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From Joblessness to Militancy: Identifying the Causal Effect of Youth Unemployment on Recruitment into Extremist Groups in West Africa

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Abstract

The pervasive narrative that economic despair drives youth militancy in West Africa lacks robust causal evidence due to persistent endogeneity problems. This study provides a novel causal test by employing an instrumental variable (IV) approach, using international commodity price shocks as an instrument for national youth unemployment rates. Analyzing panel data from 2000 to 2024, we find that instrumented shocks to youth unemployment have a strong, positive, and statistically significant effect on the intensity of militant group activity. This result provides compelling evidence of a causal link between economic distress and militancy. It implies that policies aimed at stabilizing youth employment, particularly in economies dependent on commodities, are a critical tool for countering violent extremism.

Keywords: causal inference, youth unemployment, militant recruitment, West Africa, commodity shocks, ACLED

Introduction

The security landscape of West Africa has been fundamentally reshaped over the past two decades by the dramatic rise and entrenchment of militant groups such as Boko Haram, the Islamic State in West Africa Province (ISWAP), and Jama'at Nusrat al-Islam wal-Muslimin (JNIM). The scale of this violence is highly uneven,

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with extreme concentration in the Sahelian states. For instance, in 2023 alone, Burkina Faso and Mali accounted for approximately 73% of reported fatalities from militant conflict in the region, while coastal states like Benin, Ghana, and Togo experienced minimal insurgent activity (ACLED, 2024). This instability coincides with a profound demographic and economic challenge: nearly 60% of the region's population is under 25, and national economies often fail to generate sufficient formal employment. The regional youth unemployment rate stands at 12.8%, marginally below the global average of 13.1%, yet this figure masks severe disparities and fails to capture widespread underemployment (ILO, 2023). Countries like Nigeria and South Africa face among the world's highest absolute numbers of unemployed youths, with Nigeria's figure exceeding 13 million (World Bank, 2023). This leaves millions of youths in joblessness or precarious informal work, a distinction critical to this study, which focuses specifically on measured unemployment rather than underemployment (World Bank, 2023; UNOWAS, 2022). The convergence of these crises underpins a dominant policy and academic narrative that economic despair is a primary driver of militant recruitment (Akers & Nwankpa, 2022; UNDP, 2023).

Despite its intuitive appeal, establishing a causal link between youth unemployment and militancy remains a formidable empirical challenge. This is compounded by significant measurement error, as standard indicators of youth unemployment are notoriously difficult to capture accurately in economies dominated by informal and subsistence work. The relationship is further plagued by endogeneity: while joblessness may increase the supply of recruits, militant violence itself destroys livelihoods, disrupts markets, and deters investment, creating a reverse causality loop (Berman et al., 2011; Bhowmik, 2021). Furthermore, omitted variables, including environmental shocks, governance failures, and ethnic marginalization, likely influence both economic conditions and conflict, biasing observational estimates (Couttenier & Soubeyran, 2021; Okonjo-Iweala & Coulibaly, 2022).

Consequently, existing qualitative and correlational studies, while valuable for understanding individual motivations and narrative pathways, lack the methodological design to isolate variables and definitively establish causality (Botha, 2021; Ewi & Aning, 2023), leaving policymakers without robust causal evidence on which to base interventions.

This study directly addresses this gap by asking: What is the causal effect of an exogenous increase in youth unemployment on the intensity of militant group activity in West Africa? To answer this question, we employ an Instrumental Variable (IV) approach, a method increasingly used to identify causal effects in political economy (Nunn & Qian, 2014). We leverage international commodity price shocks, which are exogenous to local conflict dynamics, given West Africa's small share of global commodity markets, as an instrument for national youth unemployment rates (Dube & Vargas, 2013; Arezki & Brückner, 2012). This strategy isolates plausibly exogenous variation in economic distress, allowing for a clearer test of causality.

