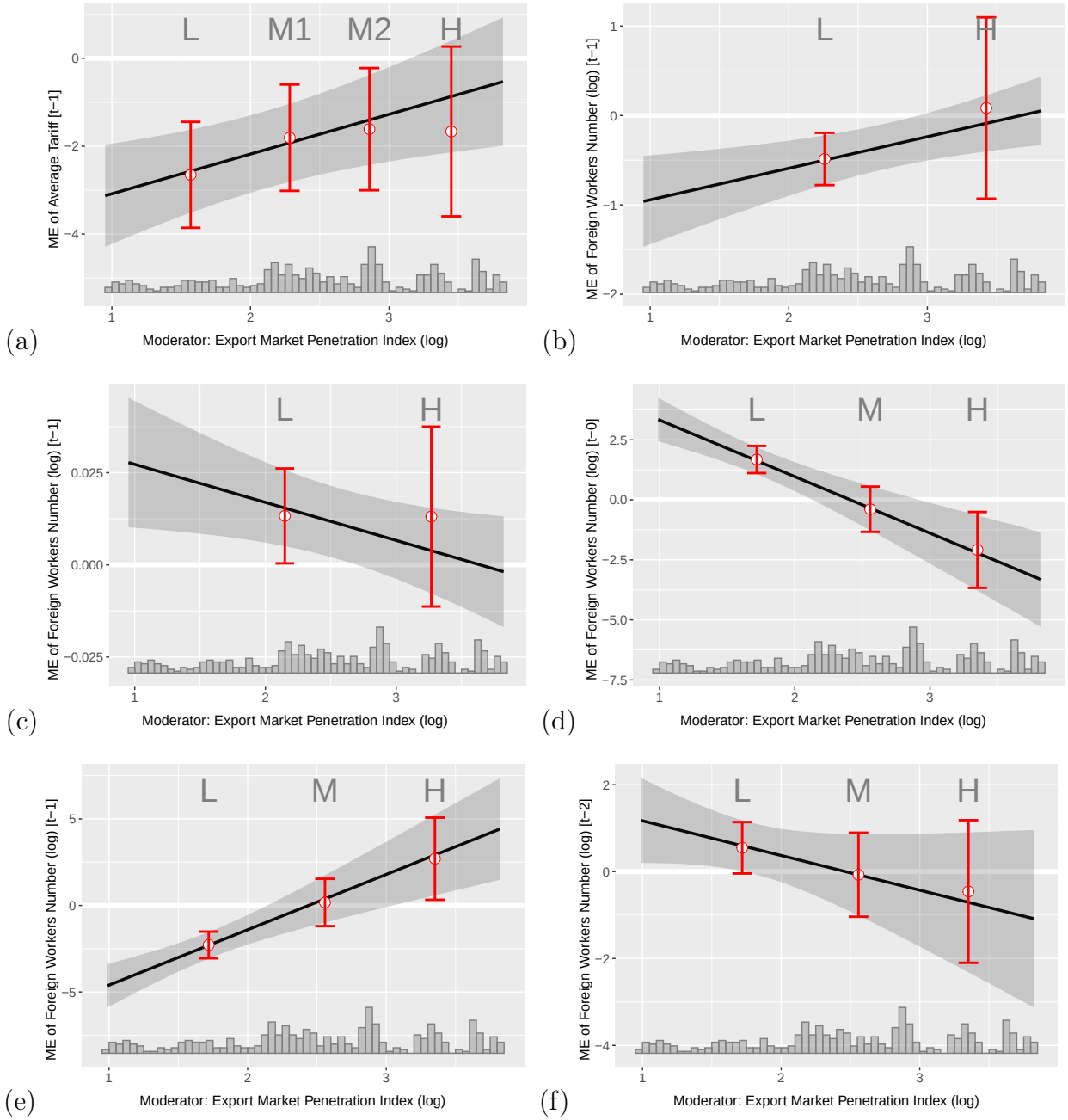
interpretable graphic representation of the interaction. The choice of the number of bins in my case ranged from 2 (reflecting the two groups of countries based on their degree of economic integration highlighted and discussed above) to 4 (providing an opportunity to analyse the relationship for different categories of countries).

- CME from Kernel Estimator with standard errors by non-parametric bootstrap like in the Figure 9 take a more refined approach. The kernel estimator uses a smoother weighting scheme to estimate the marginal effect of the predictor across the values of the moderator, which can handle data irregularities better. The non-parametric bootstrap method used to compute the standard errors provides robustness against non-normality and heteroscedasticity, ensuring reliable inference about the significance of the conditional effects.

Both types of graphs aim to test critical assumptions about the interaction effect, namely the linear conditional effect and adequate data support for the moderator variable across its entire range (what can be seen in the histogram below each of the graphs). The accompanying graphs in the paper validate these assumptions, showing that the interaction effects behave as theorised across the range of the moderator, confirming both the linear relationship and the consistent influence of the moderator on the dependent variable. These results further affirm the robustness and validity of our model's findings allowing me to do an extrapolation based on all the values the moderator variable takes in.

It is also worth noting the nature of the CME in Panels (d) and (e) of the Figure 9. It

Figure 8: Conditional Marginal Effects from Binning Estimator on (a), (b) — GDP Growth Rate, (c) — Unemployment Rate (log), and (d), (e), (f) — Inflation Rate



can be seen that it changes its slope sharply at large values of the moderator, but it was initially insignificant in this area, and was not of research interest because, according to the findings of the study, what was more important was that the negative effect of economic nationalism policy dissipates for countries with high economic integration.

Figure 9: Conditional Marginal Effects from Kernel Estimator on (a), (b) — GDP Growth Rate, (c) — Unemployment Rate (log), and (d), (e), (f) — Inflation Rate