EU Accession and Economic Freedom:

An empirical analysis of the effect of EU membership and its antecedents on economic freedom

Edited by:
Constantinos Saravakos

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Constantinos Saravakos (ed.), Emmanuel Schizas, Mara Vidali, Angela De Martiis, Giorgio Vernoni

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About the Authors

Emmanuel (Manos) Schizas is the Lead in Regulation and RegTech at the Cambridge Centre for Alternative Finance (CCAF). He has previously served as a regulator with the UK's Financial Conduct Authority (FCA), and as a subject matter expert on regulatory reform at the ACCA (Association of Chartered Certified Accountants). Manos has written extensively on the subject of regulatory reform and the UK and EU Better Regulation agendas. He holds an MSc in Accounting and Finance from the London School of Economics and Political Science, as well as an MSc in Human Resource Management and BA in Economics from the Athens University of Economics and Business.

Mara Vidalil is a PhD Candidate in the Department of Economics at Athens University of Economics and Business (AUEB). She holds a B.Sc. and M.Sc. in Economics from AUEB. She has worked as a Research Assistant in many projects. Her research interests lie in the field of econometrics and applied econometrics with an emphasis on productivity and efficiency analysis. She has also worked on empirical economic history and entrepreneurship.

Constantinos Saravakos is Research Project Coordinator in KEFiM-Markos Dragoumis and a political scientist. He holds a B.Sc. in Philosophy and History of Science and M.A. in Political Science and Sociology (Hons) from University of Athens. He has also received his M.Sc. in Applied Economics and Administration from Panteion University. He is also a member of Greek Political Science Association and a member of the Economic Chamber of Greece. His main research interests include political parties and political economy, with special focus on poverty, inequality and prosperity.

Angela De Martiis has been a Finance Postdoctoral Researcher at the University of Bern, in Bern Switzerland, since November 2019. Her research lies in the areas of Corporate Finance, Banking and Finance, Monetary Policy, and Political Economics. She is a Research Associate at the Chair of Empirical Finance and Econometrics at the Zeppelin University in Germany, where she obtained a Ph.D. Economics, and a Research Fellow at the Centro Einaudi. She received a M.A. Economics from the Università degli Studi di Torino.

Giorgio Vernoni is a researcher in Labour Economics in a primary public research institution. He is a member of the Study Committee of the Centro Einaudi, where he contributes to the Report on global economy and Italy and is in charge of the relations with the European Liberal Forum. He graduated in Contemporary History at the University of Turin and holds an international Master of Arts in Labour Studies from the University of Milan and the University of Warwick.

Executive Summary

- The process of EU accession is associated with increases in economic freedom. The gains of this period are not reducible to the effects of minimum accession standards, and are incremental to the benefits from improvements in domestic regulatory and administrative practices. Importantly, such gains are deduced from a comparison with not only poorer and less developed countries in the EU neighbourhoods but also with wealthy non-EU OECD countries.
- The key mechanism by which the accession has come to be associated with economic freedom seems to be the freedom to trade, mainly due to the elimination of many types of barriers to trade in goods within the European Union and favourable terms offered to accession candidates, typically as part of an Association Agreement.
- EU accession has a significant association, in the direction of greater economic freedom, with the quality of regulation, the moderation of currency and interest rate manipulation, the effectiveness of the legal system and the protection of property rights. However, progress in each of those areas appears to be more of a pre-requisite of accession than a consequence thereof.
- EU membership is most associated with the Economic Freedom of the World sound money indicator. This effect could be partly a result of price and interest rate stability criteria associated with accession; but it could also be a simple consequence of the linking of EU accession and commitment to Eurozone accession since the Maastrich Treaty of 1992.
- The overall assessment of EU membership in Italy points to a correlation between the level of economic freedom in the country and the accession to the European single currency in 1999.

- Coherently, Economic Freedom of the World subcomponents related to inflation and monetary stability, the opening of both domestic and international markets and regulatory harmonization correlate with the policies that European governments had to implement to converge towards the single currency.
- The analysis of economic freedom at the regional level in Italy measured through the Centro Einaudi's ILERI index (index of the economic freedom of the Italian regions) shows large and also widening differences between territorial areas of the country. Some of them are historically known (i.e. the North-South polarisation), while new ones developed from 2000 onwards, in spite of the extensive cohesion policies deployed in this period.

Introduction

European Union has brought huge changes on the regulatory framework of its members, both in terms of rule of law and economic policy. Over the years, Member States have integrated a great deal of Union's regulations which directly affected the quality of life of the European citizens, resulting to an upward convergence in several socioeconomic and employment-related factors[1]. During the past 25 years EU countries have experienced a great extent of deregulation, introducing product and labour markets reforms[2]. Undoubtedly, free trade and free competitive markets, among others, is a core part of this betterment of life indicators[3], highlighting the importance of letting individuals act and exchange goods and services the way they choose. Certain regulations are required only to ensure the fairness of this process and not to set barriers in this voluntary interaction.

However, during the recent financial crisis the European countries experienced a huge economic recession which led to a reduction of the living standards, in particular for the ones most affected by the crisis[4]. As a result, EU policies and its institutions (such as European Parliament) were widely criticized by the public in several countries[5] and Eurosceptics, in the current political debate, found the opportunity to co-opt a large part of the economic freedom agenda[6]. Yet, the majority of European citizens still believe that their country's membership in EU has been a good thing[7].

1 (Eurofound, 2019), available here.
2 (Duval, Furceri, Hu, Jalles, & Nguyen, 2018), available here.
3 Overall life satisfaction has significantly improved across Europe since 1991 (Wike & Cornibert, 2019), available here.
4 (Eurofound, 2017), available here.
5 The pre-crisis EU average (2004-2008) for trust in the European Union was 48,2%, the average during crisis (2009-2014) dropped to 37,4% and the post crisis (2015-2020) average is 39,8% (European Commission, 2020), available here.
6 (Timbro, 2019, pp. 7,12), available here.
7 59% of EU median (Pew Research Center, 2019), available here.

In order to further explore the issues occurred during the crisis and challenged the fundamental values upon which the European construction relies, there is an increasing need for empirical and analytical evidence on the results of European integration. In light of this, this publication seeks to examine whether a trajectory towards EU membership is a driver for more economic freedom. The key research question is if European Union economic policies promote economic freedom. The answer in this question is essential not only because EU is in principal a Union of freedom, but also because an economic environment based on market economy has a positive relationship with several prosperity outcomes[8]. The publication consists of two main chapters which empirically explore the relation between EU membership and economic freedom (both overall and in a case study), deepening the knowledge on this crucial issue.

The first chapter uses a macroeconomic and institutional set of data to empirically estimate the effect (in any) of the EU accession process on economic freedom. Taking into account the huge EU enlargement that took place since 2004, when 13 countries have accessed the Union, and the on process enlargement with several formal or informal candidates, the analysis focuses on whether the structural reforms required for a country to become a member of EU contribute to economic freedom, covering the period from 2000 to 2017. Given the vast amount of sound reforms required as conditions for membership, beginning early on the candidacy discussion stages, the key question is whether the implemented economic policies led, on average, the engaged countries to achieve greater degree of economic freedom.

The second chapter focuses on Italy as a case study and contains a general presentation of the trends of the Fraser's *Economic Freedom of the World* index in this country. In addition, it analyses the economic freedom at the regional level through the Centro Einaudi's ILERI

8 The vast majority of the related literature underline that economic freedom has results such as faster growth, better living standards, more happiness, etc. (Hall & Lawson, Economic Freedom of the World: An accounting of the Literature, 2013; Azman-Saini, Baharumshah, & Law , 2010; Justesen, 2008; Stroup, 2007).

(index of the economic freedom of the Italian regions)[9]. The chapter raises questions about the relation between the European cohesion strategy, as membership's key scope, and economic freedom at the regional level. The analysis points out the substantial differences in trends among regions in spite of a common institutional and regulatory framework.

Since the first and the second chapter deal with what has already happened in regard with EU economic policy and membership and integration processes, the conclusion wraps up the key empirical evidence of the two chapters and suggests areas for further investigation to address the challenges of market oriented actions in the Union.

9 ILERI is a quantitative tool which tries to analyse different perspectives regarding the well-being of the Italian regions.

Chapter 1: Does accession process to European Union lead to more economic freedom? Empirical evidence on the EU enlargement between 2000 and 2017

By Emmanuel Schizas, Mara Vidali and Constantinos Saravakos

1.1. Introduction

The foundational prerequisites to join the European Union, one the most powerful and advanced economic markets in the world, require a huge amount of institutional changes and reforms, in order the member countries to achieve and retain a certain degree of convergence. As a result, over the last thirty years several countries have tried, or are still trying, to join the Union, but their institutional framework is still changing in accordance to Union's demands. The conditions for membership, including a free-market economy, stable democracy & rule of law and adoption of EU legislation, are based on the role the member countries will have to play in the Union, that is, compliance with EU's procedures and regulations, agreement with its institutions and the rest member states and democratic approval[10].

A functioning market economy is a fundamental institutional qualification to begin talks with the EU as a potential candidate for membership. The degree an economy meets the market's requirements relies on existing regulation and identified weaknesses regarding the structure of the national economy[11]. However, when it comes to using a complete instrument to measure economic performance and how free a market can be, there are few indicators one can choose. The

10 (Conditions for membership, 2020), available here.

11 For Instance, see the economic progress evaluation of Serbian accession program which focus on macroeconomic stability, legal uncertainty and business environment and lack of competition (European Commission, 2011, p. 9), available here.

concepts of economic freedom and free market oriented policies are elaborated in the context of *Economic Freedom in the World*[12], an annual report published by Fraser Institute and the *Index of Economic Freedom*[13], produced by Heritage Foundation. These indexes consist of various components, trying to summarize the degree of economic freedom on an aggregated score.

In this chapter we econometrically explore the effect of the European Union accession process, when several reforms are required by the EU in order a country to institutionally converge, to economic freedom, the way the concept is perceived in the economic freedom index. We first analyse the steps and procedures required for a country to join European Union and we provide the theoretical and conceptual framework of our research, in particular in relation with the economic freedom concept. In the next section we focus on the methodology and the development of the model of our empirical estimation and then we provide the results and the discussion regarding the effect and its aspects. The last section is an overall conclusion on the key findings.

