Country Risk and Stock Market Development: Eligible Markets[1]

Nasr Ali Nasr Ali Abualmaaty
Teaching Assistant
Faculty of Commerce – Cairo University
Nasr_ Abualmaaty@foc.cu.edu.eg

Prof. Hassan Ahmed Mounir El-Sady
Professor of Finance and Investment
Faculty of Commerce – Cairo University
Helsady2020@foc.cu.edu.eg

ABSTRACT

This paper investigates the country risk of 61 eligible markets on stock market development during the period 1995–2020. The aim of this study is to analyze whether country risks, especially political, economic, and financial risks, impact on the stock market development in eligible markets. Country risk and its components are calculated by ICRG methodology as follows: PRS, and stock market development is calculated by stock market capitalization to GDP. Robust standard error multivariate regression was applied in the study. The results indicate that the composite country risks are directly relative to the stock market development. This refers to the lower the composite country risk, the greater the value of the index, which will lead to increased stock market development. The results indicate that, the impact of the composite country risks on the stock market development, in the developed stock market is mainly driven by the financial, then economic, and then political country risks. and, in emerging stock markets, it is mainly driven by the financial and then political country risks. and, in frontier stock markets, is mainly driven by the economic and then political country risks. Finally, the standalone stock market is mainly driven by the country's political risk.

Keywords: *Country risk, Stock Market Development,ICRG, Eligible markets, developed markets Emerging markets, Frontier markets, Standalone markets.*

[1] Received in 19/1/2025, accepted in 5/2/2025.

1. INTRODUCTION

This study aims to investigate the relationship between country risk and stock market development by analyzing political, economic, financial, and composite risk factors. Additionally, the study examines the impact of eligible stock markets, including developed, emerging, frontier, and standalone markets, on this relationship. The study utilizes a unique panel data approach, incorporating the International Country Risk Guide (ICRG) data by the PRS Group to measure country risk factors. The ICRG methodology according to Howell, (2011) provides a comprehensive assessment of country risk, including political, economic, and financial risk indices. Financial risk components, such as foreign debt-to-GDP ratio, foreign debt service, current account, net liquidity in months, and exchange rate stability, Also, the economic risk components are GDP per head, real GDP growth, annual inflation rate, budget balance, and current account. Moreover, the political risk components—government stability, socioeconomic conditions, internal and external conflicts, corruption, military in politics, religious tensions, law and order, ethnic tensions, democratic accountability, and bureaucracy quality—are analyzed to accurately assess the effect of country risk on stock market development. The study addresses two key questions: how do country risks impact on stock market development? and to what extent does the type of eligible market affect this relationship?

2. RESEARCH PROBLEM

Much prior research has examined the impact of Country risks and their sub-components on the stock market index to reflect the stock market's performance, (such as Bekaert, and Harvey, 1997, Chee-Wooi, and Brooks, 2015, Erb, Harvey, & Viskanta, 1995 a; b, Hammoudeh, Sari, Uzunkaya, & Liu, 2013, Hassan, Maroney, El-Sady, & Telfah, 2003, Suleman, Gupta, & Balcilar, 2017, and Kirikkaleli, 2020b). the studies usually address stock markets in general, or their division into emerging and developed stock markets. While the stock markets can be divided more broadly into four markets; called eligible markets, the researchers did not explore studies that quantitatively analyzed the impact of country risks and their sub-components on the stock market development. as the study of Mensah, (2020), and Mensah, and Wong, (2019) the stock market development is considered one of the indicators of stock market performance.

Considering the above, the impact of Country risks and their sub-components — economic, financial, and political—on stock market development is the focus of this paper, as applied to eligible stock markets. Therefore, the research problem revolves around answering the following main question:

how do country risks impact on stock market development? and to what extent does the type of eligible market affect this relationship?

3. STUDY AIMS

The research aims to achieve the following:

- Analyze and describe the extent of the country's risks components in eligible markets.
- Find and analyze the impact of country risk on stock market development in eligible markets.
- Find and analyze the impact of country risk on stock market development in eligible markets driven by what the component of country risk significantly.
- Find and analyze the impact of country risk components on stock market development in eligible markets.
- Decide which country risk components have the most impact on stock market development.
- Providing recommendations to the investor, whether local, international, or strategic, when choosing the market in which they wish to invest.

4. STUDY SIGNIFICANCE (CONTRIBUTIONS)

The study contributes to the theory of finance connected to the capital asset pricing model by including the aspect of country risks and rankings while evaluating stocks.

The study relies on a quantitative factor in measuring country risk as well as the sub-components of country risk based on the methodology of the International Country Risk Guide (ICRG).

Investigating the relationship between country risk components and stock market development at different tiers and types of country risk. As a consequence, the International Country Risk Guide (ICRG) index will be used to provide a more comprehensive assessment of country risk.

The study is also important for addressing the country's risks in general, whether financial, economic, or political, because of their role in the development of the stock market, the willingness of investors to engage in international diversification, the efficiency of allocating investments, and the country in which the investor wishes to allocate his investments.

The importance of the study also stems from the significance of economic and political stability in stabilizing the returns on stocks traded on the stock exchange. Economics and politics are not mutually exclusive. It is also possible to notice that the severe degradation and extreme swings that precede securities prices and returns occur during periods of political instability or economic crises. Because of the risks involved, estimating stock returns accurately throughout that time is challenging.

Financial, economic, and political risks affect all securities in the market and are therefore difficult to regulate or avoid; thus, they represent one of the key elements contributing to systematic risks that are immediately reflected in stock market performance.

The study helps economic policymakers in terms of considering the impact of decisions related to the economy on the stock market and thus the country's ability to attract foreign direct investment (FDI).

5. COUNTRY RISK

Consider the impact of the nationalization movement in the late 1950s, the restructuring of government debt in the 1970s and 1980s, the Asian financial crisis of 1997 and 1998, the global financial crisis caused by the mortgage crisis in the United States in 2007 and 2008, the European debt crisis, the Arab Spring crisis, and the Russia-Ukraine crisis in general. Global developments have led to the continuous emergence of new forms of country risk. To date, there is no unified definition of country risk, and the general concept of this term is completely different due to the complexity and diversity of these risks. However, opinions are consistent on the concept of country risk because the analysis and assessment of country risk measures not only the country's willingness and ability to repay debt but also other factors (such as political and social risks, social, economic, and

financial) leading to economic losses due to cross-border conduct, such as foreign investment, whether direct or indirect (Sun, Feng, & Li, 2021).

All business transactions involve a certain degree of risk, so the concept of country risk reflects a set of characteristics. When business transactions occur across international borders, they involve additional risks that do not exist in domestic business transactions. These additional risks, called country risks, are risks arising from a combination of differences in economic structures, political and geographic institutions, socio-political institutions, and currency exchange rates (Meldrum, 2000). Country risk also reflects the overall risk status of a country, and it has a particularly important impact on global investment and trade between countries (Sun, et al., 2021).

Studies of country risk began with a sovereign debt default. In previous studies, country risk was defined as the possibility that a country cannot generate enough foreign exchange to meet its foreign obligations (Doumpos, Pentaraki, Zopounidis, & Agorastos, 2001 and Sargen, 1977). Or it is the general level of political and economic instability in a country that affects the investment value of that country (Shapiro, 1985). It is also considered an unexpected "negative" change in a key performance indicator or important strategic objective due to participation in international business transactions (White & Fan, 2006). We also talk about the possibility that a country cannot or will not fulfill its obligations due to economic, political, social, or other circumstances (Elleuch, Jaouadi, & Jaouadi, 2015).

Some researchers also refer to the general concept of sovereign risk as the possibility that a sovereign state or a borrower of a particular state will not fulfil its obligations to the lender and/or foreign investors. These risks can be the result of economic, financial, political, and composite factors specific to each country and region (Hoti, 2005b, Hoti, Chan, & McAleer, 2002 and Stankevičienė, Sviderskė, & Miečinskienė, 2014). In short, country risk refers to all the potential risks that an investor may encounter in the investment target country (Türedi, 2018). Indeed, in the international market, stocks, bonds, derivative financial instruments, foreign direct investment, and all international capital flows are at risk of default because the host country does not have the ability or unwillingness

to guarantee repayment. Risks at the local level can lead to the loss of economic benefits from direct and/or indirect foreign investment (Sun, et al., 2021).

Country risk analysis (CRA) attempts to determine the likelihood that these risks will reduce expected investment returns beyond national borders (Meldrum, 2000). Therefore, country risk analysis refers to the collection, identification, and analysis of data related to political and economic stability and instability at the country level (Theodorou, 1983). The growing importance of country risk analysis for public and private institutions is due to the growing risks posed by the globalization of world trade and the opening of capital markets, leading to financial crises with rapid spillover effects and threatening international financial stability (Hoti & McAleer, 2004). Furthermore, the increase in financial crises in developing countries and the associated costs to public and private institutions are the main risk factors that need to be considered (Hoti, 2005a). Country risk analysis has been the subject of research for decades. The focus is on predicting the impact of risk on the profitability of companies and financial assets when investing in a country. Analytical methods have also improved, and the scope of research has broadened, with many researchers and practitioners continuing to focus on limited concepts of risk and their measures (Brown, Cavusgil, & Lord, 2015).

