TRIPAL

Journal of Economics and Financial Analysis
Type: Double Blind Peer Reviewed Scientific Journal
Printed ISSN: 2521-6627 | Online ISSN: 2521-6619
Publisher: Tripal Publishing House | DOI:10.1991/jefa.v9i1.a76
Received: 19.02.2024 | Accepted: 16.02.2025 | Published: 28.08.2025
Journal homepage: ojs.tripaledu.com/jefa

The Influence of Political, Economic, and Financial Risks on the South African Global Equity Portfolio Returns under Changing Market Conditions

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Abstract

Country risk is one of major determinants of investors' decisions in pursuit of diversification opportunities and equity portfolio returns maximisation. This study investigates the effect of disaggregated country risk on South African global equity portfolio returns under fluctuating market conditions. Markov regime switching model was applied monthly data from January 2000 to December 2019. The study findings revealed that the foreign equity portfolio market moves between inefficiency and efficiency. Implying that country risks impact equity portfolio returns in foreign countries and the latter changes with market conditions. The results also indicated that more equity portfolios stay in bear market for extended periods compared to the amount of time spent in bull market. In other words, foreign portfolio equity market has been dominated by declining returns over the sample period. Additionally, all the assessed portfolios were affected by the country risk components. Yet, political risk proved to have dominant effect on foreign portfolios than other risk components. Consequently, political risk cannot be diversified through investing in alternative foreign portfolios.

Keywords: *Country Risk; Equity; Market Conditions; Markov Switching Model.*

JEL Classification: *E44; G15; G41.*

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1. Introduction

The past three decades have witnessed unprecedented financial globalization, characterized by the increasing integration of capital markets, rapid cross-border capital flows, and the expansion of investment opportunities beyond domestic economies (Wright, 2018; Andreev et al., 2015). While globalization enhances international portfolio diversification, it also exposes investors to the risks embedded in host countries' macroeconomic, financial, and political environments (Al Samman & GabAlla, 2020). Foreign portfolio investments (FPIs)—encompassing equities, bonds, and other securities—play a particularly important role in channelling capital into emerging economies such as South Africa, where they contribute to liquidity, employment, and growth (Makoni, 2020). However, FPIs are more volatile than foreign direct investment (FDI) flows, making them highly sensitive to fluctuations in country risk and global market conditions (Oloko, 2018).

Country risk has long been recognized as a key determinant of international investment returns (Karolyi & Wu, 2022). It reflects the degree of political, economic, and financial uncertainty facing a country, with implications for asset pricing, investor confidence, and capital allocation. Despite extensive research, two important gaps remain. First, while many studies assess the effect of aggregate country risk on equity markets, fewer examine the disaggregated components of risk—economic, financial, and political—and their asymmetric influence across different market regimes. Second, the literature tends to focus on either developed or broad cross-country samples, overlooking the dynamics within single emerging markets where risks are particularly pronounced.

South Africa provides a compelling case study. As one of the largest emerging economies in Africa, it is deeply integrated into global capital markets, yet characterized by persistent macroeconomic volatility, sovereign debt concerns, and recurrent political uncertainty (Mutize & Gossel, 2019). These factors amplify the sensitivity of foreign portfolio flows to country risk. Moreover, the country's financial openness and reliance on equity portfolio inflows heighten vulnerability to shifts in investor sentiment and global shocks.

This study seeks to address the above gaps by examining how disaggregated country risk components—economic, financial, and political—influence the returns of South African foreign equity portfolios under different market conditions. Employing a Markov regime-switching model, the paper captures potential nonlinearities and regime dependence, distinguishing between bull and bear markets. By doing so, it contributes to three strands of literature: (i) the link between country risk and portfolio returns in emerging markets, (ii) the asymmetric role of risk components across regimes, and (iii) the application of regime-switching models in understanding market efficiency and investor behavior under fluctuating conditions.

The remainder of the paper is structured as follows. Section 2 reviews the theoretical and empirical literature on country risk and portfolio returns. Section 3 outlines the data and methodology. Section 4 presents and discusses the results. Section 5 concludes with implications for investors, policymakers, and future research.

2. Literature Review

2.1. Conceptualizing Country Risk and Portfolio Investments

Global diversification enables investors to reduce idiosyncratic risks by combining assets with low correlations, leaving systematic risk as the main priced risk factor (Oudat et al., 2020). Yet, diversified equity portfolios still differ in their risk exposures, depending on their composition and the countries in which assets are located. Foreign portfolio investments (FPIs) are especially significant for reviving depressed investments, stimulating liquidity, and enhancing growth in emerging economies (Loncan & Caldeira, 2015). However, FPIs are more vulnerable to fluctuations in country risk, which varies across countries and portfolios (Al Samman & GabAlla, 2020).

Country risk denotes the potential divergence of the business environment in a particular country that may influence the value of assets and operating profits of entities. Country risk encompasses economic risk, financial risk and political risk associated with a particular country (Howell, 1998). Sissani (2014) describes economic risk as the possibility that macroeconomic factors may negatively impact investments. The total economic risk index has seven components namely current account as a percentage of GDP, real GDP Growth, inflation rate, budget balance as a percentage of GDP, current account as a percentage of GDP and GDP per head (Howell, 2011). On the other hand, financial risk is the possibility that a country may default on repaying foreign debt (Oetzel, 2001). Financial risk is an indicator of the country's domestic economy to generate enough foreign exchange to cover payments from interest and the principal of the external debt. The total financial risk index has five components namely current account as a percentage of total exports, foreign debt as a percentage of GDP, foreign debt service as a percentage of aggregate exports, exchange rate stability and net international liquidity as months of import cover (Howell, 2011). Contrary to economic and financial risks, political risk is the possibility that unexpected political events in a foreign country may adversely affect the value of investments. The total political risk index has 12 components which include socioeconomic conditions, government stability, eternal conflict, investment profile, democratic accountability, internal conflict, external conflict, military politics, ethnic tension, corruption, law & order, and bureaucracy quality (Howell, 2013).

Besides the management of country risk components, to maximise their return on investment, investors of a foreign portfolio are subjected to various financial and equity theories. In some cases those theories are antagonists. For instance, the Efficient Market Hypothesis (EMH), states that markets are always perfectly efficient given that investors are rational Fama (1965) opposes the Behavioural Finance Theory (BFT) positing that investors are irrational and that their sub-optimal behaviour creates inefficient markets (Tversky and Kahneman, 1974).