1.2. Conceptual and theoretical framework

EU accession process

EU accession is more a dynamic procedure with several intermediate stages, rather a static situation towards the entry. There are several obligations to perform, even before a country becomes a candidate or a potential candidate for membership, which highlights the very demanding and complex set of criteria required to join the EU.

To begin with, any country that geographically belongs to the European continent can apply for EU membership, as long as it embraces and promotes its democratic values. Since 1993, the so called "Copenhagen criteria" determine the conditions and principles to which a

12 (Gwartney J. , Lawson, Hal, & Murphy, 2019), available here.
13 (Miller, Kim, & Roberts, 2019), available here.

potential candidate for EU membership must comply[14]. Also, there is an extra provision for the region of Western Balkans. since additional conditions for membership are required, the so-called "Stabilisation and Association process"[15].

In terms of legal framework, a potential candidate should adopt the "acquis", the body of common rights and obligations in European Union[16]. Besides the EU rules, the negotiations also include financial (budgetary issues) and transitional (timeline issues) arrangements. One of the most time consuming phases of accession is the completion of all chapters in "acquis", a procedure which results in several reforms for the potential candidate, depending on to what extent its earlier institutional framework was in line with the EU body of legislation. Nevertheless, "acquis" includes a set of market oriented policies, enhancing market efficiency and fostering the competition[17].

The tool for a country to comply with all the above accession framework is reforms, however reforms are changes with huge socio-economic impact. Therefore, the main question we need to reply is when the changes begin, in other words, in which accession phase a country wishing to join the EU starts to reform its institutional framework according to the EU criteria. The very first step is when a country is identified by the European Council as a potential candidate for EU membership, yet no talks are opened at this stage. The next step is when the country submits its formal application to join the EU. In this stage, the Commission assesses the current institutional and regulatory framework of the applicant and decides which are the key priorities and criteria the country must meet, in order to open the negotiations.

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14 That is, a free-market economy, a stable democracy and the rule of law, and the acceptance of all EU legislation, including of the euro (European Commission, 2020), available here.

15 The main concern of these additional criteria is regional cooperation and good neighbourly relations (Steps towards joining, 2020), available here.

16 (Conditions for membership, 2020), available here. For the policy areas included in "acquis" see (Chapters of the acquis, 2020), available here.

17 (Böheim & Friesenbichler, 2014), available here.

Thus, shortly after the submission of the formal application[18] starts a period of reforms, which ends to EU membership, if and when all parts are satisfied and have completed the necessary obligations. During this reforming period, there are several other steps for EU accession, the three major ones are the following: after the evaluation of the progress of the key priorities follows the potential candidate status, then comes the official candidate for membership status and the last stage denotes formal membership negotiations towards EU accession[19].

Economic freedom concept

The quantification of an idea or a concept is one of the most challenging efforts in terms of developing a rigorous, sound and precise methodological approach. When it comes specifically to the concept of economic freedom, the measures employed by the relevant indexes are the connection between the overall concept of economic freedom and the analytical framework of modern economics[20]. According to this quantification approach, economic freedom is perceived in the context of security of property rights, freedom to engage in voluntary transactions, access to sound money, freedom to engage in voluntary transactions outside the borders, freedom to compete and personal choice[21].

The use of such indexes is widespread in empirical analysis[22], despite the fact that parts of their methodological approach still remain under discussion. The most controversial methodological issues

18 For Albania, Montenegro and North Macedonia the time from application submission to reform priorities identified by the Commission's assessment was one year, for Serbia two years, for Bosnia and Herzegovina three years (Countries negotiating their EU membership, 2020), available here.

19 (Steps towards joining, 2020), available here.

20 (Kešeljević, 2007, p. 228).

21 (Kešeljević & Spruk, 2013, p. 3953)

22 Until 2013 the concept of economic freedom, in the way Fraser Institute elaborates it, had been used for analysis in 402 scientific articles, of which almost two hundred employed the index in empirical studies (Hall & Lawson, Economic Freedom of the World: An accounting of the Literature, 2013).

are the elaboration of the concept of economic freedom[23], the sub components each index is consisted of[24] and the overall aggregation method[25], since different types of freedom impact economic performance to a different extent[26]. Nevertheless, the Indexes of economic freedom are still useful tools to understand the distributional dynamics of economic freedom[27], analyse market oriented policies and reflect to what degree the institutional and regulatory framework of a country is based on markets and individual choices rather than central planning[28].

In the current analysis we use economic freedom the way Fraser Institute elaborates it, in the context of the *Economic Freedom of the World Annual report* (EFW). The researchers quantify the extent the institutions and the economic policies of the countries in all over the world are in line with pro-market choices, such as *"personal choice, voluntary exchange, freedom to enter markets and compete, and security of the person and privately owned property"*[29]. The overall index score is an aggregation of the scores derived by the five following areas:

23 (Kešeljević A. , 2007, pp. 236-238).
24 (Ott, 2016, pp. 485-488).
25 (Kešeljević & Spruk, 2013, p. 3953).
26 (Heckelman & Stroup, 2000).
27 (Kešeljević & Spruk, 2013, p. 561).
28 The challenges of the methodologies of economic freedom indexes in this research are taken for granted and their overall review is beyond the scope of this research.
29 (Gwartney J. , Lawson, Hal, & Murphy, 2019, p. v).

Table 1. Areas of Economic Freedom of the World.

Area	Description
Area 1: Size of Government	As government spending, taxation, and the size of government-controlled enterprises increase, government decision-making is substituted for individual choice and economic freedom is reduced.
Area 2: Legal System and Property Rights	Protection of persons and their rightfully acquired property is a central element of both economic freedom and civil society. Indeed, it is the most important function of government.
Area 3: Sound Money	Inflation erodes the value of rightfully earned wages and savings. Sound money is thus essential to protect property rights. When inflation is not only high but also volatile, it becomes difficult for individuals to plan for the future and thus use economic freedom effectively.
Area 4: Freedom to Trade Internationally	Freedom to exchange—in its broadest sense, buying, selling, making contracts, and so on—is essential to economic freedom, which is reduced when freedom to exchange does not include businesses and individuals in other nations.
Area 5: Regulation	Governments not only use a number of tools to limit the right to exchange internationally, they may also impose onerous regulations that limit the right to exchange, gain credit, hire or work for whom you wish, or freely operate your business.

Source: (Gwartney, Lawson, Hal, & Murphy, 2019).

The main reason for choosing Fraser's Index over Heritage's Index is that the former has been used more in academic literature,[30]covers a longer time period and its measurement procedures are both more precise and more transparent[31]. Furthermore, Fraser's Index has no special weighting schemes in its components and since, besides our main analysis between economic freedom Index score and EU accession period, we also try to understand which sub-components of economic freedom are the most related to the EU accession process, we would rather use aggregating scores summarized by the same coefficients.

Literature Review

The academic literature of economic freedom mostly focuses on some of its aspects, such as growth, competition and well-being indicators[32]. However, the direct relationship between EU membership and economic freedom has also been explored in a few empirical studies, and most of them conclude to a positive but insignificant or unclear relationship.

Duval *et al.* notes that market oriented policies have been dominant over the last two decades in EU countries[33], whereas Friesenbichler finds that the anticipation of EU accession had a positive effect in pro-competitive policies for the Eastern European countries[34]. Hall *et al.* explore a panel of countries for a time span of 37 years (1970-2007), concluding to the result that joining EU contributes to more economic freedom, but the impact of joining is rather small[35]. Similar to this conclusion, Tarabar & Young use an unbalanced panel of 5-year intervals (1970 – 2010) for 42 European countries to explore the relationship between EU membership and convergence in economic freedom levels[36]. They find a positive effect of EU membership to the

30 According to Hall et al. it is the most cited measure of economic freedom (2011, p. 3).
31 (Hall & Lawson, 2013, p. 406).
32 (Hall & Lawson, 2013; Azman-Saini, Baharumshah, & Law , 2010; Stroup, 2007).
33 (Duval, Furceri, Hu, Jalles, & Nguyen, 2018, pp. 14-18).
34 (Friesenbichler, 2014).
35 (Hall, Lawson, & Wogsland, 2011).
36 (Tarabar & Young, 2014).

5-year change score in the *Economic Freedom of the World*, but no statistically significant result in the case of the convergence rates.

Nevertheless, the attribution of these effects to EU regulations is not possible, especially given the 5-year interval observations, and their suggestion for further research is to explore the relationship between EU accession period and economic freedom, which formulated the research questions of the present study.

The research questions

Given the significant reforms required in order to initiate and conclude EU accession, many starting shortly after a country's application for accession, we ask whether a country's degree of economic freedom, as proxied by its EFW Index score, is correlated in a significant way with that country's progress through the most observable milestones of the EU accession process. Establishing this correlation, or lack thereof, is a first step in exploring whether convergence with the EU's legal and regulatory framework is a driver of greater economic freedom, or perhaps has a detrimental impact on economic freedom for the candidate country. The present study is not designed to conclusively establish the latter, causal link.

Furthermore, given the role of institutional characteristics as both pre-requisites for accession *talks* and deciding factors in EU accession *decisions*, we ask whether any observed relationship between EU convergence and economic freedom can be attributed to the dynamic process of convergence, or whether it instead emerges mechanically from the fact that countries that perform poorly in terms of economic freedom are unlikely to be admitted as full EU members.

If the above research questions can be addressed, then future research can focus on the question of causality, or examine the extent to which specific EU policies or institutional requirements are conducive to economic freedom.

Strictly speaking, our research considers the relationship between a country's *Economic Freedom of the World* index score (and sub-index scores) and its progress along the EU accession process. This we treat as a proxy for the relationship between economic freedom and the degree of a country's convergence with the EU's institutional, legislative and economic environment. Bearing in mind the limitations discussed above, we still believe that the EFW index captures a broad enough concept of economic freedom and is the right dataset to employ for this analytical concept.

1.3. Methodology and empirical analysis

Data, variables and research design

To conduct our analysis, we employ the dataset underpinning the Fraser Institute's Economic Freedom Index Annual Report 2019 (EFW). This provides a longitudinal sample covering 46 countries over 18 years (2000 to 2017), thus substantially encompassing the era of the big EU enlargement. We assign each country-year observation to one of three distinct groups: Group A consists of EU member states (n=504), Group B consists of countries currently in some stage of the EU accession process (n=90) and Group C consists of OECD countries non-affiliated to the EU (n=216)[37]. During the time span we explore, some countries moved between country groups, namely they changed their affiliation to the European Union. Some countries moved from non-affiliated (i.e. Albania 2004), to (potential) candidate status (i.e. Albania 2009) by initiating an EU membership application, whereas some others graduated from candidate (i.e. Bulgaria 2000) to full membership (i.e. Bulgaria 2010). Thus, there is certain variation among the countries regarding the timeline in question.

