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Aspects of financial integration in the context of regional development policy

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Abstract

The European Union's cohesion policy is one of the main pillars of Community development. However, the existence of serious regional imbalances at national and supranational level are significant challenges to achieving convergence. This publication examines key aspects of financial integration and their impact on EU regional policy. The aim of the research is to outline the bottlenecks in this regard and to make scientific proposals for possible actions to overcome the identified weaknesses. Based on a standard scientific approach, an analysis of the decentralization process is made in the context of its key role in implementing an integrated territorial approach to regional development.

Keywords: financial integration, decentralization, regional policy

Jel Codes: E59, O18, IOO, M21, H72

1. Introduction

Regional integration helps countries to overcome differences that hinder the free movement of flows of goods, services and capital (including human capital). These differences are an obstacle to economic growth, especially in the biggest international economic union - the European one. Differences and imbalances between countries due to geographical location, different infrastructure and ineffective policies and regional investments etc. are an obstacle to economic growth. Regional integration allows countries to overcome these costly imbalances by integrating markets and local economies. In this regard, The European Union (EU) is adopting a new regional approach to achieve unleashing the endogenous potential of different territories and sustainable development. It is based on the idea of changing the attitude from framing interventions according to administrative boundaries to identifying common challenges to overcome.

On the other hand, according to the definition of the Inter-American Development Bank (2015) financial integration is "the process through which a country`s financial markets become more closely integrated with those of other countries or with those in the rest of the world". This definition focuses the research team on the correlation between regional integration and financial integration. These two processes are significantly dependent on and correlated with one another. When financial links are deepened and broadened within a region comprising of two or more countries that form of integration is referred to as regional financial integration (Wakeman-Linn & Wagh, 2008). This statement is also valid for regional integration within a single country.

Retrospectively, according to Sedik and Sun (2012), Klein and Olive (2000), financial integration is being referred to as positive economic growth. Later studies dispute and deny the relation between financial integration and economic growth by defining financial integration as a catalyzer of financial development that leads to economic growth (Selvarajan & Ab-Rahim, 2020) (Mishkin, 2007). The dynamic situation, in which socio-economic systems

operate related to post Covid-19 conditions, requires new reading and adaptation at all levels. In this context an in-depth analysis of the susceptibility to market shocks and clarification of the role of decentralization in financial and administrative aspect is needed, with a view to achieving convergence between regions.

2. Literature Review

Weaknesses in the convergence process within the European Union have been researched since the beginning of the 21st century as a separate issue, as in Bulgaria it became hot topic with the admission of our country as a full member of the Community in 2007. A number of scientific papers in this field contribute to the development of the concept of convergence, and the proposed ideas provide new directions for achieving cohesion (structural, price, regional or financial) (Rangelova, 2021), (Zlatinov & Atanasov, 2021), (Tekin, 2021), (Prodanov & Naydenov, 2020). All of them incorporate around the thesis of the existing relationship between financial integration and economic growth of the regions, respectively the countries. An important factor in the convergence processes is decentralization in the public sector and in particular the fiscal one. Emphasizing the economic aspect of cohesion policy within the EU, the opinion is that it is a result of the macroeconomic position not only of each member state, but also of the fiscal capacity of individual regions within the countries.

The role of fiscal decentralization in achieving convergence at the regional level is the focus of research that contributes to the development of the theory for convergent clubs, proving empirically that convergence is more possible to happen within compact territorial communities or whole countries with similar characteristics (Bellofatto & Besfamille, 2021), (Simionescu, 2015). According to Solow, in the conditions of open economy and high mobility of the international capital markets, the lagging countries and regions (those with lower GDP per capita), are growing economically faster than the developed ones (Solow, 2000). The capital flow that is created in the direction of "rich" to "poor" countries/regions contributes to smoothing the socio-economic differences between them, respectively achieving convergence in a natural way.

The European institutions are also monitoring the development of financial integration as one of the objectives of Europe's regional policy. However, it is a means to an end. For example, the financial sector is the main transmission mechanism of the monetary policy of the European Central Bank (Baele L. , Ferrando, Hördahl, & Krylova, 2004), and its fragmentation poses lot of challenges (Inklaar, de Guevara, & Maudos, 2012). In the context of this duality, a particular link between financial integration and external and internal macroeconomic shocks is observed. On the one hand, financial integration, by definition, helps to alleviate the disparities that economic and financial crises create between countries. Demyanyk и Volosovych (2008) foresee significant benefits from deepening Europe's financial integration in terms of prosperity by smoothing out the dispersion of consumption, with greater benefits for the countries, joined after 2004. However, there are also specifics here, as according to some studies, integration can increase the sensitivity of economies to external crises and facilitate the spread of such shocks. An, Kim and Pyun (2021) show that the integration of short-term debt strengthens the synchronization of the business cycle. However, at the same time, market integration of long-term debt instruments mitigates the international transmission of business cycle phases during crises. Similar results indicate and Demirel (2009) in a study how external debt and international financial integration affect the effect of external interest rate shocks on a small open economy.

On the other hand, financial integration is a state of synchronicity between markets for financial assets and services that is disrupted by systematic shocks. This aspect has been studied by details, measuring the effects of Global Financial Crisis (Gill, Sugawara, & Zalduendo, 2014) European debt crisis - (Antonakakis & Vergos, 2013), Covid-19 crisis and others (Castiglionesi, Feriozzi, & Lorenzoni, 2019). The general conclusion of all these studies is that financial integration is disrupted because of crises and fragmentation is observed. However, with each subsequent crisis, recovery and return to a state of integration is accelerating. This is especially emphasized in Borgioli et al (2020) with respect to Covid – 19 crisis. The reason lies on the EU's stronger response to fiscal and monetary packages. Significant differences arise depending on the type of integration that takes place (Vinhas de Souza, 2021).

