JBASS
Journal of Business Administration and Social Studies

ORIGINAL ARTICLE
DOI: 10.5152/JBASS.2024.23014

Stock Market Development Strategy: A Catalyst for Attaining the Sustainable Development Goal 8

Borsa Piyasası Geliştirme Stratejisi: Sürdürülebilir Kalkınma Hedefi 8'i Gerçekleştirmek İçin Bir Katalizör

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Abstract

The Sustainable Development Goal 8 aims to achieve decent work and productive employment for every woman and man by 2030, which is a goal that cannot be disputed. However, the persistent rise in the unemployment rate has sparked extensive discussion among policymakers, academics, and economists, and the government has been working tirelessly to develop new strategies to counteract the problem in developing nations like Nigeria. While several studies have shown that the growth and development of Nigeria's stock market have helped create jobs, these researches have focused on the Millennium Development Goals, and its findings may not generalize to the Sustainable Development Goals. It is for this reason that the study was conducted. This research uses proxies for stock market development to analyze the effect of market capitalization, market stock traded, and the all-share index on unemployment in Nigeria over the past three decades (1985–2020). The results from the autoregressive distributed lag bound testing analysis showed that market capitalization, market stock traded, and the all-share index have positive effects on unemployment in the short run and long run. The study suggests that the stock market development had not resulted in the creation of jobs, which may have prevented the persistent rise in youth unemployment in Nigeria. So, the study recommends the improvement of the stock market to provide additional employment opportunities while simultaneously addressing other structural issues in the labor market. Also, the government must maintain steady job growth through measures designed to increase production, with help from rising stock market development.

Keywords: All-share index, market capitalization, Nigeria, stock traded, unemployment

Öz

Sürdürülebilir Kalkınma Hedefi 8, 2030 yılına kadar her kadın ve erkek için layıkıyla çalışma ve üretken istihdamı gerçekleştirmeyi amaçlamaktadır ki bu hedef tartışılmazdır. Ancak, işsizlik oranındaki sürekli artış, politika yapıcılar, akademisyenler ve ekonomistler arasında geniş çapta tartışmalara yol açmış ve hükümet, özellikle Nijerya gibi gelişmekte olan ülkelerde sorunla mücadele etmek için yeni stratejiler geliştirmek için yoğun bir şekilde çalışmıştır. Birçok çalışma, Nijerya'nın borsasının büyüme ve gelişmesinin iş yaratmada yardımcı olduğunu gösterse de, bu araştırmalar Bin Yıl Kalkınma Hedefleri (BYKH) üzerine odaklanmıştır ve bulguları Sürdürülebilir Kalkınma Hedefleri için genelleştirilemeyebilir. İşte bu nedenle bu çalışma yürütülmüştür. Bu araştırma, borsa gelişiminin göstergelerini kullanarak, Nijerya'da son üç on yılda (1985-2020) piyasa sermayesi, piyasada işlem gören hisseler ve tüm pay indeksinin işsizlik üzerindeki etkisini analiz eder. ARDL sınır testi analizinden elde edilen sonuçlar, piyasa sermayesi, piyasada işlem gören hisseler ve tüm pay indeksinin kısa ve uzun vadede işsizlik üzerinde olumlu etkileri olduğunu göstermiştir. Çalışma, borsa gelişiminin, Nijerya'da genç işsizliğindeki sürekli artışın önlenmesine yardımcı olacak işlerin yaratılmasına yol açmadığını öne sürmektedir. Bu nedenle, çalışma, işgücü piyasasındaki diğer yapısal sorunlarla eş zamanlı olarak ele alınırken, ek istihdam fırsatları sağlamak amacıyla borsa piyasasının iyileştirilmesini önermektedir. Ayrıca, hükümetin, artan borsa gelişiminden yardım alarak üretimi artırmaya yönelik tedbirlerle istikrarlı iş büyümesini sürdürmesi gerekmektedir.

Anahtar Kelimeler: Piyasa büyüklüğü, işlem gören hisseler, tüm pay indeksi, işsizlik, Nijerya

Cite this article as: Ogunjinmi, O. O., & Ogbekene, I. (2024). Stock market development strategy: A catalyst for attaining the sustainable development goal 8. *Journal of Business Administration and Social Studies*, 8(1), 11-23.

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Received: August 2, 2023
Revision Requested: August 11, 2023
Last Revision Received: October 14, 2023
Accepted: October 23, 2023
Publication Date: March 6, 2024

Introduction

The Nigerian economy has been struggling with poverty, unemployment, and economic inequality for quite some time. Increasing output growth was seen by many economists and policy experts as the panacea for these maladies, prompting a plethora of research on the factors influencing gross domestic product (GDP) growth in Nigeria. Yet, the triple threat continues to plague Nigeria, so there is still a need for research into effective strategies for combating income disparity, poverty, and unemployment. Widespread inequality and poverty in the country are often attributed to the high unemployment rate (Maku & Alimi 2018). Hence, the Nigerian government has prioritized economic transformation over economic growth, a move made necessary by the country's severe income disparities and high unemployment rate.

Furthermore, the efficacy of governmental endeavors across several tiers has proven insufficient in addressing the persistent issue of unemployment in Nigeria. The country's job creation potential is constrained by many structural issues, including inadequate infrastructure, tariff and non-tariff barriers to trade, obstacles to investment, lack of confidence in currency valuation, and limited foreign exchange capacity. Another major cause of Nigeria's job creation problems was overdependence on crude oil as a major source of revenue for the government. With the unstable price of crude oil, it becomes very difficult for the government to finance the nation's budget comfortably and to live up to the expectations of the masses. The job problem in Nigeria is further exacerbated by the inherent level of corruption and greed among the elites and the political class. Corruption has eaten deep into the nation's economic, political, and social structures. According to recent rankings by Transparency International (2023), Nigeria has been positioned as the 30th most corrupt nation globally. At present, there are lots of politically motivated terrorism and violence. There is Boko Haram saga in the North East, which has rendered the North East economy to stand still. Reports also indicate that the activities of Boko Haram have left many people dead and others in piteous situations (Ajide & Alimi, 2021, 2022, 2023).

Over the years, the Nigerian government has employed stock market strategies as policy measures to address the issue of unemployment. The Nigerian stock market has expanded in size and activity over the past few years. Up until 2008, the stock market performance was consistent with that of other developed stock markets throughout the world. For example, there was a massive increase in market capitalization, from $2142.5 million in 1993 to $56,569.03 million in 2020 (World Bank, 2022). Likewise, from a low point of $30.2 million in 1993, market turnover increased to about $2481.93 million in 2020 (World Bank, 2022). The overall performance of the stock exchange market, measured by the all-share index, has climaxed in the era of the stock market boom. The index peaked at an all-time high of 57,990.2 points in 2007 from its low 1990 figure of 513.8 points (Nigerian Exchange Group, 2023). However, the impressive era of the stock market growth came to an end as a result of various sharp practices by the market participants. In 2020, the all-share index stands at 39,631.07 points (Nigerian Exchange Group, 2023).