The Efficient Market Hypothesis states that markets reflect all available information in equity markets, and thus markets are deemed efficient. A vital concept linked to the EMH is the "random walk." The random walk claims that if information flow is uninterrupted and instantaneously reflected in the stock price, the current price will only reflect today's news and will not be related to yesterday's price change. The theory alludes that new information spreads rapidly and is immediately reflected in stock prices (Fama, 1965). Therefore, according to the EMH, country risk components would not impact portfolio returns since they would be included in the stock prices. Moreover, the EMH posits that investors are rational thinkers and always make rational decisions. Therefore, investors' psychological behaviour does not influence stock prices (Statman, 2014).

Contrary to the Efficient Market Hypothesis, the Behavioural Portfolio Theory (BPT) posits that investors separate their portfolios into different piles. Each of these piles is associated with a specific strategy or aspiration. The correlation of the assets within the portfolio is disregarded (Shefrin &Statman, 2000). This is the complete opposite of the Modern Portfolio Theory as it emphasises how diversification is beneficial if the stocks are not perfectly correlated. The BPT also states that an individual can be both a risk-averse investor and a risk-taker depending on the market conditions (Pfiffelmann et al., 2016). The behavioural finance theory suggests also that political uncertainty shakes local stock markets and negatively affects market prices as it spills over to financial and economic variables (Pastor & Veronesi, 2013). When stocks are adversely affected, risk-averse investors gravitate towards the loss-aversion bias and sell off their stock portfolios. Conversely, risk-seeking investors drift towards the self-control bias and place more stocks in their portfolios to realise abnormal returns. These psychological biases show how irrational investors are, resulting in inefficient financial markets.

2.2. Empirical Literature

Empirical research has extensively documented the impact of country risk on stock markets, though results are often context-specific and asymmetric. Early evidence by Bilson et al. (2002), covering 18 developed and 17 emerging markets (including Zimbabwe and Nigeria), found that political risk exerts a strong effect on the volatility of emerging stock markets but has negligible influence in developed markets. The study also showed that risk exposure was particularly pronounced in the Pacific Basin. Similarly, Hassan et al. (2003), focusing on 10 African and Middle Eastern markets, reported that political risk was a significant predictor of volatility in only a few markets but that including these markets in global portfolios reduced overall portfolio risk, even if expected returns did not increase.

Further work emphasizes the regional spillover effects of country risk. Kaminsky and Schukler (2002) documented that credit ratings tend to be upgraded during rallies and downgraded in downturns, with strong cross-country contagion. Ferreira and Gama (2007) also confirmed that credit rating changes in one country can significantly and asymmetrically affect stock returns in others. Among emerging economies, Hammoudeh et al. (2013) examined BRICS (Brazil, Russia, India, China, South Africa) and found that financial risk was the most sensitive factor influencing stock markets, with strong interactions with global benchmarks like the S&P 500. Sari et al. (2013), studying Turkey, found that in the long run, political, financial, and economic risks jointly shaped equity movements, whereas in the short run political and financial risks were dominant. In contrast, Hanousek and Filer (2000) and Carmichael and Samson (2003) reported little evidence linking macroeconomic risk indicators to stock returns.

Broader cross-country analyses provide further nuance. Suleman et al. (2017), using data from 83 developed and developing countries, showed that while aggregate country risk had weak predictive power for squared returns, disaggregated components were significant in nearly half the sample, underscoring their importance for volatility forecasting. Mensi et al. (2016) similarly found that economic risk had little effect on equity returns, but financial and political risks exerted strong, asymmetric impacts: political risk ratings improved market sentiment in bullish regimes, while deteriorating financial risk amplified losses during bearish conditions. These findings align with Pástor and Veronesi (2013), who emphasize the destabilizing effects of political uncertainty on asset prices.

Overall, the literature establishes three key points. First, the effect of country risk on equity returns is stronger in emerging markets than in developed markets. Second, different risk components dominate across regimes: financial risk in times of external financing stress, political risk during uncertainty, and economic risk more in the long run. Third, findings are often inconsistent or asymmetric, reflecting differences in methodologies, samples, and time horizons.

Against this backdrop, the present study contributes by isolating the South African case—an emerging market with deep global integration but high exposure to political and financial shocks. By applying a Markov regime-switching model, it captures how disaggregated country risk affects foreign equity portfolio returns under bull and bear conditions, addressing the need for market-specific and regime-sensitive analysis.

3. Data and Methodology

3.1. Data

This study employs monthly data covering the period January 2000 to December 2019 to investigate the effect of country risk on foreign equity portfolio fund returns. The sample period was deliberately chosen to encompass the dynamics before, during, and after the Global Financial Crisis (GFC) of 2008–2009, while excluding the COVID-19 period. The latter was omitted because lockdowns and related interventions introduced structural breaks that may distort the underlying relationship between country risk and portfolio returns. The dependent variable is represented by the returns of nine South African global equity feeder funds. Data were obtained from the Association of Savings & Investment South Africa (ASISA), a non-profit organisation established to represent the South African insurance, savings, and investment industry (ASISA, 2024). Fund selection was guided by three criteria:

a) the fund must have been established prior to the GFC to ensure sufficient pre-crisis observations;
b) the fund must have remained active through to December 2019 to provide consistent time-series coverage;
c) the fund must be a non-Shariah equity portfolio, to avoid distortions related to faith-based investment restrictions.

Based on these criteria, nine foreign equity funds, given in Table 1, are sampled.

Table 1. Sample

Fund Name	Abbreviation	Data Source
Allan Gray -Orbis Global Equity Feeder Fund	AGOE	ASISA
Coronation Global Opportunities EQT [ZAR] Feeder A	CNIG	ASISA
Ninety-One Global Franchise Feeder Fund A	FGFA	ASISA
AF Investments Global Equity Feeder Fund A	ISGE	ASISA
Oasis Crescent International Feeder Fund	OCIF	ASISA
Old Mutual Global Equity Fund A	OMGA	ASISA
Momentum International Equity Feeder Fund A	RMBI	ASISA
Stanlib Global Equity Feeder Fund - A	SBAQ	ASISA
Sanlam Global Equity Fund A	SGTA	ASISA

These funds provide a comprehensive representation of South African investors' exposure to international equity markets, while ensuring comparability in terms of data availability and fund longevity.

