Article

The Effect of Economic, Financial and Political Stabilities on the Banking Sector: Cases of Six Balkan Countries

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Abstract: Today, banks, which act as financial intermediaries, ensure the growth of the economy. Banks, being a channel in monetary policies and monetary issues, are effective institutions in ensuring sustainable macroeconomic stability. In addition, banks are one of the institutions that are exposed to the most financial risk by nature. This article explores the long-term effects of economic, financial and political stabilities on the banking sector. This research covers the 21-year period between 1996–2017. The aim of this study is to examine the effects of economic, financial and political stabilities, which are the components of country risk, on the banking sector in selected Balkan countries and using the panel data analysis technique, which is one of the econometric analysis methods. Panel cross-sectional dependence, unit root tests, cointegration and causality tests were applied according to country risk indicators for the six selected Balkan countries. The selected Balkan countries have paid attention to their development in the country’s economies and their involvement in global trade and to adopt the modern banking system. In addition, six Balkan countries have been selected as examples in the study due to their close relations with Turkey in the socio-cultural and economic fields. The results of the panel tests indicated the results of unit root tests as well as the existence of cointegration. The p values obtained as a result of cointegration analysis are less than 0.005, indicating the existence of cointegration. It has been concluded that there is a cointegration relationship in all three hypotheses, which have the effects of economic, financial and political stabilities on the banking sector. According to the Granger causality test results, there is a bidirectional causality relationship between the banking variable and the economic stabilities variable. Having long-term and causal relationships between selected Balkan economies requires financial and economic stability to be supported simultaneously. In short, it has been determined that economic, financial and political stabilities have a relationship with sustainable banking in the long term.

Keywords: economic risk; financial risk; political risk; panel unit root tests; cointegration; Augmented Mean Group (AMG); causality

1. Introduction

Today, banks are among the most critical institutions of an economy. Banks, which act as financial intermediaries, ensure the growth of the economy. Due to their structure, banks are among the institutions that are most exposed to financial risk. As a result of the developments that emerged due to financial globalization, the frequency of banking crises has increased and gained a global dimension [1]. Oligopolized financial institutions and globally integrated financial markets have increased the risk of contagion and systemic risk between countries and markets. With globalization, these risks have changed and diversified.

In today’s world, dominated by globalization and financial integration, problems that may arise related to banks can not only affect the country in which they operate, but also...
other countries. The increase in fund transfers causes economic and financial problems and enhances the importance of country risk. With respect to the country risk component, before foreign portfolio investors invest, they conduct valuations by considering the economic, financial and political conditions. Country risk components allow investors to make comparisons between countries.

The first studies on the determination of country risk were shaped by political concepts. After these studies, it was determined that “economic factors” and post-1980s, “social factors” played a role in determining the country’s risk and they began to be used in country risk component analysis [2]. Economic risk, which is one of the components that trigger country risk, is closely related to the country’s macroeconomic policies. If the country has a solid monetary policy, low inflation and unemployment rates, this situation is accepted as an indicator that the country’s risk is not high [3].

In the historical development process, it can be observed that the economies of the Balkan countries have undergone a remarkable change due to the consolidation, privatization and liberalization of their banking sectors. The banking sector has shifted from the previous socialist monocultural system to a privately owned banking sector. The high percentage of banking assets in the Balkan economies with the transition belongs to foreign banks, reflecting their differences with many developed and developing countries [4]. The ratio of bank assets held by foreign banks in these countries by the year 2000 was 97.4% in Albania, 84.1% in Croatia and 15.6% in Slovenia.

This research covers the 21-year period between 1996–2017. This study aims to examine the effects of economic, financial and political stability, which are the components of country risk, on the banking sector in selected Balkan countries and use the panel data analysis technique, which is one of the econometric analysis methods. The Z-score used for analysis has played an important role in determining credit risks and characterizing the future financial conditions of businesses in the last forty years. The Z-score is one of the most popular scores used for banking indicators in the literature. In this context, the 1968 Altman innovation cited in the article is potentially significant. The selected Balkan countries have paid attention to their development in the country’s economies and their involvement in global trade and adopted the modern banking system. In addition, six Balkan countries have been selected as examples in the study due to their close relations with Turkey in the socio-cultural and economic fields. Due to the limited number of studies on country risk in the literature, the effects on the banking sector were examined theoretically with the econometric method panel data analysis and their relations were revealed using country risk components data. In this study, it is suggested that the stability provided in banking will provide stability in the financial developments of the countries. This may contribute to their economic growth.

2. Literature Review

Before the concept of country risk began to be used in its current sense, transfer risk came to the fore in the 1950s, particularly for banks. Transfer risk, which is defined as the ability of the borrowing country or person to pay its loan debts and to provide the foreign currency necessary to fulfill the terms of the contract, has played a major role in carrying risks across borders. After the 1950s, studies on risk measurement were started and various parameters were developed. Country risk, which started to be called political risk in the 1960s, has gradually increased in importance and has begun to take its place in the literature as a research topic in many studies. In particular, in the 1960s and 1970s, a different perspective began to be utilized for assessing country risk in order to measure and define the losses faced by banks in cross-border loans [2].

With the collapse of the Bretton Woods Agreement in 1973, significant changes in macroeconomic indicators, as well as striking fluctuations in interest rates, exchange rates and commodity prices, occurred. Additionally, the rapid increase in the cross-border debts of underdeveloped countries in the 1970s caused country risk to gain significant importance in the international finance literature [5].
In the 1980s, the risks that could be faced with regard to investments made in a country were shaped by fluctuating interest rates, the capacity of banks to provide long and short-term loans, the position of unprofitable projects and sudden changes in the country’s monetary policies. At this time, country risk covering all these components started to emerge in the literature.

The first serious study aimed at determining country risk dates back to the 1960s. In 1968, the World Bank undertook this mission and conducted systematic research on the factors that evaluate foreign debt solvency and affect the balance of payments of countries. With this research, the indicators of short-term and long-term debt repayment capabilities of countries were revealed [6].

In 1979, an attempt was made to conduct country risk analysis under a new discipline subject to complex limitations and terminology.

Nagy 1979 pioneered the use of country risk in today’s sense by revealing that country risk carries important information about the economic, social and political structure of a country.