The latter logically refers to the link between fiscal and financial integration. Although most studies do not include fiscal integration within the financial framework, at least a few intersections can be found – fiscal unification puts all market players on an equal footing; the debt market as the main source of financing for the treasury and the main object of financial integration (including the new Corona bonds (Herzog, 2020)); coordination between monetary and fiscal policy (Beetsma & Bovenberg, 2001) (Ehigiamusoe & Lean, 2013).

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3. Research methodology

The research methodology is based on a standard scientific approach using theoretical methods of the type mental action and operation. Based on abstract thought models and concepts, new knowledge has been formed regarding the role of financial integration and decentralization for ongoing processes, as well as the impact they have on regional cohesion. Methods as abstraction, concretization, problem statement and hypothesis generation were used in the preparation of the research. During this first stage of a comprehensive scientific study, scientific information was collected and fundamental concepts related to the challenges to regional development and financial integration in the EU and in particular in Bulgaria were studied. The second stage is to conduct a critical analysis of the studied scientific views using methods such as deduction, induction, content, comparative and GAP analysis. On this basis, key aspects of the researched problem are outlined and possible directions for development are analyzed, which would help to reduce regional disparities. In the last stage of the research important scientific conclusions have been pointed out, with a focus on potential actions in the direction of overcoming identified weaknesses in the implementation of regional policy, with an emphasis on improving financial integration and promoting decentralization processes. The described research methodology consists of logically connected and interdependent phases, which allow in-depth and flexible analysis of scientific data and connections at different levels.

4. The role of decentralization in the process of achieving convergence between regions

Convergence issues have been particularly relevant since the late 20th century, and in the last twenty years, as evidenced by a number of empirical studies in this direction, both nationally and supranational level. In Bulgaria, special emphasis is placed on the role of decentralization, both in the fiscal and administrative system with a view to adopting a new, integrated approach to territorial development.

Within the European Union are differentiated 242 basic regions for the application of regional policies (NUTS 2), divided into three categories: less developed, more developed and transition; the former represent 1/3 of all, and the intentions and expectations of the European authorities is this percent to decrease within the new programming period 2021-2027., for which the relevant mechanisms are envisaged. Solow's neoclassical model (Solow, 2000) presents the view that lagging regions, namely those with lower GDP per capita, are growing economically faster than already developed ones. Based on this statement, we could expect that Bulgaria, as a country with low economic development indicators compared to the european average, will be positioned better in the economic and social space of the Community. However, such expectations are associated to complex processes of economic, social and political cohesion in the heterogeneous structure of the EU and require deep analysis of interactions and various aspects research.

Some of the latest research, focused on fiscal decentralization is of particular interest in analyzing its role as a whole in the process of achieving convergence between the regions in Bulgaria and the countries of the EU. Such, for example, is a study by Zlatinov and Atanasov, covering the EU in the period 2000 - 2019, which shows that the processes of cohesion within the EU are developing steadily, but at the club level. Some Member States, such as Romania, Estonia and Lithuania, are showing a steady trend towards converging to the average European level of macroeconomic indicators, while others, such as Bulgaria and Croatia, are lagging far behind (Zlatinov & Atanasov, 2021). The hypothesis about the existence of convergent clubs emphasizes the likelihood that the convergence process will take place and be effective only between groups of countries/regions with similar characteristics: for example, socio-economic, political, anthropological, territorial, etc. The results of the cited study confirm the hypothesis of the emergence of convergent clubs rather than convergence within the Community. The measured β-convergence is indicative for faster growth of selected countries, while for Bulgaria and Croatia this growth is defined as insufficient. In this context, is more logical to comment the issues of deepening divergence processes within the Community than on convergence. It remains the focus of EU economic policy, but seems to emphasizes priority on promoting convergence clubs. The Community development scenario, known as "Europe at several speeds", which has been in place since 2017, shows precisely the likelihood that convergence and economic integration within the Community will take place at club level only. In their research, Zlatinov and Atanasov go even further in their conclusions, pointing out that in the implementation of the idea of achieving a Single market, the EU governing bodies must prioritize not the Green, but the Investment Deal, as „EU does not have a clearly defined strategy for promoting convergence processes." (Zlatinov & Atanasov, 2021).

Another 2018 study by the Institute of Market Economics, covering all 265 local government units in Bulgaria at NUTS 3 level, considers fiscal decentralization as an opportunity to unleash the potential of municipalities, which is crucial for both advancing and lagging regions in the country. The results of the empirical study indicate the presence of β-convergence between local governments in Bulgaria. However, differentiating them into four

groups: the core of the economic center, the periphery of the economic center, part of the economic center and outside the economic center, the conclusions become specific and more indefinite. For example, the distribution between municipalities within a specific (selected) economic center is relatively even: between those who reach the core and those who lag behind it. On the other hand, between the larger economic centers, there is convergence between income levels (i.e. regional convergence level exists), but the differences between the core and the periphery within the economic center remain sensible.

The thesis of convergence within economic centers is partly confirmed by the fact that municipalities on the periphery of an economic center are often in better economic condition than municipalities outside it, especially in terms of employment and wages. (Николов, 2018). In this sense, the fiscal position of each local government unit, measured by its ability to provide qualitative and quantitative public goods to its citizens with its own sources of funding, could push up municipalities, grouped around an economic center, to cohesion, which will also to grow at regional level. Supporting arguments of this hypothesis could be found and in a study by P. Dimitrova, focusing on inter-municipal competition for fiscal resources. According to the study convergence at the regional level is developing positively as a result of the increase in the fiscal capacity of municipalities (local government units), due to the expectation that these levels of government will respond more effectively to local needs (Димитрова, 2018). On the other hand, the achievement of a high degree of fiscal decentralization (respectively high fiscal position / capacity of the municipality) could be considered in a negative light, increasing regional disparities, for at least two reasons. The first is related to the subsidiarity and the principle of financing with central transfers of some of the services provided at the local level, and the reduction of this secure resource cannot always be compensated by own. The second concerns the possibility of unfair inter-municipal competition for own revenues, whereby better-positioned municipalities to "push out" weaker ones.