Table 2. Country Risk Components

Country Risk	Components	Data Source
Economic risk	1. Budget deficit (% of GDP) 2. Real GDP growth 3. Annual inflation rate, 4. Current account (% of GDP) 5. GDP per capita 6. Budget Balance (% of GDP)	Political Risk Services (PRS) Group
Financial Risk	1. Foreign debt (% of GDP) 2. Foreign debt service (% of Exports) 3. Current account (% of Exports) 4. Net international liquidity as monthly import coverage 5. Exchange rate stability	Political Risk Services (PRS) Group
Political Risk	1. Socioeconomic conditions 2. External conflicts 3. Democratic accountability 4. Religious tensions 5. Bureaucratic quality 6. Investment profile 7. Ethnic tensions 8. Internal conflicts 9. Government stability 10. Law and order 11. Military in politics 12. Corruption	Political Risk Services (PRS) Group

The independent variables comprise three disaggregated measures of country risk: economic risk, financial risk, and political risk. Following the Political Risk Services (PRS) Group methodology, risk ratings are expressed as index scores, where higher values indicate lower levels of risk. Specifically, economic and financial risk indices are scaled from 0 to 50, while the political risk index ranges from 0 to 100 (Lee et al., 2019). Thus, an increase in the number of points corresponds to a reduction in country risk exposure (Hammoudeh et al., 2013).

To capture the multidimensional nature of country risk, each index is constructed from several components. These are summarised in Table 2, which details the variables included in the economic, financial, and political risk indices.

3.2. Empirical Model

To determine the effect of country risk on equity portfolio returns under different market conditions in South Africa, the study applies a Markov regime-switching (MSM) model of conditional mean. This framework is particularly suitable for financial time series, as it allows for shifts between distinct market regimes (bullish and bearish), thereby capturing nonlinear dynamics that conventional linear models may overlook (Brooks, 2014).

The general MSM specification is expressed as:

$$I_t = \mu_{c_t} + \beta_{1c_t}\Delta ECO_t + \beta_{2c_t}\Delta FIN_t + \beta_{3c_t}\Delta POL_t + \varepsilon_{c_t}$$

where I denotes portfolio returns, μ_t is the state-dependent intercept (mean), and $\varepsilon_{C_t} \sim i.i.d.(0, \sigma^2_{C_t})$ is a regime-dependent error term. The subscript $C_t = \{1,2\}$ indexes the prevailing market regime, with regime 1 representing bullish conditions and regime 2 representing bearish conditions. The coefficients β_{1C_t}, β_{2C_t}, β_{3C_t} measure the marginal effects of economic, financial, and political risk, respectively, under each market regime. ΔECO_t is the change in economic risk at time t, ΔFIN_t, is the change in financial risk at time t and ΔPOL_t is the change in political risk at time t.

Regime shifts are assumed to follow a first-order Markov process, where the probability of remaining in or switching between regimes depends only on the previous state:

$$P(C_t = j \mid C_{t-1} = i) = P_{ij}$$

with constant transition probabilities P_{ij} (for $i, j \in \{1,2\}$). These are conveniently represented in the transition probability matrix:

$$P = \begin{bmatrix} P(C_t = 1 \,\mathrm{I}\, C_{t-1} = 1) & P(C_t = 2 \,\mathrm{I}\, C_{t-1} = 1) \\ P(C_t = 2 \,\mathrm{I}\, C_{t-1} = 2) & P(C_t = 1 \,\mathrm{I}\, C_{t-1} = 2) \end{bmatrix} = \begin{bmatrix} P_{11} & P_{21} \\ P_{22} & P_{12} \end{bmatrix}$$

Here, P_{11} and P_{22} capture the persistence of bullish and bearish regimes, respectively, while P_{12} and P_{21} represent the probabilities of switching from one regime to the other (Brooks, 2014). The expected duration of each regime is calculated as $1/(1 - P_{ij})$. The first stage is a bullish market, and the second is a bearish market. The probability of each regime staying in a particular state was calculated and compared across all domestic and global equity portfolios.

To guard against spurious inferences, the study first verifies the stationarity properties of the series. Unit root tests include the Augmented Dickey-Fuller (ADF; 1981) and Phillips-Perron (PP; 1988) procedures, as well as the Kwiatkowski-Phillips-Schmidt-Shin (KPSS; 1992) test for stationarity. Structural break adjustments are incorporated via the ADF min-t breakpoint test, ensuring robustness to regime-dependent shifts.

Finally, once the MSM is estimated, model adequacy is verified by testing for residual autocorrelation using the Breusch-Godfrey LM test. A failure to reject the null hypothesis of no autocorrelation confirms the reliability of the results.

4. Results and Discussion

4.1. Country Risk Descriptive Statistics

Table 3 reports the descriptive statistics for the three disaggregated country risk indices—economic, financial, and political risk—along with the composite index, over the period January 2000 to December 2019. The results show that the average monthly risk ratings are 34.74, 38.16, 66.29, and 51.37 for economic, financial, political, and composite risk, respectively. Among these, political risk displays the lowest average risk, while economic risk reflects the highest average risk. This outcome is consistent with previous findings that economic vulnerabilities—such as persistent fiscal deficits, inflationary pressures, and current account imbalances—constitute the most binding constraints for emerging economies like South Africa (Howell, 2011; Hammoudeh et al., 2013). By contrast, political risk, though still significant, averaged at a more moderate level relative to economic and financial risk.

The composition of the overall risk index is strongly shaped by these contrasts. Since political risk scores are higher (indicating relatively lower risk) than economic and financial risk scores, they reduce the composite index. Conversely, the “very high” levels of economic and financial risk elevate the composite risk measure, which therefore falls into the “high risk” category, lying between the moderate political risk rating and the more severe economic and financial risk ratings.