Country risk, which was examined under the names of transfer risk, political risk, sovereignty risk, economic risk and financial risk, has started to be used as an important indicator for governments to fulfil their financial obligations and measure their capabilities [2].

2.1. Balkan Countries Selected According to Economic, Financial and Political Risk Indicators

In the historical development process, it can be observed that the economies of the Balkan countries have undergone a remarkable change due to the consolidation, privatization and liberalization of their banking sectors. The sector has transitioned from the old socialist monocultural banking systems to a privately owned banking sector. A high percentage of transition economies’ banking assets belong to foreign banks, reflecting their differences with many emerging and developing countries.

In 2000, the proportion of bank assets held by foreign banks in these countries ranged from 97.4 percent in Albania, and 84.1 percent in Croatia to the lowest level of 15.6 percent in Slovenia [7].

According to an International Monetary Fund (IMF) report, in eight of the eleven countries, more than half of the banking assets are owned by foreign banks. In Slovakia and Romania, the percentage of bank assets held by foreign banks is 42.7% and 46.7%, respectively. However, when compared to the Latin American subregion, only in Chile are more than 50% of the country’s banking assets controlled by foreign banks.

Since the late 1990s, the Balkan countries have accelerated their reforms by liberalizing their markets and developing themselves by opening their economies to global trade and adopting modern banking systems. With this development, it has been observed that the quality of social and economic living standards has improved in the Balkan countries. In addition, it has been determined that the macroeconomic stability of the Balkan countries has increased and their economic growth has accelerated.

In parallel with these developments, it is a fact that the pace of structural reforms is insufficient due to political conflicts and slow bureaucracy, although there are public and publicly privatized companies in the Balkan countries. In terms of economic, financial and political stability, the performance of the Balkan countries has not been as good as that of the Western European countries. There is a consensus on the negative effects of political conflicts, bureaucracy and corruption on the economic development of Balkan countries [8].

The financial system of the countries in the Balkan region is predominantly dependent on commercial banks; the complemental operators for the financial system are the insurance, leasing and investment companies. The share of commercial banks in the total financial sector is between 75% and 90%. Since the majority of the banks operating in the region belong to the developed economies of the European Union, the structural financial cycle in the Western European banking sector has a direct impact on the credit activities of the banks.
in the relevant Balkan region. Austria, Italy, Slovenia, Greece and France have the majority of commercial banks in the Western Balkan region, and the share of Western European countries in terms of the foreign trade of the relevant Balkan countries is approximately 60%. Therefore, the credit activities of commercial banks in the relevant Balkan countries are directly affected by movements in the Western European financial markets.

One of the common features of Turkey and Greece is that both countries have faced devastating economic, political and financial crises in the last two decades. When the economic risk indicators of the relevant Balkan countries after the 2008–2010 global crisis are examined, it can be observed that they are at medium risk levels. In terms of economic weakness, Greece was at higher risk compared to other regions between 2010 and 2014, and it has increased to medium levels in recent years (see Figure 1). Bulgaria, Romania, Croatia and Albania have moderate economic and political risk indicators and country performance, and their financial indicators are evaluated at medium-low risk levels (see Figures 2 and 3).

![Economic Risk Index](image1)

**Figure 1.** Economic risk data for Balkan countries; Albania, Bulgaria, Turkey, Greece, Romania. Source: Political Risk Service (PRS) Group Economic Risk Data.

![Financial Risk Index](image2)

**Figure 2.** Financial risk data for Balkan countries; Albania, Bulgaria, Turkey, Greece, Romania. Source: Political Risk Service (PRS) Group Economic Risk Data.
Six Balkan countries were included in this study: Albania, Bulgaria, Greece, Croatia, Romania and Turkey. When the 1984–2018 economic, financial and political risk data of Turkey and Greece are analysed according to the countries in the region, it can be seen that the performance and political and financial risk indicators of Turkey and Greece are at high levels (See Figure 2).

2.2. Overview of the Banking Sector in the Selected Balkan Countries

The fact that the deposit-to-loan conversion ratio, which is considered a more stable source of funds compared to non-deposit resources, is below 100% indicates that the liquidity risk based on re-funding is low [9]. A loan/deposit ratio exceeding 100% is seen as a risk in the banking sector, while a rate below 100% means that the sector has not been successful in converting the deposits it collects into loans.

As of 2016, the most fragile country in the rate of conversion of deposit to loan over the Balkan countries selected with the data of the European Central Bank is Greece with 139.8%. According to the ten-year averages for the 2007–2020 period, Greece ranked first as the most fragile country with a rate of 110.87%, followed by Turkey with 102.93%, Romania with 100.72% and Bulgaria with 100.66%. Table 1 shows the loan/deposit ratio in Turkey and the selected Balkan countries.

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>105.6</td>
<td>125.2</td>
<td>133.7</td>
<td>125.4</td>
<td>114.5</td>
<td>107.5</td>
<td>103.4</td>
<td>96.1</td>
<td>82.3</td>
<td>75.9</td>
<td>73.55</td>
<td>85.07</td>
<td>88.24</td>
<td>92.85</td>
<td>100.66</td>
</tr>
<tr>
<td>Croatia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100.6</td>
<td>106.6</td>
<td>97.3</td>
<td>92.1</td>
<td>87.4</td>
<td>79.1</td>
<td>90.92</td>
<td>92.6</td>
<td>94</td>
<td>103.2</td>
<td>68.13</td>
</tr>
<tr>
<td>Romania</td>
<td>109.6</td>
<td>126.5</td>
<td>124.0</td>
<td>120.9</td>
<td>120.5</td>
<td>119.6</td>
<td>110.1</td>
<td>99.6</td>
<td>92.2</td>
<td>85.0</td>
<td>80.97</td>
<td>77.6</td>
<td>70.99</td>
<td>72.84</td>
<td>100.74</td>
</tr>
<tr>
<td>Turkey</td>
<td>80</td>
<td>80.8</td>
<td>76.3</td>
<td>85.2</td>
<td>98.2</td>
<td>102.9</td>
<td>111.0</td>
<td>118.0</td>
<td>119.0</td>
<td>122.9</td>
<td>121.1</td>
<td>103.41</td>
<td>103.44</td>
<td>102.93</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>80.2</td>
<td>80.4</td>
<td>76.0</td>
<td>92.1</td>
<td>107.6</td>
<td>117.7</td>
<td>114.2</td>
<td>111.2</td>
<td>137.7</td>
<td>139.8</td>
<td>143.67</td>
<td>130</td>
<td>103.44</td>
<td>118.16</td>
<td>110.87</td>
</tr>
</tbody>
</table>


2.3. Balkan Countries and Z-Scores

Credit risk is of great importance in bank activity. As a concept, credit risk is the inability of a borrower to repay a loan due to default or other reasons [10]. The failure of the borrower to repay the loan or the granting of risky loans expose financial institutions to loan losses.

