Institutional Quality and Economic Misery in Nigeria

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Abstract

This paper makes an improvement to the traditional institutional quality-growth hypothesis originally documented in the North's framework by investigating the implications of the quality of formal institutions on economic misery in Nigeria. The specific measures of institutional quality include economic freedom, liberal democracy, and the corruption perception index, while economic misery is measured using Hanke's modified misery index. The datasets obtained from the World Bank, Heritage Foundation, Freedom House, Transparency International, and Carto Institute were analysed using descriptive statistics and the autoregressive distributed lag (ARDL) model, which was informed by the evidence of a fractionally integrated series. The findings showed that economic freedom significantly reduced economic misery in the short run. At the same time, evidence of a significant negative effect of liberal democracy on the misery index was established in both the short and long run. This suggests that deepening the democratic process has the potential to mitigate the economic misery faced by Nigerians through increased employment, a decrease in inflationary pressures and interest rates, as well as robust per capita growth. In addition, it was found that the corruption perception index contributed positively to the misery index. This indicates that the pervasive and systemic nature of corruption traps many Nigerians in miserable economic conditions. Owing to the findings, this paper recommends, among others, that policymakers should strengthen the democratic process and promote economic freedom by prioritising credible elections, entrenching the rule of law, and protecting property rights to mitigate the economic distress faced by Nigerians.

Keywords: *Institutional quality, misery index, economic freedom, liberal democracy and corruption perception*

1.1 INTRODUCTION

The quality of formal institutions has been identified in the existing literature to affect the level of economic prosperity and happiness of the population. This is based on the understanding that institutions define the rules of the game and regulate public and private activities that exert an important influence on individual well-being. Although Smith (1776) offers some initial insights into the role of institutions in improving economic performance by emphasizing that nations will prosper once they create institutions that encourage entrepreneurship and savings, recent work on the institutional quality and growth nexus has been associated with North (1990). As outlined in

North's (1990) framework, an institution defines the rules of the game in a society or, more formally, the humanly devised constraints that shape human interaction. According to the institutional quality hypothesis, the institutional framework of an economy has a greater impact on the economic well-being of the population compared to the geographic and natural resource characteristics. This is because the quality of formal institutions shapes the decision-making process, which affects economic outcomes.

Bjørnskov, Dreher & Fischer (2010) posit that well-functioning institutions are fundamental for enforcing property rights and protecting citizens against violence and economic exploitation for increased economic prosperity. The quality of formal institutions also provides the right tools to accumulate and distribute resources generated by the growth process (De-Muro & Tridico, 2008). One of the institutional characteristics addressed in the extant literature deals with aspects of economic freedom. Scully (1988) argues that economic freedom and policies that provide security of property, non-confiscatory taxes, and enforcement of contracts provide opportunities for economic prosperity. Another institutional characteristic that has been extensively introduced in the relative literature is political freedom. The measures have been expanded to include civil liberties, corruption, quality of bureaucracy, rule of law, and liberal democracy, among others.

The literature on institutional quality has been expanded, both in theory and practice, to identify the importance of strong institutions in mitigating economic misery, initially introduced by Okun (1966) as the sum of inflation and unemployment rates for a particular economy. It is believed that poor institutional quality has the potential of increasing the price level and worsening the unemployment crisis, thereby increasing the misery index. Barro (1996) expanded the original Okun's misery index by taking into consideration four metrics in measuring the change in economic misery. In addition, Hanke (2011) offers a modified version of the misery index that encompasses the sum of interest, inflation, and unemployment rates, minus per capita GDP growth. He further explains that economic growth is imperative for mitigating economic misery, given that the happiness of the population tends to increase when there is strong growth, a decrease in inflation and interest rates, and high employment.

In recognition of the role of institutions in promoting economic prosperity, efforts have been made towards improving the quality of institutions in Nigeria in accordance with the 16th Sustainable Development Goals (SDGs), which advocate for peace, justice, and strong institutions. Despite the emphasis on building strong institutions, Nigeria's ranking on economic misery has not been very impressive. For instance, Nigeria was ranked among the most miserable countries in the world in 2021 with a misery index of 59.4 as reported by the Carto Institute (2022). This could be attributed to the average inflation rate of 15.92 per cent, the 11.5 per cent interest rate, the 33.3 per cent unemployment rate, and the 3.6 per cent GDP growth in Nigeria in 2020 (see National Bureau of Statistics, 2021). The misery index in Nigeria increased further to 61.15 per cent in 2022, indicating that more Nigerians are trapped in economic misery due to high inflation and interest rates coupled with rising levels of unemployment. This has raised concerns about the effectiveness of institutions addressing economic misery in Nigeria. In this light, this study sought to examine how institutional quality affected the level of economic misery in Nigeria. Following the introduction, the rest of the paper is organized as follows:

Section 2 embodies the literature review, while Section 3 provides the data and methodology. In section 4, the results and discussion are provided, while section 5 concludes the paper.