We include Group C (Non EU – OECD countries) alongside group B as comparators so that they can be contrasted with EU members and accession countries. This kind of control group allows us to account for an important confounder, namely the well-documented liberalization trend of the last thirty years, which has encompassed the vast majority of the world, EU included[38]. Given this trend, comparing

37 For more information regarding countries and observations, see Table 1, Appendix.
38 See also Figure 1, Appendix. For the overall liberalizing trend in the EU see Duval

EU countries solely against their pre-accession selves or against a sample of countries in the global periphery might easily yield a positive relationship between EU accession period and economic freedom, which in a great extent could largely be driven by this overall liberalization. We control for other confounders through the addition of control variables as discussed later in this section.

Our *dependent variable*, namely *EF_gap*, is calculated as the difference between a country's score in EFW in a given year and the highest EFW score achieved by any jurisdiction in the same year (thus better economic freedom performance for country i in time t should typically result in a smaller gap). The calculation of *EF_gap* roughly follows the approach taken by other publishers of high-profile composite indices, such as the World Bank[39]. Such "distance to frontier" measures have certain advantages over simple scores and rankings: a) when applied to sub-index scores, they are more robust to differences in the practicability of liberalization in different domains – i.e. they do not unduly penalise countries for improving modestly in areas where large improvements are harder to achieve, b) they are less likely to be affected by year-on-year changes in methodology, provided those are applied uniformly across countries and c) they are less likely to be affected by global confounding factors - i.e. a global trend towards economic liberalisation is less likely to influence a distance-to-frontier measure than it is to influence an absolute score.

Finally, although it may not be a general property of distance to frontier measures, it is an advantage of *EF_gap* that its value distribution for the country/year pairs in our sample is less skewed than that of the absolute scores, as seen in Table 2.

Our *key explanatory variable* is the *proximity of a country to EU membership*. In order to capture the variation of non-affiliated countries, potential candidates and members we construct a three-scale in-

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et al., (2018) and Hentrich (2014).

39 NB the World Bank DTF score calculates the distance from the best-ever performance across both jurisdictions and time, whereas our distance measure relies on inter-country comparison only (World Bank, 2018), available here.

dex[40]. We assign the value one (1) to countries which have no affiliation with the EU in a given year (they are not members; they are not in any negotiations or on going accession process, i.e. Australia, Norway or Croatia before 2003). We assign the value two (2) to countries which have begun any negotiations process and have undertaken to implement reforms in line with EU framework (starting with the year each country submitted its formal application for accession or the year already in any negotiation process, i.e. North Macedonia after 2004, Cyprus before 2004). We assign the value three (3) to countries which are EU member states (they have ever been member states or the year they became in the process, i.e. Belgium, Bulgaria after 2007).

The interpretation of the *proximity to the EU* variable is that it measures institutional integration with the EU, as opposed to, i.e. proximity in political culture, regulatory requirements or similarity of economic systems. Countries can be one or two steps away from membership, depending on their status in a certain time, and they can move closer to EU membership status (namely by increasing their proximity status from value 1 to value 2, or from value 2 to value 3). The higher the value, the more institutionally integrated the country is with the EU (thus we expect a positive relationship).

The proximity variable is thus a simple scale and we assume it has a linear effect on our dependent variable. We have considered potential weaknesses associated with this design, and in particular the fact that full EU membership may be much further removed, in qualitative terms, from candidate status, than candidate status is from non-affiliation. However, given a high degree of heterogeneity in both the affiliated and non-affiliated country groups, we believe that a more complex convergence variable or the assumption of a non-linear effect of convergence on economic freedom would have little incremental value over our proposed design.

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40 Similar to the methodology of Böheim & Friesenbichler (2014), but with less intermediate steps.

Controls

To ensure that our findings are not compromised by ignoring confounding factors, we further control for a range of macro-economic and institutional factors with a bearing on either economic freedom or the EFW index as its proxy. In particular, we have attempted to control for the following:

a. Monetary sovereignty: Many EU members are also members of the Eurozone, and thus core functions of their monetary policies are carried on by the European Central Bank. We control for Eurozone membership in order to ensure that its effects, particularly on the EFW "Sound Money" indicator, are not misattributed to EU membership. We introduce Eurozone membership as a binary variable that takes the value 1 if a country is a member of Eurozone at time t dummy (1=member).

b. Recessions and banking crises: Key components of the EFW index are calculated using government activity measures expressed as shares of GDP. During a recession or a financial crisis, numerators of such measures (i.e. investment or tax income) may remain stable but due to a falling denominator (GDP) the overall measure might temporarily increase before returning to normal. We therefore control for GDP growth rate as well as a "crisis year" dummy that takes the value of 1 in the years between 2008 and 2013, thus covering the duration of the global financial crisis. Our approach effectively treats the financial and sovereign debt crisis as exogenous to EU and Eurozone membership. In so doing we are aware that critics of the EU might argue otherwise - in particular, that fiscal imbalances exacerbated by the EU's freedom of movement for capital, goods and people or the inflexibility of a single currency contributed to the sovereign debt crisis experienced by some EU and Eurozone members. We believe that even such criticism is best documented by disaggregating the effect of the crisis on economic freedom.

c. Post-socialist transition: in the 1990s, the vast majority of former socialist countries transitioned out of central planning and reformed their institutional framework to a market oriented trajectory; while it can be argued that the promise of EU membership played a role in shaping such transitions, it is clearly not their cause. We have therefore introduced a dummy explanatory variable, with value 1 for every former socialist country. However, as the proposed variable lacked within-country variation by design, it was impossible to reconcile with the Fixed Effect estimation technique and was therefore omitted.

d. Reverse causality: Certain aspects of economic freedom are themselves part of the accession criteria for prospective EU members. It should therefore not be surprising that a candidate country is more likely to meet accession criteria if it scores higher for economic freedom, and this "hurdle", or minimum standards, effect must be disaggregated from the effect of the accession process. We have therefore introduced an EU membership dummy which takes a value of 1 if a country is a EU member at time t.

e. Perceived quality of regulation: Improvements in the regulatory state can and do come about regardless of the influence of the EU, and a number of jurisdictions have undertaken significant reforms during the period under consideration. To help isolate the effect of EU accession and membership, we control for regulatory quality as proxied by the "regulatory quality" dimension of the Worldwide Governance Indicators (WGI) project. This dimension *"reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development"*[41]. We note that there is significant overlap between the WGI quality of regulation concept and the Fraser EFW index in general. Murphy calculates a correlation coefficient of 0.77 between the broader WGI (i.e. not just quality of regulation) and EFW[42]. For our immediate purposes, it is worth noting that, despite significant overlap, the EFW's Regulation component focuses much more on Credit and Labour Market regulation than

41 (World Bank, 2020), available here.
42 (Murphy, 2016, p. 71).

the WGI's Regulatory Quality component does, and the WGI focuses more on the mobility of capital, direct market interventions and the prevalence of poor market outcomes such as market dominance or unfair competitive practices. It also includes several components shared with EWF sub-indices other than Regulation, such as taxation and international trade. Thus, the interpretation of this control must be slightly different depending on the dependent variable. Where the total EFW index distance-to-frontier measure (EF_gap) is the dependent, it might be best to treat the WGI regulation component as controlling for the quality of the general regulatory and administrative state; where the dependent is the EFW Regulation sub-index, it might be best to treat the WGI component as controlling for the government's ability to avoid and prevent market distortions.

Finally, we introduce a limited number of inputs into the EFW index itself as explanatory variables, to explain more of the variation of economic freedom. In particular, we use the Government's share of total investment in the economy, growth of the money supply, and tax on trade for this purpose[43]. Below, Tables 2 and 3 present summary statistics for all the main variables of our regressions.

43 For an overview of the variables we used and their sources see also Table 2, Appendix.

Table 2. Summary Statistics for Economic Freedom and independent variables

Variable	Abbr.	Obs.	Mean	Std. Dev.	Min	Max	Skewness	Kyrtosis
Economic freedom gap	EF_gap	810	1,41647	0,51346	0,25929	3,25621	0.507	3.250
Economic freedom score	-	810	7.501	0.506	5.594	8.553	-0.622	3.456
Proximity to EU membership	Proxim-ity	828	2,20772	0,89757	1	3		
GDP growth rate	Gdp_growth	828	2,68393	3,24888	-14,8	25,2		
Eurozone membership	EZ	828	0,32487	0,46861	0	1		
Crisis	Crisis	828	0,33333	0,47168	0	1		
Regulatory quality	Regu-lat_qual	778	1,08575	0,59484	-0,8563	2,09808		
Government investment share	Gov_inv_share	823	17,967	6,2360	5,43382	57,6257		
Money supply	Money_supply	814	6,28952	7,94348	-11,006	81,9083		
Tax on trade	Trade_tax	808	0,82178	0,74003	0	9,16		
EU membership	EU	828	0,52777	0,49953	0	1		

Table 3. Summary Statistics: Economic Freedom sub components

Variable	Abbreviation	Obs.	Mean	Std. Dev.	Min	Max
Area 1: Size of Government	EF_gap_Government_size	826	2,892932	1,007226	0,2341093	6,390772
Area 2: Legal System and Property Rights	EF_gap_Legal System_Prop_Rights	828	1,631366	1,090314	-0,0100218	4,10009
Area 3: Sound Money	EF_gap_Sound_Money	810	0,716475	0,906544	-0,00552	7,129216
Area 4: Freedom to Trade Internationally	EF_gap_ Freedom_to_Trade_Intern.	814	1,451714	0,900564	0,002444	9,92
Area 5: Regulation	EF_gap_Regulation	810	7,501081	0,506477	5,593784	8,553104

Estimation techniques

To estimate the effect of the EU proximity to economic freedom gap, in our regression analysis *economic freedom gap from each year's best score* is the dependent variable and *proximity to the EU* is our main explanatory variable, we use a standard panel regression model with fixed effects[44]. We use standard errors clustered at country level in order to take into account any potential heteroskedasticity since we have an heterogeneous sample in the sense that we include very different countries (in cultural, institutional and other individual aspects). However, our key explanatory variable might be correlated with the error term. Therefore, in order to obtain consistent estimates, we also use the 2SLS method[45] to solve any potential endogeneity problem.