The Z-score in the first theory put forward by New York University academician Edward Altman in 1968 measured the financial distress of the researched company and revealed how close it was to bankruptcy [11]. Altman, who later developed his theory,
determined the financial coefficients on the basis of various financial indicators of the enterprises and adapted these coefficients to the Z-score model he created. This method has played an important role in determining credit risks and characterizing the future financial conditions of businesses in the last forty years. The Z-score is one of the most popular scores used for banking indicators in the literature. In this context, the 1968 Altman innovation cited in the article is potentially significant. It can be expanded to include some coefficients by creating a new “Z” score for banking stability in terms of its relation to economic, political and financial events.

When evaluating the Z-scores, if the Z-score is greater than 2.99, the company does not experience financial difficulties, if it is less than 1.8, it is an unsuccessful financial company, and if the Z-score is between two values, it is considered as a situation that cannot be evaluated. Table 2 and Figure 4 show the Z-scores of the selected Balkan countries between 1996 and 2017. The fact that Turkey’s Z-score value was 0.42 during the 2001 crisis and that there were bankrupt banks in Turkey at that time reflects the accuracy of this model. During the crisis period of Greece in 2011, the Z-score was 0.02.

![Balkan Countries Z-scores](image_url)


**Table 2. Z-Scores of Selected Balkan countries.**

<table>
<thead>
<tr>
<th>Year/Country</th>
<th>Albania</th>
<th>Greece</th>
<th>Bulgaria</th>
<th>Croatia</th>
<th>Turkey</th>
<th>Romania</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>4.3</td>
<td>9.18</td>
<td>3.88</td>
<td>6.25</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>32.78</td>
<td>4.22</td>
<td>13.54</td>
<td>4.12</td>
<td>5.93</td>
<td>4.36</td>
</tr>
<tr>
<td>1998</td>
<td>8.43</td>
<td>3.22</td>
<td>11.49</td>
<td>3.87</td>
<td>5.61</td>
<td>11.44</td>
</tr>
<tr>
<td>1999</td>
<td>23.63</td>
<td>15.78</td>
<td>12.88</td>
<td>4.65</td>
<td>8.57</td>
<td>10.31</td>
</tr>
<tr>
<td>2001</td>
<td>12.04</td>
<td>6.4</td>
<td>9.39</td>
<td>3.34</td>
<td>0.42</td>
<td>10.89</td>
</tr>
<tr>
<td>2002</td>
<td>13.03</td>
<td>8.33</td>
<td>9.28</td>
<td>3.66</td>
<td>5.3</td>
<td>9.49</td>
</tr>
<tr>
<td>2003</td>
<td>11.09</td>
<td>5.57</td>
<td>8.79</td>
<td>3.36</td>
<td>7.59</td>
<td>8.45</td>
</tr>
<tr>
<td>2004</td>
<td>9.71</td>
<td>4.45</td>
<td>7.31</td>
<td>3.36</td>
<td>11.3</td>
<td>7.89</td>
</tr>
<tr>
<td>2006</td>
<td>10.04</td>
<td>4.77</td>
<td>6.77</td>
<td>3.94</td>
<td>8.68</td>
<td>5.97</td>
</tr>
<tr>
<td>2007</td>
<td>11.15</td>
<td>4.99</td>
<td>7.48</td>
<td>4.76</td>
<td>9.46</td>
<td>5.3</td>
</tr>
<tr>
<td>2008</td>
<td>13.73</td>
<td>3.37</td>
<td>7.52</td>
<td>5.09</td>
<td>8</td>
<td>5.67</td>
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<tr>
<td>2009</td>
<td>14.49</td>
<td>4.3</td>
<td>7.85</td>
<td>5.1</td>
<td>9.55</td>
<td>5.69</td>
</tr>
<tr>
<td>2010</td>
<td>15.05</td>
<td>3.76</td>
<td>7.9</td>
<td>5.11</td>
<td>9.57</td>
<td>6.1</td>
</tr>
<tr>
<td>2011</td>
<td>15.86</td>
<td>0.02</td>
<td>8.16</td>
<td>5.05</td>
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<tr>
<td>2012</td>
<td>15.98</td>
<td>2.41</td>
<td>7.86</td>
<td>5.19</td>
<td>9.36</td>
<td>5.11</td>
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<tr>
<td>2013</td>
<td>15.81</td>
<td>6.91</td>
<td>7.7</td>
<td>4.88</td>
<td>7.83</td>
<td>5.59</td>
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<tr>
<td>2014</td>
<td>15.72</td>
<td>5.03</td>
<td>8.01</td>
<td>5.02</td>
<td>8.13</td>
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<td>2015</td>
<td>16.59</td>
<td>4.94</td>
<td>7.95</td>
<td>4.38</td>
<td>7.83</td>
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<td>2016</td>
<td>17.55</td>
<td>6.96</td>
<td>8.38</td>
<td>5.31</td>
<td>8.07</td>
<td>6.46</td>
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<tr>
<td>2017</td>
<td>15.96</td>
<td>8.28</td>
<td>8.56</td>
<td>5.24</td>
<td>8.16</td>
<td>6.74</td>
</tr>
</tbody>
</table>

2.4. Other Researchers

While the rapidly rising economy, financial markets and political factors attract the attention of researchers, the reasons why these factors affect these crises around the world are also receiving increased focus. The banking sector, which is affected by these risks, does not seem to have been investigated in depth with risk data on the relationship between economic, financial and political risk factors. For this reason, the aim is to reveal the relations and effects of country risk components, economic, financial and political stability with the banking sector. The research by Erkoçak and Çam [14] was conducted using the data of commercial banks registered in the Borsa İstanbul Stock Exchange (BIST) and International Country Risk Guide (ICRG) country risk components between 2003 and 2013, economic risk, financial risk, political risk and country risk. In the research findings, it has been determined that economic risk and political risk, which are the components of country risk and country risk, negatively affect stock returns. Elleuch et al. [15] examined the effects of Tunisia’s political and country risk on foreign direct investment (FDI) into this country in the period between 1990 and 2014. In the study, they found a positive relationship between certain risk levels and foreign direct investment (FDI). According to the researchers, this positive relationship was the result of the political stability of the country during the period covered by the research. Topal and Gül [16], in their research in which they measured the relationship between foreign direct investment (FDI) made to Turkey between 2003 and 2014 and the economic risk of the country, revealed that economic risk was positively affected by the current account deficit and inflation, and negatively foreign debt solvency and significantly affected by the real exchange rate.