Another study assessing the optimality of fiscal decentralization in the context of the empirical link between it and regional disparities found that fiscal decentralization helps increase the fiscal discipline of local governments, but can also deepen interregional disparities, forcing tax competition (Bellofatto & Besfamille, 2021). In this case, a model has been developed, the application of which optimizes the process of achieving convergence between regions. Given the fact that the model was developed in the conditions of two levels of management: central government and state government, it could be successfully applied in the Bulgarian practice of consolidating local government units and assessing the effects of decentralization at the regional level (NUTS 2). Based on annual data for 75 countries between 1992 and 2012, including Bulgaria, Slovakia, Republic of the Congo, USA and Ukraine the effects of tax decentralization on the development of the region are assessed. In this case, there is an antagonism along the lines of "efficiency - redistribution", which is based on limited budget transfers. On the one hand, the latter would tighten soft budget constraints and strengthen fiscal discipline, but on the other hand, by triggering tax competition, interregional disparities could deepen. The derived quadratic function in the form of a hump gives an idea of the relationship between the degree of fiscal decentralization and regional disparities: the low degree of fiscal decentralization is a prerequisite for measuring clearly expressedt regional disparities.

Based on an in-depth analysis of these studies and expert assessment, fiscal decentralization can be identified as an essential tool for strengthening convergence between local governments, and subsequently between regions. However, in order to minimize the threat of negative effects related to the deepening of regional disparities in Bulgaria, it is necessary to study and adopt those good local financial management European practices that can best meet the economic situation in the country. An example of such an instrument is the mechanism for accumulating budget revenues by transferring tax revenues from the central budget to the benefit of municipalities. In Austria, the Czech Republic, Estonia, Germany, Latvia, Lithuania, 50 percent or more of municipal tax revenues are generated on the basis of shared taxes, the most common way to decentralize the fiscal system is through the resource of personal income taxes, followed by corporate and value added tax (Pavlova-Banova, 2021). These central budget sources, specifically for Bulgaria, form over 70% of the central budget revenues and when the taxation of these revenues and supplies is accumulated entirely by the state, the loss transfers to the regional level, expressed by low quality of local services and level of living standard. In this sense, the lack of sufficient own resources at the local level obstructs the convergence processes first between the municipalities within the region, which is also transferred to the inter-regional level.

In the mentioned study of M. Pavlova the effect of the assignment of 1/5 of the personal income tax in favor of local budgets is examined. It proving empirically that such a reform would have a positive impact on the fiscal capacity of municipalities and the convergence of macro indicators to European averages and respectively on the process of achieving convergence of the regions. At present, transfers from the central budget dominate a large part of local budgets. The same study from 2018 shows that 68% of all municipalities in Bulgaria form their

budgets mainly through transfers and other subsidies from the central government, which shows that the latter have en equalizing role, directing more resources per capita to financial weaker municipalities. Thus, in practice, the well-known "fiscal instrument for equalization" in Bulgaria is becoming an instrument for convergence between municipalities in different regions. The lag of the six Bulgarian planning regions (five of which are defined as less developed and one transition) compared to the rest within the EU is indicative of the ineffectiveness of the current model of financing and the need to adopt a new approach to local financial management to enhance the effectiveness of European cohesion policy.

Administratively, the concept of decentralization largely modifies the structure of state power. The process began in 1991 with the adoption of the new Constitution of the Republic of Bulgaria (Конституция на Република България, 1991). It outlines the principles and forms of local self-government, positioning it as an integral part of the country's transition to a social, legal and democratic state. In this regard, the regulatory and strategic framework in the country is undergoing a number of changes in order to clarify the regulatory requirements for the implementation of the bottom-up approach, on which the principles of deconcentration are based. Despite efforts in this direction, significant systemic weaknesses are still identified, especially with regard to mechanisms for involving stakeholders and civil society in the processes of developing key planning documents and their subsequent implementation. In the Strategy for Decentralization, for example, the process is presented as proceeding at different speeds and accompanied by conflicting assessments and results. (Стратегия за децентрализация, 2016). The central government's way of solving problems „per piece“ inevitably complicates the system of relations.

In the current programming period 2021-2027, Bulgaria plans to take the implementation of regional policy in a new direction, namely in an attempt to overcome the deepening territorial disparities in the economic and social dimension. More power is delegated to regional and local authorities to decide on projects to be financed through integrated territorial investments. However, this process faces serious challenges at an early stage. Such are, for example, inherited weaknesses in the development of strategic planning documents, lack of sufficient administrative and expert capacity, difficulty in effectively involving stakeholders in the process, politically unstable situation leading to delays in adopting important strategies and others. All this creates preconditions for talking about an unprepared system already at the planning stage and respectively for the risk of non-fulfillment of the set goals for cohesion of the regions through the tools of the integrated approach to development. The way to achieve a truly decentralized system of government in Bulgaria passes through the positioning of various public functions and tools for their implementation at appropriate levels of government and its adequate information security coordination.

5. Analysis of susceptibility to shocks of financial integration

Financial integration in the European Union is a multi-aspect topic. On the one hand, it can be viewed as a long-term goal of the economic policy of the Union, like the general EU efforts regarding the freedom of movement of people, goods, services, and capital. From this perspective, financial integration aims at providing all citizens of the EU with the same quality and quantity of financial services and, ultimately – similar quality of life (Cavallaro & Villani, 2021). The definition of financial integration, adopted by ECB corresponds to this perspective: “the market for a given set of financial instruments and/or services is fully integrated if all potential market participants with the same relevant characteristics: (1) face a single set of rules when they decide to transact in those financial instruments and/or services; (2) have equal access to the above-mentioned set of financial instruments and/or services; and (3) are treated equally when they are active in the market.” (European Central Bank, 2020, p. 3)

From another point of view, financial integration is not only a goal but also a means to achieve other objectives of the common economic space. In this regard, financial integration is important for the risk-sharing and smoothing the phases of the economic cycle and reducing the vulnerability to shocks of separate member states (Demyanyk & Volosovych, 2008); for conveying the effects of monetary policy (Baele L. , Ferrando, Hördahl, & Krylova, 2004), for enhancing the competition and competitiveness (Grossman & Leblond, 2011). In general, without frictions and barriers to exchange, markets function efficiently, which is most beneficial to participants who have had limited access to capital and underutilization of their resources and production potential. Therefore, the integration of financial markets is an important prerequisite for the successful implementation of European cohesion policies, and in particular, the European Regional Development Fund (ERDF), which aims to reduce the development gap of the most, disadvantaged regions in the EU.