Analyzing a country-year panel dataset from 2000–2024, our two-stage least squares (2SLS) estimates reveal that instrumented shocks to youth unemployment have a strong, positive, and statistically significant effect on militant activity. This study contributes to the literature in three key ways. First, it provides novel quasi-experimental evidence for a causal economic driver of militancy in West Africa, moving beyond correlation (Blattman & Miguel, 2010). Second, it clarifies the mechanism by demonstrating that external economic shocks, which worsen labour markets, substantively increase militant capacity. Third, it yields concrete policy insights, showing that programs aimed at stabilizing youth employment, particularly in commodity-dependent economies, are a critical component of countering violent extremism (World Bank, 2023).

Theoretical Framework and Identification Strategy

This section establishes the foundation for estimating the causal effect of youth unemployment on militant activity. It first outlines the theoretical pathways linking economic distress to recruitment. It then details the endogeneity challenges that confound standard estimation before presenting the instrumental variable strategy designed to overcome these obstacles and achieve credible causal identification.

Theoretical Pathways: How Unemployment Influences Militant Recruitment

Drawing on labor economics, conflict theory, and empirical studies of radicalization, we conceptualize two primary channels through which youth unemployment can increase militant recruitment.

The Opportunity-Cost Mechanism

A foundational economic model of conflict posits that participation in rebellion is influenced by the comparative returns to legal versus illegal activities (Collier & Hoeffler, 2004). When formal labor markets fail, the opportunity cost of joining an armed group declines. In West Africa, militant organizations often provide material incentives, stipends, loot, or control over economic resources that can exceed the expected income from precarious informal work (Akers & Nwankpa, 2022). Thus, rising unemployment expands the pool of individuals for whom militancy becomes a rational livelihood strategy, directly lowering the material barrier to recruitment.

The Grievance and Relative Deprivation Mechanism

Beyond pure economics, prolonged unemployment fosters psychological and socio-political grievances. Relative deprivation theory suggests that individuals who perceive themselves as unfairly disadvantaged are more prone to collective violence (Gurr, 1970). Joblessness, especially among educated youth, can erode

trust in state institutions and amplify narratives of exclusion (Ewi & Aning, 2023). Militant groups adeptly exploit these sentiments, offering identity, purpose, and a sense of righteous resistance (UNDP, 2023). This channel implies that unemployment increases ideological receptiveness to extremist appeals.

Together, these mechanisms generate a clear theoretical expectation: exogenous increases in youth unemployment should lead to higher levels of militant activity.

The Identification Problem: Sources of Endogeneity

Translating this theoretical expectation into a credible causal estimate is hindered by severe endogeneity. A naïve regression model of the form:

$$Militancy_{it} = \beta_0 + \beta_1 Unemployment_{it} + \epsilon_{it}$$

is likely to yield a biased and inconsistent estimate of due to three key issues.

Omitted Variable Bias

Unobserved factors likely influence both unemployment and conflict. These include:

- Governance Quality: Weak institutions may fail to create jobs while also being unable to contain insurgencies.
- Environmental Shocks: Droughts can simultaneously destroy livelihoods and heighten grievances.
- Historical Marginalization: Systemic exclusion of certain groups restricts economic opportunity and fuels resentment that groups can mobilize (Okonjo-Iweala & Coulibaly, 2022).

  If correlated with unemployment, their omission biases .

Reverse Causality

Militancy itself critically undermines economic activity. Violence destroys infrastructure, disrupts markets and agriculture, deters investment, and causes widespread displacement (Bhowmik, 2021). This reverse pathway, where conflict causes unemployment, implies that OLS estimates are likely attenuated, biased toward zero.

Measurement Error

Labor market data in fragile states is often imprecise due to large informal sectors and limited statistical capacity. Classical measurement error in the independent variable further biases OLS estimates toward zero. Given these issues, an empirical strategy that isolates exogenous variation in unemployment is required for causal inference.

Identification Strategy: An Instrumental Variables Approach

To address endogeneity, we employ an Instrumental Variable (IV) strategy using international commodity price shocks as an instrument for national youth unemployment rates.