In addition, Topal and Gül [16], according to their research findings, determined that the relationship between economic risk and foreign direct investment (FDI) is not unidimensional and as the foreign direct investment (FDI) to the country increases, the country risk decreases. Erb, Harvey, and Viskanta [17] used panel analysis and time series analysis to analyse the expected return of the stock markets for 117 countries between 1984 and 1995, in order to determine the effect of country risk on stock returns. In the analysis conducted, it was determined that there is a negative relationship between country risk and stock returns. The panel autoregressive distributed lag (ARDL) method was used to test the short- and long-term relationship between financial development, country risk components and economic growth with the data set covering 16 Latin American countries between 1961 and 2010 Blanco [18]. It was concluded that financial development has a positive and significant effect on economic growth in the long term, and a negative effect in the short term. It was observed that financial openness and low country risk lead to greater financial development. On the other hand, while financial and political risks have a positive and significant effect on financial development, economic risk has a negative and significant effect. Kök et al. [19] used data from 1993–2015 to investigate the effects of country risk components on banking and real sector performances in Turkey. Risk data obtained from the International Country Risk Guide (ICRG) data set and return on assets (ROA) for the performance of the banking sector and industrial production index data for the real sector were used. As a result, it was observed that the effects of economic risk and political risk on the banking sector were significant. It was determined that financial risk has a negative and significant effect on the real sector. In research conducted by Tükenmez and Kutay [20], the components of International Country Risk Guide (ICRG) economic risk, political risk, financial risk and country risk were examined and compared to the balance sheet structure of Turkey and Argentina for 2012. It was observed that economic, financial and political risks in Turkey and financial risk in Argentina have a negative impact on stock prices. Kök et al. [19] investigated the effect of the country risk components of Azerbaijan, Kazakhstan, Russia and Turkey on the real sector performance in the 1998–2015 period. In the study, risk components were obtained from the International Country Risk Guide (ICRG) data set and the industrial production index data of the countries were used for real sector performance. The results of the analysis revealed that there is a positive relationship between country risk and country risk components and real sector
performance. Jimenez and Garcia [21] analysed the relationship between political risk and the performance of 164 multinational enterprises in Spain for the period 2000–2005. The corruption perception index, political pressure index and economic freedom index were used as political risk components, whereas return on equity (Roe), return on assets (Roa) and return on capital (Roc) were used as performance indicators. As a result of the study, it was determined that there is a positive relationship between political risk and performance. Hammoudeh et al. [22] tested the relationship between stock markets and economic, political and financial risks with a data set from the five countries, Brazil, Russia, India, China, South Africa (BRICS), for the period between 1992–2011, and the short- and long-term relationships between these risk indicators for the Standard and Poor’s (S&P) 500 and oil prices were investigated. Financial risks in the Brazil, Russia, India, China, South Africa (BRICS) countries are more sensitive than economic and political risks. Therefore, debt burden, the share of international payments in gross domestic product (GDP) and exchange rate risks are the main risk factors for these countries. While Brazil is mostly affected by financial and economic risks, Russia and China are affected by political risks.

In India, on the other hand, the effect of oil price increases was observed. While oil prices are mostly affected by economic risks among global factors, the Standard and Poor’s (S&P) 500 is more sensitive to financial risks. Asgar et al. [23] employed panel autoregressive distributed lag (ARDL), principal components analysis and panel causality tests when conducting tests to observe the effect of institutional quality on economic growth in 13 developing Asian countries. The institutional quality index, which consists of the quality of legal, economic and political institutions, has a positive effect on economic growth. The quality of economic and political institutions alone does not have a significant effect on economic growth. According to the panel causality test results, the causality is from institutional quality to economic growth.

3. Materials and Methods

In this research, the effect of economic risk data, one of the country risk components, on the banking sector has been examined. Risk data from the ICRG (International Country Risk Guide), which examines a 21-year time interval between 1996 and 2017, was used in the study.

In line with the research, the aim is to investigate how economic, financial and political risks affect the banking sector by applying the panel technique, long-term panel unit root, panel cointegration, panel causality tests as well as the possible relationship between countries on selected Balkan countries. The first step is to check each integration order with the available data. Furthermore, before proceeding to the panel cointegration tests, the first step is also to check the integration order in the unit root tests within the panel format. The aforementioned panel unit root tests are the Levin, Lin and Chu [24], Im, Pesaran and Shin [25] and Fisher type panel unit root tests, Fisher ADF Maddala and Wu [26] and Fisher PP [27]. Recently, it has been stated in the relevant literature that panel unit root tests are more powerful than tests based on a single time series. Research data were analysed with the help of E-views and STATA package programs. The data set used is the risk data of the risk components for which the Political Risk Service (PRS) group was prepared between 1996–2017. It was planned to use the Z-score, one of the banking risk data for the banking sector, and Gross Domestic Product (GDP) as the control value. Hypotheses and a model were created to show how the country risk components, economic risk, financial risk and political risk affect the banking sector.

Hypotheses

H1. Economic risk has an effect on the banking sector.

H2. Financial risk has an effect on the banking sector.