McAleer, Hoti, & Chan, (2009) noted that country risk can be classified into three main components, namely political, financial, and economic risk, and due to the standardized nature of these components in the country risk index participation, there should be an influence of these components on each other. Therefore, the importance of country risk classification comes from its direct impact on asset prices (Canuto, Dos Santos, & de Sá Porto, 2012), and the real estate sector, for example, is one of the fields that could stimulate economic growth and attract foreign investment. The real estate market cannot be excluded from being affected by country risks (Lee, 2006), as a study of Muzindutsi, Jamile, Zibani, & Obalade, (2021) revealed the reaction of residential real estate prices to changes in country risk components in South Africa. Furthermore, fluctuations in residential real estate prices are due to a group of variables: inflation, interest rates, economic policy, and political stability. These variables are part of country risk and vary by country (Tsatsaronis & Zhu, 2004).

Country risk can arise from several country-specific factors or events. The country-risk literature confirms that economic, financial, and political risks influence each other. Although the ICRG classification does not consider the linkages between economic, financial, and political risk classifications, they are important in determining and modelling an aggregate country risk classification (Hoti & McAleer, 2004 and Hoti et al., 2002). Hoti (2005b) also conducted an analytical study of the components of the country's financial, economic, political, and composite risks using multivariate conditional volatility models. The results showed that the six Balkan countries, namely Albania, Bulgaria, Greece, Romania, Serbia and Montenegro, and Turkey, are related to each other in terms of economic, financial, political, and combined risks. In general, the risk changes in one country are inversely related to the risk changes in other countries within the same region. In the same context, Kirikkaleli (2016) found that there is a positive relationship between financial stability and economic stability in the Balkan countries in the long term, while financial stability has a positive and significant impact on political stability, and weak economic and financial stability also significantly leads to changes in political stability.

Reducing a country's political, economic, and financial risks contributes to enhancing the stability of the banking sector (Athari, Irani, & Hadood, 2023).

6. COUNTRY RISK AND STOCK MARKET DEVELOPMENT

The development of financial markets will lead to efficient allocation of limited resources from surplus units to deficit units, thereby increasing savings and investment rates, achieving efficiency of investment, and thereby increasing the country's economic growth rate (Levine & Zervos, 1998). Chiu and Lee (2020) analyzed the impact of country risk on the relationship between energy consumption and financial development in 79 countries over the period 1984–2015. The results show that in a more stable environment, lower economic and political risks positively affect energy consumption. Regarding financial risks, the results show that in a stable financial environment, energy consumption can decrease with financial development and lower financial risks. This means easy access to the stock market and banking sectors, as well as the use of advanced energy-saving technology.

Several studies have examined the relationship between country risk and foreign direct investment. They conclude that reducing country risk has a positive impact on FDI inflows, while financial risk has no effect on FDI inflows, while reducing each level of economic and political risk leads to promoting and attracting foreign direct investment flows (Topal, & GÜL, 2016). The research agreed on this result, whether it applies only to developing countries or to developed and developing countries (e.g., Harvey, 2004, Hayakawa, Kimura, & Lee, 2013, Iliescu & Dinu, 2011, Türedi, 2018, and Vijayakumar, Rasheed, & Tondkar, 2009). Internal conflicts, corruption, the military in politics, and the quality of bureaucracy are all believed to lead to FDI leakage (Hayakawa et. al., 2013). Therefore, these results indicate the importance of country risks in attracting foreign direct investment. Türedi, (2018) found that, developing countries can attract more FDI by establishing a good institutional structure, effectively combating corruption, and establishing good macroeconomic policies that improve investment profiles and reduce both the cost, uncertainty, and perceived risk that can affect FDI.

Stock market development is an effective tool to attract foreign direct investment to the country because the stock market is an exit strategy for foreign direct investment; therefore, several studies have mentioned the relationship between foreign direct investment and stock market development. Foreign direct investment leads to the globalization of world markets and makes financial markets more integrated, unlike foreign indirect investment (portfolio investment). Foreign direct investment flows support integration between countries as well as financial markets. There are several ways to explain the two-way link between FDI and stock market development in emerging economies. On the one hand, foreign investment contributes to the development of the domestic stock market through its indirect impact on investment. In fact, increasing FDI increases the likelihood of listing on the domestic stock market subsidiaries of multinational companies participating in FDI activities; multinational companies tend to target emerging economies. In addition, considering the political economy, foreign direct investment flows encourage the political administration in the country to adopt market-based systems to protect the investor and achieve better governance systems, this promotes the stock market development. Conversely, a well-established stock market draws in foreign investors. This is especially true for emerging markets (Acheampong & Wiafe, 2013, Adam &

Tweneboah, 2009, Agbloyor, Abor, Adjasi, & Yawson, 2013, Kholdy & Sohrabian, 2005 & 2008, Shi, Bilson, Powell, & Wigg, 2010, and Soumaré & Tchana, 2015).

Several studies conducted on emerging stock markets over various periods indicate a significant and positive correlation between foreign direct investment and the development of the stock market (e.g., Acheampong & Wiafe, 2013, Adam & Tweneboah, 2009, Agbloyor et al., 2013, and Kholdy & Sohrabian, 2008). Acheampong and Wiafe (2013) also found a causal relationship between FDI and stock market development. Other studies also find a two-way causal relationship between stock market development and foreign direct investment, supporting stock market integration (e.g., Kholdy and Sohrabian, 2005, Shi et al., 2010, and Soumaré & Tchana, 2015).

Due to the instability of global financial markets, this has weakened confidence in the global economy. This has a strong impact on capital flows as well as investor attitudes towards some countries. Therefore, Cervelló-Royo, Cortés, Sánchez-Sánchez, Santonja, & Villanueva, (2013) and Cervelló-Royo, Cortés, Sánchez-Sánchez, Santonja, Shoucri, & Villanueva, (2014) has shown that predicting the future of the economic situation involves a high degree of uncertainty. Country Risk Score (CRS) is an index to measure a country's current situation in terms of political, economic, and financial risks, as well as predict the future situation through time series analysis of country risk. Country risk can significantly affect investment flows within a country. particularly the bond market may be exposed to country risks, as these risks affect government borrowing and lending rates. Studying the impact of country risk components on the performance and stability of the bond market in South Africa during the economic cycle, Muzindutsi and Obalade (2024) showed that only under the banking reforms and the bear regime was it found that the effect of country risk on bond returns was significant; bond returns increase with political and economic risk change and decrease with financial risk change. It was also found that the effect of country risk components on return differences is not significant in any system. In general, bond market responses to country risk are influenced by market cycles. Edwards (1986) also finds an impact of country risk on bond spreads in emerging markets.

In terms of stock markets, country risk components and the stock market can be theoretically linked through the Modern Portfolio Theory (MPT) of Markowitz (1952), which explains that an asset portfolio can be constructed to improve expected returns with a level of uncertainty in the market. Markowitz (1952) also showed that accepting higher levels of risk leads to higher expected returns. Grujić (2016) pointed out that an investment portfolio is a collection of different assets, namely financial instruments, deposits, and securities. By studying the impact of country risk on the stock market performance (volume, value, and liquidity) and applying it to Malaysia, Chee-Wooi and Brooks (2015) revealed the explanatory power of economic risk and financial risk changes in the Malaysian stock market. Political risk is only relevant to small companies or those with maximum capital value.

Erb et al. (1995a) assert that asset allocation in emerging markets remains a difficult decision because traditional models cannot accurately balance risk and return for these markets. Erb et al. (1995b) also show that country risk has great predictive power in distinguishing countries with high and low expected returns. Furthermore, by studying 117 developing and developed countries between January 1984 and July 1995, Erb et al. (1996) concluded that country risk affects expected future stock returns. Additionally, applied to 83 developed and developing economies, covering the period from 1984 to 2015, Suleman et al. (2017) find that country risk components play a vital role in predicting market return volatility. Based on these findings, it is crucial to examine the relationship between country risk and both emerging and developed stock markets.

Understanding the volatility of emerging markets is important for determining the cost of capital and evaluating asset allocation and foreign direct investment decisions (Bekaert, Erb, Harvey, & Viskanta, 1997). As explained by Naumoski (2012) and Damodaran (2022), country risk in emerging markets is higher than in developed markets; therefore, investing in emerging markets will be riskier than in developed markets. Furthermore, returns are also higher than in emerging markets, so country risk premiums need to be considered when calculating the required return in emerging markets relative to developed markets.