Despite the fact that the Nigerian capital market is still relatively young, it has been one of the rising financial markets that has had the most rapid growth in recent years. According to Ezeonu (2018), despite the market's promising front, inquiries have uncovered a number of detrimental and unethical acts that led to its demise in 2008. Unfortunately, the market was poorly managed due to the Nigerian Stock Exchange's lack of integrity, which led to massive divestment from the country, the loss of jobs, and a significant drop in tax revenues. Akinmade, Adedoyin, and Bekun (2020) noted that some investors were concerned about high valuations, insider trading, illegal stock sales by brokers, sales of non-existent shares to investors, diversion of returns on investors' stock by stockbrokers, pump and dump, and other fraudulent practices for quite some time before the global economic meltdown. The overvalued Nigerian stock market was certain to fall regardless of the global economic disaster of 2008, as it was the result of massive spread abuse and extraordinary market manipulation (Osakwe & Ananwude, 2017).

Within this context, this research seeks to use the autoregressive distributed lag (ARDL) bound testing approach to empirically examine the effect of stock market growth on unemployment in Nigeria. The current research uses stock market capitalization, total stock trading value, and all-share Index as proxies for stock market growth, resulting in a set of three multivariate equations. To the best of our knowledge, this is the first study to our knowledge to use three proxies of stock market development to investigate the finance-unemployment nexus in Nigeria. The findings of this study are anticipated to make a sizable contribution to policy alternatives aimed at mitigating the effects of inequality, poverty, and unemployment in Nigeria. It is hoped that this research will help break the silence surrounding the links between the economy and joblessness on a national and international scale.

The remaining sections of the paper are as follows: Section 2 presents the theoretical and empirical review of stock market development and unemployment. Section 3 presents the material and methods used to analyze the effect of stock market growth on unemployment, while Section 4 is dedicated to results, which discuss the empirical analyses and findings. The final part of the study presents the conclusion and policy recommendations.

Literature Review

The connection between financial development and unemployment is understudied at the moment. Few empirical studies have looked at how the development of the stock market and other financial institutions affects unemployment rates. Several of these studies focus not just on the effects of financial growth on the labor market but also on its stability. There are three main categories that can be used to categorize the available empirical literature on how economic growth affects

unemployment. Studies that discovered an inverse relationship between the two macroeconomic variables make up the first group. Epstein and Shapiro (2018) looked at developing and emerging economies; Kanberoğlu (2014) looked at Turkey between 1985 and 2010; and Shabbir et al. (2012) looked at Pakistan in the short run and the long run when financial development was measured by financial sector activities. Darrat et al. (2005) also looked at the relationship between finance and unemployment.

The second set contains largely of research that revealed a positive link between the two. Ogbeide et al. (2015) examined the relationship between unemployment and banking sector development in Nigeria from 1981 to 2013; Kanberoğlu (2014) examined the same question for Turkey from 1985 to 2010, using broad money supply as a proxy for financial development; and Shabbir et al. (2012) looked at the same question for Pakistan. The third category includes research that revealed no link between stock market development and unemployment. Epstein and Shapiro (2018) looked at developed economies; Bayar (2016) examined 16 emerging market economies from 2001 to 2014; Ilo (2015) examined the situation in Nigeria from 1986 to 2012; and Darrat et al. (2005) examined the situation in the United Arab Emirates over the course of just a few years.

The relationship between unemployment and stock prices was studied by Farsio and Fazel (2013), who focused on the three largest economies in the world (the United States, China, and Japan). We use reasoning to show that these perspectives mislead potential investors in their article. We postulate that the correlation between the unemployment rate and stock market values is not robust over the long run. To determine whether or not the Nigerian capital market has been successful in reducing unemployment throughout the years, Ilo (2015) analyzes the relationship between the market and unemployment in Nigeria. Data on unemployment, market capitalization, and other economic indicators are drawn from the Central Bank of Nigeria's Statistics Bulletin for a 30-year time span (from 1986 to 2012). In order to analyze the data, the researchers used a method called Johansson cointegration vector error correction. While market capitalization as a percentage of the size of the economy is 14.42%, the unemployment rate has averaged 8.12% since the implementation of the structural adjustment programme. While the expansion of output growth does help reduce unemployment, the growth of the capital market does not. As a result, job growth in Nigeria has slowed as the stock market has expanded over the years.

Phiri (2017) uses quarterly data from South Africa's economy collected between 1994:Q1 and 2016:Q4 to investigate linear and nonlinear cointegration and causal links between unemployment and stock market performance. Although both the linear and nonlinear frameworks eventually reject the idea of any causal linkages between the variables, their empirical results demonstrate considerable cointegration effects between the time series. Both the idea that unemployment is a strong predictor of stock market returns and the idea that changes in the stock market have any effect on the unemployment rate are disproved by our research. Because of this evidence, proponents of weak-form efficiency in Johannesburg Stock Exchange (JSE) equity prices argue that investors cannot use unemployment data to predict the movement of future share prices, and policymakers cannot count on stock market growth to reduce the persistently high unemployment levels in accordance with current macroeconomic policy objectives. Stock markets and unemployment are two topics that Pan (2018) investigates in 30 developed and 11 developing and emerging nations. All of the groups of countries exhibit evidence of cointegration between the unemployment rate and stock prices, and all of the groups also show evidence of causation between stock prices and unemployment. In particular, the study discovered a robust and unidirectional causal connection between stock prices and the unemployment rate across the G7 countries. For other developed nations, stock market fluctuations and joblessness are strongly linked. Yet, the Granger causality test results show a robust relationship between unemployment and stock prices in 11 developing and rising economies. For developing and emerging economies, the results indicate that the unemployment rate is a useful predictor of stock values but not the other way around.

Using a pooled mean group model, Umar and Nayan (2018) investigate the long-run link between unemployment and stock market development in Africa from 1996 to 2016. The results indicate that unemployment has a positive and statistically significant effect on the development of the stock market. The findings are consistent with the assumption that unemployment can aid in stock market forecasting, so policymakers can utilize the unemployment report to promote stock market growth. Nyasha, Odhiambo, and Musakwa (2021) examine the connection between the growth of South Africa's stock market and the country's unemployment rate using time-series data from 1980 to 2019. A combination of factors, including high levels of structural unemployment and a stock market that is on par with more developed nations, prompted the research. Using stock market development proxies such as market capitalization, total value of stocks traded, and turnover ratio, this study contributed to the stock finance-unemployment literature. The study found that stock market growth in South Africa has a negative effect on unemployment, as determined by using the ARDL bound testing method. For all proxies of stock market growth utilized both in the long and in the short term, their findings were consistent. These findings suggest that the stock market positively influences employment growth in South Africa.

Material and Methods

Model Specification

Following the empirical work of previous studies such as Bayar (2016) and Epstein and Shapiro (2018), the study modeled unemployment rate as a function of stock market development indices such as market capitalization to GDP, stock traded value to GDP, and all-share index, including the relevant control variables, i.e., capital investment, financial sector development,

trade openness, income per capita, and inflation rate. The baseline model for the time-series analysis is specified as:

$$unemp_t = f(smd_t, inv_t, fsd_t, topen_t, gdppc_t, \inf_t) \quad (1)$$

To estimate the parameters, the function is transformed into the generalized equation below as:

$$unemp_t = \theta_0 + \Theta smd_t + \theta_1 inv_t + \theta_2 fsd_t + \theta_3 topen_t + \theta_4 gdppc_t + \theta_5 \inf_t + \upsilon_t \quad (2)$$

where *unemp* denotes employment generation proxy by unemployment rate; *smd* is a vector of stock market development indices like market capitalization to GDP (*mcap*), stock traded value to GDP (*sttrd*), and all-share index (*asi*); *inv* represents capital investment measured by gross fixed capital formation to GDP; *fsd* is financial sector development proxy by domestic credit to the private sector by banks to GDP; *topen* is trade openness; *gdppc* denotes gross domestic product (GDP) per capita growth; *inf* is inflation measuring price stability; $\theta_0, \Theta, \theta_{1-5}$ are parameters; *t* denotes time; and υ is disturbance term.