While there is a consensus in the literature on the positives of financial integration for economic development, there are grounds for debate on the two-way integration-shocks nexus. According to some authors, integration increases the resilience of the economy, while others argue that it leads to easier propagation of shocks and higher

sensitivity to global financial crises. All of the above gives relevance to this issue and highlights the need to examine the role of financial integration in the context of shocks/crises.

Before assessing the impact of shocks, the sets of methods and approaches for measuring financial integration need to be specified. In the literature, there are two main groups of methods: price-based and quantity-based. For price-based measures, the object of analysis is the prices (yields) of financial assets/services and their dispersion. They are grounded on the definition of financial integration, which is based on the law of one price, according to which assets with similar characteristics (cash flows, risk, term, etc.) must have similar prices/yields. Quantity-based methods, on the other hand, analyse the dynamics of cash flows, the home bias in the investment portfolios of financial institutions and other investors. This methodological distinction allows us to systematize the results of studies on the evolution of financial integration in Europe and the impact of shocks into two groups.

The literature is dominated by studies using price-based indicators. One of the reasons for this is the availability of high-frequency data, which allow measuring integration in a timely manner and over short periods. Fernández de Guevara et al. (2012) presented several interesting nuances of the evolution of integration by analyzing the indicators used by the ECB and the EU. The first aspect is that the introduction of the euro is seen as a kind of positive shock that "catalyzes" financial integration. Pagano and Von Thadden (2004) reached a similar conclusion, pointing out that bond yields have converged dramatically after the transition to EMU. Because of the targeted policies of the EU and the ECB, there has been significant progress in the process of financial integration in the EU (Grahl & Teague, 2005) (Allen & Song, 2005). Despite the progress, the financial and economic crisis of 2007-08 exposed the weaknesses of the European financial system and the need to further deepen integration. However, evidence suggests that in the aftermath of this shock, the trend is reversing, i.e. there is divergence in the credit and bond markets as well as in the equity market (Pungulescu, 2013). Market fragmentation has significantly worsened since the European debt crisis (Kräussl, Lehnert, & Stefanova, 2016), to the extent, according to some authors, of threatening the European project as a whole (Chou, Zhao, & Suardi, 2014).

An important aspect of the problem was studied by Chatziantoniou and Gabauer (2021) - the dynamic risk connectedness (measured by bond-yield spreads and CDS spreads from 2003 to 2018) across countries. High dynamic risk connectedness implies that countries affect each other equally. A decline in the indicator is indicative of fragmentation and dangerous for the stability of the monetary union because it would render it unable to contain future sovereign debt shocks. Several important results emerge. First, fragmentation occurred at the peak of the crisis and reversed only after 2012 as a result of decisive ECB actions, but dynamic risk connectedness indicators have not yet returned to pre-2009 levels. Second, it is found that in calmer times (pre-crisis), core-countries were net transmitters of shocks, but at the peak of the crisis, the link weakened or even reversed to the extent that these countries managed to insulate themselves from peripheral countries. Regarding the pairwise study of countries, the conclusions are that not all of them are yet optimal participants in the monetary union and it is suggested to push for stronger integration.

According to some authors, the segmentation resulting from the crisis may not be as deep as traditional measures suggest. Battistini et al. (2013) argue that traditional price-based measures of debt market integration are inappropriate when there is differing solvency risk across countries. In this regard, they use a dynamic factor model to decompose the yield into two components: a common (or systemic) and a country-specific risk. Thus, the measured level of market segmentation during the euro debt crisis is almost twice as small as traditional measures of yield dispersion.

A common feature in the literature is the distinction between center and periphery. Related to this, Vinhas de Souza (2021) studied the financial integration of the Baltic Group and Central and Eastern European countries over the period 2005-2012. The first shock studied is the large capital inflows to these countries after their accession to the EU, associated with the boom before the global financial crisis of 2007-2008. The second shock is the drop in foreign investment after the outbreak of the crisis itself, which gradually turned into the European debt crisis. It is found that for most countries, the shock leads to a disruption of integration (the sigma value rises). However, some countries (Poland, Czech Republic) are doing significantly better, maintaining a strong degree of convergence with the EU, the EZ and Germany in particular. This is due to several factors: the floating exchange rate, which rises in boom periods, protecting these countries from excess liquidity; the type of financial integration with Europe - through equity participation in banks rather than lending; the credibility of central banking institutions in the countries concerned. They are doing even better than some Eurozone member states from the so-called periphery (Portugal, Spain). The general conclusion is that, depending on the type of integration implemented, it may pose risks, such as increased sensitivity to shocks.