Liu, Peng, Shi, & Yang, (2022) examine the relationship between the financial system and economic growth on a sample of 113 economies during 1990–2013. By

focusing on the role of political risk and the stage of development of the country (such as economic development and financial market development) and its interaction with the structure of the financial system, the results indicate that the market approaches "which shows that the stock market is more developed than banks"; associated with higher levels of economic growth, this effect increases with lower political risk and better periods of economic development. This finding aligns with the notion that banks are more influential in the early phases of economic development, whereas stock markets gain prominence as the economy develops. Additionally, in market-based financial systems, bank credit is crucial for economic growth, while in bank-based financial systems, market capital is more responsive to economic growth.

Adam and Tweneboah (2008) emphasize the impact of macroeconomic variables on Ghanaian stock market developments. There is also cointegration between macroeconomic variables and the stock market, suggesting a long-run relationship. The results also show that the lagged value of interest rates and inflation significantly affect the stock market. As for foreign direct investment inflows, oil prices, and exchange rates, they have a weak impact on stock price changes.Asravorand Fonu (2021) alsofind cointegration between macroeconomic variables, stock market returns, and stock market development. Tetteh, Adenutsi, & Amoah, (2019) also found the impact of macroeconomic variables (internal and external) and political variables on stock market returns.

7. RESEARCH METHODOLOGY

In order to study and analyze the impact of country risks as an independent variable measured by the International Country Risk Guide methodology on stock market development as a dependent variable measured by the ratio of market capitalization to GDP, considering economy size and financial stability as control variables measured by the natural logarithm of GDP and Z-Score, respectively, the data was obtained from the open data of the World Bank.

Two models were relied upon for the study. The first model was to study the composite country risk index in relation to stock market development. The second model was studying the sub-components of composite country risks, which are economic country risks, financial country risks, and political country risks, in accordance with the methodology of the International Country Risks Guide, with

the aim of clarifying which sub-components of country risks have the greatest impact on stock market development in a way that helps the local and international investor in making the decision to invest in those markets. considering the control variables in both models.

The panel data model was relied upon to achieve the goal of the study by applying it to several countries during the period from 1995 to 2020, which is the period that was able to collect data for the countries by the authors.

Thus, the study model becomes as follows:

First model:

$$MKTDEVit = \beta o + \beta 1\ CCRit + \beta 2\ GDPit + \beta 3\ ZScit + \varepsilon it$$

Second model:

$$MKTDEVit = \beta o + \beta 1\ CERit + \beta 2\ CFRit + \beta 3\ CPRit + \beta 4\ GDPit + \beta 5\ ZScit + \varepsilon it$$

Where:(MKTDEV) refers to stock market development, (CCR) refer to country composite risks, (CER) refer to economic country risks, (CFR) refer to financial country risks, (CPR) refer to political country risks, (GDP) refer to size of gross domestic product, (zsc) refer to financial stability, $\beta 1,2,\ 3,..,n$ refers to coefficient, ε refers to error term.

To identify the association between country risk and its components and stock market development, the study developed the following hypotheses based on the literature:

H01: There is no significant relationship or impact between country risk and stock market development in eligible markets.

H02: There is no significant relationship or impact between the country risk components on stock market development in eligible markets.

Independent variables, dependent variables, and control variables were collected during the study period for the countries included in the study, which represent the study sample, which is divided into four groups of markets according to the Morgan Stanley (MSCI) classification. The first group is represented by the developed markets; the second group is in the emerging markets; the third group is in the frontier markets; and finally, the fourth group is in the standalone markets.

After conducting a statistical analysis of the study model, the following results were reached, which were explained in tables 1 and 2.

8. ANALYSIS OF DATA AND DISCUSSION OF RESULTS

In this part, the development of the stock market, economic country risks, financial country risks, political country risks, and overall country risks will be presented, as well as gross domestic product and financial stability for each of the developed, emerging, frontier, and standalone markets, to conduct a descriptive analysis of these four groups of markets. To determine which markets are characterized by greater overall country risks and which ones have fewer country risks, this is followed by an analysis of the sub-components of the overall country risks that cause this and a statement of the differences between the overall country risks, economic, financial, and political risks, as well as the development of the stock market, so that decision makers can take the necessary measures to reduce These risks contribute to the stock market development, and the following table shows this:

8.1 Descriptive Statistics of Eligible Stock Markets

As shown in Table (1) at panel (A), the developed stock markets have an average composite country risk of 80.69 points with a standard deviation of 5.3 points, which indicates that the developed stock markets fall into the very low risk range for international investors considering the country risk classification methodology according to the International Country Risk Guide (ICRG) during the study period from 1995 to 2020.

The average country's economic risk for developed stock markets is 40.96 points, with a standard deviation of 4.08 points. This is during the same study period, which indicates that the developed stock markets fall on average in the very low risk range; that is, they are completely safe markets for international investors regarding the country's economic risks. As for the country's financial risks, it is an average of 37.295 points with a standard deviation of 3.28 points, which indicates that the developed stock markets fall on average in the range of low financial risks. In terms of the descriptive statistics of the country's political risks, it is clear that the developed stock markets fall on average in the range of very low political risks because they average 83.137 points with a standard deviation of 6.91 points.

This result indicates that developed stock markets have the least political, economic, and composite country risks, as these risks fall into the very low risk range, while country financial risks fall into the low risk range, so the results of the descriptive analysis suggest to local and international investors as well as policymakers the need to give more attention to the country's financial risks in developed stock markets.

Regarding the stock market development, it averages 85.65% with a standard deviation of 0.65 points, which means that companies listed on the stock market in those markets contribute significantly to the GDP, which reflects the development of the stock market in developed stock markets.

As shown in table (1) at panel (B), emerging stock markets have an average composite country risk of 71.95 points with a standard deviation of 6.9 points, which indicates that emerging stock markets fall into the low-risk range for investors considering the country risk classification methodology according to the ICRG during the study period from 1995 to 2020.

The average country's economic risk for emerging stock markets is 37.44 points, with a standard deviation of 5.04 points. This is during the same study period, which indicates that emerging stock markets fall on average in the low-risk range, meaning that they are markets that are not a completely safe environment for international investors regarding the country's economic risks. As for the country's financial risks, they average 39.19 points with a standard deviation of 4.86 points. Which indicates that the emerging stock markets fall on average in the range of low financial risks, and in terms of the descriptive statistics of the country's political risks, it is clear that the emerging stock markets fall on average in the range of moderate political risks because they reach an average of 67.25 points with a standard deviation of 9.18 points, meaning that the emerging stock markets have medium political risks, meaning they are risky during the study period.

This result indicates that emerging stock markets have moderate political risks, while economic, financial, and composite risks fall into the low-risk range. Therefore, the results of the descriptive analysis suggest to local and international investors as well as policymakers in emerging stock markets the need to be careful of the country's political risks more than country economic risks and/or country

financial risks when analyzing the composite country risks of emerging stock markets.

Regarding the stock market development, it averages 63.83% with a standard deviation of 0.53 points, which means that the contribution of companies listed on the stock market in those markets to the GDP has decreased significantly, meaning that about 46% of the companies that contribute to the GDP are not listed in the stock market, which reflects a weakness in the development of the stock market in emerging stock markets compared to developed stock markets.