H3. Political risk has an effect on the banking sector.
Model
\[ Y_{it} = \rho_i + \nu X_{it} + \beta Z_{it} + u_{it} \]
\[ u_{it} = \mu_i (u_{i(t-1)} + \lambda t) \]

(1)

\[ ERI_{it} = \alpha_{it} + \beta_{1i} \text{FR}_{it} + \beta_{2i} \text{PRI}_{it} + \beta_{3i} \text{GDP}_{it} + \beta_{4i} \text{Z-score}_{it} + e_{it} \]
\[ i = 1; 2, ..., N; t = 1; 2, ..., T \]

(2)

\[ \text{FR}_{it} = \alpha_{it} + \beta_{5i} \text{ERI}_{it} + \beta_{6i} \text{PRI}_{it} + \beta_{7i} \text{GDP}_{it} + \beta_{8i} \text{Z-score}_{it} + e_{it} \]
\[ i = 1; 2, ..., N; t = 1; 2, ..., T \]

(3)

\[ \text{PRI}_{it} = \alpha_{it} + \beta_{9i} \text{ERI}_{it} + \beta_{10i} \text{PRI}_{it} + \beta_{11i} \text{GDP}_{it} + \beta_{12i} \text{Z-score}_{it} + e_{it} \]
\[ i = 1; 2, ..., N; t = 1; 2, ..., T \]

(4)

4. Results and Discussion

Before making predictions in panel data regression models, the time series properties of the variables in the analysis are investigated. For this reason, before applying the unit root test to the panel data, a cross-sectional dependence (CSD) test is performed to determine the existence of cross-sectional dependence between the units; this provides information on which unit root tests and which cointegration tests should be used in the next phase of the analysis; because the application of first generation tests by acting without considering the cross-sectional dependence causes the analysis results to be deviated and inconsistent. In this respect, the cross-sectional dependence test is a pre-test that is considered necessary for the selection of other tests to be used in the continuation of the application [6].

4.1. Testing for Cross-Sectional Dependence

Breusch, Pagan LM, CD LM1, CD LM2 and bias-adjusted LM (adjusted Lagrange multiplier-corrected LM test) cross-sectional dependence tests are used in the analysis. Breusch–Pagan’s (1980) LM cross-sectional dependence test and Pesaran’s cross-sectional dependence tests are used to test for the absence of cross-sectional dependence between series. The bias-adjusted LM cross-sectional dependence test is also used to test for cross-sectional correlation in the predicted model. The LM cross-sectional dependence test, on the other hand, tests for the presence of cross-sectional dependence between the model’s error series.

CD LM1 and CD LM2 tests are test statistics that provide meaningful results in analyses where the time period is greater than the number of units (T > N). Here, the reason for the differing variance in the presence of possible cross-sectional dependence is also analysed. The CD LM test, on the other hand, can be used for either T > N when the time period is greater than the number of units and N > T when the number of units is higher than the time period. The bias-adjusted LM test statistic and LM_AD test are also cross-sectional dependence tests that can be used in both cases (T > N, N > T).

Before making predictions in the panel data regression model, the time series properties of the variables in the analysis were investigated. Accordingly, before applying the unit root test to the panel data, the cross-sectional dependence (CSD) test is performed to determine the existence of the cross-sectional dependence between the units. It gives information about which unit root tests and which cointegration tests may be correct for use in the next phase of the analysis. Since the probability value was less than 0.05, it was concluded that there was cross-sectional dependence (See Table 3).

Table 3. Testing for cross-sectional dependence.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Breusch-Pagan LM</th>
<th>Pesaran Scaled LM</th>
<th>Bias-Corrected Scaled LM</th>
<th>Pesaran CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>z-score</td>
<td>45.46226 (0.0001 ***</td>
<td>4.466177 (0.0000 ***</td>
<td>4.32332 (0.0000 ***</td>
<td>1.432722 (0.1519 *)</td>
</tr>
<tr>
<td>gdp</td>
<td>52.57065 (0.0000 ***</td>
<td>5.763986 (0.0000 ***</td>
<td>5.621129 (0.0000 ***</td>
<td>5.075434 (0.0000 ***</td>
</tr>
<tr>
<td>inerl</td>
<td>95.72427 (0.0000 ***</td>
<td>13.64272 (0.0000 ***</td>
<td>13.49987 (0.0000 ***</td>
<td>7.546871 (0.0000 ***</td>
</tr>
<tr>
<td>lnfrl</td>
<td>113.9007 (0.0000 ***</td>
<td>16.96128 (0.0000 ***</td>
<td>16.81482 (0.0000 ***</td>
<td>6.262879 (0.0000 ***</td>
</tr>
<tr>
<td>lnprl</td>
<td>47.71758 (0.0000 ***</td>
<td>4.87794 (0.0000 ***</td>
<td>4.735083 (0.0000 ***</td>
<td>0.885054 (0.0000 ***</td>
</tr>
</tbody>
</table>

Note: ***, * shows level of significance at 1% and 10% correspondingly.
4.2. Unit Root Tests (CADF Results)

It is seen that the CADF test is an expanded state of the previously examined standard ADF unit root test within the scope of the cross-sectional averages of the delay levels with the first differences in the individual series [28].

In the CADF test, the first difference of the ADF regression seems to eliminate the correlation between units, but the main equation put forward in the CADF test is tested for hypotheses such as H0: $\beta_i = 0$ (there is a unit root) and H1: $\beta_i < 0$ (no unit root) is as follows:

$$ y_{it} = (1 - \phi_i)\mu_i + \phi_i y_{i,t-1} + u_{it} $$

As seen in the above equation, $i = 1, \ldots, N; t = 1, \ldots, T$ and $u_{it} = \gamma_i f_t + \varepsilon_{it}$. $f_t$ denote unobservable stakeholder effects, and $\varepsilon_{it}$ denotes specific errors. If $\phi_i = 1$ it is in the form of H0: $\beta_i = 0$ (for all i’s), and in this context, the equation handled in the CADF test is as follows:

$$ \Delta y_{it} = \alpha_i + \beta_i y_{i,t-1} + \varepsilon_{it} $$

As seen in the above equation: $\alpha_i = (1 - \phi_i)\mu_i$, $\beta_i = -(1 - \phi_i)$ and $\Delta y_{it} = y_{i,t} - y_{i,t-1}$. In this context, the equation is transformed into an extended regression equation in which the lagged first differences of $y_{it}$ are added, and the estimate is made accordingly.