2. LITERATURE REVIEW

2.1 Theoretical Literature

The institutional quality theory, which holds that an economy's institutional structure plays a significant role in determining economic development, serves as the foundation for this paper. This presumption is founded on the knowledge that the "rules of the game" in society and how well they shape interactions between economic agents and provide suitable incentives for desired economic behaviour are what matter most for economic prosperity. According to North's (1990) theory, imposing restrictions on executive power essentially leads to an improvement in institutional quality. This is predicated on the knowledge that limitations on executive power have the potential to lower the executive members' de jure position and allow them to elevate themselves above the general public.

Besides the *de jure* executive power, Acemoglu, Johnson, and Robinson (2005) highlight the function institutions play in shielding people and organisations from the de facto power in their investments in human and physical capital as well as technical innovation. Furthermore, the "grease the wheels" and "sand the wheels" theories have been recognised as two strands of an institutional theoretical framework in extant literature. In contrast to the latter, which refers to a situation in which corruption hinders economic progress, the former explains the advantages of corrupt behaviours in terms of improved economic success. In general, institutional quality is thought to be what fuels the process of economic progress and human development by enshrining the rule of law with restrictions on de jure and de facto power, thereby creating an environment that is conducive to mitigating economic misery.

2.2 Empirical Literature

The literature on the economic prosperity implications of institutional quality has evolved in recent times with varying findings. While some of the findings found evidence to support the institutional quality hypothesis, others failed to establish that institutional quality translated to economic prosperity, especially in developing economies. For instance, Omotoye, Zaccheaus & Olumide (2021) found that corruption is a major deterrent to human capital development in Nigeria. This finding suggests that the prevalence of corruption worsens the economic misery faced by the Nigerian population. Similarly, Ouedraogo *et al.* (2022) established that institutions, in particular good governance, the control of corruption, political stability, and the absence of violence foster human development by expanding access to primary, secondary, and tertiary education in Africa.

Anaele & Nyenke (2021) employed the error correction mechanism to explore the effect of fiscal policy on the misery index in Nigeria between 1981 and 2018. The results further showed that an increase in government capital expenditure and government recurrent expenditure reduced the misery index in Nigeria. The study further revealed that the fiscal policy alone under the current regime of market-based policy performed poorly in tackling economic misery in Nigeria. The study recommended that government should continue its previous expansionary fiscal policy initiatives and prioritise capital spending over recurrent expenditure. In a related study, Munir &

Asghar (2017) examined the Interrelationship between crime, misery index and institutional quality in Pakistan. The study showed evidence of unidirectional causality from crime to misery and from misery to institutional quality.

Using the autoregressive distributed lag (ARDL) model, Bibi & Qasim (2018) analysed the impact of credit facilitation on economic misery in Pakistan. The findings from the study showed that FDI and workers' remittances have positive and significant effects on economic misery during the study period. The results further revealed that domestic credit to the private sector is negatively, but insignificantly linked to economic misery. In a similar study, Nwogwugwu & Umeghalu (2021) found that balance of payments, total export, manufacturing export, per capita GDP growth and exchange rate positively influenced economic misery. This finding is similar to a previous study by Bjørnskov, Dreher & Fischer (2010) which established that the quality of formal institutions is positively associated with happiness.