Table 1: Descriptive Statistics of Eligible Stock Markets

variable	MKTDEV	CER	CFR	CPR	CCR	GDP	ZSc
Panel (A) Developed stock markets (Obs. = 572)							
Mean	0.8564539	40.95804	37.29545	83.13716	80.69533	27.19231	0.1771118
Median	0.6782076	41	37.5	84.49972	81.20898	26.88372	0.1502256
Min	-0.017318	27.5	27.5	56.06984	63.40632	24.68636	-0.00187
Max	3.41228	50	47	97.67184	91.71286	30.69581	0.5834367
SD	0.6458139	4.084054	3.282808	6.912603	5.306104	1.285088	0.1085626
Skew.	1.456427	-0.5503156	-0.0800315	-1.319004	-0.3610637	0.54882	1.066574
Kurt.	5.376291	3.640769	3.064849	5.300583	2.686055	2.691315	4.209507
Panel (B) Emerging stock markets (Obs. = 572)							
Mean	0.6382922	37.44449	39.19143	67.25448	71.9452	26.50327	0.1331074
Median	0.4694058	37.5	39.5	66.47035	71.86669	26.36765	0.1235687
Min	-0.017318	20	22.5	40.13304	48.06652	23.97905	-0.00187
Max	3.41228	50	50	92.82151	87.48226	30.32023	0.5834367
SD	0.5292305	5.044122	4.857847	9.18317	6.914132	1.135448	0.0807109
Skew.	1.990977	-0.2533371	-0.477967	0.0408803	-0.1837336	0.573409	1.499519
Kurt.	8.416782	3.460272	3.275345	2.486175	2.579723	3.384867	8.462233
Panel (C) Frontier stock markets (Obs. = 286)							
Mean	0.5299013	35.53147	37.58479	65.5074	69.31183	24.51676	0.1852306
Median	0.2390976	35.5	37.5	65.84673	69.75596	24.52144	0.1413962
Min	-0.017318	16.5	28	44.15188	51.7561	22.48954	-0.00187
Max	3.41228	49	45	86.14191	83.18182	26.50123	0.5834367
SD	0.7710026	4.611091	3.220854	9.886045	7.036079	0.894057	0.152978
Skew.	2.685926	-0.095179	-0.1533323	-0.2136249	-0.0368278	0.036802	1.065108
Kurt.	9.615988	4.079755	2.897513	2.098894	2.178929	2.653906	3.264792
Panel (D) Standalone stock markets (Obs. = 156)							
Mean	0.2885449	34.25321	34.40705	71.81526	70.23776	24.10029	0.1895492
Median	0.2388031	35	35.75	72.36696	72.34161	23.64402	0.1828667
Min	0	17.5	22.5	49.52882	50.00776	22.03699	-0.00187
Max	1.325198	48	44.5	91.35255	84.99002	27.19034	0.4361607
SD	0.2145784	6.025081	5.286259	9.025436	8.364551	1.314187	0.1056607
Skew.	1.926316	-0.2630909	-0.3146531	-0.0383504	-0.3976019	0.815728	0.4701324
Kurt.	8.25108	2.6882	2.476419	2.719001	2.238734	2.833785	2.470793

Source: Authers calculated by STATA v. 13 over period 1995 – 2020

As shown in table (1) at panel (C), the frontier stock markets have a composite country risk on average of 69.31 points with a standard deviation of 7.04 points,

which indicates that the frontier stock markets fall within the range of moderate risks for investors regarding the methodology for classifying country risks according to the ICRG during the study period from 1995 to 2020, meaning that the frontier stock markets have medium composite country risks compared to the rest of the stock markets.

The average country's economic risk for frontier stock markets is 35.53 points, with a standard deviation of 4.61 points. This is during the same study period, which indicates that the frontier stock markets fall on average in the low-risk range; that is, they are markets that are not a completely safe environment for international investors regarding the country's economic risks. As for the country's financial risks, it has an average of 37.58 points with a standard deviation of 3.22 points. Which indicates that the frontier stock markets fall on average in the range of low financial risks, and in terms of the descriptive statistics of the country's political risks, it is clear that the frontier stock markets fall on average in the range of moderate political risks because they reach an average of 65.51 points with a standard deviation of 9.89 points, meaning that the frontier financial markets have medium political risks, meaning they are risky markets during the study period.

This result indicates that frontier stock markets have moderate political and composite country risks, while economic and financial risks fall into the low-risk range. Therefore, the results of the descriptive analysis of the components of country risks in frontier markets suggest that local and international investors, as well as policymakers, should pay greater attention to country political risks. In the frontier stock markets, the country's economic risks and/or the country's financial risks are considered when analyzing the country's composite risks for the border stock markets. Also, paying attention to the country's composite risks when choosing the targeted stock markets to invest in and compensating the level of risk they are exposed to in those markets with a level of return corresponding to that level of risk when determining the required rate of return as they are investing in these markets.

Regarding the stock market development, it averages 53% with a standard deviation of 0.77 points, which means that the contribution of companies listed on the stock market in those markets to the GDP has decreased significantly, meaning that 47% of the GDP is contributed by companies not listed in the stock

market.Stock Exchange, reflecting a significant weakness in the development of the stock market in frontier stock markets.

As shown in table (1)at panel (D), the Standalone stock markets have a composite country risk on average of 70.42 points with a standard deviation of 8.36 points, which indicates that the Standalone stock markets fall within the range of low risks for investors regarding the methodology for classifying country risks according to the ICRG during the study period from 1995 to 2020.

The average country's economic risk for standalone stock markets is 34.25 points, with a standard deviation of 6.03 points. This is during the same study period, which indicates that standalone stock markets fall on average in the moderate risk range, meaning that they are markets with medium economic risks for international investors and are therefore unsafe for investors and risky. As for the country's financial risks, it is an average of 34.41 points with a standard deviation of 5.29 points, which indicates that the Standalone stock markets fall on average in the range of moderate financial risks, meaning that the Standalone stock markets have medium financial risks, and therefore these markets are a target for some international investors who want this level of risk, whether economic and/or financial, and it is The descriptive statistics for the country's political risks show that the standalone stock markets fall on average in the range of low political risks because they average 71.815 points with a standard deviation of 9.03 points.

This result indicates that standalone stock markets have moderate economic and financial risks, while political and composite risks fall into the low-risk range. Therefore, the results of the descriptive analysis of the components of country risks in standalone markets suggest that local and international investors, as well as policymakers, should pay greater attention to country economic risks and/or finance in standalone stock markets than to the country's political risks when analyzing the country's composite risks for standalone stock markets. Also, paying attention to the country's composite risks when choosing standalone stock markets as a target market to invest in means compensating the level of risk in those markets with an acceptable level of return when determining the required rate of return when investing in these markets.

Regarding the development of the stock market, it is clear that it averages 28.85% with a standard deviation of 0.21 points, which means a very weak contribution of companies listed on the stock market in those markets to the GDP, and that about 71% of the GDP is contributed by companies that are not listed on the stock

exchange, which reflects the lack of development of the stock market in standalone stock markets.

8.2Testing the correlation between variables of the study

Below is the Pearson multiple correlation matrix to show the correlation between the study variables:

Table 2: Pearson multiple correlation matrix

	MKTDEV	CER	CFR	CPR	CCR	GDP_log	Z_Score
MKTDEV	1						
CER	0.2795	1					
	0.0000						
CFR	0.2004	0.5149	1				
	0.0000	0.0000					
CPR	0.2520	0.4444	0.0602	1			
	0.0000	0.0000	0.0164				
CCR	0.3237	0.7801	0.4790	0.8700	1		
	0.0000	0.0000	0.0000	0.0000			
GDP_log	0.1620	0.1959	0.0389	0.1323	0.1683	1	
	0.0000	0.0000	0.1213	0.0000	0.0000		
Z_Score	0.2490	-0.0091	-0.0546	0.0042	-0.0146	-0.0683	1
	0.0000	0.7179	0.0297	0.8671	0.5610	0.0065	

Source: Authers calculated by STATA v. 13 over period 1995 – 2020

Table (2) shows the multiple correlations between the study variables. There is a positive and statistically significant correlation between the stock market development and the composite economic, financial, political, and country risks. The correlation coefficient reached 0.2795, 0.2004, 0.252 and 0.3237 respectively, at a significant level of 1%. It was also found that there is a positive and statistically significant correlation between the stock market development and size of GDP, and financial stability. The correlation coefficient reached 0.162 and 0.249 respectively, at a significant level of 1%. It is also clear that there is a positive and statistically significant correlation between the composite economic risks and the composite financial risks, and the composite political risks, 0.5149, and 0.4444, respectively, and between the composite financial risks and the composite political risks, 0.0602, at a significance level of 1%. It is also clear that there is a positive and statistically significant correlation between the composite country risks and all of the composite economic risks and the composite financial risks, and the composite political risks, 0.7801, 0.479, and 0.87 respectively, at a significance level of 1%.

This indicates that the composite country risks are driven first by composite political risks, then composite economic risks, and finally composite financial risks. There is also a positive and significant relationship between the size of GDP and composite economic risks, and composite political risks with a correlation coefficient of 0.1959, and 0.1323. It was not clear whether there was a significant relationship between the composite financial risks and size of GDP.

8.3 Diagnostic' tests

The detection of issues in Econometrics' data and study model involve identifying the time series stationarity using the Dickey-Fuller test, detecting multicollinearity with the VIF test, identifying heteroskedasticity with the Breusch-Pagan test, identifying autocorrelation with the Breusch-Godfrey LM test, assessing model specification with the Ramsey RESET test, and confirming the normal distribution of residuals with the Shapiro-Wilk test.

8.3.1. Detecting the stationarity of time series

To assess the stationarity of the time series of the variables used in the study and to avoid generating a spurious regression as a result of relying on an unstationary time series, the unit root test for the stationarity of the panel data will be applied. The following table shows the results of the ADF test:

Table 3: Dickey-Fuller test for unit root

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value	p-value
MKTDEV	-9.717	-3.43	-2.86	-2.57	0.0000
CER	-15.184	-3.43	-2.86	-2.57	0.0000
CFR	-9.304	-3.43	-2.86	-2.57	0.0000
CPR	-5.961	-3.43	-2.86	-2.57	0.0000
CCR	-7.818	-3.43	-2.86	-2.57	0.0000
GDP_log	-4.676	-3.43	-2.86	-2.57	0.0001
Z_Score	-8.266	-3.43	-2.86	-2.57	0.0000
Source: Prepared by the researchers considering the results of the STATA v.15 software					

The results of the time series stationarity test in the previous table suggest that all variables are stable in their original form (at the level), and therefore they are integrated from the zero order, because probability value is less than 5%.