Table 3. Country Risk Descriptive Statistics

	Economic Risk	Financial Risk	Political Risk	Composite Risk
Mean	34.74	38.16	66.29	51.37
Maximum	38.5	42	72	55
Minimum	29	31.5	61.5	48.13
Std. Dev	2.17	1.88	2.6182	1.82
Skewness	-0.03	-0.59	0.22	0.36
Kurtosis	2.27	3.2	2.16	1.97
Jarque-Bera	6.31	14.71	9.08	15.81
Observations	240	240	240	240

The volatility of risk components appears low across the sample period, as indicated by small standard deviations: 2.17 (economic), 1.88 (financial), 2.62 (political), and 1.82 (composite). This suggests that South Africa's risk profile has been relatively persistent, with limited short-term fluctuations—a finding in line with the PRS Group's methodology, which tends to capture gradual institutional and macroeconomic changes rather than high-frequency shocks (Howell, 2013; Lee et al., 2019).

Distributional properties provide further insights. Financial and political risk are negatively skewed, implying that values tend to lie below the mean; in other words, adverse conditions (higher risk) are more common than exceptionally favorable ones. Economic risk, in contrast, is slightly positively skewed, reflecting the occasional periods of improved macroeconomic performance (e.g., post-2002 recovery). All indices except financial risk display platykurtic distributions (kurtosis < 3), which indicates thinner tails compared to the normal distribution, suggesting fewer extreme deviations in risk.

Finally, the Jarque-Bera statistics reject normality across all risk components, which aligns with earlier literature documenting the non-normal and often asymmetric nature of country risk distributions in emerging markets (Erb et al., 1996; Mensi et al., 2016). Such non-normality reinforces the rationale for employing nonlinear econometric frameworks—such as the Markov regime-switching model—capable of capturing asymmetries and regime dependence in the effects of risk on portfolio returns.

Table 4. Global (Foreign) Equity Portfolios Descriptive Statistics

	AGOE	**CNIG**	**FGFA**	**ISGE**	**OCIF**	**OMGA**	**RMBI**	**SBAQ**	**SGTA**
Panel A									
Mean	0.004	0.004	0.005	0.005	0.003	0.006	0.003	0.004	0.002
Median	0.009	0.01	0.011	0.011	0.004	0.0117	0.009	0.001	0.008
Maximum	0.185	0.156	0.136	0.157	0.128	0.156	0.176	0.152	0.191
Minimum	-0.989	-0.989	-0.989	-0.989	-0.989	-0.989	-0.989	-0.989	-0.989
Std. Dev	0.086	0.088	0.083	0.085	0.082	0.084	0.088	0.0835	0.085
Skewness	-8.817	-8.942	-8.943	-8.566	-8.975	-8.51	-8.551	-8.655	-8.223
Kurtosis	103.2	98.65	109.1	101.46	109.7	101.99	97.18	104.3	97.82
Jarque-Bera	75543	65345	93507	77409	94689	81536	63373	85420	74867
Probability	0	0	0	0	0	0	0	0	0
Observations	175	166	194	186	194	194	166	194	194
Panel B									
AGOE	1								
CNIG	0.962	1							
FGFA	0.951	0.977	1						
ISGE	0.962	0.984	0.982	1					
OCIF	0.968	0.974	0.977	0.979	1				
OMGA	0.961	0.978	0.973	0.984	0.975	1			
RMBI	0.953	0.971	0.966	0.974	0.961	0.977	1		
SBAQ	0.969	0.978	0.977	0.986	0.976	0.986	0.974	1	
SGTA	0.975	0.972	0.961	0.977	0.973	0.983	0.971	0.983	1
Country Risk	0.013	0.016	0.032	0.016	0.037	0.009	0.031	0.021	0.017

Table 4 presents the descriptive statistics for the nine sampled global equity portfolios. Panel A shows that the Allan Gray–Orbis Global Equity Feeder Fund (AGOE) generated the highest average monthly returns (0.006), while the Sanlam Global Equity Fund A (SGTA) recorded the lowest (0.002). Nonetheless, all portfolios delivered positive mean returns over the sample period, suggesting resilience despite periods of heightened global uncertainty.

The standard deviations range between 0.082 and 0.088, which are slightly higher than those reported for domestic portfolios, indicating that global portfolios were comparatively more volatile and therefore riskier. This outcome is consistent with earlier findings that cross-border portfolios are exposed to additional sources of uncertainty, including exchange rate fluctuations and global shocks.

Distributional properties reveal that all portfolio returns are strongly negatively skewed, with long left tails, meaning that extreme negative returns were more frequent than extreme positive ones. The extremely high kurtosis values (ranging from 97 to 110) confirm a leptokurtic distribution, where fat tails dominate and large deviations from the mean are far more likely than under a normal distribution. The Jarque–Bera statistics strongly reject the null of normality (p = 0.000), reinforcing the appropriateness of regime-switching or other non-linear models to capture such stylized facts of financial returns (Brooks, 2014).

Panel B reports the correlation structure. The equity funds exhibit a high degree of positive correlation with coefficients mostly above 0.95, all statistically significant at the 1% level. This suggests limited diversification benefits across the sampled global portfolios, as their returns tend to move together. These findings echo previous studies that highlight the increasing comovement of international equity markets in the era of financial globalization. Interestingly, while all portfolios are positively correlated with South Africa's country risk score, the correlations are relatively weak (ranging from 0.009 to 0.037). This implies that domestic risk dynamics exert only marginal influence on the performance of globally diversified funds, consistent with the notion that international portfolios offer partial insulation against home-country risk.

Overall, the results suggest that although global equity portfolios deliver positive returns, their strong cross-correlation and heavy-tailed distributions reflect significant exposure to systemic global shocks, thereby limiting diversification opportunities.

4.2. Stationarity and Unit Root Test Results

Table 5 reports the results of the unit root tests for all three country risk components—economic, financial, and political risk—at both levels and first differences. The Augmented Dickey–Fuller (ADF) and Phillips–Perron (PP) tests indicate that, at levels, the null hypothesis of a unit root cannot be rejected for economic risk and political risk, confirming their non-stationarity. By contrast, financial risk is stationary in levels, as both the ADF and PP statistics are significant at the 1% level. These results are reinforced by the KPSS test, which rejects the null of stationarity for economic and political risk but not for financial risk.

When the tests are applied at first differences, all three risk components—economic, financial, and political—become stationary. Both the ADF and PP statistics strongly reject the null of a unit root at the 1% significance level, while the KPSS test fails to reject the null of stationarity, confirming the robustness of the results. To further account for potential structural breaks, the ADF minimum-t structural break test was conducted. The results remain significant at the 1% level across all risk components, indicating that stationarity holds even when breaks are present.