44 The pooled OLS estimates the coefficients ignoring the panel structure of the data and we could end up with biased estimators, thus, it is not suitable for our case. For fixed effects in similar cases see Böheim & Friesenbichler (2014), Tarabar & Young (2014), Hall, Lawson, & Wogsland (2011). Note, to decide between Fixed effects and Random effects, we performed the Hausman test which showed the method of fixed effects is more appropriate for our sample.

45 Two-Stage least squares (2SLS) regression analysis is used to handle models with

The first instrument we use to capture how close a country is to becoming a member to European Union is its geographical distance from the nearest EU member capital. According to Böheim **et al.** EU enlargement happens in the so called concentric "circles" around current member states[46]. Thus, countries near to other EU countries are more likely to become EU members, but geographical distance cannot be said to have any relation in principle to economic freedom. Further instruments include a set of institutional variables, measuring proximity of a country to the legal and cultural framework of European Union, namely its democratic state. In section 1.2. we analysed how important it is for a potential member state, besides its economic performance, to embrace the democratic values of European Union[47]. Countries with more stable institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities[48] are closer to EU membership. This set of democratic values derives from *Democracy Index*, produced by Economist Intelligence Unit (EIU)[49]. More specifically we employ the Electoral pluralism index, Political culture index and Civil liberties index[50], in order to minimise the likelihood that the instrument is related to economic freedom conceptually or otherwise through correlation. We also use standard errors clustered at country level.

1.4. Results and discussion

As we describe in the previous section, in order to estimate our model, we use two different methods; fixed effects and 2SLS. We present three different specifications. The first column presents our baseline specification, and besides the proximity to EU membership,

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endogenous explanatory variables, namely independent variables which are correlated with the error term in the original regression and may cause the problem of reverse causality.

46 (Böheim & Friesenbichler, 2014, p. 10).

47 (European Union, 2012), available here.

48 (European Parliament, 2020), available here.

49 (The Economist Intelligence Unit, 2020), available here.

50 For the complete components and ways of measurement of each index see Table 3, Appendix.

we include GDP growth, Eurozone membership, crisis and regulatory quality. The second model (2) has the same explanatory variables plus EU membership (Dummy). The third model (3) has the same explanatory variables with model two plus the three following EFW sub components: government investment as a share of total investment, average annual growth of the money supply in the last five years minus average annual growth of real GDP in the last ten years and the amount of tax on international trade as a share of exports and imports. The fourth (4), fifth (5) and sixth (6) models are the respective specifications using instrumental variables (see Table 4). At the end we regress our basic specifications (1 and 2) using as dependent variable each of the 5 Areas of Economic Freedom index (see Tables 5 and Table 6).

Table 4. Regression results. Dependent variable: Economic Freedom

VARIABLES	FE (1) EF_gap	FE (2) EF_gap	FE (3) EF_gap	2SLS (4) EF_gap	2SLS (5) EF_gap	2SLS (6) EF_gap
Proximity	**-0.340*** **	**-0.270*** **	**-0.168** **	**-0.590*** **	**-0.629** **	**-0.636** **
	(0.0545)	(0.0772)	(0.0784)	(0.213)	(0.279)	(0.282)
Gdp_growth	**-0.00912*** **	**-0.00884*** **	**-0.00903*** **	**-0.0121*** **	**-0.0121*** **	**-0.0122*** **
	(0.00275)	(0.00279)	(0.00269)	(0.00331)	(0.00334)	(0.00268)
EZ	-0.0796	-0.0692	**-0.0898* **	**-0.179*** **	**-0.179*** **	**-0.158*** **
	(0.0563)	(0.0566)	(0.0458)	(0.0433)	(0.0438)	(0.0456)
Crisis	**0.0956*** **	**0.0969*** **	**0.125*** **	**0.0514*** **	**0.0524*** **	**0.0530*** **
	(0.0220)	(0.0222)	(0.0188)	(0.0179)	(0.0171)	(0.0158)
Regulat_qual	**-0.600*** **	**-0.614*** **	**-0.566*** **	**-0.318** **	**-0.305** **	**-0.325** **
	(0.128)	(0.135)	(0.136)	(0.135)	(0.138)	(0.132)
Gov_inv_share			**0.00846*** **			**0.00903** **
			(0.00303)			(0.00386)
Money_supply			**0.0107*** **			**0.0101*** **
			(0.00154)			(0.00189)
Trade_tax			**0.0426** **			**-0.0539* **
			(0.0187)			(0.0316)
EU		-0.0973	**-0.210* **		0.233	0.186
		(0.113)	(0.123)		(0.292)	(0.304)
Constant	2.857***	2.763***	2.289***	3.194***	3.134***	3.016***
	(0.177)	(0.126)	(0.162)	(0.499)	(0.471)	(0.501)
Observations	768	768	765	540	540	540
R-squared	0.373	0.375	0.469			
Number of id	46	46	46	45	45	45

Standard errors clustered are country level are in parentheses*** p<0.01, ** p<0.05, * p<0.1

Determinants of the overall economic freedom gap

Table 4 shows that using both methods of estimation we obtain similar results in terms of sign and statistical significance. Coefficients for the main independent variable and most controls have the anticipated signs, and our best-performing specifications can account for nearly half of the variance in economic freedom gaps in the sample. Specifically, the coefficient of proximity to the EU is negative and statistically significant for each specification. Thus, as a country approaches EU membership status, then economic freedom, as proxied by the proximity to the EFW frontier, increases by at least 0.2, and this effect is associated with the process of accession; it cannot be accounted for merely by the presence of minimum standards for EU accession.

The coefficient for GDP growth rate is negative and statistically significant in all specifications, implying that when the economic growth of a country slows then the economic freedom gap, i.e. the distance from the country with the highest economic freedom, increases. As expected, the global financial crisis (2008 - 2013) is associated with a widening distance-to-frontier, i.e. worsening performance in terms of economic freedom; We also observe that the coefficient of Eurozone membership is negative (i.e. conducive to greater economic freedom) in all cases; it is statistically significant in all IV specifications, but only weakly significant in most others.

The effect of regulatory quality is statistically significant in each model. First, this confirms that the EFW Index and the WGI's Quality of Regulation concept overlap significantly. Second, this suggests that the effect of EU accession and membership on economic freedom persists after accounting for the quality of domestic regulation. This interpretation, if confirmed by further studies, would imply that EU regulation is certainly compatible with increases in economic freedom, if not directly conducive to them.

Channels by which EU accession influences economic freedom

The construction of the EFW Index as a composite measure provides a simple means of exploring the way in which EU accession influences economic freedom. That is, by repeating the regressions set out in Table 5 for each of the EFW sub-indices, it is possible to suggest mechanisms by which the accession has come to be associated with economic freedom. Tables 5 and 6 summarise the results of this exercise across EFW sub-indices, focusing specifically on a selection of specifications (1 and 2) [51]. The EWF sub-indices are noisier than the EFW index as a whole and, as a result, some relationships that are significant at the Index level are not significant at this more fine-grained level of analysis. Accordingly, the regressions performed at this level have weaker explanatory power, rarely explaining more than a quarter of variance in the sample.

51 We focus on the basic specifications and we exclude the third one which includes the inputs from EFW index itself, since its subcomponents already contain much of this information in their scores, namely some dependent variables are mainly constructed by these raw data. However, specification 3 is also presented in Table 4, Appendix.

Table 5. Regression results. Dependent variable: Economic Freedom sub components, specification 1 (EU Dummy not included).

VARIABLES	FE (1) EF_gap_Government_size	FE (1) EF_gap_Legal System_Prop_Rights	FE (1) EF_gap_Sound_Money	FE (1) EF_gap_Freedom_to_Trade_Intern.	FE (1) EF_gap_Regulation
Proximity	-0.0692	**-0.116****	**-0.847*****	**-0.728*****	**-0.350*****
	(0.106)	(0.0558)	(0.158)	(0.132)	(0.0770)
Gdp_growth	**-0.0296*****	-0.00317	-0.00556	0.00291	**-0.0206*****
	(0.00517)	(0.00255)	(0.00671)	(0.00502)	(0.00521)
EZ	**0.171***	-0.0597	-0.174	-0.135	**-0.287***
	(0.0998)	(0.0796)	(0.197)	(0.139)	(0.169)
Crisis	**-0.182*****	**-0.0495***	-0.0676	**0.216*****	**0.108*****
	(0.0448)	(0.0250)	(0.0652)	(0.0394)	(0.0357)
Regulat_qual	**-0.461***	**-0.209****	**-0.993*****	**-0.707*****	**-0.447****
	(0.257)	(0.0996)	(0.358)	(0.240)	(0.182)
Constant	3.636***	2.155***	3.797***	3.796***	3.085***
	(0.347)	(0.120)	(0.592)	(0.347)	(0.229)
Observations	777	778	768	769	770
R-squared	0.086	0.090	0.239	0.251	0.222
Number of id	46	46	46	46	46

Standard errors clustered are country level are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 6. Regression results. Dependent variable Economic Freedom sub components, specification 2 (EU Dummy included).