Instrument Rationale and Relevance

Most West African economies are highly dependent on a narrow range of primary commodity exports (e.g., oil, cocoa, gold). Global price fluctuations for these commodities create exogenous income shocks that significantly affect domestic labor markets. A price boom increases government revenues and private sector activity, boosting employment; a bust forces contraction and raises unemployment (Arezki & Brückner, 2012; Dube & Vargas, 2013). This provides a strong first-stage relationship, formally:

$$Unemployment_{it} = \pi_0 + \pi_1 Commodity\ Shock_{it} + u_{it}$$

where a significant satisfies the relevance condition.

The Exclusion Restriction

The critical identifying assumption is that global commodity price shocks affect militant activity only through their impact on national economic conditions (primarily youth unemployment). This exclusion restriction is plausible because:

1. These prices are set in global markets, exogenous to local conflict dynamics in West Africa.
2. Militant groups in the region lack the market power to influence world prices.
3. The primary transmission channel is macroeconomic: price shocks affect state capacity and household incomes, thereby altering recruitment incentives. Existing studies support the validity of similar instruments in conflict research (Bazzi & Blattman, 2014).

This strategy allows the researcher to estimate the causal parameter of interest using a Two-Stage Least Squares (2SLS) framework, isolating the effect of unemployment driven by external economic shocks.

Data and Methodology

This section outlines the data sources, variable construction, and empirical strategy used to estimate the causal effect of youth unemployment on militant activity. We construct a panel dataset that merges high-resolution conflict data with macroeconomic and labor market indicators, following best practices in the econometrics of conflict (Blattman & Miguel, 2010; Krieger & Meierrieks, 2021).

Data Sources and Variable Construction

We construct an unbalanced country-year panel dataset comprising eight West African countries, Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, Niger, Nigeria, and Senegal, from 2000–2024. The panel is unbalanced primarily due to gaps in key socioeconomic indicators

and conflict event reporting for specific country-years, reflecting real-world data availability constraints. The core variables, their measurement, and sources are summarized in Table 1 below.

Table 1: Variable description and sources

Variable name	Description	Source
Militant events	Annual count of violent events attributed to extremist organizations (e.g., battles, explosions, violence vs. civilians).	Armed Conflict Location & Event Data Project (ACLED)
Youth unemployment rate	National unemployment rate for ages 15-24 (%, modeled ILO estimate).	ILOSTAT
Commodity shock	Annual percentage change in the world price of a country's dominant export commodity (e.g., oil, cocoa, gold).	IMF Primary Commodity Price System (PCPS)
GDP per capita	Gross domestic product per capita (constant 2015 US$).	World Bank World Development Indicators
Population	Total national population (log-transformed).	World Bank World Development Indicators
Political stability	Index capturing perceptions of political stability and absence of violence/terrorism.	World Bank Worldwide Governance Indicators
Urbanization rate	Share of population residing in urban areas (%).	World Bank World Development Indicators

Dependent Variable: Militant Event Intensity

Our primary outcome is the annual count of violent events attributed to Islamist militant organizations in West Africa (e.g., Boko Haram, ISWAP, JNIM), sourced from ACLED. This includes armed battles, explosions/remote violence, and violence against civilians. The annual country-level count serves as a validated proxy for the operational intensity and recruitment capacity of these groups (Raleigh et al., 2010). The proxy relationship relies on the logic that a sustained or increasing frequency of violent operations is organizationally contingent on a parallel supply of personnel; therefore, a higher event count signals greater underlying human resource mobilization, or recruitment success.

Endogenous Independent Variable: Youth Unemployment Rate

The key explanatory variable is the national youth (ages 15–24) unemployment rate, sourced from ILOSTAT's harmonized modelled estimates. This age cohort is substantively justified as the primary recruitment target for militant organizations, as consistently documented in surveys and disarmament studies (e.g., UNDP, 2023). While alternative measures, such as total unemployment, prime-age (25–54) unemployment, or the NEET rate, offer valuable perspectives, the youth rate provides the most direct test of the predominant hypothesis linking the economic vulnerability of this specific demographic to militancy. It is important to note that these ILOSTAT figures are not direct observations from comprehensive labor surveys in all cases, but are instead modelled estimates designed to ensure cross-national and temporal comparability where survey data is weak or absent. This measure captures the structural economic vulnerability of the demographic cohort most targeted for recruitment (UNDP, 2023).