By comparing the CADF statistical values with the [28] statistical value, it was concluded that if the statistical value is less than the crititical value for CADF, the variable is stationary. In addition, it is difficult to determine the stationarity of the value for each cross-section with CADF. After estimating the CADF regression, the validity of the H0 hypothesis can be examined for the entire panel with CIPS statistics. In the CIPS statistic specified as

$$ CIPS = N^{-1} \sum_{i=1}^{N} CADF_i $$

the t-statistics of the lagged variables are averaged. The main reason for considering the CIPS statistics in the CADF test is that unit root testing can be done for the whole panel with the average of the unit root test statistics for each cross-section [29]. Critical values for CADF were taken from [29]. For CADF, the critical value at 1% significance level was $-7.50$, the critical value at 5% significance level was determined as $-4.89$, and the critical value at 10% significance level was $-3.99$. For CIPS, the critical value at the 1% significance level was determined as $-3.46$, the 5% significance level as $-2.82$, and the 10% significance level as $-2.82$.

When the CADF results obtained as a result of the application are evaluated, the values calculated for all variables examined for six countries are found to be lower than the critical values calculated for the CADF test. This shows that the examined variables have a unit root (see Table 4).

<table>
<thead>
<tr>
<th>Country</th>
<th>$z$-Score CADF-Stat</th>
<th>lnfrl CADF-Stat</th>
<th>lnfrl CADF-Stat</th>
<th>lnfrl CADF-Stat</th>
<th>gdp CADF-Stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>-2.761</td>
<td>-2.699</td>
<td>-0.147</td>
<td>-2.589</td>
<td>-4.093</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>-5.459</td>
<td>-1.907</td>
<td>-2.863</td>
<td>-2.227</td>
<td>-4.221</td>
</tr>
<tr>
<td>Greece</td>
<td>-2.936</td>
<td>-2.876</td>
<td>-2.927</td>
<td>-1.892</td>
<td>-3.149</td>
</tr>
<tr>
<td>Turkey</td>
<td>-2.130</td>
<td>-5.889</td>
<td>-2.787</td>
<td>-1.600</td>
<td>-1.052</td>
</tr>
<tr>
<td>Croatia</td>
<td>-2.259</td>
<td>-5.311</td>
<td>-2.747</td>
<td>-1.494</td>
<td>-3.455</td>
</tr>
<tr>
<td>Romania</td>
<td>-2.880</td>
<td>-3.069</td>
<td>-2.540</td>
<td>-1.694</td>
<td>-5.517</td>
</tr>
<tr>
<td>CIPS-stat</td>
<td>-3.071</td>
<td>-3.625</td>
<td>-2.335</td>
<td>-1.917</td>
<td>-3.581</td>
</tr>
</tbody>
</table>

When the CIPS results, which are found by averaging the CADF test statistics and testing the stability of the panel data as a whole, are evaluated, it is observed that the CIPS test statistic has a unit root for all variables (see Table 4).
4.3. Heterogeneity Test Results

A heterogeneity test is employed to determine whether the slope coefficient in the cointegration equation is homogeneous. Pesaran and Yamagata [30] developed the Swamy test. In this test:

\[ Y_{it} = \alpha + \beta_{it}X_{it} + \epsilon_{it} \]

In a general cointegration equation, it is tested whether the slope coefficients \( \beta_{i} \) differ between cross-sections. The hypotheses of the test are:

- \( H_0: \beta_{1} = \beta \) The slope coefficients are homogeneous.
- \( H_1: \beta_{1} \neq \beta \) The slope coefficients are not homogeneous.

This creates the necessary test statistics by first estimating the regression model with the panel OLS (ordinary least squares) and then with the weighted fixed effect model. Reference [30] developed two different test statistics to test the hypotheses:

For large samples: 
\[ \hat{\Delta} = \sqrt{N} \left( \frac{N^{-1}S - k}{2k} \right) \chi_k^2 \]

For small samples: 
\[ \hat{\Delta}_{adj} = \sqrt{N} \left( \frac{N^{-1}S - k}{V(T, k)} \right) N(0, 1) \]

Here, \( N \) is the number of cross-sections, \( S \) is the Swamy test statistic, \( k \) denotes the number of explanatory variables and \( V(T, k) \) represents the standard error.

According to the test for the heterogeneity of the slope coefficients of each variable, the null (0) hypothesis, which argues that the slope coefficients are homogeneous, is rejected because the delta and corrected delta probability values of the model to be estimated have a less than 0.05 significance level. It was determined that the slope coefficients of each variable were heterogeneous (See Table 5).

Table 5. Heterogeneity test results.

<table>
<thead>
<tr>
<th>z-Score</th>
<th>( \Delta )</th>
<th>Prob</th>
<th>( \hat{\Delta} )</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lnerl</td>
<td>7.417</td>
<td>0.00 ***</td>
<td>7.954</td>
<td>0.00 ***</td>
</tr>
<tr>
<td>Lnfrl</td>
<td>7.049</td>
<td>0.02 ***</td>
<td>7.198</td>
<td>0.014 ***</td>
</tr>
<tr>
<td>Lnprl</td>
<td>7.334</td>
<td>0.00 ***</td>
<td>7.682</td>
<td>0.000 ***</td>
</tr>
<tr>
<td>Gdp</td>
<td>1.982</td>
<td>0.024 ***</td>
<td>2.125</td>
<td>0.017 ***</td>
</tr>
</tbody>
</table>

Note: *** shows level of significance at 1% correspondingly.

4.4. Westerlund Cointegration Analysis

According to the unit root tests, the Westerlund [31] cointegration test is one of the cointegration tests that can be applied to series that are stationary at level or at the first difference [9]. The Westerlund cointegration test, which can be applied in all homogeneous and heterogeneous series, consists of four statistical values, two of which are group averages and two are panel averages. \( Ga \) and \( Gt \) give statistical values for heterogeneous series and express group mean statistics. \( Pa \) and \( Pt \) show panel mean values for homogeneous series. The fact that the \( p \) values obtained as a result of the cointegration analysis are less than 0.05 indicates the existence of cointegration. It was, therefore, concluded that there is a cointegration relationship in the model (See Table 6).
Table 6. Westerlund cointegration analysis results for the model.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Z-Value</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gt</td>
<td>-2.300</td>
<td>0.052 **</td>
</tr>
<tr>
<td>Ga</td>
<td>-1.140</td>
<td>0.002 ***</td>
</tr>
<tr>
<td>Pt</td>
<td>-6.520</td>
<td>0.000 ***</td>
</tr>
<tr>
<td>Pa</td>
<td>-6.180</td>
<td>0.000 ***</td>
</tr>
</tbody>
</table>

Note: ***, ** shows level of significance at 1%, 5% correspondingly.