VARIABLES	FE (2) EF_gap_Government_size	FE (2) EF_gap_Legal System_Prop_Rights	FE (2) EF_gap_Sound_Money	FE (2) EF_gap_Freedom_to_Trade_Intern.	FE (2) EF_gap_Regulation
Proximity	0.0994	-0.0691	-0.241	**-0.609*** **	-0.264
	(0.263)	(0.0930)	(0.164)	(0.200)	(0.173)
Gdp_growth	**-0.0288*** **	-0.00296	-0.00308	**0.00340**	**-0.0203*** **
	(0.00506)	(0.00263)	(0.00639)	(0.00491)	(0.00515)
EZ	**0.200** **	-0.0516	-0.0851	-0.118	-0.273
	(0.0958)	(0.0800)	(0.191)	(0.132)	(0.169)
Crisis	**-0.180*** **	-0.0488*	-0.0569	**0.218*** **	**0.109*** **
	(0.0445)	(0.0245)	(0.0650)	(0.0381)	(0.0359)
Regulat_qual	**-0.505** **	**-0.221** **	**-1.114*** **	**-0.731*** **	**-0.467** **
	(0.248)	(0.108)	(0.365)	(0.246)	(0.183)
EU	-0.243	-0.0677	**-0.837*** **	-0.165	-0.122
	(0.279)	(0.0925)	(0.286)	(0.261)	(0.174)
Constant	3.426***	2.098***	2.991***	3.637***	2.975***
	(0.497)	(0.131)	(0.362)	(0.335)	(0.322)
Observations	777	778	768	769	770
R-squared	0.090	0.092	0.260	0.252	0.224
Number of id	46	46	46	46	46

Standard errors clustered are country level are in parentheses *** p<0.01, ** p<0.05, * p<0.1

As Tables 5 and 6 demonstrate, the main channel by which EU accession might contribute positively to a candidate or member state's economic freedom is by boosting the freedom to trade, as measured by the Fraser Institute. This is perhaps unsurprising given the elimination of many types of barriers to trade in goods within the Union and favourable terms offered to accession candidates, typically as part of an Association Agreement. While the lack of a significant coefficient for the EU dummy variable might seem surprising, a more appropriate reading is that some of the trade benefits of EU accession accrue to candidates as well as full members, and thus the point of full accession does not create an abrupt cut-off point.

The function of other channels is much less straightforward. Taken as a whole, EU accession has a significant association, in the direction of greater economic freedom, with the quality of regulation, the moderation of currency and interest rate manipulation, the effectiveness of the legal system and the protection of property rights. However, in our preferred specification, each of these relationships becomes non-significant after accounting for the minimum-standards effect of EU accession - that is to say, progress in each of those areas appears to be more of a pre-requisite of accession than a consequence thereof.

Also of note is the significant association of Eurozone membership with bigger government - possibly compensating for the loss of monetary policy levers - and the finding that it is EU-, and not Eurozone, membership that is most associated with the EFW sound money indicator. This could be partly a result of price and interest rate stability criteria associated with accession; but it could also be a simple consequence of the linking of EU accession and commitment to Eurozone accession since the Maastrich Treaty of 1992.

1.5. Conclusion

The financial and sovereign debt crises of the past decade have called into question the European Union's identity and purpose, and with those its commitment to economic freedom. Such debates cannot be avoided, on the contrary they must be informed by facts.

The present study provides empirical evidence of a link between the EU accession process and the aim of promoting economic freedom. Using a design that is robust to many types of confounders, we find that the process of convergence is associated with increases in economic freedom. These gains are not reducible to the effects of minimum accession standards and are incremental to the benefits from improvements in domestic regulatory and administrative practices. Importantly such gains are deduced from a comparison with not only poorer and less developed countries in the EU neighbourhoods but also with wealthy non-EU OECD countries.

We find that the EU's status as the world's largest free trade area is a major component of the link between economic freedom and EU accession, with benefits from free trade accruing to accession candidates as well as full members.

Finally, our study demonstrates the sensitivity of economic freedom indices such as the EFW to both mild and intense economic downturns and cautions against analyses that do not adequately disaggregate these effects. Our study treats such influences as exogenous but also recognises that, faced with such crises, the EU's institutional framework may be trading off some types of freedoms for others - for example, Eurozone membership appears to be forcing some member states to make greater use of fiscal policy tools as they lack monetary ones.

Chapter 2: EU Membership and economic freedom: some evidence from a founding state

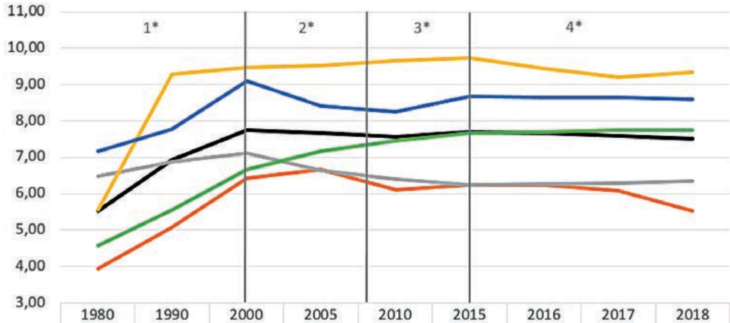
By Angela De Martiis and Giorgio Vernoni

2.1. Economic freedom in Italy from the 1980s to today

Data from the *Economic Freedom of the World Report* compiled by the Fraser Institute[52] over the last forty years paint a contradictory picture for Italy. Between 1980 and 2000, the summary index and the other main indicators show a marked and steady improvement and the consequent significant relative progress in the ranking by nations, from the 39th position in 1980 to the 24th position of 2000, to date the best result ever achieved (see Figure 1). Historically, this period corresponds to the final phase of the so called "Prima Repubblica" (first republic) from 1983 to 1992, characterized by strong political instability and the consequences of the ballooning of public debt since the early 1970s, and the following phase of the "risanamento" (rehabilitation) governments, culminated in 1999 with the accession to the common European currency.

52 (Gwartney J. , Lawson, Hall , & Murphy, 2020), available here.

Figure 1. Economic freedom summary index and main indicators, Italy 1980-2018.



	1980	1990	2000	2005	2010	2015	2016	2017	2018
EFW Sunnary Rating	5,54	6,92	7,75	7,68	7,57	7,71	7,66	7,60	7,51
Size of Government	3,95	5,08	6,42	6,66	6,12	6,24	6,23	6,09	5,54
Legal System	6,47	6,89	7,10	6,63	6,39	6,24	6,27	6,29	6,35
Sound Money	5,55	9,28	9,47	9,52	9,66	9,74	9,44	9,20	9,35
Freedom to Trade	7,16	7,79	9,11	8,40	8,25	8,66	8,66	8,65	8,59
Regulation	4,57	5,56	6,67	7,16	7,45	7,68	7,70	7,75	7,75

Source: Fraser Institute - Economic Freedom of the World: 2020 Annual Report

*1) Accession to the Euro. 2) EU Eastern enlargement (2004-2007) and beginning of the new cohesion strategy (Berlin European Council, 1999). 3) Global financial crisis (2008) and sovereign debt crisis (2011). 4) Recent years.

The twenty-year period between the admission to the Euro and today is characterized by a substantial stabilization of the trend, with a modest deterioration in the phase following the "double-dip recession", first the external global financial crisis and then the internal sovereign debt crisis, between 2008 and 2013. At the same time, Italy's position in the international ranking of economic freedom fell to the 51st position. This means that the level of economic freedom remained steady in absolute terms but worsened in relative terms, because of an international context in which the "third wave of globalization" fostered a positive evolution of many developing countries. What can be the causes of this trend?

A closer look at the five indicators that contribute to the definition of the summary index, shows that, in the run-up to the accession to the Euro, they have all clearly improved, in particular the one relating to

"Sound Money", which considers price stability and exchange rates. This result is not surprising, given that Eurozone admission was predicated exactly on interest and exchange rates convergence and price stability targets. The post-entry phase of the single currency, on the other hand, shows a substantial stabilization of the indicators and a modest downward trend as early as 2005. In detail, the two areas remaining under the control of the national political and institutional system, namely the "Size of Government" (particularly the high tax burden and the size of state-control in the economy) and the "Legal System" (particularly the poor efficiency of the judicial system and the difficult legal enforcement of contracts) have been worsening. On the other hand, the areas largely conditioned by the EU institutions, namely international trade and monetary policy, are stable, but not improving, while the quality of regulation indicator has been growing steadily, thanks to the streamlining of banking and finance law, again under the European direction, and labour law, the latter subject to four national reforms between 1997 and 2015[53]. Although it is difficult to establish causal relationships, this historical and economic analysis seem to confirm some of the benefits generally associated with the European integration process and some well-known Italian challenges, in particular the substantial public debt and the integrity of the judicial system.

Nevertheless, the trend of economic freedom may be due to other factors not observed by the existing instruments or even non-observable. For instance, developments in the economic cycle and, in particular, recessions that, by reducing the economic base, could affect the determination of relative indicators. This is a relevant issue for Italy, considering that the global financial crisis that erupted in 2008 had in the Belpaese a second wave in 2011 linked to the sovereign debt crisis, resulting in a significant (and not yet fully recovered) contraction in gross domestic product.

For similar reasons, another issue to pay attention to, so far underexplored, is economic freedom at the regional level, which could result in substantial differences even within the same institutional and

53 (Massagli, 2018).

regulatory framework. This factor is particularly important in Italy, due to the historical North-South polarization of its economy.

2.2. Economic freedom at regional level: an overview on the Italian framework

With this issue in mind, the Centro Einaudi has developed the ILERI, the index of economic freedom of the Italian regions. The ILERI is an experimental tool designed to measure economic freedom and analyse some of the aspects of the economic performance and well-being at the regional level.[54,] It compiles data from 1995 to 2016[55] on a set of 11 weighted areas[56] – finance, economy, society, justice and security, energy and environment, culture, labour market, infrastructure, public administration, education and migration – measured via a comprehensive array of 38 official indicators of ISTAT, the Italian National Institute of Statistics, some of them included in the *Benessere Equo e Sostenibile* (Equitable and Sustainable Well-being) annual report[57]. By way of example, the graphs below show four indicators used by the ILERI in three important regions of Northern, Central and Southern Italy with substantial differences in magnitude and trend. The long-time frame of analysis allows to look at different business cycles (i.e. the 2008 global financial crisis) and to observe relevant changes among the 20 regions[58].

Although clearly inspired by the Fraser Institute methodology, the ILERI includes a wider range of indicators and cannot be directly compared with the Economic Freedom of the World index, in which most of

54 The ILERI was first proposed, as an experiment, in the 2004 edition of Ronca & Guggiola (2004)and it was subsequently resumed and expanded for the 2007 edition, where 25 indicators grouped into 7 areas were analysed for the year 2007 (Giovanni & Gabriele, 2007). The 2018 version of the ILERI is a new release that replaces the 2007 version and looks at a longer time frame of analysis with respect to the pre-crisis, crisis and post global financial crisis years.