Data and A Priori Expectations

This study makes use of annual data that was collected from 1985 all the way through 2020. The databases of both the World Bank and the Central Bank of Nigeria are mined for data regarding unemployment, stock market development, investments, financial sector development, trade openness, income, and inflation.

Concerning the employment generation model, the study presumes that an increase in stock market development has a positive impact on national employment in the country. It implies that there is a high tendency for employment generation with an improved stock market. Likewise, capital and income per capita are expected to enhance the level of employment. Output growth is expected to have a direct relationship with employment. As output increases, there are high chances of employing more people in the country. If there is an inflow of domestic credit to the private sector by banks through an improved financial sector, it is expected to increase domestic investment as there is a high tendency to increase employment in an economy. Also, trade openness is expected to have a direct relationship with employment levels. This is because as the trade between countries improves, employment generation through output growth is expected. However, high inflation is expected to cause a drag on employment generation.

Estimation Methods

Before estimating the parameters, the study examines the stationarity (presence of a unit root) of the variables using the augmented Dickey Fuller (ADF) test. Afterward, the study tests for the cointegration of the variables depending on the results of the stationarity of the variables. In this study, the ARDL was used to estimate the short-run and long-run estimates of the existing relationship between stock market development and economic performance. Three advantages for using this method are stated as: (a) having a relatively small sample size; (b) having variables with a mixed stationarity level of either I(0) or I(1); and (c) being able to construct long-run and short-run estimates simultaneously (Shahbaz et al., 2013; Alimi, Fagbohun, & Abubakar, 2021; Alimi, Odugbemi, & Osisanwo, 2023). The Akaike information criterion (AIC) is used to make the decision regarding the lag duration. The value of the *F*-statistic that was calculated is utilized in the decision-making process regarding cointegration. In order to determine the importance of the value that we have obtained, it is compared with two tabular values that were computed by Narayan (2004): an upper bound and a lower bound. According to the decision criteria, cointegration is supported if the calculated value is higher than the upper bound value; no cointegration is supported if the calculated value is lower than the lower bound value; and the conclusion is inconclusive if the calculated value sits between the two bound values (Alimi et al., 2023).

Approval from the Ethics Committee

Since the datasets represent existing data from reputable entities (the Central Bank of Nigeria and the World Bank), they do not require permission from an ethics council. The datasets qualify as public domain since they can be accessed by anyone with an internet connection. The datasets have also been obtained in accordance with these institutions' established ethical principles and protocols.

Results and Discussion

Summary Statistics

The summary of the preliminary analysis showing the mean, standard deviation, skewness, and peakedness of the variables employed for analyzing the relationship between stock market development and employment in Nigeria is presented in Table 1.

From Table 1, it shows that the mean of inflation, gross domestic product per capita growth, and unemployment are 19.18%, 1.595%, and 11.13%, respectively. Correspondingly, the table revealed their maximum values to be 72.84%, 12.46%, and 27.1% and their minimum values to be 5.39%, –4.46%, and 1.8%. The average income per capita growth is a jobless growth and also affected by inflation. It means that the unemployment rate and inflation is relatively high due to the low output productivity. The average value of the inflation rate is high, as it stood at a double digit. As for stock market development indicators, the average values of market capitalization and stock traded, all as the percentage of GDP, are 11.78% and 0.84% respectively. Also, their maximum values are 38.01% and 4.203%, whereas the minimum values are at 3.09% and 0.041%, respectively. The mean value of the all-share index stands at 17,257.12. Its respective maximum value is 57,990.2, while the minimum value is 127.3. In addition, the average values of domestic credit to the private sector by banks to GDP, total trade to GDP, and domestic investment to GDP are 9.54%, 34.27%, and 31.1%, respectively. Also, their maximum values are 19.6%, 53.28%,

Table 1.
Descriptive Statistics

	inf	*gdppc*	*unemp*	*mcap*	*sttrd*	*asi*	*fsd*	*topen*	*inv*
Mean	19.18	1.595	11.13	11.78	0.842	17,257.12	9.538	34.27	31.10
Standard deviation	17.68	3.800	7.514	8.385	0.935	15,413.76	3.544	10.94	13.14
Sample variance	312.74	14.44	56.46	70.30	0.875	237,583,962	12.56	119.75	172.66
Kurtosis	2.144	0.618	-0.804	0.960	4.539	-0.448	1.147	-0.078	-1.262
Skewness	1.819	0.485	0.531	0.986	2.004	0.575	1.102	-0.451	0.255
Minimum	5.388	-4.457	1.800	3.085	0.041	127.3	4.948	9.136	14.169
Maximum	72.84	12.46	27.10	38.01	4.203	57990.2	19.60	53.278	54.948
Observation	36	36	36	36	36	36	36	36	36

Source: Author's computation (2022).

and 54.95%, whereas the minimum values are at 4.95%, 9.14%, and 14.17%, correspondingly.

Moreover, the asymmetries in the series' distribution around its mean are quantified by skewness, which has a normal distribution at zero. Distributions with a positive skewness tend to have a long right tail, while those with a negative skewness tend to have a long left tail. The results from Table 1 demonstrated that, with the exception of trade openness, all variables are positively skewed, suggesting lengthy right tails. Additionally, kurtosis evaluates how peaky or flat the series distribution is. A peaked (leptokurtic) distribution has a kurtosis greater than 3, whereas a flat (platykurtic) distribution has a kurtosis smaller than 3. Only the ratio of stock market value to GDP is greater than 3, suggesting a peaked or leptokurtic distribution (see Table 1). Flat or platykurtic distributions were implied for the other variables because their values were below 3.

Correlation Analysis and Trend Review

The correlation analyses of the variables are presented in Table 2. The coefficients show the level of association between the variables used to explain the existing relationship between stock market development and employment in Nigeria.