3. Methodology

3.1 Model Specification

The model for this paper closely followed the work of Bjørnskov, Dreher & Fischer (2010) on the institutions-happiness nexus with extended measures of institutional equality and modified misery index in accordance with Hanke's (2011) proposition. The formal specification of the symmetric autoregressive distributed lag (ARDL) model for this study is provided as follows:

$$\text{MISERY\_INDEX}_t = \alpha_0 + \sum_{i=1}^{P} \alpha_1 \Delta \text{MISERY\_INDEXt}_{t-1} + \sum_{i=1}^{q} \alpha_2 \Delta EFR_{t-1} + \sum_{i=1}^{q} \alpha_3 \Delta LID_{t-1} + \sum_{i=1}^{q} \alpha_4 \Delta CPI_{t-1} + \beta_1 \text{ MISERY\_INDEX}_{t-1} + \beta_2 EFR_{t-1} + \beta_3 LID_{t-1} + \beta_4 CPI_{t-1} + U_t \quad (1)$$

Where: EFR = economic freedom, LID = liberal democracy, CPI = corruption perception index,

$\alpha_1 - \alpha_4$ = short-run coefficients, β_1-β_4 = the long-run multipliers, U_t = white noise error process
Δ = first difference operator, p and q = optimum lag selection operator.

3.2 Variable Description

This paper employs economic misery measured by the misery index also known as the economic discomfort index (EDI). Essentially, Hanke's (2011) misery index measured by the e sum of interest rates, inflation, and unemployment rates, minus per capita GDP growth was used in this study. The liberal democracy used in this study which defines how equal the citizens are before the law and the legislature and judiciary check the activities of the executive is measured by distinguishing between closed autocracies (score 0), electoral autocracies (score 1), electoral democracies (score 2), and liberal democracies (score 3). The computation of the score for liberal democracy is based on Lührmann, Tannenberg & Lindberg (2018). While economic freedom is measured based on the number and intensity of government regulations on the wealth-creating activity on a score of 0 to 100 (where 100 represents the maximum freedom) as provided by Heritage Foundation (2021), the corruption perception index is measured by expert assessments and opinion surveys on perceived levels of public sector corruption on a scale of 0 (highly corrupt) to 100 (very clean) as provided by the Transparency International.

3.3 Data Analysis Techniques

The ARDL estimation method proposed by Pesaran and Shin (1999) was used in this study to analyze the dynamic effects of institutional quality on economic misery. This estimation method was chosen because it is considered ideal for fractionally integrated series and can take into consideration the datasets' natural tendency towards heterogeneity, which has been well-documented in the existing literature. For the unit root test, the Kwiatkowski, Phillip, Schmidt, and Shin (KPSS, 1992) technique was applied given that it is considered to produce more robust results compared to other conventional and widely applied methods such as the Dickey-Fuller and augmented Dickey-Fuller methods. The bounds cointegration test and descriptive statistics were applied for testing long-run relationships among the variables and analyzing the distribution of the variables over the study period.

4. Results and Discussion

4.1 Descriptive Statistics

The summary of descriptive statistics of each of the time series over the study period are presented in Table 1.

Table 1: Basic statistics for misery index and institutional quality indicators

	MISERY_INDEX	LID	EFR	CPI
Mean	47.32107	0.825000	27.40600	33.87475
Median	45.04663	1.000000	26.46500	27.00000
Maximum	97.56110	2.000000	59.00000	59.00000
Minimum	19.90043	0.000000	12.54000	7.000000
Std. Dev.	18.03598	0.780779	10.64960	15.65950
Jarque-Bera	12.10285	3.291991	12.75029	3.321532
Probability	0.002354	0.192821	0.001703	0.189993
Observations	40	40	40	40

Source: Authors' compilation (2023) using E-views 12

The descriptive statistics showed that the misery index has a mean value of 47.321 with minimum and maximum values of 19.900 and 97.5611 respectively. This finding attests to the pervasiveness of economic misery in Nigeria which could be linked to the rising price level, interest rates and unemployment. It was further observed from the descriptive statistics that liberal democracies and economic freedom averaged 0.8250 and 27.406 respectively, whereas the corruption perception index is associated with a mean value of 33.875 during the study period. The standard deviation revealed that the observations for all the variables clustered around their respective means. This is based on the fact the computed standard deviation for each of the time series is less than the corresponding mean value. More importantly, the probability values of the Jarque-Bera statistics that liberal democracy and corruption perception index are normally distributed, while the misery index and economic freedom were not normally distributed at a significance level of 5 per cent.

4.2 Unit Root Test

As previously noted, the KPSS method was applied for the unit root test and the results are presented in Table 2.