Table 5. Results of Unit Root Tests for Country Risk Components

Country Risk Components	ADF		PP		KPSS	
	Level	Diff.	Level	Diff.	Level	Diff.
ΔEconomic Risk	-1.79	-15.04***	-1.75	-15.09***	1.32	0.06*
ΔFinancial Risk	-4.49*	-15.86***	-4.58*	-16.99***	0.21*	0.03*
ΔPolitical Risk	-2.26	-13.96***	-2.41	-13.91***	0.71*	0.04*

Note: The *, **, *** imply statistical significances at 10%, 5%, 1% levels respectively.

Table 6 presents the unit root results for the foreign equity portfolios. Both the Augmented Dickey–Fuller (ADF) and Phillips–Perron (PP) tests strongly reject the null hypothesis of a unit root across all portfolios, with probability values equal to zero at the 1% significance level. This indicates that the portfolio return series are stationary at levels. The KPSS test further supports this conclusion, as the test statistics for all portfolios fall below the critical value of 0.739 at the 1% level, meaning the null of stationarity cannot be rejected.

Table 6. Results of Unit Root Tests for Portfolios

Country Risk Components	ADF	PP	KPSS
	Level	Level	Level
AGOE	-13.04***	-13.52***	0.074***
CNIG	-13.03***	-13.28***	0.075***
FGFA	-13.63***	-13.66***	0.072***
ISGE	-13.73***	-13.88***	0.074***
OCIF	-13.77***	-13.87***	0.078***
OMGA	-13.67***	-13.75***	0.065***
RMBI	-12.73***	-12.83***	0.071***
SBAQ	-13.75***	-13.79***	0.079***
SGTA	-13.92***	-14.09***	0.076***

Note: The *, **, *** imply statistical significances at 10%, 5%, 1% levels respectively.

To account for possible structural breaks, the break-point ADF test was also employed. The results remain significant at the 1% level for all portfolios, confirming that the return series are stationary even in the presence of breaks. Taken together, these findings indicate that the global equity portfolio return series are well-behaved and suitable for subsequent estimation without the need for further differencing.

Overall, the findings suggest a mixed order of integration at levels—with financial risk being I(0) while economic and political risk are I(1)—but all series are clearly I(0) once first-differenced. This outcome is consistent with prior studies documenting that economic and political risk indices often exhibit persistent stochastic trends, while debt-based financial indicators tend to be more mean-reverting (Hammoudeh et al., 2013; Mensi et al., 2016). Accordingly, the subsequent estimation proceeds with the stationary series to avoid spurious regression results.

4.3. MSM Global (Foreign) Equity Fund Results

Table 7 reports the results of the Markov Switching Model (MSM) for foreign equity funds, showing how portfolio returns respond to changes in economic risk (β_1), financial risk (β_2), and political risk (β_3) under bull and bear market regimes. Coefficients that are statistically significant at the 5% level indicate a meaningful relationship between the respective risk component and portfolio returns in that regime.

Overall, the results reveal heterogeneity in the sensitivity of foreign portfolios to country risk across regimes. In bullish conditions, the returns of AGOE, CNIG, FGFA, ISGE, RMBI, and SGTA are positive, whereas OCIF, OMGA, and SBAQ show negative returns. In contrast, during bearish conditions, only AGOE, FGFA, RMBI, and SBAQ record negative returns, underscoring the asymmetric effects of market phases. Importantly, in both regimes, returns exhibit high volatility as reflected by the variance terms.

Regarding country risk components, the results are equally nuanced. In the bull regime, economic risk exerts a significantly positive effect on AGOE and ISGE but a negative effect on SGTA, while in the bear regime only CNIG exhibits a significant positive sensitivity to economic risk. Financial risk is positively associated with returns on AGOE, ISGE, OMGA, and SGTA in the bull regime, but in bearish conditions it significantly affects CNIG, FGFA, and RMBI. This indicates that financial stability perceptions influence portfolio performance differently across funds and regimes. Political risk, however, consistently exerts downward pressure on portfolio returns. In bullish markets, AGOE, ISGE, OCIF, OMGA, and SGTA are negatively affected by political risk, while in bearish markets AGOE, CNIG, FGFA, and RMBI also display statistically significant negative sensitivities. These findings align with the literature emphasizing the destabilizing role of political uncertainty for foreign investors (Pástor & Veronesi, 2013).

Table 7. MSM Global (Foreign) Equity Funds Results

Variables	AGOE	CNIG	FGFA	ISGE	OCIF	OMGA	RMBI	SBAQ	SGTA
Regime 1: Bull Market Condition									
μ_u	0.131	-	0.009	-	-0.025	-0.049	0.009	-	0.094
β_{1u}	0.373* (0.000)	0.001	-0.002	0.168* (0.000)	0.015	-0.091	0.003	-0.108	-0.725*** (0.053)
β_{2u}	0.0998* (0.000)	-0.0018	-0.005	0.419* (0.000)	0.0787	0.3891* (0.000)	-0.0008	0.048	0.2093* (0.000)
β_{3u}	-1.020* (0.000)	-0.0060	-0.0011	-0.833* (0.000)	-0.949* (0.000)	-0.550* (0.000)	-0.0072	0.119	-0.871* (0.000)
σ^2_u	-5.824	-3.217	-	-3.463	-	-	-	-0.760	-
Transition Probabilities and Expected Duration Probabilities									
P_{11}	0.331	0.981	0.990	0.976	0.424	4.69	0.986	5.160	1.190
T_{11}	1.494	52.83	102.4	40.749	1.737	1.000	70.18	1.000	1.000
Regime 2: Bear Market Condition									
μ_u	0.009	-	-0.245	-	0.009	0.009	-0.116	-	0.006
β_{1u}	-0.004	0.052* (0.003)	0.124	0.002	0.000	0.003	0.042	0.009	0.000
β_{2u}	0.0008	0.261* (0.000)	0.156* (0.000)	-0.006	-0.004	-0.003	0.212* (0.000)	-0.001	-0.004
β_{3u}	-0.01** (0.036)	-0.740* (0.000)	-0.245* (0.001)	-0.007	-0.007	-0.000	-0.660* (0.000)	-0.002	-0.004
σ^2_u	-3.3244	-4.594	-	-3.211	-	-	-	-0.003	-
Transition Probabilities and Expected Duration Probabilities									
P_{11}	0.986	2.92E-5	9.38E-5	3.60E-5	0.988	0.978	2.75E-5	1	0.968
T_{11}	69.77	1.000	1.000	1.000	82.42	46.27	1.000	124.3	30.83
Non-Switching Constant									
μ	-	0.0101 (0.004)	-	0.0106 (0.000)	-	-	-	-3.156 (0.00)	-
Non-Switching Variance									
σ^2_u	-	-	-3.217 (0.000)	-	-3.223 (0.000)	-3.191 (0.000)	-3.193 (0.000)	-	-3.1943 (0.000)
Residual Diagnostic Test									
LM Test	0.259 (0.766)	0.568 (0.757)	0.148 (0.859)	0.435 (0.639)	0.280 (0.749)	0.202 (0.812)	0.278 (0.749)	0.231 (0.78)	0.149 (0.857)

Note: The *, **, *** imply statistical significances at 10%, 5%, 1% levels respectively.