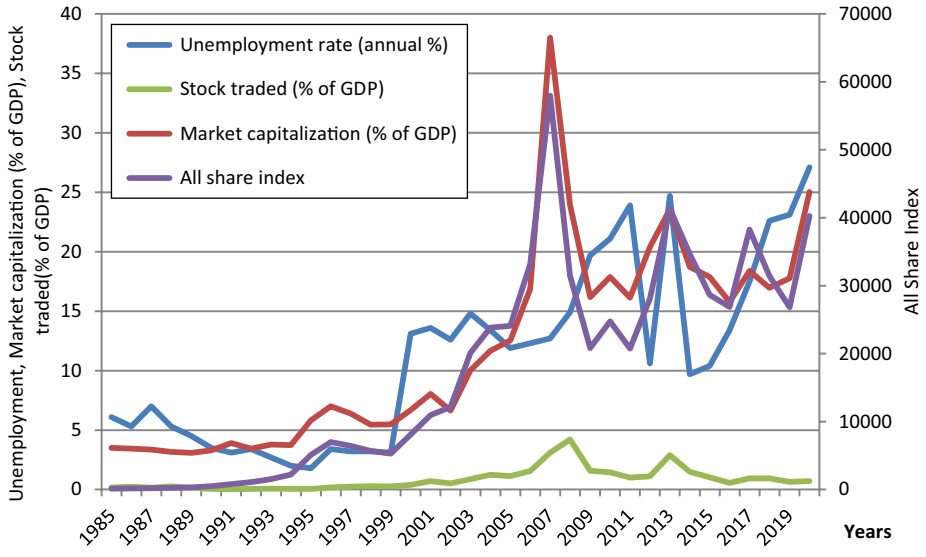
From Table 2, the results show that market capitalization, stock traded, and all-share index correlated negatively with the inflation rate but corelated positively with income per capita growth and the unemployment rate in Nigeria. Also, the inflation rate relates negatively with income per capita growth and unemployment. However, the correlation result shows a direct level of association between income per capita growth and unemployment, which further signifies the overall output as a jobless growth. Regarding the controlling variables, the inflation rate is adversely related to financial sector development and trade openness but directly correlated with investment. For GDP per capita growth and unemployment, they are positively associated with financial sector development and trade openness, whereas they are negatively correlated with capital investment. It is imperative to note that the correlation coefficients are relatively moderate except for the one showing the relationship among the indicators of stock market development (market capitalization, stock traded, and all-share index). Concerning the controlling variables, their

Table 2.
Correlation Matrix

	inf	*gdppc*	*unemp*	*mcap*	*sttrd*	*asi*	*fsd*	*topen*
gdppc	-0.317	1						
unemp	-0.439	0.171	1					
mcap	-0.418	0.086	0.603	1				
sttrd	-0.371	0.326	0.531	0.812	1			
asi	-0.431	0.107	0.628	0.968	0.765	1		
fsd	-0.339	0.089	0.622	0.643	0.630	0.696	1	
topen	-0.080	0.282	0.165	0.153	0.195	0.131	0.090	1
inv	0.365	-0.179	-0.630	-0.609	-0.658	-0.751	-0.775	-0.285

Source: Author's computation (2022).

Figure 1.
Trend Review of Stock Market Indices and Unemployment. Source: CBN statistical bulletin (2020), WDI (2021).



correlation relationships differ among the three measures of economic performance. Meanwhile, the correlation coefficients of these controlling variables are equally reported. Consequently, these results are just a preliminary analysis subject to confirmation using the appropriate estimation method to reveal the parameter signs and magnitudes of the variables.

The trend of stock market development series and unemployment is presented in Figure 1. At the beginning of the period, unemployment declined drastically from 6.1% in 1985 to 1.8% in 1995, then grew slightly to 3.4% in 1996, and dropped faintly to 3.2% and 3.1% in 1998 and 1999, respectively. In 2000, a double digit was recorded at 13.1%, which further clung to 23.9% in 2011. Peak was recorded in 2013 at 24.7%, fell to 9.7% in 2014, and has since continually grown to 10.4%, 13.4%, 17.5%, 22.6%, 23.1%, and 27.1% in 2015, 2016, 2017, 2018, 2019, and 2020, respectively. The trend movement of market capitalization as a ratio of GDP and the all-share index moves approximately in the same direction. Correspondingly, the series witnessed its peak at 38.01% and 57,990.2 in 2007. They grew steadily from 1985 to 2006. But it experienced a sharp growth in 2007, which then fell to a depth of 16.18% and 20,827,17 for market capitalization and all-share index, respectively. For the remaining periods, the trend moves in a crisscross manner. As for stock traded to GDP, the series moves slightly from 0.17% in 1985 to 0.27% in 1988 and falls to 0.046% in 1990. Afterward, a line movement was noted from 1990 to 1995, with a statistic of 0.059%. Later, the indices grew steadily to 0.7% in 2001, 1.25% in 2004, 1.55% in 2006, and a spike in 2008 at 4.2%, respectively. A significant drop occurred in the later year, at 1.58% in 2009, 1.44% in 2010, and 1.003% in 2011. In 2013, it grew to 2.9% and dropped to 1.49% in 2014 and 0.56% in 2016. Meanwhile, it grew to 0.94% in 2017 but slightly deeper to 0.93% in 2018 and 0.64% in 2019, and then grew to 0.7% in 2020.

Pre-Estimation Tests (Unit Root Test)

In this section, the study presents the unit root test results by investigating the stationarity level of the variables. This estimator is used to check for the existence of a unit root, i.e., if the variables are not stationary at levels. The estimators used to carry out the test are the ADF and Phillip–Perron (PP) tests. The test is first tested and presented before the co-integration analysis, which also forms the pre-estimation test. The ADF and PP are carried out using the E-Views software package, and the results from the test are presented in Table 3.

When carrying out the ADF and PP tests, the a priori expectation is that the variable is stationary if the value of the ADF and PP test statistics is greater than the critical value at 5%. This indicates that the variable is not changing over time. From the test results reported in Table 3, only financial sector development measured by domestic credit to the private sector by banks was found not to accept the null hypothesis "it has unit root test" at 5% level using both ADF and PP estimators. It implies that financial sector development is stationary at certain levels i.e., the series is integrated at order zero [I(0)]. Meanwhile, income per capita growth and unemployment are stationary at levels using the PP test, but they are not when ADF is employed. However, income per capita growth and unemployment were stationary at the first difference using the ADF test. It was therefore concluded that the series are integrated at order one.

Furthermore, the series of inflation, market capitalization, stock traded, all-share index, trade openness, and capital investment

Table 3.
Augmented Dickey Fuller and Philip–Perron Test Results (Trend and Intercept)

	Augmented Dickey Fuller Test		Phillip–Perron Test		
Variables	Stat at level	Stat at first diff.	Stat at level	Stat at first diff.	Remarks
inf	-2.6321(7) [-3.580]	-4.2478**(8)[-3.5950]	-2.9829(7)[-3.5443]	-6.6223***(2)[-3.5485]	I(1)
gdppc	-1.8914(1)[-3.5485]	-4.6937***(1)[-3.5530]	-4.0824**(8)[-3.5442]	-	I(1)
unemp	-2.2808(1)[-3.5485]	-4.5759***(1)[-3.5530]	-3.7561**(3)[-3.5443]	-	I(1)
mcap	-3.3215*(0)[-3.5443]	-6.3029***(0)[-3.5485]	-3.5443*(1)[-3.5443]	-8.0513***(11)[-3.5485]	I(1)
sttrd	-2.6549(0)[-3.55443]	-6.2382***(0)[-3.5485]	-2.6245(3)[-3.5443]	-6.5693***(3)[-3.5485]	I(1)
asi	-3.4320*(0)[-3.5443]	-6.1785***(1)[-3.5530]	-3.4320*(0)[-3.5443]	-7.7239***(9)[-3.5485]	I(1)
fsd	-3.9980**(1)[-3.5485]	-	-4.3273***(3)[-3.5485]	-	I(0)
topen	-2.8449(1)[-3.5485]	-5.2353***(1)[-3.5530]	-2.6092(4)[-3.5443]	-7.9579***(3)[-3.5485]	I(1)
inv	-0.7543(0)[-3.5443]	-6.2791***(0)[-3.5485]	-0.6386(2)[-3.5443]	-6.5354***(6)[-3.5485]	I(1)

Note: ***, **, and * signify significance level at 1%, 5%, and 10% respectively.
Sources: Author's computation (2022).

are not stationary at levels. However, after differencing at level one, they are found to be stationary, i.e., they are integrated at order one [I(1)]. Thus, the series (inflation, market capitalization, stock traded, all-share index, trade openness, and capital investment) did not reject the null hypothesis "no stationary" at levels; however, after multiple iterations depending on the number of lag lengths and differencing, the series did reject the null hypothesis at the first difference. This indicates that the first difference between these series was stationary.