In 2020, another shock to the financial system unfolded, the COVID-19 pandemic, whose effect on integration is not yet well understood. Hence the need to examine the current state of EU financial integration. Borgioli et al. (2020), in an ECB publication, investigated the impact of the COVID pandemic on financial integration in Europe. For this purpose, they use a composite index of financial integration developed by the ECB, which primarily uses price-based indicators of money, government bond, corporate bond and equity market development. A contributory point is the transformation of these indicators with big data techniques, which allows the extraction of high-frequency observations. Four periods of crisis development are distinguished: from January 30 to March 25, 2020; from March 26 to May 7; from May 8 to July 21; and from July 22 to September 15. In the first period is the outbreak of the pandemic, which is accompanied by acute fragmentation; the implementation of the PEPP (Pandemic Emergency Purchase Programme) and national fiscal measures begins. In the second period, the economic damage of the pandemic begins to be felt; some signs of reintegration appear, but expectations are still uncertain. The third period is characterized by a gradual relaxation of measures, a decisive overall European fiscal response (EU Recovery and Resilience Facility under Next Generation EU), resulting in significant reintegration. The fourth period shows continued financial reintegration to pre-pandemic levels, but its stability is fragile and depends on the continuation of the Union's fiscal and monetary measures, the results underlining their effectiveness so far. Examining these results with the individual indicators involved in the composite indicator shows that reintegration is not symmetric across markets. The money market has been the best recovering, while the government and corporate bond markets have been slower. The equity market shows large differences across countries.

Although most studies use price-based measures, there are aspects of financial integration that cannot be captured and explained by returns. Therefore, the use of complementary quantity-based measures is also required. Fernández de Guevara et al. (2012) find that because of the introduction of the Euro from 1999 to 2008, the share of MFI cross-border holdings of public and private debt increased by 15% (to a level of 18%). The equity market also saw an increase in investment funds' holdings of equity issued in other euro area countries (percentage over total holdings of equity) from around 16% in 1999 to 27.5% in 2008. The global financial crisis had an opposite impact on both indicators, with the former falling to 10.8% and the latter less so, to 20%. In the banking sector, the share of cross-border MFI loans has also shown a strong fluctuation, declining after the outbreak of the crisis. An interesting finding is that the level of financial integration is higher in wholesale markets than at the retail level. It is noted that post-crisis fragmentation has led to home bias and has negatively affected the conduct of ECB monetary policy. Since the focus of the cited study is not so much the evolution of financial integration itself but its impact on economic growth, it is concluded that financial integration and financial depth are not equivalent and do not always have the same effects on growth. In this context, there is the phenomenon of "too much credit", which shows its negatives when a certain threshold of financial depth is crossed. This corresponds somewhat with the findings of Pierdzioch (2004). Next, the beneficial effects of the completion of the banking union are pointed out. Battistini et al. (2013) also found that there are certain differences in the dynamics of government debt holdings by banks in euro-area countries over the period 2008-12. An increase in the country risk premium of peripheral countries leads to an increase in the government debt held by local banks, while banks from core countries do not exhibit a similar trend. Overall, this leads to higher levels of segmentation, i.e. increased systematic risk and home bias of their portfolios.

Coricelli et al. (2021) studied aspects of CEE integration similar to Vinhas de Souza (2021) and reached similar results. They show that CEE countries experience rapid integration after the accession process started around 2004, accompanied by the credit boom shock. Contrary to the typical "Lucas puzzle", here the less developed countries receive a capital inflow from the richer ones. The next significant shock was the bursting of the bubble after 2008, accompanied by a sharp liquidity contraction to the CEE countries, a normalization and even a reversal of the current accounts on their balance of payments and, of course, a reduction in economic growth. Interestingly, despite these shocks, the CEE countries continued their financial integration in the period 2009-2017. In general, crises negatively affect integration as well as productivity and efficiency, but the negative effects fade quickly. Again, the focus here is on the type of financial integration that has taken place – mostly through the banking sector (rather than the capital market) and not so much through portfolio investment from "old Europe" in the capital of domestic banks, but mostly through credit. This explains some of the anomalies caused by the shocks described.

As pointed out above, it is often assumed in the academic literature that a high degree of risk diversification and increased resilience of economies is a leading benefit of a high level of financial integration. Dedola and Lombardo (2012) argue that models with similar assumptions such as these of Heathcote and Perri (2002) and Corsetti et al. (2008) cannot explain the events of the Great Recession in which a US-originated financial shock spread rapidly

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across the EU and globally. This is because in these standard models is assumed that if a country-specific shock were to occur, the synchronization of financial and macroeconomic variables between the affected and other countries would decrease, and thus this shock would not spread. A possible explanation where such synchronization of business cycles is possible under financial integration is the mechanism of international propagation of shocks due to the presence of "toxic" assets on the balance sheets of multiple leverage-constrained investors (Devereux & Yetman, 2010) (Krugman, 2008). This is a well-founded but rather partial interpretation of events, as direct exposure to US subprime-related assets is far from sufficient to explain the cross-country transmission of the crisis (Kamin & DeMarco, 2012) (Rose & Spiegel, 2011), and even within the US financial system the outstanding amount of these assets is not sufficient to trigger a systemic crisis (Gorton, 2010). On this basis, Dedola and Lombardo (2012) develop a model in which the integration of capital markets itself plays a significant role in the propagation of financial shocks across countries. In integrated markets, the expected return for all investments will be equal because they have the same access to assets traded in different countries. On the other hand, by virtue of arbitrage forces, the cost of capital (risk premium) should also equalize, even if investors raise capital primarily in their own country. Hence, a negative financial shock in one country would spread to the other integrated markets, increasing their risk premia, even with substantial degrees of financial home bias. In a large empirical study, Imbs (2010) confirmed the thesis that financial integration causes the propagation of shocks. At the same time, there are a number of papers examining mostly pre-2007-2009 periods that reach the opposite conclusion – financial integration leads to lower synchronization in economic activity (Kalemli-Ozcan, Papaioannou, & Peydro, 2013). Davis (2014) found an explanation for this seemingly contradictory evidence by examining the issue into greater depth. He proved empirically that debt market integration and the balance sheet effects have a positive effect on business cycle convergence, while equity market integration has the opposite effect. Hence, depending on the type of shock and how it manifests, the impact of financial integration on the business cycle will differ.

The process of financial integration can also be viewed from another angle - through the prism of the historical evolution of the EU regulatory framework. This approach by itself has limited possibilities to show the actual level of financial integration and its sustainability, but it allows outlining the constraints and incentives within which market forces actually operate. Combined with the results of the quantitative methods discussed above, causal links can be established between the policy intentions embodied in European Commission directives and economic dynamics.