Table 2: KPSS unit root test results

Variable	LM statistic at levels	LM statistic at 1st difference	Order of integration
MISERY_INDEX	0.1001	-	I(0)
EFR	0.4029	-	I(0)
LID	0.6257	0.1563	I(1)
CPI	0.5480	0.21304	I(1)
	5 per cent critical value	0.4630	

Source: Authors' compilation (2023) using E-views 12

The unit root test results showed that the misery index and economic freedom are stationary at levels given that their LM statistics are less than the critical value at 5 per cent significance level. The null hypothesis had to be rejected in light of this finding at the 5% level of significance. The variables (misery index and economic freedom) are therefore integrated at order zero, I (0). The KPSS unit root test results showed that liberal democracy and corruption perception index are stationary at the first difference. The evidence of the first difference stationary indicates that the variables (liberal democracy and corruption perception index) are integrated of order one, I(1). Overall, the unit root test results showed that the variables are fractionally integrated [I (0) and I (1)], which made the adoption of the bounds cointegration test technique necessary.

4.3 Bounds Cointegration Test

As previously noted, this paper relied on the bounds cointegration test to determine if a long-run relationship exists between institutional quality indicators and the misery index. The results are presented in Table 3.

Table 3: Summary of the bounds cointegration test results

Series: MISERY_INDEX EFR LID CPI				
F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Significance level	I(0)	I(1)
F-statistic	10.5399	10%	2.37	3.2
K	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Source: Authors' compilation (2023) using E-views 12

The results of the bounds cointegration test showed that the computed F-statistic (10.5399) is less than the upper bound critical value (3.67) at the significance level of 5 per cent. This finding provided the basis to reject the null hypothesis of no levels relationship. Therefore, the misery index has a long-run relationship with the underlying institutional quality indicators. In comparison, the evidence of cointegration among the variables is consistent with the findings Munir & Asghar (2017) which established that crime, misery index and institutional quality are cointegrated. With the evidence of cointegration among the series, the estimation of the ARDL model was considered necessary in this regard.

4.4 Model Estimation

The estimation of the ARDL model was necessitated by the evidence of fractionally integrated and cointegrated series. The results are reported in Table 4.

Table 4: ARDL results

Dependent Variable: MISERY_INDEX				
Short run results				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(MISERY_INDEX(-1))	0.978404	0.210076	4.657376	0.0002
D(EFR)	0.008018	0.241722	0.033169	0.9739
D(EFR(-1))	-791.9492	309.1595	-2.561620	0.0196
D(CPI)	1.202887	0.519075	2.317364	0.0325
D(CPI(-1))	0.130409	0.525799	0.248020	0.8069
D(LID)	-17.036663	8.458265	-2.014203	0.0592
CointEq(-1)	-1.527463	0.251815	-6.065820	0.0000
Long run results				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EFR	-0.946954	0.604279	-1.567082	0.1345
CPI	0.452115	0.137331	3.292159	0.0041
LID	-11.153570	4.777735	-2.334489	0.0314
C	-1263.615	278.040638	-4.544715	0.0003
Adjusted R-squared	0.734281			
Diagnostics Tests Results				
Test type		Statistic	Prob. Value	Inference
Normality test		3.115	0.2106	Normally distributed
Serial correlation test		4.1879	0.6190	Serially independent
Heteroskedasticity Test		18.707	0.2841	Constant variance

Source: Authors' compilation (2023) using E-views 12

The results revealed that the one-period lag of the misery index is positively and significantly related to its current value. This finding suggests that economic misery in the previous period can be relied upon in predicting the future level of economic misery in the country. It is also evident from the results that economic freedom lagged for one period and the current value of liberal democracy has negative and significant effects on the misery index in the short run. Evidence of a significant positive effect of the corruption perception index on the misery index was also established in the short run. This is a pointer that the incidence of corruption in Nigeria worsens the economic misery in the country. More importantly, economic freedom and liberal democracy are found to exert negative effects on the misery index in the long run. In comparison, the long-term negative effect of liberal democracy on the misery index is stronger and statistically significant at the 5 per cent level. This finding highlights the important role of institutional quality, especially liberal democracy in mitigating economic misery in Nigeria. It is also consistent with the findings of Bjørnskov, Dreher & Fischer (2010) and Ouedraogo *et al*. (2022) which established that the quality of formal institutions promotes happiness and improves human development.