4.5. Augmented Mean Group (AMG) Estimator Results

The “Augmented Mean Group (AMG) Estimator” was developed as a result of the studies of [32]. This estimator takes into account heterogeneity and cross-sectional dependence. In addition, this estimator, unlike the Common Correlated Effects (CCE) Estimator, also takes into account the multicollinearity problem. The AMG estimator allows temporal shocks to vary from cross-section to cross-section. The “Augmented Mean Group (AMG) Estimator” allows for cross-sectional dependence by imposing the “common dynamic effect” (ft) in the regression [6].

Under the assumption that the long-term coefficients are heterogeneous according to the variables in the model, according to the below table showing the results of the panel in general, all of the variables examined are statistically significant and a long-term relationship is observed (see Table 7).

Table 7. Augmented Mean Group (AMG) Estimator results.

<table>
<thead>
<tr>
<th>z-Score</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>Z</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lnerl</td>
<td>51.270</td>
<td>54.220</td>
<td>0.950</td>
<td>0.000</td>
</tr>
<tr>
<td>Lnfrl</td>
<td>33.730</td>
<td>24.630</td>
<td>0.150</td>
<td>0.080</td>
</tr>
<tr>
<td>Lnprl</td>
<td>48.180</td>
<td>72.800</td>
<td>0.520</td>
<td>0.010</td>
</tr>
<tr>
<td>Gdp</td>
<td>13.060</td>
<td>0.070</td>
<td>0.990</td>
<td>0.020</td>
</tr>
</tbody>
</table>

4.6. Granger and Dumitrescu–Hurlin Causality Test

Macro panels, in which the units included in econometric analyses are increasing and the period intervals are gradually expanding, have been gaining weight recently [33]. On the one hand, this situation leads to the development of new techniques and, on the other hand, it causes the reorganization of existing methods. In addition, it is seen that studies aimed at determining the cause–effect relationship between the variables in panel data analyses are preferred [29].

In panel data analysis, different techniques are used to determine the direction of the relationship between variables for each cross-section and in general. The causality test developed by [13] is insensitive to the difference between the time dimension and the cross section size and it can give effective results even when the time dimension is smaller than the cross section size. Another of the main advantages of this test is that it can also be used for simple and unstable panels. It also takes into account cross-sectional dependence and heterogeneity [13].

Dumitrescu and Hurlin used the regression equation below to reveal the causality between the variables in the panel.

\[ y_{i,t} = \alpha_i + \sum_{k=1}^{K} \gamma_{ik} y_{i,t-k} + \sum_{k=1}^{K} \beta_{ik} x_{i,t-k} + \epsilon_{i,t} \]

Here, \(x_i\) and \(y_i\) represent the observations of two stationary variables for each unit \(i\) in period \(t\). The coefficients are allowed to differ between units, but are assumed not to change over time. It is assumed that the number of lags (\(K\)) is the same for all units.
The method used to determine the existence of causality involves testing the significant effects of past values of \( x \) on the present values of \( y \). The basic hypothesis can be represented as:

\[
H_0 : \beta_{i1} = \cdots = \beta_{iK} = 0 \quad \forall i = 1, \ldots, N
\]

This hypothesis means that there is no causality for all units in the panel.

The Dumitrescu and Hurlin test assumes that a causality may exist for some units, but not necessarily for all units. The alternative hypothesis of the test is as follows:

\[
H_0 : \beta_{i1} = \cdots = \beta_{iK} = 0 \quad \forall i = 1, \ldots, N_1
\]

\[
\beta_{i1} \neq 0 \text{ ya da } \beta_{iK} \neq 0 \quad \forall i = N_1 + 1, \ldots, N
\]

If \( N_1 = 0 \), there is a causal relationship for all units in the panel. On the other hand, \( N_1 \) must definitely be less than \( N \), otherwise the causal relationship for all units will disappear and \( H_1 \) will turn into \( H_0 \). To test the main hypothesis, Dumitrescu and Hurlin suggested that the mean Wald statistic (\( \hat{W} \)) should be calculated by finding the Wald statistics (\( W_i \)) of cross-section units:

\[
\hat{W} = \frac{1}{N} \sum_{i=1}^{N} w_i
\]

If the time dimension is larger than the section dimension, Dumitrescu and Hurlin recommended the use of the standardized \( Z \) statistic:

\[
Z = \sqrt{\frac{N}{K}} (W - K) \quad \xrightarrow{d} \quad N(0,1)
\]

If the section dimension size is larger than the time dimension, it is recommended that the approximate standardized \( \tilde{Z} \) statistic is used:

\[
\tilde{Z} = \sqrt{\frac{N}{K}} \left\{ \frac{T-K-5}{T-2K-3} \left[ \frac{T-3K-2}{T-3K-1} W - K \right] \right\} \quad \xrightarrow{d} \quad N(0,1)
\]

If the said statistics are larger than the standard critical values, the basic hypothesis (\( H_0 \)) is rejected and the existence of a Granger causality is accepted [33].

According to the results of the panel causality analysis, the \( p \) value being less than 0.05 indicates that there is a causal relationship. According to the Granger causality test, there is a bidirectional causality relationship between the Z-score (Z-SCORE) variable to in the Economic Risk Index (ERI) variable. According to the analyses, it is seen that there is a one-way causality relationship from the Z-score (Z-SCORE) variable to the Financial Risk Index (FRI) and Political Risk Index (PRI) variables.

In line with the Dumitrescu–Hurlin causality analysis, it is seen that there is a one-way causality relationship between the Financial Risk Index (FRI), Economic Risk Index (ERI) and Political Risk Index (PRI) variables and the Z-score (Z-SCORE) variables. Banking data set Z-score (Z-SCORE), it can be observed that there is a one-way causality relationship to the gross domestic product (GDP) variable. According to the banking data set Z-score (Z-SCORE), it can be observed that there is a one-way causality relationship to economic risk, financial risk and political risk. The increase in economic risk causes financial risk and the occurrence of financial risks also affects the banking sector. The Z-Score is the data of the banking sector and there is a one-way causality relationship to the gross domestic product (GDP). It can be observed that there is also a one-way causal relationship from economic risk to the banking sector (See Table 8).
Table 8. Granger and Dumitrescu–Hurlin Causality Test.