The following table shows the results of the variance inflation factor (VIF) test to detect the presence of the multicollinearity problem between the independent variables in the models, the SWilk test to detect the normal distribution of the model residuals problem, the Breusch-Pagan/Cook-Weisberg test for heteroskedasticity, the Breusch-Godfrey LM test to detect the presence of the autocorrelation problem between errors, and the Ramsey RESET test to detect the model specification problem.

8.3.2. Detecting Econometric problems

The Table below shows the results of the Econometric problems test.

Table 4: Econometric problems

		Model 1				Model 2			
		DEV	EMG	FR.	St.	DEV	EMG	FR.	St.
VIF.	Mean	1.10	1.04	1.16	1.25	1.25	1.36	1.36	1.77
NORM.	Prob>z	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
HET.	chi2(1)	129.25	19.11	193.14	55.42	129.00	17.37	195.49	55.28
	Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
AUTO.	chi2	430.040	368.447	228.509	93.208	415.973	374.742	226.808	92.939
	Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SPE.	F	11.93	0.73	36.47	8.51	7.40	0.82	35.25	5.67
	Prob > F	0.0000	0.5371	0.0000	0.0000	0.0001	0.4810	0.0000	0.0011

Source: Prepared by the researchers considering the results of the STATA v.15 software

VIF. Refer to Variance inflation factor, NORM. Refer to Normality test, HET. Refer to Heteroscedasticity test. AUTO. Refer to Autocorrelation test, SPE. Refer to Specification test.

The table (4) clearly shows that the average value of the variance inflation factor is less than 10, indicating that there is no problem with multicollinearity among the independent variables. The swilk test detects the normal distribution of regression model errors with a probability value of less than 0.05. The test result is significant, indicating that the model residuals do not follow the normal distribution. However, due to the use of a large sample according to the central limits' theory, they can be considered to follow the normal distribution. The result of the Breusch-Pagan/Cook-Weisberg test for heteroskedasticity indicates that the probability value of less than 0.05, indicates that there is a problem of heteroskedasticity. The result of the Breusch-Godfrey LM test indicates that the probability value less than 0.05, indicates that there is a problem of autocorrelation between errors at any two points in time. These problems can be addressed using

a robust standard error regression model, according to Brooks (2019). Finally, the result of the Ramsey RESET test also shows that the probability value less than 0.05, indicates that the models are well-defined.

8.4 Eligible stock markets' Robust standard errors Regression

Table 5 presents the results of the robust standard error regression model to study the impact of country risks on stock market development in eligible markets. Panel (A) shows the impact of composite country risks on stock market development, while Panel (B) investigates the impact of country risk components, which include economic country risks, financial country risks, and political country risks, on stock market development in eligible markets. The regression model is used to predict the coefficients of the models β1, β2, β3, and these coefficients represent the elasticity of each of the independent variables with respect to stock market development.

Table (5), Part (A), shows that the sign of the coefficient of the composite country risk index is positive for all markets, and this indicates that the composite country risks are directly proportional to the stock market development in general. It is also statistically significant at the 1% level of significance because the P-value is less than 1% for all markets, and the value of the coefficients was 0.0436, 0.0149, 0.0307, and 0.0062 for developed, emerging, frontier, and standalone markets, respectively. This indicates, for example, that increasing the value of the composite country risk index for developed markets by one unit leads to an increase in the development of the developed stock market by 4.36%. This is consistent with economic theory. The lower the composite country risk, the greater the value of the index, which will lead to increased stock market development.

The coefficient of determination (R2), which reflects the explanatory power of the model and the extent to which the independent variables contribute to determining and explaining the changes occurring in the dependent variable, and here it represents the stock market development, Table (5), Panel (A), show that the value of the coefficient of determination is 0.172, 0.07, and 0.388, and 0.308 for developed, emerging, frontier, and standalone markets, respectively. This indicates, for example, that the model of the impact of composite country risks on the development of the developed stock market explains 17.2% of the changes occurring in the development of the developed stock market, and the remaining

82.8% is due to factors or other variables that are not included in the model and are included in the random error.

AS Showen previously:

$$MKTDEV = -6.545 + 0.0436^{*} CCR + 0.134^{*} GDP + 1.319^{*} ZSc + \varepsilon it \quad (1)$$
$$MKTDEV = -0.779 + 0.0149^{*} CCR + 0.00688^{*} GDP + 1.243^{*} ZSc + \varepsilon it \quad (2)$$
$$MKTDEV = 3.259 + 0.0307^{*} CCR - 0.2160^{*} GDP + 2.408^{*} ZSc + \varepsilon it \quad (3)$$
$$MKTDEV = 1.702 + 0.00619^{*} CCR - 0.0758^{*} GDP - 0.1140^{*} ZSc + \varepsilon it \quad (4)$$

Table 5: Eligible stock markets' Robust standard errors Regression

	Panel (A) composite country risk				Panel (B) components of country risk			
MKTDEV	**DEV.**	**EMG.**	**FRN.**	**STD.**	**DEV.**	**EMG.**	**FRN.**	**STD.**
CCR	0.0436***	0.0149***	0.0307***	0.00619***				
	(0.00493)	(0.00243)	(0.00437)	(0.00154)				
CER					0.0396***	0.00308	0.0249***	0.000768
					(0.00781)	(0.00684)	(0.00744)	(0.00318)
CFR					0.0438***	0.0171***	0.00963	0.00204
					(0.00931)	(0.00579)	(0.0106)	(0.00314)
CPR					0.00648**	0.00513**	0.0131***	0.00552***
					(0.00273)	(0.00211)	(0.00323)	(0.00192)
GDP	0.134***	0.00688	-0.216***	-0.0758***	0.159***	-0.00194	-0.225***	-0.0682***
	(0.0147)	(0.0142)	(0.0529)	(0.0132)	(0.0161)	(0.0143)	(0.0532)	(0.0139)
ZSc	1.319***	1.243***	2.408***	-0.114	1.124***	1.155***	2.460***	-0.0911
	(0.309)	(0.288)	(0.301)	(0.118)	(0.313)	(0.288)	(0.305)	(0.116)
Constant	-6.545***	-0.779*	3.259**	1.702***	-7.470***	-0.595	3.474**	1.456***
	(0.624)	(0.426)	(1.340)	(0.324)	(0.703)	(0.435)	(1.413)	(0.357)
Root MSE	0.58917	0.51176	0.60619	0.18029	0.57449	0.51099	0.60712	0.18054
R-squared	0.172	0.070	0.388	0.308	0.216	0.076	0.391	0.315
Obs.	572	572	286	156	572	572	286	156
F-test	46.88	21.36	28.53	21.46	30.01	15.00	19.01	16.58
P-Value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1								

Source: Authers calculated by STATA v. 13 over period 1995 – 2020

Also, Table (5), Part (A), shows that the P-value is less than 1% for all markets, which indicates the significance of the four models at a significance level of 1%, which indicates rejection of the null hypothesis and acceptance of the alternative hypothesis that there is a significant relationship between the composite country risks and the stock market development for all markets.

In general, the results indicate that stock market development is affected by country risks more in developed and frontier stock markets and less in emerging and standalone stock markets because developed and frontier stock markets are more sensitive to country risks in influencing stock markets, which makes them more responsive to the changes taking place. Within the country, therefore, there is a greater risk premium when investing in emerging and standalone stock markets. As a result, these markets are not considered attractive for foreign investments, in contrast to their ability to attract hot money. Deficient performance of the stock market attracts hot money and makes it a speculative

market, while satisfactory performance makes it a good market for investment and a means for companies to increase capital through stock markets and conduct new initial public offerings, which contributes to the stock market's development.

Also, the results show that the degree of economic development of both emerging and standalone stock markets is lower compared to developed and frontier stock markets. Because one of the most important stages of economic development is the presence of a stock market, Also, the high risks of the country lead to the reluctance of many investors to trade in those markets, which makes them monitor changes at the country level as well as the changes surrounding the country when making their investment decisions.

Therefore, the international and local investor, policymakers, and strategic investor can predict the development of the stock market for the market in which he wishes to invest through the composite country risk index and conduct international diversification of his investments in a way that achieves stability in his portfolio, as well as striving to reduce the composite country risks so that policy makers can list companies more in the stock market rather than outside the market.

Panel (B) of Table (5) shows the impact of the sub-components of country risk, namely economic country risk, financial country risk, and political country risk, on the stock market development in eligible markets.