55 The timeframe of analysis can change for some indicators due to data limitations.

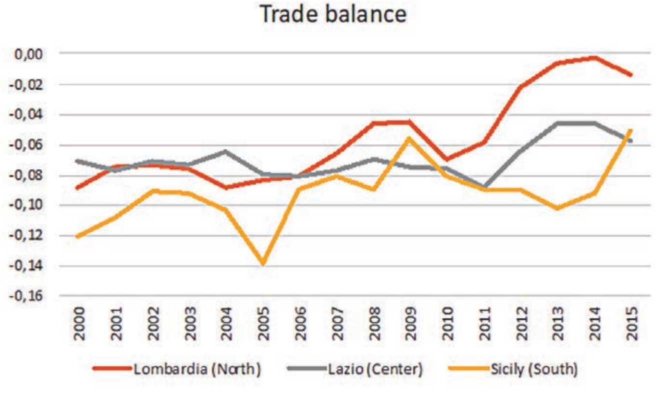
56 The 11 areas are weighted based on a survey carried out among a panel of economists.

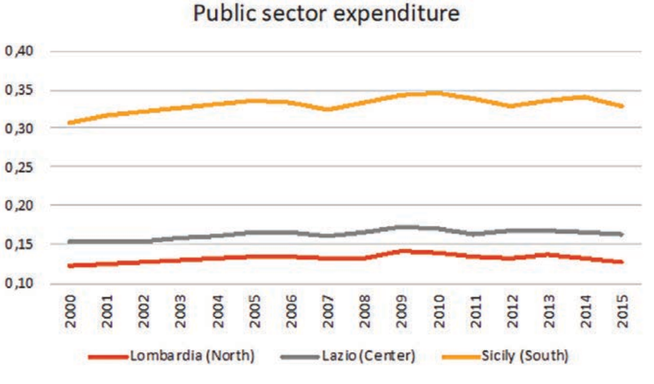
57 (Istituto nazionale di statistica, 2020), avallabile here.

58 The methodology of the Centro Einaudi ILERI, i.e. the complete list of indicators and weighting criteria, cannot be fully disclosed in this article, in order to preserve its non-replicability.

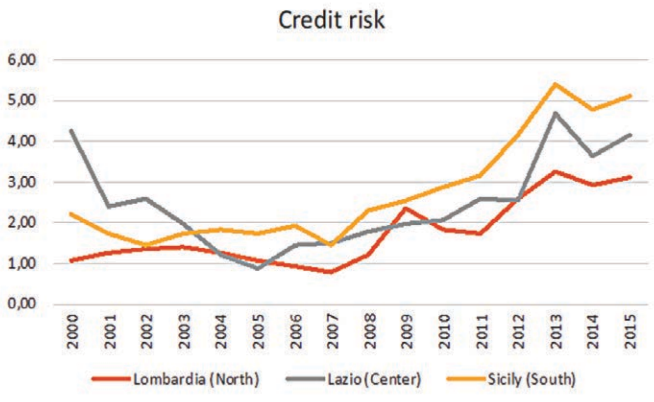
the areas, components and sub-components are only available at the national level and / or are connected to the national legislation. Therefore, only in some cases they can be indirectly estimated at the local level through proxy or outcome indicators. For instance, in the ILERI trade balance can be considered an outcome variable of the "freedom to trade" indicator, public sector expenditure is a proxy variable for "size of government", credit risk for "sound money", while the businesses' birth rate can indicate the ease of "starting a business" (see Figure 2).[59]

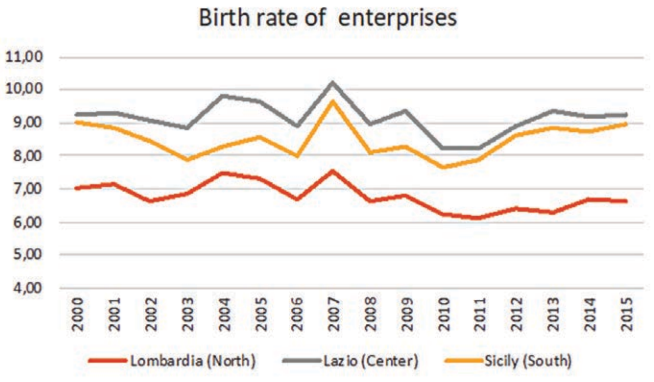
Figure 2. A selection of ILERI components





59 Public sector expenditure is measured as the total public expenditure over GDP, credit risk is instead measured as adjusted bad loans flow over performing loans, while businesses' birth rate is the number of companies born in one year divided by the active companies in the same year.

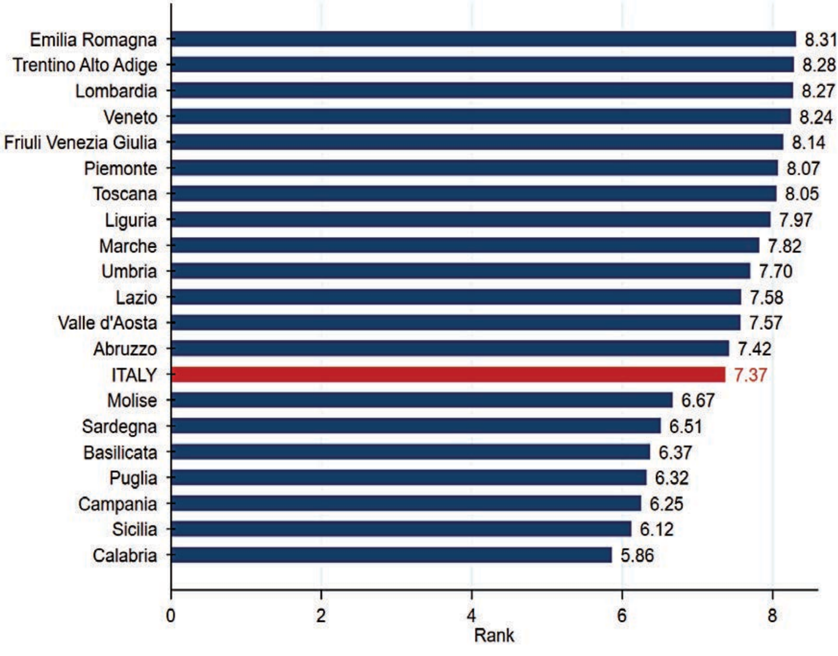




Source: Centro Einaudi, ILERI 2018

Two of the main findings from the overall ILERI index ranking relate to: (i) the strong regional disparities (see Figure 3) and (ii) the existence of territorial areas that are progressing at very different speeds. In fact, the regional index also underlines the existing historical gap between North and South and brings to light new potential gaps between the regions of the West and those of the East. Among the 11 analysed groups of indicators, we find that finance, society, labour market and justice and security play an important role in highlighting regional changes across geographical areas and time.

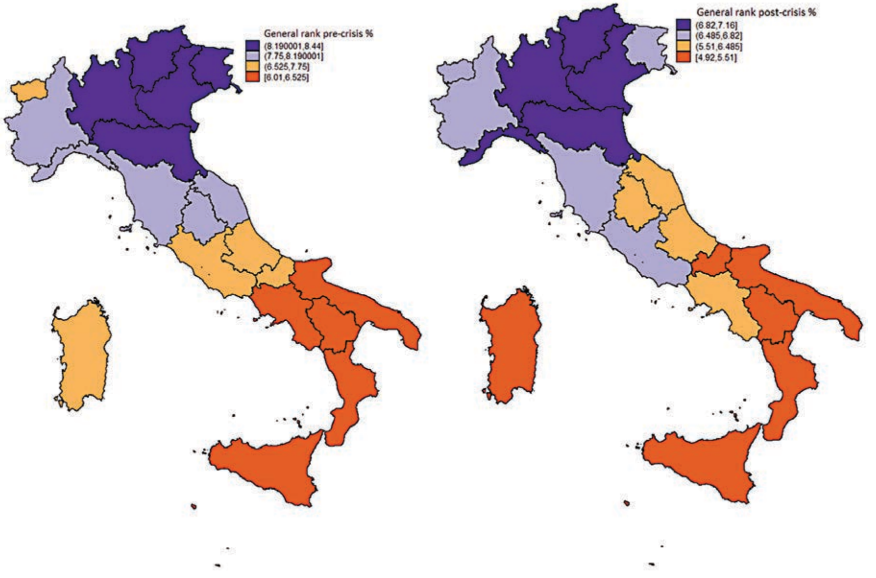
Figure 3. ILERI general ranking (2018 edition)



Source: Centro Einaudi, ILERI 2018

The changes and differences in the regional dynamics are further highlighted in the below maps (see Figure 4), where regional trends in the overall index ranking are shown. Using a long timeframe of analysis, we can observe the trend before the global financial crisis (1995-2007) and then in the post-crisis (2013-2016) years. The regions that are coloured in purple are those that scored the highest in the overall classification versus those in orange that scored the lowest. Looking at the post-crisis period, most of the regions of the North-East (Trentino-Alto Adige, Lombardia, Emilia Romagna, Veneto) maintained their position notwithstanding the global financial crisis shock, while of the central regions some are positively repositioning themselves (Lazio), while others are losing grip (Marche). Of the orange-coloured group, the Southern regions are either holding their positions or worsening their overall ranking in comparison to the pre-crisis years.