<table>
<thead>
<tr>
<th>Granger Causality Test (Common Coefficient)</th>
<th>F-Stat.</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERI does not Granger Cause Z_SCORE</td>
<td>2.080</td>
<td>0.040</td>
</tr>
<tr>
<td>Z_SCORE does not Granger Cause ERI</td>
<td>3.130</td>
<td>0.080</td>
</tr>
<tr>
<td>FRI does not Granger Cause Z_SCORE</td>
<td>0.328</td>
<td>0.568</td>
</tr>
<tr>
<td>Z_SCORE does not Granger Cause FRI</td>
<td>2.041</td>
<td>0.007</td>
</tr>
<tr>
<td>PRI does not Granger Cause Z_SCORE</td>
<td>0.045</td>
<td>0.833</td>
</tr>
<tr>
<td>Z_SCORE does not Granger Cause PRI</td>
<td>4.441</td>
<td>0.037</td>
</tr>
<tr>
<td>GDP does not Granger Cause Z_SCORE</td>
<td>5.219</td>
<td>0.012</td>
</tr>
<tr>
<td>Z_SCORE does not Granger Cause GDP</td>
<td>13.501</td>
<td>0.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dumitrescu–Hurlin causality tests (individual coefficient)</th>
<th>Zbar-Stat.</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERI does not homogeneously cause Z_SCORE</td>
<td>1.950</td>
<td>0.050</td>
</tr>
<tr>
<td>Z_SCORE does not homogeneously cause ERI</td>
<td>1.120</td>
<td>0.260</td>
</tr>
<tr>
<td>FRI does not homogeneously cause Z_SCORE</td>
<td>4.078</td>
<td>0.000</td>
</tr>
<tr>
<td>Z_SCORE does not homogeneously cause FRI</td>
<td>0.905</td>
<td>0.366</td>
</tr>
<tr>
<td>PRI does not homogeneously cause Z_SCORE</td>
<td>0.156</td>
<td>0.876</td>
</tr>
<tr>
<td>Z_SCORE does not homogeneously cause PRI</td>
<td>3.247</td>
<td>0.001</td>
</tr>
<tr>
<td>GDP does not homogeneously cause Z_SCORE</td>
<td>0.323</td>
<td>0.146</td>
</tr>
<tr>
<td>Z_SCORE does not homogeneously cause GDP</td>
<td>1.686</td>
<td>0.002</td>
</tr>
</tbody>
</table>

5. Conclusions

Globalization has diversified the nature and types of risks created by economic uncertainty and changing factors. The results of the economic, political, social and financial developments in countries are reflected in their country risk. Since country risk is used as an important indicator of the future of investments in that country, it affects the banks and firms in that country.

In this research, the economic, financial and political risk data from the country risk components of six selected Balkan countries for the period of 1996–2017 were analyzed using the panel data analysis technique. When the CADF results obtained as a result of this analysis were evaluated, it was found that the values calculated for all variables examined for the six countries are smaller than the critical values calculated for the CADF test. This showed that the examined variables have unit roots. According to the test for the heterogeneity of the slope coefficients of each variable, the null (0) hypothesis, which argues that the slope coefficients are homogeneous, was rejected because the delta and corrected delta probability values of the model to be estimated were less than 0.05 significance level. In other words, it was determined that the slope coefficients of each variable were heterogeneous. The Westerlund cointegration test also consists of four statistical values, two of which are group averages and two are panel averages. The p values obtained as a result of the cointegration analysis were less than 0.05, indicating the existence of cointegration. It has been concluded that there is a cointegration relationship in all three hypotheses, which are the effects of economic, financial and political risk on the banking sector. As a result of the application of the “Augmented Average Group (AMG) Estimator” regression, it was determined that economic, financial and political risk are statistically significant for the banking sector and there is a long-term relationship.

According to the Granger causality test, there is a bidirectional causal relationship between the banking variable Z-score (Z-SCORE) and the economic risk variable. Accordingly, according to the analysis made, it can be observed that there is a one-way causal relationship from the Z-score (Z-SCORE) variable to the Financial Risk Index (FRI) and Political Risk Index (PRI) variables. According to the Dumitrescu–Hurlin panel causality test, there is a one-way causal relationship between banking sector variables and economic risk, financial risk and political risk variables. The increase in economic risk causes financial risk and the formation of financial risks is also affected by the banking sector. The Z-score
(Z-Score) variable is the banking sector data and there is a one-way causal relationship to the gross domestic product. “Z-score” data in the context of banking stability and global regulation are some of the most important to ensure stability in banking.

The basis of economic growth depends on the existence of an efficient banking sector. The banking sector is one of the leading sectors of any country. In addition to the recent crises originating from the banking sector, it can be seen that even crises originating from outside the banking sector directly affect the banking sector. These crises have an impact on all financial positions, especially the balance sheets of banks. As a result of globalization, even if there is no crisis in a country or region, financial crises in other countries affect all countries that are related economically or financially at the beginning or after the crisis.

Having long-term and causal relationships between selected Balkan economies requires financial and economic stability to be supported simultaneously. In short, if the six selected Balkan economies want to support both financing growth and growth-based financing, policymakers should aim to minimize political instability in the long run. Economic, financial and political risks can be used as an early warning indicator of potential banking system stability on the horizon, and in this context, a Z-type score can be developed as an indicator of “banking stability in countries”.

It is important to implement macroeconomic policies to improve the indicators of foreign exchange reserves and domestic loans, which pose a risk of fragility for stable economic growth and higher level of welfare, to increase domestic savings through structural reforms, and thus to make the economy more resistant to internal and external shocks.

Macro-economic policies should be implemented to improve the indicators of foreign exchange reserves and domestic loans, which pose a risk of fragility for stable economic growth and a higher level of welfare. It is important to make the economy more resistant to internal and external shocks through structural reforms to increase domestic savings. It is recommended that future studies on country risk and the banking sector be conducted for other emerging markets.

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