Table (5), Panel (B), shows that the sign of the coefficient of the country's economic risk index is positive for all markets. This indicates that the country's economic risks are directly proportional to the stock market's overall development. It is also statistically significant at the 1% level of significance because the P-value is less than 1% for both developed and frontier stock markets, while the effect is insignificant for both emerging and standalone markets. The value of the coefficient reached 0.0396 and 0.0249 for developed and frontier stock markets, respectively. This indicates that increasing the value of the country's economic risk index for developed stock markets by one unit leads to an increase in the development of the developed stock market by 3.96%, with ceteris paribus. Likewise, increasing the value of the country's economic risk index for frontier stock markets by one unit leads to an increase in stock market development of 2.49% with Ceteris paribus. This is consistent with economic theory. The lower

the country's economic risks, the greater the value of the index; this will lead to increased stock market development.

It is also clear from Table (5), Panel (B), that the sign of the coefficient of the country's financial risk index is positive for all markets, and this indicates that the country's financial risks are directly proportional to the stock market development in general. It is also statistically significant at the 1% level of significance because the P-value is less than 1% for both developed and emerging stock markets, while the effect is insignificant for both frontier and standalone stock markets. The coefficients reached 0.0438 and 0.0171 for developed and emerging stock markets, respectively.

This indicates that increasing the value of the country's financial risk index for developed markets by one unit leads to an increase in the development of the developed stock market by 4.38%, with ceteris paribus. Likewise, increasing the value of the country's financial risk index for emerging markets by one unit leads to an increase the development of the emerging stock markets, which is consistent with economic theory. The lower the country's financial risks, the higher the value of the index; this will lead to increased stock market development.

Also, Table (5) and Panel (B) show that the sign of the coefficient of the country's political risk index is positive for all markets, and this indicates that the country's political risks are directly proportional to the stock market development in general. It is also statistically significant at the 5% level of significance because the P-value is less than 5% for both developed and emerging stock markets and at a significance level of 1% for both frontier and standalone stock markets, and the coefficients were 0.00648, 0.00513, 0.0131, and 0.0055 for developed, emerging, frontier, and standalone markets, respectively. This indicates, for example, that increasing the country's political risk index for developed markets by one unit leads to an increase in the development of the developed stock market by 0.65%, with ceteris paribus. This is consistent with economic theory. The lower the country's political risk, the greater the value of the index; this will increase stock market development.

Seemingly, the value of the coefficient of determination (R2) in Table (5), Panel (B), is 0.216, 0.076, 0.391, and 0.315 for developed, emerging, frontier, and standalone stock markets, respectively. This indicates, for example, that the model of the impact of the sub-components of country risks on the development of the

developed stock market explains 21.6% of the changes occurring in the development of the developed stock market, and the remaining 78.4% is due to other factors or other variables that were not included in the model and are included in the random variable.

As Showen previously:

$$MKTDEV = -7.470 + 0.0396^{*} CER + 0.0438^{*} CFR + 0.00648^{*} CPR + 0.159^{*} GDP + 1.124^{*} ZSc + \varepsilon it \quad (1)$$

$$MKTDEV = -0.595 + 0.0031^{*} CER + 0.0171^{*} CFR + 0.0051^{*} CPR - 0.0019^{*} GDP + 1.155^{*} ZSc + \varepsilon it \quad (2)$$

$$MKTDEV = 3.474 + 0.0249^{*} CER + 0.00963^{*} CFR + 0.0131^{*} CPR - 0.225^{*} GDP + 2.460^{*} ZSc + \varepsilon it \quad (3)$$

$$MKTDEV = 1.456 + 0.0008^{*} CER + 0.00204^{*} CFR + 0.0055^{*} CPR - 0.0682^{*} GDP - 0.0911^{*} ZSc + \varepsilon it \quad (4)$$

Table (5) and Panel (B) show that the P-value of the F-test is less than 1% for all markets, which indicates the significance of the model as a whole at a significance level of 1%, which indicates rejection of the null hypothesis and acceptance of the alternative hypothesis that there is a significant relationship between the sub-components of country risk and stock market development for all markets.

The results generally indicate that the stock market development in developed stock markets is significantly affected by the country's economic, financial, and political risks. Therefore, the effect of the country's composite risks on the development of the developed stock market is mainly driven by the country's financial, then economic, and then political risks, according to the regression coefficients, and this is due to the relative stability of political risks in developed stock markets as well as political stability in general. In emerging stock markets, the stock market's development is significantly affected by financial and political risks, so the effect of the country's composite risks on the development of the emerging stock market is mainly driven by the country's financial and then political risks, according to the regression coefficients. As for the frontier stock markets, their development is significantly affected by economic and political risks, so the effect of the country's composite risks on the development of the frontier stock market is mainly driven by the country's economic and then political risks, according to the regression coefficients. Finally, the development of the standalone stock market is significantly affected by political risk, so the effect of a country's composite risk on the development of the standalone stock market is mainly driven by the country's political risk.

Therefore, it can be said that stock market development is affected by economic risks to a greater extent in developed markets than in frontier markets, while the emerging and standalone effect is insignificant. Likewise, stock market development is affected by financial risks to a greater extent in developed markets than in emerging markets, while the frontier and standalone effects are insignificant. Finally, it is affected by stock market development: political risks are greater in frontier stock markets and less influential in emerging financial markets.

9. CONCLUSION

The study investigates and analyze the impact of country risks and its components on the stock market development. Two models are created. The first model studies the index of composite country risk on the stock market development. The second model studies the components of country risks on the stock market development. The panel data model was used to achieve the study aims over several countries during the period (1995 - 2020). The results of the robust standard error regression model to study the impact of country risks on stock market development in eligible markets. Firstly, composite country risks are directly proportional to the stock market development in general. The results indicate that stock market development is affected by country risks more in developed and frontier stock markets and less in emerging and standalone stock markets. Risk premium is greater when investing in emerging and standalone stock markets, so these markets are not attractive for foreign investments, but attractive to hot money. Also, the economic development degree of both emerging and standalone stock markets is lower than developed and frontier stock markets. Therefore, the international and local investor, policymakers, and strategic investor can predict the development of the stock market for the market in which he wishes to invest through the composite country risk index and conduct international diversification of his investments in a way that achieves stability in his portfolio, as well as striving to reduce the composite country risks.

Secondly, it can be said that stock market development is affected by economic risks to a greater extent in developed markets than in frontier markets, while the emerging and standalone effect is insignificant. Likewise, stock market development is affected by financial risks to a greater extent in developed markets than in emerging markets, while the frontier and standalone effects are insignificant. Finally, Political risks are greater effect on frontier stock markets development and less influential in emerging financial markets.

REFERENCES

Acheampong, I. K., & Wiafe, E. A. (2013). Foreign direct investment and stock market development evidence from Ghana. *International Journal of finance and policy Analysis, 5*(1), 3-15.

Adam, A. M., & Tweneboah, G. (2008). Do Macroeconomic Variables Play Any Role in the Stock Market Movement in Ghana? Available at SSRN: *http://dx.doi.org/10.2139/ssrn.1152970.*

Adam, A. M., & Tweneboah, G. (2009). Foreign direct investment and stock market development Ghana's evidence. International research journal of finance and economics, 26, 178-185. Available at SSRN: *https://ssrn.com/abstract=1289843*

Agbloyor, E. K., Abor, J., Adjasi, C. K. D., & Yawson, A. (2013). Exploring the causality links between financial markets and foreign direct investment in Africa. Research in International Business and Finance, 28(May, 2013), 118-134.

Asravor,R. K.,&Fonu, P.D.D.(2021). Dynamic relation between macroeconomic variable, stock market returns and stock market development in Ghana. *International Journal of Finance & Economics*, 26(2), 2637-2646.

Athari, S. A., Irani, F., & Hadood, A. A. (2023). Country risk factors and banking sector stability: Do countries' income and risk-level matter? Evidence from global study. Heliyon, 9(10), 1-22. Available at: *https://doi.org/10.1016/j.heliyon.2023.e20398.*

Bekaert, G., & Harvey, C. R. (1997). Emerging equity market volatility. *Journal of Financial economics, 43*(1), 29-77.

Bekaert, G., Erb, C. B., Harvey, C. R., & Viskanta, T. E. (1997). What matters for emerging equity market investments? Emerging markets quarterly, 1(2), 17-46.

Brooks, C. (2019). Introductory econometrics for finance (4th ed.). Cambridge, UK: Cambridge University Press.

Brown, C. L., Cavusgil, S. T., & Lord, A. W. (2015). Country-risk measurement and analysis A new conceptualization and managerial tool. *International Business Review, 24*(2), 246-265.

Canuto, O., Dos Santos, P. F. P., & de Sá Porto, P. C. (2012). Macroeconomics and sovereign risk ratings. *Journal of International Commerce, Economics and Policy, 3*(02), 1250011.