Estimation Outcomes

Cointegration Test Result

Concerning this section, the study examines the long-run relationship between stock market development (i.e., market capitalization, stock traded, and all-share index) and other cofounding series using the ARDL bound cointegration approach prior to both the short-run and long-run estimates. For the models showing the relationship between stock market development, employment generation, and other controlling variables, the ARDL bound test is used since it is appropriate for variables at various integration orders. Table 4 displays the estimated *F*-statistics for assessing the long-term link between stock market growth, unemployment, and other control variables in Nigeria.

From Table 4, the computed *F*-statistics of the normalized equation (F_{arb}=11.006, 5.332, and 8.075) are higher than the lower and upper critical bounds at the 1% significance level. This means, at a 1% level of significance, that there is a rejection of the null hypothesis that there is no long-run association. Intuitively, this implies that stock market development (i.e. market capitalization, stock traded, and all-share index), control variables (such as capital, financial development, trade openness, income per capita, and inflation), and employment are all held together in the long run by equilibrium conditions. Thus, there exists a long-run relationship between the stock market and unemployment in Nigeria.

Short-run and Long-run Effects of Market Capitalization on Employment

The sub-sector tests the null hypothesis that the size of Nigeria's stock market has no significant effects on the country's unemployment rate. Using the estimated ARDL approach, it analyzes the short-run and long-run estimates of stock market capitalization and other controllable factors in Nigeria. Table 5 displays the empirical estimates we have

Table 4.
Existence of Cointegration Between Stock Market Development and Employment

Test Statistic	Value	*K*
F-statistics (unempl mcap, inv, fsd, topen, gdppc, inf) ARDL(4, 3, 3, 3, 3, 3, 3)	11.0062	6
F-statistics (unempl sttrd, inv, fsd, topen, gdppc, inf) ARDL(3, 2, 0, 3, 2, 1, 1)	5.3323	6
F-statistics (unempl mcap, inv, fsd, topen, gdppc, inf) ARDL(4, 3, 3, 3, 3, 3, 3)	8.0747	6
Critical value bounds		
Significance	I0 Bound	I1 Bound
10%	1.99	2.94
5%	2.27	3.28
2.5%	2.55	3.61
1%	2.88	3.99

Source: Author's computation (2022).

made regarding market capitalization, capital, financial development, trade openness, per capita income, and inflation. The findings of the short-term estimate reveal the error correction mechanism, which quantifies the rate of adjustment. It is the rate at which a dependent variable adapts to new conditions in one or more other variables. A short-run dynamic analysis is performed to ensure that the dynamics of the model have not been limited by inadequate lag length specifications. Using an algorithmic selection of the AIC, the ARDL test determined the lag duration for all variables, which was set to 4. Table 5 displays the estimated short-term correlation between stock market size and joblessness. The study finds that at the conventional level, the ECT coefficient is significantly negative. According to the ECT value (−0.8202), the model adjusts from its short-run disequilibrium to its long-run equilibrium at a pace of 82.02%.

The parameters of the first, second, and third short-run lags of the unemployment rate are negative and significant at the 5% level. It suggests that an increase in unemployment in previous periods is associated with a subsequent decrease in unemployment in the current period. In other words, if unemployment was high in the past, there is a tendency for it to decline in the present. The short-run coefficients of current market capitalization negatively and significant influence unemployment while the first and second lags have a direct and significant impact on unemployment at 5%. Also, investment at the current, first, and second lags positively and significantly impacts unemployment. It indicates that investment is not creating jobs. As regards financial sector development and income per capita, their current value negatively affects unemployment, although it is not significant at 5%. The coefficients of the first and second lags are both positive and significant at 5%. Meanwhile, the parameter estimates of trade openness and inflation were found to have a direct and significant influence on the unemployment rate.

The long-run estimates from Table 5 indicated that market capitalization and real income per capita growth have a positive and significant impact on unemployment in Nigeria. The result shows that the two indicators were not in tandem with the theoretical expectations. Also, on a magnitude basis, a 1% increase in market capitalization and real income per capita growth will cause unemployment to increase by 1.27% and 0.96%, respectively. Also, investment has direct effects on unemployment, but its impact is not statistically significant at 5%. However, the table reported that financial sector development, trade openness, and the inflation rate have indirect effects on the unemployment rate, which conform to a priori expectations except inflation. A 1% increase in financial sector development, trade openness, and the inflation rate reduce unemployment by 0.30%, 0.72%, and 0.012%, correspondingly.

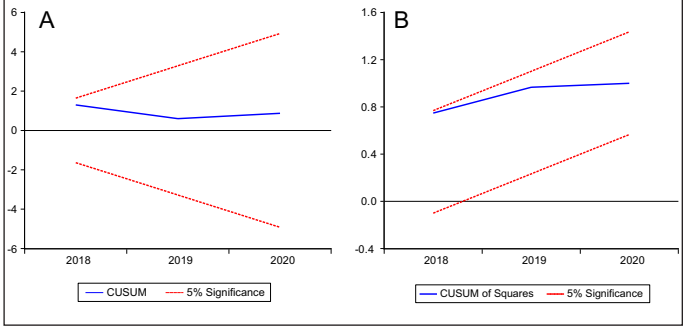
The coefficient of determination (adjusted-R^2) at 76.72% shows that about 76.72% of the overall fluctuations in unemployment were attributed to the explanatory variables in the model. Simply put, it showed that shifts in market capitalization and

Table 5.
Results of Estimated Autoregressive Distributed Lag Model of Market Capitalization and Employment