A detailed analysis of the legal dimensions of European financial integration over the last three decades was carried out by Van Meeteren (2018). He identifies differences between the initially stated political intentions and the actual scope of the directives adopted, given the need for consensus between countries and their different interests. Moreover, rather than a coherent implementation of a strategic vision, changes in the regulatory framework are more a response to the current conjuncture. Consequently, after the long process until their implementation, the directives become inadequate to the new market environment. As a striking example in this direction, Van Meeteren (2018, p. 15) points the Financial Services Action Plan (FSAP, CEC 1999), which fails to achieve a European "Silicon Valley-style" capital market, but leads to consolidation of big European banks. The FSAP directives were developed in the spirit of the 1990s when a crisis similar to the 2000 dotcom burst was unexpected, and consequently years later, when they became law, they set the stage for the formation of price bubbles rather than preventing them. Grossman and Leblond (2011) reached similar conclusions, noting that the academic literature on the issue often fails to analyses in depth what loopholes are embedded in EU legislation relating to financial services as a result of political compromises, and on the other hand how successfully the directives themselves have been implemented by the Member States. The authors conclude that there is an apparent tendency for the EU to formalize the status quo in its directives rather than to limit structural differences between countries. However, it is worth highlighting that substantial progress has been made despite the difficulties, especially in terms of capital market integration, following the implementation of the European Capital Markets Union (CMU) Action Plan (announced in September 2015).

In summary, the evolution of financial integration in Europe can be illustrated with a graph of the dynamics of the two ECB composite indicators (Figure 1). The indicators are constructed following Hoffmann et al. (2020) in order to present a comprehensive overview of the process, aggregating multiple indicators for money, bond and equity markets. Upon reaching a value of one, the indicators imply full financial integration in the euro area. It is evident from the graph that positive shocks enhance integration, while negative shocks lead to fragmentation. In addition, homogeneity is largely present in the changes of the two composite indicators. A divergence is observed after 2015, when the price-based indicator recovered, while cross-border investment did not change substantially due to weak cross-border interbank lending as a result of the ECB quantitative easing.

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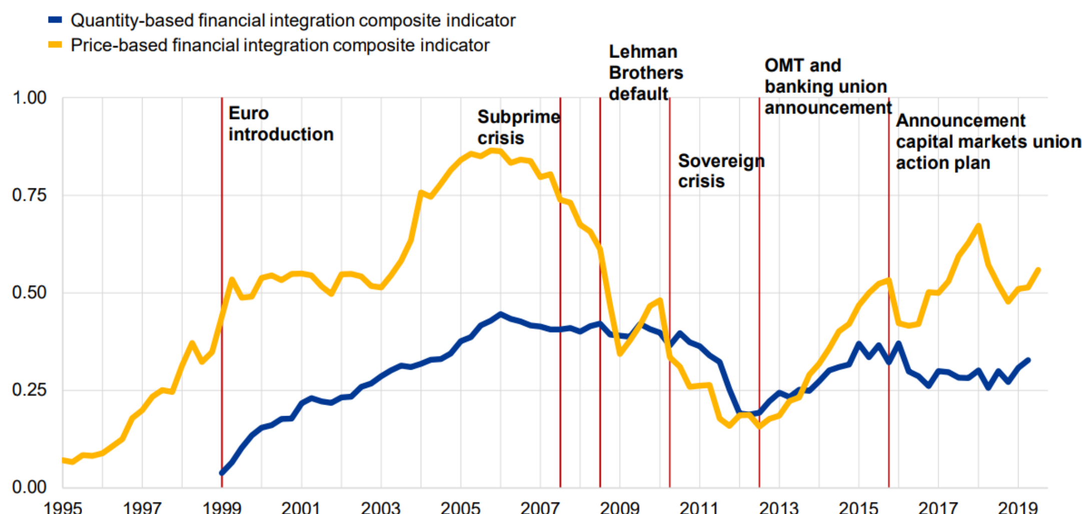

Figure 1. Strong relationship between financial integration and shocks

Source: ECB, "Financial Integration and Structure in the Euro Area", Chart 1.3, p.58, available at https://www.ecb.europa.eu/pub/pdf/fie/ecb.fie202003~197074785e.en.pdf

Some conclusions can be drawn from the literature review on the determinants of the different effects that integration has on economies, both in periods of economic growth and in periods of decline. Put another way, what are the factors that determine whether integration will have primarily positive effects or, in some cases, may increase the transmission of negative shocks. In addition, what are the factors determining why the return to a state of integration after a negative shock is different. In all these cases, several factors can be pointed out. First, the initial state of the countries at the start of the integration process - the degree of market development and the structure and depth of the financial system. The weaker initial development a country has, the more vulnerable it is to shocks. Second, the type of integration and the channels through which it takes place. A "mechanical" integration with a simple "infusion" of capital, especially through the debt and banking markets, is problematic, leading to the creation of depth without corresponding structural development. Third, the ability of the European Commission to draw up and implement adequate common regulations. Fourth, the nature of the shock itself - whether it originates in debt or equity markets. In the case of debt market shocks, high financial integration can lead to faster contagion. Fifth, coordinated and timely action by European institutions – monetary, fiscal, and regulatory – has a strong positive effect. Accelerating the development of the banking union, which is linked to the second factor, is often pointed out and recommended.

6. Conclusion

In the context of the ongoing convergence processes within the EU, fiscal decentralization is identified as an essential tool for strengthening convergence between local governments and subsequently between regions, which takes on different dimensions for individual Member States. The study found that the formation of convergent clubs contributes much more to the process of implementing a new integrated regional approach to governance and achieving financial integration than the pursuit of "balancing" the European average indicators. In practice, the two processes are complementary and dependent, and in the conditions of this duality the connection between financial integration and external and internal macroeconomic shocks is manifested.