Figure 4. Mapping the ILERI during the pre-crisis and post-crisis years



Source: Centro Einaudi, ILERI 2018

Behind such regional differences, a set of leading areas portrays an interesting scenario (see Figure 5). In particular, the area of finance, composed of bank lending and financing risk indicators, number of bank branches and the level of financial inclusion, shows the regions of the North and Center providing more loans to non-financial companies and family businesses, contrary to the regions of the South that are less financially inclusive. The high variation in the financial area thus corroborates existing empirical evidence on the importance of having a well-developed and integrated local financial system in order to spur economic growth.[60,61]

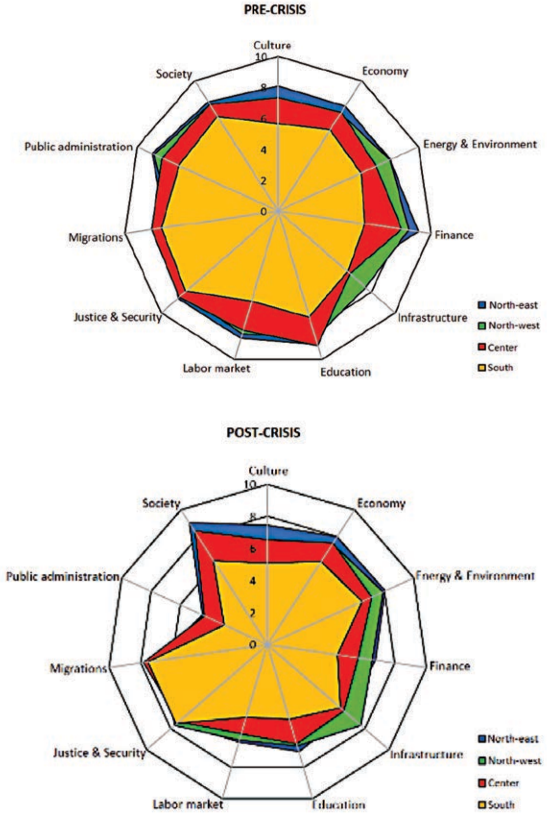
Besides the economic and finance-related indicators, the ILERI regional index introduces a set of components that are not linked to the Fraser concept of economic freedom per se, rather to a wider defini-

60 (Guiso, Sapienza, & Zingales, 2004).
61 (Raghuram & Zingales, 1998).

tion where individual economic freedom is also incorporated through a set of socio-economic indicators. The health status of the society is thus one of them, measured with poverty, mortality, fertility, regional hospital migration and broadband connection availability, and plays a crucial role in explaining existing and new disparities, particularly in Southern and peripheral regions. The labor market, captured with the level of total unemployment, youth unemployment, female unemployment, youth entrepreneurship and irregular employment, underlines instead a clear territorial divide between the regions of the North, with a more dynamic and structured market, and those of the South, with a severe decrease in labour market participation and a lack of medium-high skilled jobs. Last, regional performance in terms of justice and security, measured with the perception of crime risk, organized crime, homicides and juvenile delinquency, (related to the Fraser area analysing the reliability of the legal system), paints the picture of a country that is split in half, but vertically, where the traditional North-South divide is instead replaced by a much varied scenario that sees also the wealthier regions of the North-West (Lombardia, Piemonte and Liguria) negatively affected by criminal infiltration.[62]

62 Among others: (Gambetta, 1996), (Varese, 2010), (Pinotti, 2015).

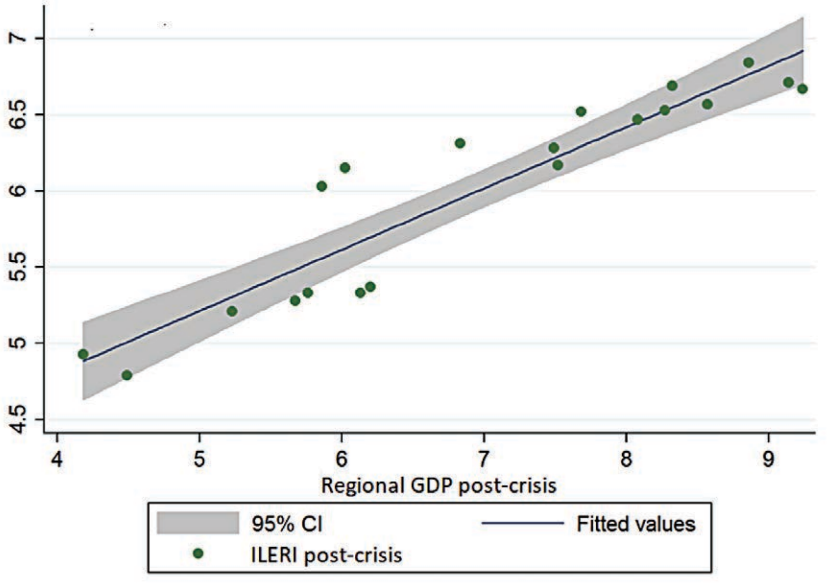
Figure 5 - ILERI macro-areas during pre-crisis and post-crisis years



Source: Centro Einaudi, ILERI 2018

In addition, confronting the ILERI regional ranking with the GDP regional ranking (Figure 6) it is possible to see some significant similarities among the regions displaying higher levels of economic freedom and well-being and higher GDP levels. The positive relation between the two is coherent with the nature of some of the ILERI indicators that measure economic performance as a possible outcome of economic freedom. In its simplicity, the ILERI is thus a purposeful index able to put under the magnifying glass existing territorial differences, new potential differences, and to detect differing speeds of growth and recovery among the 20 Italian regions taking into account both business-related and individual-related regional indicators.

Figure 6 - Relationship ILERI-GDP during post-crisis years

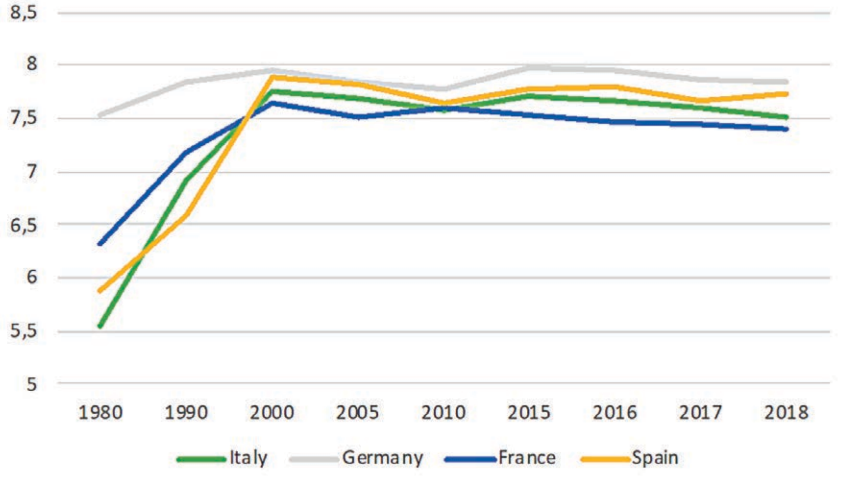


Source: Centro Einaudi, ILERI 2018

2.3. European Union and economic freedom: membership seems crucial, but national and regional factors need to be included in the picture

The overall assessment of the evidence presented in this article points to a correlation between the evolution of the level of economic freedom in Italy and the accession to the European single currency in 1999. This hypothesis seems confirmed in the overlap between the characteristics of the indicators that contribute to the definition of the Economic Freedom summary index – in particular those relating to inflation and monetary stability, the opening of both domestic and international markets and regulatory harmonization – and the policies that European governments had to take to converge towards the historically most relevant outcome of the European unification process: The Euro.

Figure 7. Economic freedom summary index – France, Germany, Italy and Spain 1980-2018



Source: Fraser Institute - Economic Freedom of the World: 2020 Annual Report

In fact, a similar overlap can also be observed in the other major continental European countries that joined the first phase of the monetary union. The Fraser Institute summary index in France, Germany and Spain shows similar trends, with a partial exception for Germany, potentially due to the fact that before the Euro the Mark was the reference currency in Europe (see Figure 7). Even in these countries, since the early 2000s it is possible to observe a stabilization of the indices and a relative loss in the international ranking.

The reasons could be different. On the one hand, the effects of the 2008 crisis, which have affected the dynamism and pluralism of the national economies within which economic freedom can express itself. On the other hand, other sub-national factors can well be at play. The Centro Einaudi analyses of economic freedom at the regional level show large and also widening differences precisely in the period (from 2000 to the present) when the recent cohesion policies have deployed their effects[63]. For this reason, in a continent that has placed the cohesion among regions at the centre of its strategies, this issue deserves further investigation.

63 The reform of the Structural Funds launched at the Berlin European Council in 1999 marks the start of the current approach of the economic and social cohesion policy in view of the enlargement of the Union to the East (Brunazzo, 2016).

Concluding remarks

The accession to European Union has been a milestone for the vast majority of the countries in the continent, so that its enlargement criteria require a certain amount of reforms to complete. The era of the big enlargement, since the early 2000s, has brought a lot of divergence in many societal aspects, given the institutional gap between acceding counties and members states, in particular when at the same time the project of the single currency was being implemented at a rapid pace. The consequent effort for convergence of the Euro area, a part of EU, and the seek for inclusive policies for the new or potential members, had a great impact in the established institutions of all countries. However, the obsolete legal and economic framework of a lot post – soviet countries, the unstable situation in Balkan area, the North – South polarization in Europe and the global financial crisis of 2008 posed further obstacles to the project of European integration.

The prospect of a European Union based on market oriented policies (and rule of law) conducive to economic freedom, a major factor for the betterment of living conditions in EU and almost all over the world, was challenged the recent years by intense Eurosceptic attitude and increasing distrust to the established institutions, both on national and European level. Economic recession alongside populism managed to question EU's policies and solutions to the social problems emerged due to the crisis for a large part of the public. More economic freedom and less regulatory barriers is still on the economic agenda of the political discourse, yet the lack of evidence-based policy recommendations upon European integration is hampering the potential of economic development towards European Union committed to economic freedom. Taking that background on board, the present study explored the relationship between the processes of EU membership and accession with economic freedom, in the context of

Economic Freedom of the World, one of the most versatile concepts to capture market-oriented policies.

The econometric estimation of the first chapter provides empirical evidence that the period of EU accession leads to more economic freedom, namely, it diminishes, on average, the gap of a given country from the best performing country in the Index. This effect is much more important given that it is an outcome of a comparison, besides with some acceding countries, with some of the most developed countries in the world (Non-EU – OECD). The main drivers of this relationship are the quality of regulation, the moderation of currency and interest rate manipulation, the effectiveness of the legal system and the protection of property rights.

The study provided in the second chapter analyses the economic freedom at the national and regional level in a member state, Italy. The analysis based on the Fraser's EFW index identifies the access to the single currency as a "cathartic" event similar to the access to the European Union, while the studies based on the ILERI index show the differences that can occur among regions even under the same regulatory, institutional and cultural framework. The conclusions highlight the overlap between the characteristics of the indicators that contribute to the definition of the Fraser's index – in particular those relating to monetary stability, the opening of markets and regulatory harmonization – and the policies that the European governments had to implement to converge towards the single currency. The main findings of the ILERI show structural and intensifying regional divergencies also during the cohesion policies timeframe.

Nevertheless, the research area of EU integration policies and economic freedom both at regional and country level is far from conclusive. Given the findings of this book, an implication for future research could be the examination of the extent a certain set of reforms or a policy are associated with more economic freedom. The requirements for joining EU include a variety of actions such as coordination (assessments and priorities), funding (instrument for pre-accession assistance, *IPA*) and legal help (harmonization with EU legal basis).