Dependent Variable: Unemployment (UNEMP)				
Selected Model: ARDL(4, 3, 3, 3, 3, 3, 3)				
Sample: 1985–2020			Included observations: 33	
Short-Run Estimates				
Variables	Coefficient	Std. Error	*t*-Statistic	*p*
D(UNEMP(-1))	-3.848798	0.212137	-18.14300	.0004
D(UNEMP(-2))	-3.259170	0.225688	-14.44102	.0007
D(UNEMP(-3))	-1.357783	0.114014	-11.90893	.0013
D(MCAP)	-0.258570	0.067113	-3.852755	.0309
D(MCAP(-1))	1.966017	0.153736	12.78829	.0010
D(MCAP(-2))	1.245944	0.133863	9.307638	.0026
D(INV)	0.707115	0.108200	6.535283	.0073
D(INV(-1))	2.072383	0.233009	8.894017	.0030
D(INV(-2))	2.417647	0.142770	16.93381	.0004
D(FSD)	-0.620938	0.241974	-2.566134	.0828
D(FSD(-1))	2.477788	0.169053	14.65687	.0007
D(FSD(-2))	4.550145	0.225636	20.16587	.0003
D(TOPEN)	1.439523	0.091238	15.77760	.0006
D(TOPEN(-1))	0.659292	0.043329	15.21577	.0006
D(TOPEN(-2))	0.729461	0.049898	14.61900	.0007
D(GDPPC)	-0.055531	0.075715	-0.733422	.5164
D(GDPPC(-1))	0.973634	0.126555	7.693390	.0046
D(GDPPC(-2))	1.072873	0.110473	9.711613	.0023
D(INF)	0.298421	0.029306	10.18304	.0020
D(INF(-1))	0.337580	0.036194	9.326999	.0026
D(INF(-2))	0.206213	0.022001	9.372827	.0026
ECT(-1)	-0.820168	0.128514	-6.381935	.0084
Long-run Estimates				
MCAP	1.268061	0.229093	5.535133	.0116
INV	0.401371	0.208210	1.927721	.1495
FSD	-0.298568	0.522040	-0.571926	.6074
TOPEN	-0.718015	0.246212	-2.916251	.0617
GDPPC	0.955127	0.129445	7.378645	.0051
INF	-0.012761	0.036215	-0.352358	.7479
C	8.425009	5.221944	1.613385	.2051
Adjusted R^2	0.7672	*F*-stat	23.0823	
Durbin–Watson	2.0363	Prob. (*F*-Statistics)	(.0000)	
Diagnostic Tests of Selected ARDL Model				
Serial correlation: 1.8377 [0.3080]		Normality test: 0.6596 (0.7191)		
Functional form: 0.2829 [0.8039]		Heteroskedasticity test: 1.1003 0.5507)		

Source: Author's computation (2022).

Figure 2.
(A) Cumulative Sum. (B) Cumulative Sum of Squares. CUSUM, cumulative sum.



other factors accounted for 76.72% of the variance in unemployment. The model is properly defined and statistically significant, as shown by the *F*-statistics value (23.082) at the 5% significance level. The serial autocorrelation is not present in the model, as shown by the Durbin–Watson statistic (2.0363). Furthermore, parameter stability, normality, and tests for heteroscedasticity and serial correlation in the calculated ARDL model are performed. The outcomes of these analyses are presented in Table 5. The serial correlation test, the normality test, and the heteroskedasticity test were all statistically significant in the calculated ARDL model. This indicates that the error terms are not serially associated and follow a normal distribution with the same variables. The ARDL model passed the Ramsey RESET test, demonstrating that it is properly specified. Additionally, the cumulative sum (CUSUM) and cumulative sum of squares (CUSUMSQ), respectively, presented in Figures 2a and b, are stable.

Short-Run and Long-Run Effects of Stock Traded on Employment

In the sub-sector, the null hypothesis of the total value of stocks traded has no significant effect on Nigeria's unemployment rate. Using the estimated ARDL approach, it analyzes the short-run and long-run estimates of stock traded and other controllable factors in Nigeria. Table 6 exhibits the empirical estimates of stock traded, capital, financial development, trade openness, per capita income, and inflation. The findings of the short-term estimate reveal the error correction mechanism, which quantifies the rate of adjustment. It is the rate at which a dependent variable adapts to new conditions in one or more other variables. A short-run dynamic analysis is performed to ensure that the dynamics of the model have not been limited by inadequate lag length specifications. Using an algorithmic selection of the AIC, the ARDL test determined the lag duration for all variables, which was set to 4. Table 6 shows the estimated short-term correlation between stock market size and joblessness. The study finds that at the conventional level, the ECT coefficient is significantly negative. According to the ECT value (−0.8811), the model adjusts from its short-run disequilibrium to its long-run equilibrium at a pace of 88.11%.

Table 6.
Results of Estimated Autoregressive Distributed Lag Model of Stock Traded and Employment

Dependent Variable: Unemployment (UNEMP)				
Selected Model: ARDL(3, 2, 0, 3, 2, 1, 1)				
Sample: 1985–2020			Included observations: 33	
Short-run estimates				
Variables	Coefficient	Std. Error	*t*-Statistic	*p*
D(UNEMP(-1))	-1.563986	0.176998	-8.836195	.0000
D(UNEMP(-2))	-0.474398	0.123687	-3.835473	.0018
D(STTRD)	1.968090	0.686949	2.864973	.0125
D(STTRD(-1))	6.396259	1.054400	6.066257	.0000
D(FSD)	0.033831	0.298910	0.113180	.9115
D(FSD(-1))	0.815092	0.234175	3.480693	.0037
D(FSD(-2))	2.076095	0.250592	8.284750	.0000
D(TOPEN)	0.397816	0.061161	6.504349	.0000
D(TOPEN(-1))	0.125140	0.058314	2.145974	.0499
D(GDPPC)	-0.065116	0.109495	-0.594692	.5615
D(INF)	-0.063097	0.028020	-2.251887	.0409
ECT(-1)	-0.881131	0.110152	-7.999217	.0000
Long-run estimates				
STTRD	8.576304	3.183192	2.694247	.0175
INV	-0.355563	0.160124	-2.220545	.0434
FSD	-1.642923	1.117787	-1.469800	.1637
TOPEN	-0.278627	0.093477	-2.980696	.0099
GDPPC	0.690286	0.317882	2.171514	.0476
INF	0.152249	0.070975	2.145105	.0500
C	34.16378	12.84066	2.660594	.0186
Adjusted R^2	0.8078	*F*-stat	13.5665	
Durbin–Watson	2.0474	Prob. (*F*-Statistics)	(.0000)	
Diagnostic Tests of Selected ARDL Model				
Serial correlation: 1.3209 [0.2711]		Normality test: 2.1296 [0.3448]		
Functional form: 0.4091 [0.6891]		Heteroskedasticity test: 0.4731 [0.9317]		

Source: Author's computation (2022).

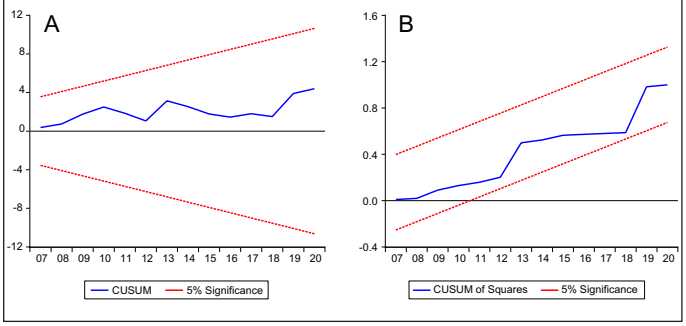
The coefficients corresponding to the first and second short-run lags of the unemployment rate exhibit negative and statistically significant values at the 5% significance level. This means that a historical upsurge in unemployment tends to coincide with a contemporaneous downturn, suggesting a potential pattern of reversal in unemployment trends over time. The short-term estimates indicate that both the current value and the

lagged one of the total amount of stock traded display positive and statistically significant coefficients at the 5% level. This suggests that fluctuations in the total amount of stock traded have a discernible impact on changes in unemployment. Also, the coefficients of financial sector development at current, lags one and two cause a rise in unemployment in the short run, which were significant at 5% except for the short-run current value of financial sector development. For the current and first lag of trade openness, the parameters are positive and significant, implying that trade openness influences employment generation negatively. However, the result of real income per capita in the short run has a negative parameter and is insignificant at the 5% level. The current value of short-run inflation has an indirect and significant impact on unemployment.