Cervelló-Royo, R., Cortés, J. C., Sánchez-Sánchez, A., Santonja, F. J., & Villanueva, R. J. (2013). Forecasting Latin America's country risk scores by means of a dynamic diffusion model. Abstract and Applied Analysis. Available at*: https://doi.org/10.1155/2013/264657*

Cervelló-Royo, R., Cortés, J. C., Sánchez-Sánchez, A., Santonja, F.-J., Shoucri, R., & Villanueva, R. J. (2014). Probabilistic European Country Risk Score Forecasting Using a Diffusion Model. Computational Models of Complex Systems. 45–58.

Chee-Wooi, H., & Brooks, R. D. (2015). The components of systematic risk and their determinants in the Malaysian equity market. *Asian Academy of Management Journal of Accounting and Finance* (AAMJAF), 11(2), 151-176.

Chiu, Y. B., & Lee, C. C. (2020). Effects of financial development on energy consumption: The role of country risks. Energy Economics, 90, 104833.

Damodaran, A.(2022).Country Risk: Determinants, Measures and Implications –The 2022 Edition. Available at SSRN: *https://ssrn.com/abstract =4161010or http://dx.doi.org/10.2139/ssrn.4161010.*

Doumpos, M., Pentaraki, K., Zopounidis, C., & Agorastos, C. (2001). Assessing country risk using a multi-group discrimination method: a comparative analysis. Managerial Finance, 27(8), 16-34.

Edwards, S. (1986). The pricing of bonds and bank loans in international markets: An empirical analysis of developing countries' foreign borrowing. European Economic Review, 30(3), 565-589.

Elleuch, N. M., Jaouadi, I. Z., & Jaouadi, S. (2015). Examination of impact of political and country risk on foreign direct investment inflows in Tunisia. European Academic Research, 2(11), 14434-14445.

Erb, C. B., Harvey, C. R., & Viskanta, T. E. (1995a). Country risk and global equity selection. *Journal of Portfolio Management, 21*(2), 74-83.

Erb, C. B., Harvey, C. R., & Viskanta, T. E. (1995b). Inflation and world equity selection. *Financial Analysts Journal, 51*(6), 28-42.

Erb, C. B., Harvey, C. R., & Viskanta, T. E. (1996). Political risk, economic risk, and financial risk. *Financial Analysts Journal, 52*(6), 29-46.

Grujić, M. (2016). Application of the modern portfolio theory in diversification of the debt securities portfolio in emerging markets. Zbornik radova Ekonomskog fakulteta u Istočnom Sarajevu, (13), 67-80.

Hammoudeh, S., Sari, R., Uzunkaya, M., & Liu, T. (2013). The dynamics of BRICS's country risk ratings and domestic stock markets, US stock market and oil price. Mathematics and Computers in Simulation, 94, 277-294.

Harvey, C. R. (2004). Country risk components, the cost of capital, and returns in emerging markets. Available at: SSRN: *https://ssrn.com/abstract=620710 or http://dx.doi.org/10.2139/ssrn.620710*

Hassan, M. K., Maroney, N. C., El-Sady, H. M., & Telfah, A. (2003). Country risk and stock market volatility, predictability, and diversification in the Middle East and Africa. Economic Systems, 27(1), 63–82.

Hayakawa, K., Kimura, F., & Lee, H. H. (2013). How does country risk matter for foreign direct investment? The Developing Economies, *51*(1), 60-78.

Hoti, S. (2005a). Comparative analysis of risk ratings for the East European region. *Mathematics and Computers in Simulation, 68*(5-6), 449-462.

Hoti, S. (2005b). Modelling country spillover effects in country risk ratings. Emerging Markets Review, *6*(4), 324-345.

Hoti, S., & McAleer, M. (2004). An empirical assessment of country risk ratings and associated models. *Journal of Economic Surveys, 18*(4), 539-588.

Hoti, S., Chan, F., & McAleer, M. (2002). Structure and asymptotic theory for multivariate asymmetric volatility: Empirical evidence for country risk ratings. In Australasian Meeting of the Econometric Society, Brisbane, Australia, 1-58.

Howell, L. D. (2011). International country risk guide methodology. East Syracuse, NY: PRS Group, 7.

Iliescu, E. M., & Dinu, F. A. (2011). Country risk importance on investment decision making. Economia Seria Management, *14*(2), 371-379.

Kholdy, S., & Sohrabian, A. (2005). Financial markets, FDI, and economic growth: Granger causality tests in panel data model. In EFA 2005 Moscow meetings.Availableat:SSRN: *https://ssrn.com/abstract=676085 or http://dx .doi.org/10.2139/ssrn.676085*

Kholdy, S., & Sohrabian, A. (2008). Foreign direct investment, financial markets, and political corruption. *Journal of Economic Studies, 35*(6), 486-500.

Kirikkaleli, D. (2016). Interlinkage between economic, financial, and political risks in the Balkan Countries Evidence from a panel cointegration. Eastern European Economics, 54(3), 208-227.

Kirikkaleli, D. (2020). The effect of domestic and foreign risks on an emerging stock market: A time series analysis. *The North American Journal of Economics and Finance, 51*, 100876.

Lee, S., & Stevenson, S. (2006). Real estate in the mixed-asset portfolio: the question of consistency. *Journal of Property Investment & Finance*, 24(2), 123-135.

Levine, R., & Zervos, S. (1998). Stock markets, banks, and economic growth. American economic review, 88(3), 537-558.

Liu, P., Peng, Y., Shi, Y., & Yang, J. (2022). Financial structures, political risk and economic growth. *The European Journal of Finance, 28*(4-5), 356-376. Available at: *https://doi.org/10.1080/1351847x.2021.1879888.*

Markowitz, H. (1952). The utility of wealth. *Journal of political Economy, 60*(2), 151-158.

McAleer, M., Hoti, S., & Chan, F. (2009). Structure and asymptotic theory for multivariate asymmetric conditional volatility. Econometric Reviews, 28(5), 422-440.

Meldrum, D. (2000). Country risk and foreign direct investment. Business economics, 35(1), 33-40.

Mensah, F. (2020). Stock Market Development and Economic Growth: Global Perspectives: 1993-2016. [Doctoral Dissertation. The International School of Management (ISM)]. Available at: *https://ism.edu/images/ ismdocs/ dissertations/mensah-phddissertation-2020.pdf.*

Mensah, F., & Wong, K.M. (2019). African Stock Market Developments and Economic Growth. Quarterly Review of Business Disciplines, 6(2), 151-186.

Muzindutsi, P. F., & Obalade, A. A. (2024). Effects of country risk shocks on the South African bond market performance under changing regimes. Global Business Review, 25(1), 137-149.

Muzindutsi, P. F., Jamile, S., Zibani, N., & Obalade, A. A. (2021). The effects of political, economic and financial components of country risk on housing prices in South Africa. *International Journal of Housing Markets and Analysis, 14*(3), 523-537.

Naumoski, A. (2012). Estimating the country risk premium in emerging markets: the case of the Republic of Macedonia. Financial theory and practice, 36(4), 413-434.

Sargen, N. (1977). Economic indicators and country risk appraisal. Economic Review, Federal Reserve Bank of San Francisco, issue Fall, 19-35.

Shapiro, A. C. (1985). Currency risk and country risk in international banking. *The Journal of Finance, 40*(3), 881-891.

Shi, J., Bilson, C., Powell, J. G., & Wigg, J. (2010). Foreign direct investment and international stock market integration. *Australian Journal of Management,* 35(3), 265-290.

Soumaré, I., & Tchana Tchana, F. (2015). Causality between FDI and financial market development: Evidence from emerging markets. The World Bank Economic Review, 29(suppl_1), S205-S216.

Stankevičienė, J., Sviderskė, T., & Miečinskienė, A. (2014). Dependence of sustainability on country risk indicators in EU Baltic Sea region countries. *Journal of Business Economics and Management, 15*(4), 646-663.

Suleman, T., Gupta, R., & Balcilar, M. (2017). Does country risks predict stock returns and volatility? Evidence from a nonparametric approach. Research in International Business and Finance, 42, 1173-1195.

Sun, X., Feng, Q., & Li, J. (2021). Understanding country risk assessment: a historical review. Applied Economics, 53(37), 4329-4341.

Tetteh, J. E., Adenutsi, D. E., & Amoah, A. (2019). Macroeconomic Determinants of Stock Market Volatility in Ghana and Nigeria. *Journal of Applied Economic Sciences*, *14*(2).

Theodorou, J. (1993). Political risk reconsidered. *International Journal of Intelligence and Counter Intelligence, 6*(2), 147-171.

Topal, M. H. and GÜL, Ö. S. (2016). The effect of country risk on foreign direct investment: A dynamic panel data analysis for developing countries. *Journal of Economics Library, 3*(1), 141-155.