The transition probabilities further illustrate regime persistence. For CNIG, FGFA, ISGE, and RMBI, the probabilities of remaining in a bull regime are close to unity, suggesting that these funds tend to stay in bullish phases for extended durations. Conversely, AGOE, OCIF, OMGA, SBAQ, and SGTA exhibit stronger persistence in bear regimes, reflecting prolonged exposure to adverse conditions. Duration probabilities confirm this asymmetry: while certain funds demonstrate long expected spells in bull markets, others are more prone to extended bearish phases, consistent with the vulnerability of South African financial markets to global downturns (Boako & Alagidede, 2018).

Finally, diagnostic tests confirm the reliability of the model. The Breusch–Godfrey LM tests indicate no evidence of residual autocorrelation, as all test statistics fall below their respective critical values. This suggests that the MSM estimates are robust and not biased by serial correlation.

4.4. Transition Probabilities

Figure 1 illustrates the transition probabilities of regime shifts for global equity funds, highlighting the likelihood of portfolios remaining in bullish or bearish market conditions over time. These graphical representations provide valuable insights into the persistence of market states in relation to South African foreign portfolios. The results show that portfolios generally remained longer in bearish conditions, underscoring the fragility of international equity investments during adverse global shocks.

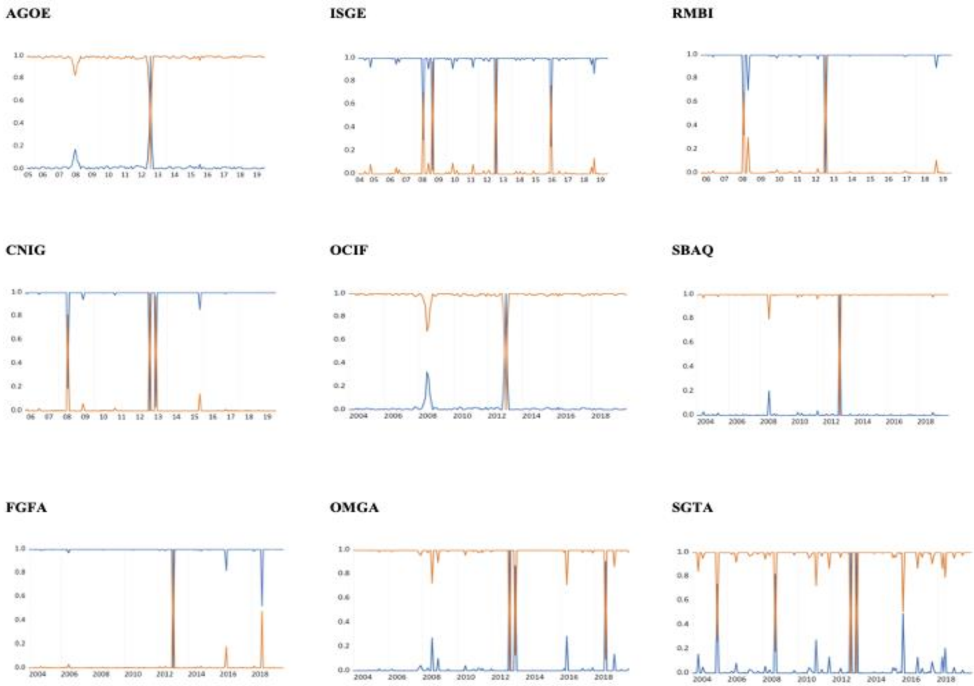

Figure 1. Global (Foreign) Equity Fund Transition Probabilities Results

This finding is consistent with Turtle and Zhang (2012), who argue that emerging market portfolios are strongly influenced by shifts in the global financial landscape. The extended bearish phases observed in Figure 1 coincide with the 2008–2009 Global Financial Crisis (GFC), when portfolios experienced pronounced dips. Similarly, Boako and Alagidede (2018) document significant declines in net asset values during the GFC, reinforcing the evidence that systemic global crises amplify downside persistence in emerging market portfolios.

The adverse impact of the GFC on South Africa's financial sector was particularly severe. As Rena and Msoni (2014) note, financial institutions suffered substantial losses due to ineffective portfolio management, while international market collapses sharply reduced asset valuations. Investor panic and attempts to rebalance losses further exacerbated volatility, consistent with the behavioral explanations of Ben-David et al. (2012) and Manconi et al. (2012). The results also align with Apau et al. (2021), who emphasize that portfolio contributors' decisions—driven primarily by prevailing risk perceptions in their operating market—directly influence portfolio returns.

Taken together, the transition probabilities highlight two key dynamics: (i) South African foreign equity portfolios exhibit prolonged exposure to bearish conditions during periods of global financial stress, and (ii) investor responses to systemic shocks amplify persistence in these regimes. These dynamics reflect both structural vulnerabilities of emerging markets and behavioral frictions in portfolio adjustment processes.

4.5. Discussion

Comparing Bull and Bear Market Conditions in Foreign Equity Portfolios

The results indicate that foreign equity funds remained in bearish market conditions for longer periods, underscoring the persistence of downturns in global equity cycles. Turtle and Zhang (2012) emphasize that the performance of portfolios in emerging markets is highly sensitive to shifts in the global financial landscape, a finding corroborated here by the extended bearish phases, particularly during 2008–2009. This pattern is consistent with Boako and Alagidede (2018), who observed steep declines in net asset values during the Global Financial Crisis (GFC). The 2008 crisis severely destabilized the international financial sector, as financial service firms incurred substantial losses from ineffective portfolio management and collapsing global stock returns (Rena & Msoni, 2014).