The long-run estimates from Table 6 indicated that the total amount of stock traded has a positive and significant impact on unemployment in Nigeria. The result shows that the indicator was in tandem with the theoretical expectations. In magnitude terms, a 1% increase in the total amount of stock traded will cause unemployment to increase by 8.58%. Also, real income per capita and inflation have direct and significant effects on the unemployment rate at 5%. A 10% increase in real income per capita and inflation would cause a rise in unemployment by 6.9% and 1.52%, respectively. However, the table reported that capital investment, financial sector development, and trade openness have indirect effects on unemployment, which do not conform to a priori expectations. The parameters of investment and trade openness are significant statistically at the 5% level. Thus, a 1% increase in capital investment, financial sector development, and trade openness curtails unemployment by 0.36%, 1.64%, and 0.28%, respectively.

The coefficient of determination (Adjusted-R^2) at 80.78% shows that about 80.78% of the overall fluctuations in unemployment were attributed to the explanatory variables in the model. Simply put, it showed that shifts in stock traded and other factors accounted for 80.78% of the variance in unemployment. The model is properly defined and statistically significant, as shown by the *F*-statistics value (13.567) at the 5% significance level. The serial autocorrelation is not present in the model, as shown by the Durbin–Watson statistic (2.0474). Furthermore, parameter stability, normality, and tests for heteroscedasticity and serial correlation in the calculated ARDL model are performed. The outcomes of these analyses are presented in Table 6. The serial correlation test, the normality test, and the heteroskedasticity test were all statistically significant in the calculated ARDL model. This indicates that the error terms are not serially associated and follow a normal distribution with the same variables. The ARDL model passed the Ramsey RESET test, demonstrating that it is properly specified. Additionally, the CUSUM and CUSUMSQ, respectively, presented in Figures 3a and b, are stable.

Figure 3.
(A) Cumulative Sum. (B) Cumulative Sum of Squares. CUSUM, cumulative sum



Short-run and Long-run Effects of All-Share Index on Employment

The sub-sector tests the null hypothesis that the size of Nigeria's all-share index has no significant effect on the country's unemployment rate. Using the estimated ARDL approach, it analyzes the short-run and long-run estimates of all-share index and other controllable factors in Nigeria. Table 7 displays the empirical estimates we have made regarding all-share index, capital, financial development, trade openness, per capita income, and inflation. The findings of the short-term estimate reveal the error correction mechanism, which quantifies the rate of adjustment. It is the rate at which a dependent variable adapts to new conditions in one or more other variables. A short-run dynamic analysis is performed to ensure that the dynamics of the model have not been limited by inadequate lag length specifications. Using an algorithmic selection of the AIC, the ARDL test determined the lag duration for all variables, which was set to 4. Table 7 displays the estimated short-term relationship between the all-share lindex and unemployment. The study finds that at the conventional level, the ECT coefficient is significantly negative. According to the ECT value (−0.7910), the model adjusts from its short-run disequilibrium to its long-run equilibrium at a pace of 79.1%.

The parameters associated with the first and second short-run lags of the unemployment rate demonstrate negative and statistically significant values at the 5% significance level. This indicates that an increase in unemployment in previous periods is linked to a concurrent decrease in the present period, implying a potential pattern of reversal in unemployment trends over time. The short-run parameter estimates of the current all-share index were found to be negative and statistically insignificant at 5%, while the first and second lags were positive and significant at 5%. Likewise, financial sector development at the current level has an indirect effect on unemployment, while its lags one and two have positive impacts. Investment, inflation, and trade openness at the current, first, and second lags positively and significantly impacted on unemployment in Nigeria. This shows that investment, inflation, and trade openness directly and significantly impact unemployment in the short run. Regarding real income per capita, both the current and first lag exhibit negative and statistically significant impacts on unemployment. However, the coefficient associated with its second lag demonstrates a positive and significant effect at the 5% level. This suggests a mixed relationship

Table 7.
Results of Estimated Autoregressive Distributed Lag Model of All-Share Index and Employment

Dependent Variable: Unemployment (UNEMP)				
Selected Model: ARDL(4, 3, 3, 3, 3, 3, 3)				
Sample: 1985–2020		Included observations: 33		
Short-run estimates				
Variables	Coefficient	Std. Error	*t*-Statistic	*p*
D(UNEMP(-1))	-3.870584	0.242429	-15.96584	.0005
D(UNEMP(-2))	-3.211316	0.254123	-12.63687	.0011
D(UNEMP(-3))	-1.189372	0.119835	-9.925081	.0022
D(ASI)	$-6.22E^{-05}$	$4.29E^{-05}$	-1.449141	.2432
D(ASI(-1))	0.001664	0.000117	14.20595	.0008
D(ASI(-2))	0.001227	0.000105	11.68871	.0013
D(INV)	0.669556	0.097274	6.883230	.0063
D(INV(-1))	4.099258	0.357354	11.47114	.0014
D(INV(-2))	4.772090	0.291326	16.38059	.0005
D(FSD)	-0.800922	0.197064	-4.064266	.0269
D(FSD(-1))	7.845495	0.487222	16.10252	.0005
D(FSD(-2))	8.213860	0.474641	17.30543	.0004
D(TOPEN)	2.354261	0.162159	14.51826	.0007
D(TOPEN(-1))	1.423165	0.093049	15.29485	.0006
D(TOPEN(-2))	1.321123	0.094442	13.98870	.0008
D(GDPPC)	-0.735584	0.106311	-6.919158	.0062
D(GDPPC(-1))	-0.773784	0.092909	-8.328426	.0036
D(GDPPC(-2))	1.021893	0.114452	8.928594	.0030
D(INF)	0.381672	0.033168	11.50716	.0014
D(INF(-1))	0.518273	0.049664	10.43556	.0019
D(INF(-2))	0.346082	0.026984	12.82526	.0010
ECT(-1)	c	0.176574	-4.479918	.0201
Long-run estimates				
ASI	0.000975	0.000167	5.850760	.0100
INV	1.185699	0.283710	4.179266	.0250
FSD	1.312032	0.391452	3.351707	.0440
TOPEN	-0.706381	0.218195	-3.237379	.0479
GDPPC	0.584280	0.113211	5.160984	.0141
INF	-0.091642	0.033711	-2.718422	.0726
C	-30.54188	7.699939	-3.966509	.0286
Adjusted R^2	0.8474	*F*-stat	20.9279	
Durbin–Watson	1.8288	Prob. (*F*-Statistics)	(.0000)	
Diagnostic Tests of Selected ARDL Model				
Serial correlation: 4.1917 [0.1772]		Normality test: 2.4548 [0.2931]		
Functional form: 0.9116 [0.4582]		Heteroskedasticity test: 0.2438 [0.9843]		

Source: Author's computation (2022).

wherein changes in real income per capita and their timing play a role in influencing unemployment dynamics. Specifically, past and current changes in real income per capita appear to exert a mitigating effect on unemployment, whereas more distant changes, represented by the second lag, contribute positively to unemployment levels.