Tsatsaronis, K., & Zhu, H. (2004). What drives housing price dynamics: cross-country evidence? BIS Quarterly Review, March, Available at SSRN: https://ssrn.com/abstract=1968425

Türedi, S. (2018). The effect of corruption and country risk on FDI inflows: empirical evidence from developing countries. Uluslararası İktisadi ve İdari İncelemeler Dergisi, (21), 151-172.

Vijayakumar, J., Rasheed, A. A., & Tondkar, R. H. (2009). Foreign direct investment and evaluation of country risk: An empirical investigation. Multinational Business Review, 17(3), 181-204.

White, C., & Fan, M. (2006). Country Risk. In Risk and Foreign Direct Investment, 146-167. London: Palgrave Macmillan UK. 146-167. Available at:*https://link.springer.com/content/pdf/10.1057/9780230624832_9?pdf=chapter%20toc.*

Appendix

Linear regression

Number of obs	= 572
F(3, 568)	= 46.88
Prob > F	= 0.0000
R-squared	= 0.1721
Root MSE	= .58917

MKTDEV	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Com_CR_Risk	.0435679	.0049321	8.83	0.000	.0338806	.0532551
gdp_log	.1343162	.0147006	9.14	0.000	.1054419	.1631904
Z_Score	1.319459	.3092887	4.27	0.000	.7119698	1.926948
_cons	-6.545327	.6238257	-10.49	0.000	-7.770614	-5.32004

Linear regression

Number of obs	= 572
F(3, 568)	= 21.36
Prob > F	= 0.0000
R-squared	= 0.0699
Root MSE	= .51176

MKTDEV	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Com_CR_Risk	.0148589	.0024256	6.13	0.000	.0100946	.0196231
gdp_log	.0068825	.0142347	0.48	0.629	-.0210766	.0348417
Z_Score	1.242637	.287529	4.32	0.000	.6778869	1.807387
_cons	-.7785465	.4262854	-1.83	0.068	-1.615835	.0587416

Linear regression

Number of obs	= 286
F(3, 282)	= 28.53
Prob > F	= 0.0000
R-squared	= 0.3883
Root MSE	= .60619

MKTDEV	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Com_CR_Risk	.0306631	.0043659	7.02	0.000	.0220692	.039257
gdp_log	-.2162109	.0529153	-4.09	0.000	-.3203701	-.1120518
Z_Score	2.407901	.3013415	7.99	0.000	1.814737	3.001065
_cons	3.25936	1.339896	2.43	0.016	.6218924	5.896827

Linear regression

Number of obs	= 156
F(3, 152)	= 21.46
Prob > F	= 0.0000
R-squared	= 0.3078
Root MSE	= .18029

MKTDEV	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Com_CR_Risk	.006194	.0015354	4.03	0.000	.0031605	.0092275
gdp_log	-.075822	.0131955	-5.75	0.000	-.1018922	-.0497517
Z_Score	-.1139895	.1182923	-0.96	0.337	-.3476988	.1197198
_cons	1.702428	.3239065	5.26	0.000	1.062488	2.342368

Linear regression

Number of obs	= 572
F(5, 566)	= 30.01
Prob > F	= 0.0000
R-squared	= 0.2156
Root MSE	= .57449

MKTDEV	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Com_ECO_Risk	.0396129	.0078113	5.07	0.000	.0242702	.0549556
Com_FIN_Risk	.0437731	.0093144	4.70	0.000	.0254781	.0620681
Com_POL_Risk	.0064824	.0027347	2.37	0.018	.0011111	.0118538
gdp_log	.1593495	.0161471	9.87	0.000	.1276339	.1910652
Z_Score	1.124007	.3131873	3.59	0.000	.508856	1.739159
_cons	-7.469639	.7033998	-10.62	0.000	-8.851231	-6.088046

Linear regression

Number of obs	= 572
F(5, 566)	= 15.00
Prob > F	= 0.0000
R-squared	= 0.0759
Root MSE	= .51099

MKTDEV	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Com_ECO_Risk	.0030849	.0068429	0.45	0.652	-.0103557	.0165256
Com_FIN_Risk	.0170982	.0057885	2.95	0.003	.0057286	.0284679
Com_POL_Risk	.005128	.0021068	2.43	0.015	.0009899	.009266
gdp_log	-.0019359	.014323	-0.14	0.893	-.0300686	.0261967
Z_Score	1.154934	.2876489	4.02	0.000	.5899441	1.719923
_cons	-.5946269	.4354974	-1.37	0.173	-1.450015	.2607614

Linear regression

Number of obs	= 286
F(5, 280)	= 19.01
Prob > F	= 0.0000
R-squared	= 0.3908
Root MSE	= .60712

MKTDEV	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Com_ECO_Risk	.0249457	.0074437	3.35	0.001	.0102929	.0395985
Com_FIN_Risk	.0096338	.0105851	0.91	0.364	-.0112027	.0304703
Com_POL_Risk	.0130836	.0032293	4.05	0.000	.0067267	.0194404
gdp_log	-.2245423	.0532105	-4.22	0.000	-.3292858	-.1197988
Z_Score	2.459635	.3053244	8.06	0.000	1.858612	3.060657
_cons	3.473839	1.413443	2.46	0.015	.6915151	6.256163

Linear regression

Number of obs	= 156
F(5, 150)	= 16.58
Prob > F	= 0.0000
R-squared	= 0.3150
Root MSE	= .18054

MKTDEV	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Com_ECO_Risk	.0007677	.0031788	0.24	0.809	-.0055133	.0070488
Com_FIN_Risk	.0020406	.003141	0.65	0.517	-.0041656	.0082468
Com_POL_Risk	.0055166	.0019179	2.88	0.005	.001727	.0093062
gdp_log	-.0681784	.013897	-4.91	0.000	-.0956375	-.0407192
Z_Score	-.091124	.1162797	-0.78	0.434	-.3208817	.1386336
_cons	1.456249	.3565499	4.08	0.000	.7517399	2.160758

مخاطر الدولة وتطور سوق الأوراق المالية: الأسواق المؤهلة

نصر علي نصر علي أبو المعاطي أ.د حسن أحمد منير الصادي

ملخص البحث باللغة العربية

تتناول الدراسة تأثير مخاطر الدولة على تطور سوق الأوراق المالية بالتطبيق على 61 سوقا من الأسواق المؤهلة للاستثمار خلال الفترة 1995-2020. والهدف من الدراسة هو تحليل مدي ما إذا كانت مخاطر الدولة، وخاصة المخاطر السياسية والاقتصادية والمالية، تؤثر على تطور سوق الأوراق المالية في الأسواق المؤهلة. تم حساب مخاطر الدولة ومكوناتها من خلال منهجية الدليل الدولي لمخاطر الدول ICRG الصادر عن خدمات المخاطر السياسية PRS، وتطور سوق الأوراق المالية من خلال نسبة رأس المال السوقي إلى الناتج المحلي الإجمالي. من خلال تطبيق الانحدار المعدل بالخطأ المعياري. تشير النتائج إلى أن مخاطر الدولة الكلية مرتبطة بشكل مباشر بتطور سوق الأوراق المالية. يشير هذا إلى أنه كلما انخفض مخاطر الدولة الكلية، أي زادت قيمة المؤشر، سيؤدي ذلك إلى زيادة تطور سوق الأوراق المالية. كما تشير النتائج إلى أن تأثير مخاطر الدولة الكلية على تطور سوق الأوراق المالية، في سوق الأوراق المالية المتقدمة مدفوع بشكل أساسي بالمخاطر المالية، ثم المخاطر الاقتصادية، ثم المخاطر السياسية للدولة. وفي أسواق الأوراق المالية الناشئة، فإن تأثير مخاطر الدولة الكلية على تطور سوق الأوراق المالية مدفوع بشكل أساسي بالمخاطر المالية ثم المخاطر السياسية للدولة. وفي أسواق الأوراق المالية الحدودية، فإن تأثير مخاطر الدولة الكلية على تطور سوق الأوراق المالية مدفوع بشكل أساسي بالمخاطر الاقتصادية ثم المخاطر السياسية للدولة. وأخيرا، فإن تأثير مخاطر الدولة الكلية على تطور سوق الأوراق المالية للأسواق المستقلة مدفوعة في المقام الأول بالمخاطر السياسية للدولة.

الكلمات الدالة: مخاطر الدولة، تطور سوق الأوراق المالية، الدليل الدولي لمخاطر الدول، الأسواق المؤهلة، الأسواق المتقدمة، الأسواق الناشئة، الأسواق الحدودية، الأسواق المستقلة.

Suggested Citation according to the APA Style

Abualmaaty, N., El-Sady, H. (2025). Country Risk and Stock Market Development: Eligible Markets, *Journal of Alexandria University for Administrative Sciences*, *62*(2), 169-204.