In the process of implementation of a new integrated regional approach to governance, decentralization in the public sector has a key importance. In Bulgaria this process has been developing for several years and faces a number of challenges some of which are related to the poorly developed planning practice, the vaguely defined responsibilities, incl. coordination and subordination relations, insufficient administrative and institutional capacity, difficult processes, etc.

The analysis of vulnerability to shocks (preliminary, current and ex-post) is another important aspect of the ongoing processes of financial integration and regional convergence within the EU. This commitment is a subject of serious discussions with mixed conclusions: in some cases, the high degree of financial integration achieved leads to easier spread of shocks and greater sensitivity to global financial, health and other crises, while in other

circumstances the presence of shocks is considered in a positive light, such as the introduction of the euro in selected countries that "catalyzes" financial integration.

Considering the fact that high dynamic risk connectedness implies that countries affect each other equally and are integrated, to establish causal links methods and approaches for measuring financial integration, need to be specified: whether they are price-based and quantity-based, which also is the reason for deriving some specific results. In addition, we clarify that the process of financial integration can be considered from a third party - through the prism of the historical evolution of the EU regulatory framework, where the commitment with the implementation and application the new integrated regional approach to governance in Bulgaria problems is especially strong.

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References

Allen, F., & Song, W. (2005). Financial integration and EMU. *European Financial Management, 11(1)*, 7-24.

An, J., Kim, K., & Pyun, J. (2021). Does debt market integration amplify the international transmission of business cycles during financial crises? *Journal of International Money and Finance.*

Antonakakis, N., & Vergos, K. (2013). Sovereign bond yield spillovers in the Euro zone during the financial and debt crisis. Journal of International Financial Markets, Institutions and Money, 258-272.

Baele, L., Ferrando, A., Hördahl, P., & Krylova, E. (2004). Measuring European financial integration. *Oxford Review of Economic Policy, 5*09-530.

Baele, L., Ferrando, A., Hördahl, P., & Krylova, E. (2004). Measuring European financial integration. *Oxford Review of Economic Policy,* 509-530.

Battistini, N., Pagano, M., & Simonelli, S. (2013). Systemic risk and home bias in the euro area. Economic Papers No. 494. Directorate General Economic and Financial Affairs (DG ECFIN).

Beetsma, R., & Bovenberg, L. (2001). The Optimality of a Monetary Union without a Fiscal Union. *Journal of Money, Credit and Banking, 33(2)*, 179-204.

Bellofatto, A. A., & Besfamille, M. (2021). Tax decentralization notwithstanding regional disparities. Journal of Urban Economics, 123(March). doi:https://doi.org/10.1016/j.jue.2021.103346

Borgioli, S., Horn, C. W., Kochanska, U., Molitor, P., & Mongelli, F. P. (2020). European financial integration during the COVID-19 crisis. Economic Bulletin Articles, ECB, 7.

Borgioli, S., Horn, C., Kochanska, U., Molitor, P., & Mongelli, F. (2020). European financial integration during the COVID-19 crisis. *Economic Bulletin Articles,* ECB, 7.

Castiglionesi, F., Feriozzi, F., & Lorenzoni, G. (2019). Financial Integration and Liquidity Crises. Management Science, 955-975.

Cavallaro, E., & Villani, I. (2021). Real income convergence and the patterns of financial integration in the EU. *North American Journal of Economics and Finance.*

Chatziantoniou, I., & Gabauer, D. (2021). EMU risk-synchronisation and financial fragility through the prism of dynamic connectedness. The Quarterly Review of Economics and Finance.

Chou, H., Zhao, J., & Suardi, S. (2014). Factor reversal in the euro zone stock returns: Evidence from the crisis period. Journal of International Financial Markets, *Institutions and Money, 33*, 28-55.

Constitution of the Republic of Bulgaria. (13 07 1991 г.). Извлечено от https://m.president.bg/bg/cat115/Konstitucia-na-Republika-Balgaria

Coricelli, F., & Frigerio, M. (2021). 15 Years from the Eastern Enlargement: Financial Integration and Economic Convergence in Europe. Volume II: Channels of Interaction, 131-152.

Corsetti, G., Dedola, L., & Leduc, S. (2008). International risk sharing and the transmission of productivity shocks. The Review of Economic Studies, 75(2), 443-473.

Davis, K. (2014). Introduction. Engaged Language Policy and Practices. Language Policy Journal thematic issue.

Decentralization strategy. (2016). Извлечено от https://www.mrrb.bg/static/media/ups/articles/attachments/42e3960042715c84ef700aaa6af00cc6.pdf

Dedola, L., & Lombardo , G. (2012). Financial frictions, financial integration and the international propagation of shocks. *Economic Policy, 27(70)*, 319-359.

Demirel, U. (2009). The Transmission of Foreign Interest Rate Shocks to a Small-Open Economy: The Role of External Debt and Financial Integration. *The B.E. Journal of Macroeconomics.*

Demyanyk, Y., & Volosovych, V. (2008). Gains from financial integration in the European Union: Evidence for new and old members. *Journal of International Money and Finance*, 277-294.

Demyanyk, Y., & Volosovych, V. (2008). Gains from financial integration in the European Union: Evidence for new and old members. ,. *Journal of International Money and Finance 27(2)*, 277-294.

Devereux, M., & Yetman, J. (2010). Leverage constraints and the international transmission of shocks. *Journal of Money, Credit and Banking, 42,* 71-105.

Dimitrova, P. (2018). The role of public policies in strategic documents for regional development in Bulgaria. Biznes posoki.

Ehigiamusoe, K. U., & Lean, H. H. (2013). Do economic and financial integration stimulate economic growth? A critical survey. Economics.

European Central Bank. (March 2020 г.). Financial Integration and Structure in the Euro Area. Извлечено от European Central Bank: https://www.ecb.europa.eu/pub/pdf/fie/ecb.fie202003~197074785e.en.pdf

Fernández de Guevara, J., Inklaar, R., & Maudos, J. (2012). The impact of the financial crisis on financial integration, growth and investment. National Institute Economic Review.