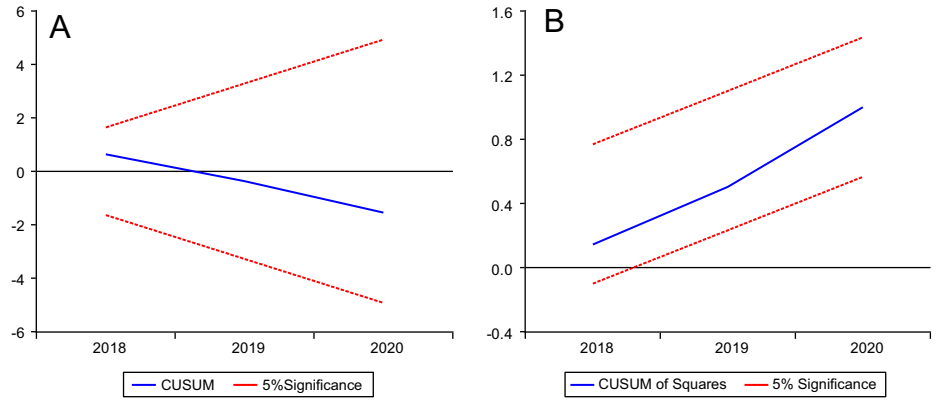
As regards the long-run estimates, Table 7 showed that all-share index has a positive and significant impact on unemployment in Nigeria. The result shows that the indicator was not in tandem with the theoretical expectations. On a magnitude basis, a 10% increase in the all-share index causes unemployment to increase by 0.0098%. As well, capital investment, financial sector development, and real income per capita have direct effects on unemployment. Their impacts are statistically significant at 5% but do not corroborate the a priori expectations. A 1% increase in capital investment, financial sector development, and real income per capita led to a rise in unemployment by 1.19%, 1.31%, and 0.58%, respectively. However, the table reported that trade openness and inflation have indirect effects on unemployment, which conform to a priori expectations. A 1% increase in trade openness and inflation reduced unemployment by 0.71% and 0.092%, correspondingly.

The coefficient of determination (Adjusted-R^2) at 84.74% shows that about 84.74% of the overall fluctuations in unemployment was attributed to the explanatory variables in the model. Simply put, it showed that shifts in all-share lindex and other factors accounted for 84.74% of the variance in unemployment. The model is properly defined and statistically significant, as shown by the *F*-statistics value (20.928) at the 5% significance level. The serial autocorrelation is not present in the model, as shown by the Durbin-Watson statistic (1.8288). Furthermore, parameter stability, normality, and tests for heteroscedasticity and serial correlation in the calculated ARDL model are performed. The outcomes of these analyses are presented in Table 7. The serial correlation test, the normality test, and the heteroskedasticity test were all statistically significant in the calculated ARDL model. This indicates that the error terms are not serially associated and follow a normal distribution with the same variables. The ARDL model passed the Ramsey RESET test, demonstrating that it is properly specified. Additionally, the CUSUM and CUSUMSQ, respectively, presented in Figures 4a and b, are stable.

Discussion of Findings and Conclusion

The empirical findings show that market capitalization has a positive impact on unemployment, both in the short and in the long run. This means that as market capitalization grows, Nigeria's unemployment rate also rises. Similarly, the employment generation is negatively influenced by the total amount of stock traded in the short and long run. In the same way, the all-share index has an indirect influence on the unemployment rate in Nigeria, both in the short and in the long run. The results are in tandem with the findings of Umar and Nayan (2018) that stock market development and unemployment are positively related. Meanwhile, the research outcomes do not align with

Figure 4.
(A) Cumulative Sum. (B) Cumulative Sum of Squares. CUSUM, cumulative sum



the study by Nyasha, Odhiambo, and Musakwa (2021), which discovered that the stock market positively influences employment growth in South Africa. This indicates that stock market performance failed to generate jobs, which could possibly cause an incessant increase in youth unemployment in Nigeria. This aligns with the findings of Ilo (2015) and Phiri (2017) that the growth of the capital market does not assist in the reduction of unemployment. Thus, while stock market development tends to attract investment and boost economic growth, it has failed to address the structural issues that drive unemployment in Nigeria. The country faces deep-seated challenges, including a rapidly growing population, underdeveloped labor markets, and disparities in skills and education. These issues outweigh the positive impacts of stock market development on job creation. Furthermore, the structure of Nigeria's economy, with a heavy reliance on the oil sector, exposes it to external shocks and limits the employment benefits generated by stock market growth. In addition, ineffective stock market regulation has led to speculative bubbles, market manipulation, and financial instability. These issues undermine the long-term sustainability of the stock market and erode its potential to contribute to employment. Other short-run factors ameliorating unemployment are capital investment, a poor credit system, and income growth. However, trade openness and inflation act as declining factors of unemployment for the periods understudied.

The existing links between stock market development and employment in Nigeria are investigated to understand how market capitalization, market stock traded, and all-share index affect the employment in Nigeria within the periods 1985–2020. Understudying this research study became necessary because it made inquiries about the findings of past studies, which can best be described as inconclusive. The ARDL estimator was used to evaluate the parameters. The findings revealed that market capitalization has a positive impact on unemployment, both in the short and in the long run. It implies that market capitalization adds to the country's unemployment. Similarly, the country's employment generation is negatively influenced by the total amount of stock traded in the short and long run. In the same way, the all-share index does not reduce the unemployment rate in the country, both in the short and in the long run. This indicates that stock market performance failed to create jobs, which could possibly cause an incessant increase in youth unemployment in Nigeria. So, the study suggests that policymakers should keep working to improve the stock market in order to provide additional employment opportunities while simultaneously addressing other structural issues in the labor market. It is highly imperative to encourage and motivate the stock market to create job opportunities for young, unemployed Nigerians. This will help to provide employment opportunities, reduce the incidence of vices and illegal adventures, and consequently increase economic performance as a result of a decline in prices and a rise in employment and output.

Ethics Committee Approval: Since the datasets originate from established sources such as the Central Bank of Nigeria and the World Bank, they do not necessitate approval from an ethics committee. These datasets fall under the public domain category as they are readily accessible to anyone with internet connectivity.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – O.O.O.; Design – I.O.; Supervision – O.O.O.; Resources – I.O.; Materials – I.O., O.O.O.; Data Collection and/or Processing – I.O.; Analysis and/or Interpretation – O.O.O.; Literature Search – O.O.O., I.O.; Writing Manuscript – O.O.O., I.O.; Critical Review – O.O.O.

Declaration of Interests: The authors have no conflict of interest to declare.

Funding: The authors declared that this study has received no financial support.

Etik Komite Onayı: Veri setleri, Nijerya Merkez Bankası ve Dünya Bankası gibi tanınmış kaynaklardan alındığı için çalışma etik kurul

onayı gerektirmemektedir. Bu veri setleri, internet bağlantısı olan herkes tarafından kolayca erişilebildiğinden kamuya açık kategorisine girmektedir.

Hakem Değerlendirmesi: Dış bağımsız.

Yazar Katkıları: Fikir – O.O.O.; Tasarım – I.O.; Denetleme – O.O.O.; Kaynaklar – I.O.; Malzemeler – I.O., O.O.O.; Veri Toplanması ve/veya İşlemesi – I.O.; Analiz ve/veya Yorum – O.O.O.; Literatür Taraması – O.O.O., I.O.; Yazıyı Yazan – O.O.O., I.O.; Eleştirel İnceleme – O.O.O.

Çıkar Çatışması: Yazarlar çıkar çatışması bildirmemişlerdir.

Finansal Destek: Yazarlar bu çalışma için finansal destek almadığını beyan etmiştir.

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