The aftermath of the GFC further illustrates investor behavioral responses. Many investors panicked, attempting to rebalance losses through rapid divestments and reallocation, thereby amplifying volatility (Ben-David et al., 2012; Manconi et al., 2012). Similarly, Apau, Moores-Pitt, and Muzindutsi (2021) argue that portfolio contributors' decisions are strongly shaped by the prevailing risk factors in the markets where they operate, which directly influences portfolio returns. These dynamics are well captured by the Adaptive Market Hypothesis (AMH), which posits that investor behavior adapts to changing market environments. In this context, heightened risk aversion dominated investor psychology during downturns, explaining why foreign portfolio returns remained in bear regimes for extended periods relative to bull regimes.

Comparative Effects of Economic Risk on Foreign Portfolio Returns

The influence of economic risk on foreign portfolio returns was asymmetric across regimes. In bull markets, fewer than half of the foreign portfolios were significantly affected by economic risk, and the impact was predominantly positive. This suggests that lower economic risk (reflected in higher index scores) coincided with higher portfolio returns, highlighting investor responsiveness to favorable macroeconomic fundamentals in periods of growth. By contrast, in bear markets only one foreign portfolio was significantly affected, indicating that economic risk was largely diversified away during downturns.

The regime-dependent effects reflect the explanatory power of the AMH: risk perceptions and their pricing evolve with market conditions. For portfolios that showed no significant relationship with economic risk in either regime, the results are better explained by the Efficient Market Hypothesis (EMH). In such cases, the economic risk information appears already incorporated into asset valuations, consistent with strong-form efficiency. These findings echo earlier results by Erb et al. (1996), Sari et al. (2013), Hammoudeh et al. (2013), and Mensi et al. (2016), who found little or no short-run evidence linking economic risk to stock returns. As Sari et al. (2013) emphasize, this disconnect stems from the instantaneous nature of economic indicators compared to the forward-looking character of financial markets.

Comparative Effects of Financial Risk on Foreign Portfolio Returns

Financial risk exhibited limited but regime-contingent effects. In both bull and bear markets, only one-third of foreign portfolios were significantly influenced by financial risk, suggesting that such risk is not a dominant determinant of portfolio returns. Importantly, the affected portfolios differed across regimes, reinforcing the AMH view that financial risk is priced differently under changing market conditions. The significant effects were positive, implying that reduced financial risk (higher index scores) was associated with stronger portfolio performance.

This finding partly diverges from Mensi et al. (2016), who documented negative effects of financial risk on emerging markets in booming periods. Nonetheless, it aligns with evidence that favorable financial fundamentals—such as reduced debt burdens and greater exchange rate stability—support investor confidence. Investors should therefore closely monitor financial risk indicators, including current account balances, foreign debt levels, debt servicing ratios, exchange rate stability, and international liquidity. The currency fluctuations can have highly adverse consequences, reinforcing the need for hedging strategies. By contrast, Nhlapho and Muzindutsi (2020) argue that changes in financial risk ratings generally harm stock markets regardless of direction, a conclusion inconsistent with the positive effects found in this study.

Comparative Effects of Political Risk on Foreign Portfolio Returns

Political risk emerged as the most influential and least diversifiable component. In bullish conditions, two-thirds of foreign portfolios were significantly affected, compared with less than half in bearish conditions. This indicates that political shocks exert stronger influence when markets are buoyant, reflecting investor sensitivity to governance quality, stability, and institutional credibility during expansions.

The effects of political risk were predominantly negative, meaning that lower political risk (higher scores) corresponded to lower portfolio returns. This counterintuitive result implies that investors demand higher returns when political uncertainty is elevated, consistent with risk–return trade-off logic. It also suggests that political stability may limit speculative opportunities that often drive abnormal returns in volatile contexts. These findings align with earlier research (Pástor & Veronesi, 2013; Sari et al., 2013; Nhlapho & Muzindutsi, 2020), which consistently identify political risk as a critical determinant of asset prices.

The strong reaction of portfolios to political risk reflects the speed with which political news diffuses globally and the heightened sensitivity of international investors to such developments. Nasr et al. (2018) further argue that downgrades in political risk ratings exert disproportionately larger effects than upgrades, as they signal potential difficulties in a country’s ability to meet obligations. This dynamic may explain why higher political risk is associated with higher expected returns. Mutize and Goseel (2019) also highlight that investors facing elevated political risk typically require a premium, reinforcing the interpretation of political uncertainty as a priced risk factor. Overall, the evidence suggests that political risk is pervasive and cannot be diversified away through foreign equity portfolios.

5. Discussion

This study examined the effects of disaggregated country risk—economic, financial, and political—on foreign equity portfolio returns under fluctuating market conditions, using a Markov regime-switching framework. The results demonstrate that foreign portfolio markets alternate between efficiency and inefficiency, consistent with the Adaptive Market Hypothesis. Importantly, portfolios tended to persist in bear regimes longer than in bull regimes, highlighting the dominance of unfavorable market conditions during the sample period.

Across risk components, political risk consistently emerged as the most influential factor, exerting significant negative effects on portfolio returns in both regimes and confirming its non-diversifiable nature. Economic and financial risks showed weaker and more regime-contingent effects, with their significance varying across portfolios and market states. In cases where no significant relationship was observed, the EMH provides a plausible explanation, as relevant information may already be embedded in asset prices.

Overall, the findings emphasize that the pricing of country risk in foreign portfolios is both asymmetric and regime-dependent. Political risk remains the most critical source of vulnerability for international investors in South Africa, while economic and financial risks exert conditional influences depending on market states. These insights have important implications for global portfolio managers and policymakers: while some risks may be mitigated through diversification and hedging strategies, political risk remains pervasive and requires heightened monitoring, particularly in emerging market contexts.

References

Akinkugbe, O., & Mohanoe, M. (2009). Public health expenditure as a determinant of health status in Lesotho. Social Work in Public Health, 24(1), 131-147.

Al Samman, A., GabAlla, M. K. (2020). Impact of Country Risk and Return on FPI. International Journal of Economics and Financial Issues, 10(6), 57–68.