On the contrary, the corruption perception index was found to have a significant positive effect on the misery index in the long run. This finding authenticates the short-run results and aligns with the results of Omotoye, Zaccheaus & Olumide (2021) which showed that corruption is a major to human development in Nigeria. The implication of this finding is that the pervasive and systemic nature of corruption in Nigeria played a significant role in increasing economic distress in the country. The error correction coefficient is negative and significant at the 5 per cent level, suggesting that the model can adjust from short-run to long-run equilibrium position. The outcomes of the diagnostics tests showed that the residuals are serially independent, homoscedastic and normally distributed at the significance level of 5 per cent. In sum, these findings provided the basis for the reliability of the estimated ARDL model.

5. Conclusion and Policy Recommendations

The thrust of this paper is the extension of the aged long tradition in economics on the institutional quality-growth nexus as documented in North's (1990) framework. Thus, this paper focused attention on how the quality of formal institutions affects economic misery in Nigeria. The findings showed that economic freedom significantly reduced the level of economic misery in the short run, but its effectiveness in mitigating the economic discomfort in Nigeria seems not to manifest in the long run. The results also revealed that liberal democracy significantly mitigated economic misery in both the short and long run. This finding highlights that Nigeria can leverage the democratic process to reduce the level of economic distress faced by the population and foster happiness in the country. However, the incidence of corruption measured by the corruption perception index was found to significantly exacerbate economic misery. This is not surprising considering the poor performance of Nigeria on the corruption perception index ranking, indicating that the country is largely engulfed by corrupt practices which pose a threat to economic prosperity. Given the findings, this study concludes that deepening the formal democratic institutions and increasing the fight against corruption would potentially mitigate the economic distress faced by Nigerians. Therefore, this paper recommends that policymakers should strengthen the democratic process and promote economic freedom by prioritising credible elections, entrenching the rule of law and protecting property rights. Government should move towards providing a sustainable anti-corruption strategy capable of addressing the economic distress prevalent in Nigeria.

References

Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Institutions as a fundamental cause of long-run growth. *Handbook of Economic Growth*, *1*(1), 385-472.

Anaele, A. A., & Nyenke, C. U. (2021). Effect of fiscal policy on misery index in Nigeria. *European Journal of Research in Social Sciences, 9*(1), 30-44.

Barro, R. J. (1996). *Getting it right: markets and choices in a free society*. Mit Press.

Bibi, C., & Qasim, M. (2018). The impact of credit facilitation on economic misery in the case of Pakistan. *Bulletin of Business and Economics (BBE), 7*(2), 81-93.

Bjørnskov, C., Dreher, A., & Fischer, J. A. (2010). Formal institutions and subjective well-being: Revisiting the cross-country evidence. *European Journal of Political Economy*, *26*(4), 419-430.

De Muro, P., & Tridico, P. (2008). The role of institutions for human development. In *HDCA Conference, New Delhi, September*.

Hanke, S. H. (2011) Misery in MENA. Available at: https://www.cato.org/publications/commentary/misery-mena.

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.

Lührmann, A., Tannenberg, M., & Lindberg, S. I. (2018). Regimes of the world (RoW): Opening new avenues for the comparative study of political regimes. *Politics and Governance*, *6*(1), 60-77.

Munir, S., & Asghar, N. (2017). An Analysis of the Interrelationship among Crime, Misery Index and Institutional Quality: A Case Study of Pakistan. *Journal of Political Studies*, *24*(1), 383-406.

North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge university press.

Nwogwugwu, U. C., & Umeghalu, C. C. (2021). International trade and economic misery in African countries with low human development. *International Journal of Finance Research*, *2*(4), 212-243.

Omotoye, O. O., Zaccheaus, O. O., & Olumide, O. O. (2021). Corruption practices and government effectiveness on human capital development in Nigeria. *Global Journal of Sociology: Current Issues*, *11*(2), 88-97.

Ouedraogo, I., Tabi, H. N., Ondoa, H. A., & Jiya, A. N. (2022). Institutional quality and human capital development in Africa. *Economic Systems*, *46*(1), 100937.

Pesaran, M. H. & Shin, Y. (1999). An autoregressive distributed lag modelling approach to cointegration analysis. Chapter 11 in S. Strom (ed.), *Econometrics and Economic Theory* *in the 20th Century: The Ragnar Frisch Centennial Symposium*. Cambridge University Press, Cambridge.

Scully, G. W. (1988). The institutional framework and economic development. *Journal of Political Economy*, *96*(3), 652-662.

Smith, A. (1776). *An inquiry into the nature and causes of the wealth of nations*. London: Methuen and Co., Ltd.