Gill, I., Sugawara, N., & Zalduendo, J. (2014). The Center Still Holds: Financial Integration in the Euro Area. Comparative Economic Studies.

Gill, I., Sugawara, N., & Zalduendo, J. (2014). The Center Still Holds: Financial Integration in the Euro Area. Comparative Economic Studies.

Gorton, G. (2010). Questions and answers about the financial crisis (No. w15787). National Bureau of Economic Research.

Grahl, J., & Teague, P. (2005). Problems of financial integration in the EU. Journal of European Public Policy, 12(6), 1005-1021.

Grossman, E., & Leblond, P. (2011). European financial integration: finally the great leap forward? JCMS: *Journal of Common Market Studies, 49(2)*, 413-435.

Heathcote, J., & Perri, F. (2002). Financial autarky and international business cycles. *Journal of monetary Economics, 49(3)*, 601-627.

Herzog, B. (2020). Whither Coronabonds? The Past and Future of the EMU in the Coronavirus Pandemic. Intereconomics, 155-159.

Hoffmann, P., Kremer, M., & Zaharia, S. (2020). Financial integration in Europe through the lens of composite indicators. Economics Letters, 194.

Imbs, J. (2010). The first global recession in decades. *IMF economic review, 58(2),* 327-354.

Inklaar, R., de Guevara, J. F., & Maudos, J. (2012). The impact of the financial crisis on financial integration, growth and investment. *National Institute Economic Review.*

Inter-American Development Bank. (2015). *Economic and social progress in Latin America in IADB Beyond Borders The New Regionalism in Latin America.* Johns Hopkins University Press.

Kalemli-Ozcan, S., Papaioannou, E., & Peydro, J. (2013). Financial regulation, financial globalization, and the synchronization of economic activity. *The Journal of Finance, 68(3),* 1179-1228.

Kamin, S., & DeMarco, L. (2012). How did a domestic housing slump turn into a global financial crisis? . *Journal of international money and finance, 31(1)*, 10-41.

Klein , M., & livei, G. (2000). Capital account liberalization, financial depth, and economic growth. Federal Reserve Bank of Boston Working paper 99(6). Boston.

Kräussl, R., Lehnert, T., & Stefanova, D. (2016). The European sovereign debt crisis: What have we learned? *Journal of Empirical Finance, 38,* 363-373.

Krugman, 2. (2008). The international finance multiplier. Извлечено от http://www.princeton.edu/~pkrugman/finmult.pdf.

Mishkin, F. (2007). Globalization and financial development. IMF New Perspectives on Financial Globalization Conference.

Nikolov, A. (2018). How do economic centers affect the development of peripheral municipalities? Sofia: Институт за пазарна икономика, България. Извлечено от https://ime.bg/bg/articles/izsledvane-na-ipi-kak-vliyayat-ikonomieskite-centrove-vyrhu-razvitieto-na-perifernite-obshtini/

Pagano, M., & Von Thadden, E. (2004). The European bond markets under EMU. Oxford review of economic policy, 531-554.

Pavlova-Banova, M. (2021). FISCAL POSITION OF MUNICIPALITIES IN TERMS OF PUBLIC SECTOR DECENTRALIZATION -CONTEMPORARY PROBLEMS AND GROWTH OPPORTUNITIES. Research Almanac, 29.

Pierdzioch, C. (2004). Financial market integration and business cycle volatility in a monetary union. SCOTTISH JOURNAL OF POLITICAL ECONOMY, 422-442.

Prodanov, S., & Naydenov, L. (2020). THEORETICAL, QUALITATIVE AND QUANTITATIVE ASPECTS OF MUNICIPAL FISCAL AUTONOMY IN BULGARIA. Economic Studies, 29 (2).

Pungulescu, C. (2013). Measuring financial market integration in the European Union: EU15 vs. New Member States. Emerging Markets Review, 17, 106-124.

Rangelova, R. (2021). ECONOMIC GROWTH AND DEVELOPMENT OF THE CONCEPT OF CONVERGENCE – THEORETICAL BASIS. Economic Studies, 30 (5).

Rose, A., & Spiegel, M. (2011). Cross-country causes and consequences of the crisis: An update. European economic review, 55(3), 309-324.

Sedik, T., & Sun, T. (2012). Effects of capital flow liberalization. What is the evidence from recent experiences of emerging market economies? IMF working paper wp/12/275.

Selvarajan, S., & Ab-Rahim, R. (2020). Financial Integration and Economic Growth: Should Asia Emulate Europe? *Journal of Economic Integration, 35(1),* 191–213.

Simionescu, M. (2015). About Regional Convergence Clubs in the European Union. Proceedings of Rijeka School of Economics, 33(1), стр. 67-80. University of Rijeka, Faculti of economics and business.

Solow, R. M. (2000). Growth Theory. An Exposition (2nd изд.). Oxford: Oxford University Press.

Tekin, B. (2021). Bilgehan Tekin. Economic Studies, 30 (8).

Van Meeteren, M. (2018). Financial integration in Europe. FinGeo Working Paper., No. 15, 1-25.

Vinhas de Souza, L. (2021). Models of Financial Integration: The Experience of the Baltics and Central Eastern Europe. От S. I. Landesmann M., Does EU Membership Facilitate Convergence? The Experience of the EU's Eastern Enlargement - Volume II. Studies in Economic Transition. (стр. 115-130). Palgrave Macmillan.

Vinhas de Souza, L. (2021). Models of Financial Integration: The Experience of the Baltics and Central Eastern Europe. Volume II. Studies in Economic Transition, 115-130.

Wakeman-Linn, J., & Wagh, S. (2008). Regional financial integration: Its potential contribution to financial sector growth. African Finance for the 21st Century Seminar. Presentation at the International Monetary Fund.

Zlatinov, D., & Atanasov, I. (2021). Absolute and Conditional Convergence: A Story about Convergence: A Story about Convergence. *Economic studies, 30 (2).*