Andreev, A. I., Ilyin, I. V., & Zinkina, Yu. V. (2015). Globalistics and Globalization Studies: Big History & Global History. Yearbook. Volgograd: Uchitel Publishing House

Apau, R., Moores-Pitt, P., & Muzindutsi, P. F. (2021). Regime-Switching Determinants of Mutual Fund Performance in South Africa. Economies, 9(4), 161-176.

Association for Savings and Investment South Africa (ASISA). (2024). ASISA Standard on fund classification for South African Regulated Collective Investment Scheme Portfolios. https://www.asisa.org.za/about-us/. Accessed 2024/04/25.

Ben-David, I., Franzoni, F., & Moussawi, R. (2012). Hedge fund stock trading in the financial crisis of 2007–2009. The Review of Financial Studies, 25(1), 1-54.

Bilson, C.M., Brailsford, T.J. and Hooper, V.J. (2001). Selecting macroeconomic variables as explanatory factors of emerging stock market returns, Pacific-Basin Finance Journal, 9, pp. 401-426.

Boako, G., & Alagidede, P. (2018). African stock markets in the midst of the global financial crisis: Recoupling or decoupling? Research in International Business and Finance, 46, 166-180.

Brooks, C. (2014). Introductory Econometrics for Finance. New York: Cambridge University Press.

Carmichael, B., & Samson, L. (2003). Expected returns and economic risk in Canadian financial markets. Applied Financial Economics, 13(3), 177-189.

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

Ferreira, M.A., & Gama, P.M. (2007). Does sovereign debt ratings news spill over to international stock markets? Journal of Banking & Finance, 31(10), 3162–3182. https://doi.org/10.1016/j.jbankfin.2006.12.006

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.

Hanousek, J., & Filer, R.K. (2000). The relationship between economic factors and equity markets in Central Europe. Economics of transition, 8(3), 623-638.

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.

Howell, L. D. (1998). The handbook of country and political risk analysis. New York: PRS Group.

Howell, L. D. (2011). International country risk guide methodology. New York: PRS Group.

Howell, L. D. (2013). ICRG Methodology. New York: PRS Group.

Karolyi, G. A., & Wu, Y. (2022). Understanding the pricing of currency risk in global equity markets, Journal of Multinational Financial Management, 63,1-22.

Kwiatkowski, D., Phillips, P. C., Schmidt, P., & Shin, Y. (1992). Testing the null hypothesis of stationarity against the alternative of a unit root: How sure are we that economic time series have a unit root? Journal of econometrics, 54(1-3), 159-178.

Lee, C.C., Lee, C.C. & Lien, D. (2019). Do country risk and financial uncertainty matter for energy commodity futures?. Journal of Futures Markets, 39(3), pp.366-383.

Loncan, T. R., & Caldeira, J. F. (2015). Foreign portfolio capital flows and stock returns: a study of Brazilian listed firms. Estudos Econômicos, 45(4), 859-895.

Makoni, P. L. (2020). Foreign Portfolio Investments, Exchange Rates and Capital Openness: A Panel Data Approach. International Journal of Economics & Business Administration (IJEBA), 8(2), 100-113.

Manconi, A., Massa, M., & Yasuda, A. (2012). The role of institutional investors in propagating the crisis of 2007–2008. Journal of Financial Economics, 104(3), 491-518.

Mensi, W., Hammoudeh, S., Yoon, S., Nguyen, D. (2016). Asymmetric linkages between BRICS stock returns and country risk ratings: Evidence from dynamic panel threshold models. Review of International Economics, 24, 1-19.

Mutize, M., Gossel, S.J. (2019). Sovereign credit rating announcement effects on foreign currency denominated bond and equity markets in Africa. Journal of African Business, 20(1), 135-152.

Nasr, A.B., Cunado, J., Demirer, R., & Gupta, R. (2018). Country risk ratings and stock market returns in Brazil, Russia, India, and China (BRICS) Countries: A nonlinear dynamic approach. Risks. Measuring and Modelling Financial Risk and Derivatives, 6(3), 94-116.

Nhlapho, R., & Muzindutsi, P.F. (2020). The impact of disaggregated country risk on the South African equity and bond market. International Journal of Economics and Finance Studies, 12(1), 189-203

Oetzel, J.M., Bettis, R.A. & Zenner, M. (2001). Country risk measures: How risky are they? Journal of World Business, 36(2), 128-145.

Oloko, T.F. (2018). Portfolio diversification between developed and developing stock markets: The case of US and UK investors in Nigeria. Research in International Business and Finance, 45, 219-232.

Oudat, M., Hasan, H., & Alsmadi, A. (2020). Macroeconomic variables and portfolio investment in Bahrain using an ARDL bound testing approach. Accounting, 6(4), 465-472.

Pfiffelmann, M., Roger, T., & Bourachnikova, O. (2016). When behavioral portfolio theory meets Markowitz theory. Economic Modelling, 53, 419-435.

Phillips, P.C., & Perron, P., (1988) Testing for a unit root in time series regression. Biometrika, 75(2), 335-346.

Pástor, Ľ., & Veronesi, P. (2013). Political uncertainty and risk premia. Journal of financial Economics, 110(3), 520-545.

Rena, R., & Msoni, M. (2014). Global financial crises and its impact on the South African economy: A further update. Journal of Economics, 5(1), 17-25.

Sari, R., Uzunkaya, M., & Hammoudeh, S. (2013). The relationship between disaggregated country risk ratings and stock market movements: An ARDL approach. Emerging Markets Finance and Trade, 49, 4-16.

Shefrin, H., & Statman, M. (2000). Behavioral portfolio theory. Journal of financial and quantitative analysis, 35(2), 127-151.

Sissani, M., & Belkacem, Z. (2014). The Effect of Political Risk on Foreign Direct Investment: The Case of Algeria. Hyperion Economic Journal, 2(3), 29-35.

Statman, M. (2014). Behavioral finance: Finance with normal people. Borsa Istanbul Review, 14(2), 65-73.

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. https://doi.org/10.1016/j.ribaf.2017.07.055

Turtle, H.J., & Zhang, C. (2012). Time-varying performance of international mutual funds. Journal of Empirical Finance, 19(3), 334-348.

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185(4157), 1124-1131.

Wright, D.R. (2018). The world and a very small place in Africa: a history of globalization in Niumi. Gambia: Routledge.