Yet, which of those actions is more conducive to a freer business environment, efficient and competitive markets remains to be investigated. Finally, another issue to look into, is what happens to economic freedom in certain regional areas of European Union and countries in accession process. The divergence of regions even under the same body of regulation, which share also common cultural values (such as Italy) can have detrimental effect for further European integration.

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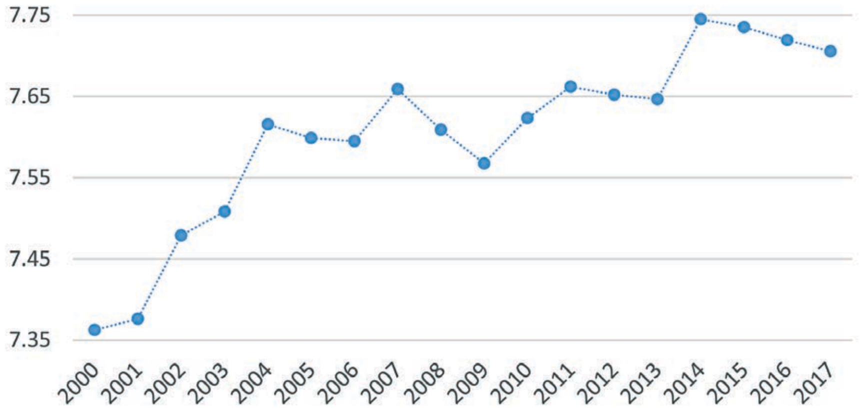
Appendix

Table 1. Group of countries included in the panel (observations).

Group A	Group B	Group C
EU countries*	In EU accession process	Non EU - OECD countries
Austria (18)	Albania (18)	Australia (18)
Belgium (18)	Bosnia-Herzegovina (13)	Canada (18)
Bulgaria (18)	Montenegro (13)	Chile (18)
Croatia (18)	N. Macedonia (15)	Iceland (18)
Cyprus (18)	Serbia (13)	Israel (18)
Czech Rep. (18)	Turkey (18)	Japan (18)
Denmark (18)		Korea (18)
Estonia (18)		Mexico (18)
Finland (18)		New Zealand (18)
France (18)		Norway (18)
Germany (18)		Switzerland (18)
Greece (18)		United States (18)
Hungary (18)		
Ireland (18)		
Italy (18)		
Latvia (18)		
Lithuania (18)		
Luxembourg (18)		
Malta (18)		
Netherlands (18)		
Poland (18)		
Portugal (18)		
Romania (18)		
Slovak Rep. (18)		
Slovenia (18)		
Spain (18)		
Sweden (18)		
United Kingdom (18)		

* Until 2017 the UK was still an EU country

Figure 1. Economic freedom average score for EU – 28, 2000-2017.



Source: (Gwartney, Lawson, Hal, & Murphy, 2019).

Table 2. Summary Statistics Variables.

Variable	Description	Source
Economic freedom gap	Highest EFW score at a given year minus the score of a country (i) at a given year (t)	Fraser Institute
Proximity to EU membership	Indicates how close is a country to becoming an EU member. Number 1 denotes countries which have no affiliation to the EU in a given year. Number 2 denotes countries which begin any negotiations process and they were asked to implement reforms in line with the EU framework. Number 3 denotes countries which are EU member states for the given year.	Information from EU website
GDP growth rate	Real gross domestic product growth rate.	World Bank
Eurozone membership	Dummy, 1 = member	EU website
Crisis	Dummy, 1= crisis year	n/a
Regulatory quality	Captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development	World Bank
Government investment share	Government investment as a share of total investment	Fraser Institute
Money Supply	Average annual growth of the money supply in the last five years minus average annual growth of real GDP in the last ten years.	Fraser Institute
Tax on trade	The amount of tax on international trade as a share of exports and imports	Fraser Institute
EU membership	Dummy, 1 = member	EU website

Table 3. Description of Democracy Index sub components.

Electoral pluralism index	Political culture index	Civil liberties index
1. Are elections for the national legislature and head of government free? 2. Are elections for the national legislature and head of government fair? 3. Are municipal elections both free and fair? 4. Is there universal suffrage for all adults? 5. Can citizens cast their vote free of significant threats to their security from state or non-state bodies? 6. Do laws provide for broadly equal campaigning opportunities? 7. Is the process of financing political parties transparent and generally accepted? 8. Following elections, are the constitutional mechanisms for the orderly transfer of power from one government to another clear, established and accepted? 9. Are citizens free to form political parties that are independent of the government? 10. Do opposition parties have a realistic prospect of achieving government? 11. Is potential access to public office open to all citizens? 12. Are citizens allowed to form political and civic organisations, free of state interference and surveillance?;	1. Is there a sufficient degree of societal consensus and cohesion to underpin a stable, functioning democracy? 2. Perceptions of leadership; proportion of the population that desires a strong leader who bypasses parliament and elections.; 3. Perceptions of military rule; proportion of the population that would prefer military rule.; 4. Perceptions of rule by experts or technocratic government; proportion of the population that would prefer rule by experts or technocrats.; 5. Perception of democracy and public order; proportion of the population that believes that democracies are not good at maintaining public order.; 6. Perception of democracy and the economic system; proportion of the population that believes that democracy benefits economic performance.; 7. Degree of popular support for democracy.; 8. There is a strong tradition of the separation of Church and State.;	1. Is there a free electronic media? 2. Is there a free print media? 3. Is there freedom of expression and protest (bar only generally accepted restrictions, such as banning advocacy of violence)? 4. Is media coverage robust? Is there open and free discussion of public issues, with a reasonable diversity of opinions? 5. Are there political restrictions on access to the Internet? 6. Are citizens free to form professional organisations and trade unions? 7. Do institutions provide citizens with the opportunity to petition government to redress grievances? 8. The use of torture by the state.; 9. The degree to which the judiciary is independent of government influence. Consider the views of international legal and judicial watchdogs. Have the courts ever issued an important judgement against the government, or a senior government official? 10. The degree of religious tolerance and freedom of religious expression. Are all religions permitted to operate freely, or are some restricted? Is the right to worship permitted both publicly and privately? Do some religious groups feel intimidated by others, even if the law requires equality and protection? 11. The degree to which citizens are treated equally under the law. Consider whether favoured groups or individuals are spared prosecution under the law.; 12. Do citizens enjoy basic security? 13. Extent to which private property rights are protected and private business is free from undue government influence; 14. Extent to which citizens enjoy personal freedoms. Consider gender equality, right to travel, choice of work and study.; 15. Popular perceptions on protection of human rights; proportion of the population that think that basic human rights are well- protected.; 16. There is no significant discrimination on the basis of people's race, colour or religious beliefs; 17. Extent to which the government invokes new risks and threats as an excuse for curbing civil liberties.

Source: (The Economist Intelligence Unit, 2020, pp. 53-64).

Table 4. Regression results. Dependent variable: Economic Freedom sub components, specification 3 (EU dummy and inputs from EFW index included).

VARIABLES	FE (3) EF_gap_Government_size	FE (3) EF_gap_ Legal System_Prop_ Rights	FE (3) EF_gap_ Sound_Money	IV (3) EF_gap_ Freedom_to_ Trade_Intern.	IV (3) EF_gap_Regulation
Proximity	**0.421****	0.0301	-0.103	**-0.403***	-0.0970
	(0.178)	(0.120)	(0.155)	(0.228)	(0.182)
Gdp_growth	**-0.0165*****	-0.00108	**-0.0120***	**-0.000734**	**-0.0168*****
	(0.00430)	(0.00269)	(0.00636)	(0.00364)	(0.00507)
EZ	0.153	-0.0725	-0.108	-0.162	-0.276*
	(0.101)	(0.0799)	(0.136)	(0.126)	(0.157)
Crisis	**-0.206*****	**-0.0517***	**0.0664***	**0.278*****	**0.116*****
	(0.0339)	(0.0258)	(0.0372)	(0.0328)	(0.0343)
Regulat_qual	-0.368	**-0.174***	**-1.011****	**-0.475*****	**-0.452****
	(0.225)	(0.0947)	(0.382)	(0.165)	(0.186)
Gov_inv_share	**0.0599*****	0.00387	0.00906	-0.00297	**0.0154****
	(0.00801)	(0.00558)	(0.00546)	(0.00560)	(0.00680)
Money_supply	-0.00233	**-0.00594***	**0.0536*****	**0.00911*****	**0.00605****
	(0.00554)	(0.00299)	(0.00971)	(0.00283)	(0.00227)
Trade_tax	0.0325	**0.0536*****	0.0339	**0.110*****	-0.0141
	(0.0403)	(0.0187)	(0.0601)	(0.0263)	(0.0298)
EU	**-0.607*****	-0.179	**-0.991****	-0.413	-0.296
	(0.202)	(0.114)	(0.371)	(0.289)	(0.177)
Constant	1.657***	1.784***	2.115***	2.929***	2.371***
	(0.312)	(0.207)	(0.439)	(0.407)	(0.313)
Observations	765	765	765	765	765
R-squared	0.355	0.128	0.535	0.372	0.250
Number of id	46	46	46	46	46

Standard errors clustered are country level are in parentheses*** p<0.01, ** p<0.05, * p<0.1

The access to European Union and the status of EU membership require significant reforms in order for a country to align with the Union's overall institutional framework and values. However, the recent financial and sovereign debt crises have called into question the European Union's commitment to economic freedom. This political debate about the role of European Union must be informed by facts. In light of this, the study seeks to examine whether a trajectory towards EU membership is a driver for more economic freedom. Empirical evidence shows of a link between the EU accession process and the aim of promoting economic freedom. The analysis finds that the process of convergence is associated with more economic freedom and that this effect is deduced from a comparison with not only poorer and less developed countries in the EU neighbourhoods, but also with wealthy non-EU OECD countries. The main channel of this relationship is free trade, which benefits both accruing to accession candidates and full members. Moreover, the study highlights that inflation and monetary stability along with the opening of both domestic and international markets and regulatory harmonization are associated with the policies that European governments implemented to converge towards the Euro currency. The analysis of the index of the economic freedom of the Italian regions, (ILERI) a measurement developed by the Centro Einaudi, demonstrates large and also widening divergence between territorial areas of the country. Some of them are historically known, while new ones developed from 2000 onwards, in spite of the extensive cohesion policies deployed in this period.

KEFiM
Markos Dragoumis

Centro
di Ricerca e
Documentazione
Luigi Einaudi

9 782960 233360