Instrumental Variable: Commodity Terms-of-Trade Shock

To instrument for youth unemployment, we construct a country-specific commodity shock variable. For each country i in year t, it is defined as the annual percentage change in the world price of its primary export commodity (e.g., oil for Nigeria, cocoa for Côte d'Ivoire):

$$Commodity\ Shock_{it} = \frac{\Delta P_{ct}}{P_{ct-1}} \times 100$$

where P_ct is the world price. The 'primary' export commodity is defined as the single 3-digit SITC (Standard International Trade Classification) product group that accounted for the largest average share of a country's total export revenue over the 2000-

2024 period, based on UN Comtrade data. While focusing on the dominant commodity provides a clear, exogenous instrument, we acknowledge that this measure does not capture concurrent price fluctuations in other exported goods. Global commodity prices are exogenous to local conflict dynamics, providing a plausible source of external variation in national economic conditions (Arezki & Brückner, 2012).

Note: Primary export commodities: Nigeria (Crude Petroleum), Côte d'Ivoire (Cocoa), Ghana (Gold), Mali (Gold), Niger (Uranium), Burkina Faso (Gold), Senegal (Refined Petroleum), Benin (Cotton).

Control Variables ()

We include a vector of time-varying controls to account for potential confounders: GDP per capita (economic development and state capacity), log (Population) (country scale and base risk of conflict), the Political Stability Index (governance quality and institutional fragility), and the Urbanization Rate (structural economic transformation and social dislocation dynamics). These variables are included to isolate the specific channel of youth labor markets by accounting for alternative explanations, namely, that any observed association might instead be driven by a country's overall wealth, its size, the strength of its institutions, or the pace of its urban transition. These are standard controls in the conflict literature to isolate the specific channel of youth labor markets.

Sample Selection

The core analysis focuses on countries most affected by Islamist militancy in West Africa: Nigeria, Niger, Mali, Burkina Faso, and Côte d'Ivoire. Chad is included in robustness checks due to its involvement in regional counter-insurgency efforts, but a distinct economic structure. Ghana and Benin are included as "low-intensity" comparison cases to test whether the relationship holds in less volatile contexts, improving the generalizability of the findings. The panel is unbalanced to maximize data coverage,

particularly for countries with intermittent reporting in conflict zones.

Empirical Model: Two-Stage Least Squares (2SLS)

To address endogeneity, we estimate a two-stage least squares (2SLS) model with country (μi) and year (λt) fixed effects.

First-Stage Equation

$$\text{Youth Unemployment}_{it} = \pi_o + \pi_1 \text{Commodity Shock}_{it} + \pi_2 X_{it} + \mu_i + \lambda_t + u_{it}$$

where X_{it} is the vector of control variables. This stage tests the relevance of the instrument; a statistically significant and robust π_1 is required.

Second-Stage Equation

$$Youth\ Unemployment_{it} = \pi_0 + \pi_1 Commodity\ Shock_{it} + \pi_2 X_{it} + \mu_i + \lambda_t + u_{it}$$

Here, $\widehat{Youth\ Unemployment_{it}}$ is the instrumented value from the first stage. The coefficient β_1 is the key parameter of interest, capturing the causal effect of an exogenous increase in youth unemployment on militant activity.

Identification and Inference

Identification hinges on the instrument satisfying the relevance (strong first-stage) and exclusion restriction (affects militancy only through unemployment) conditions, as argued in Section 2.3. We report the Kleibergen-Paap rk Wald F-statistic to test for weak instruments. Standard errors are clustered at the country level to account for serial correlation and heteroskedasticity.

Results and Findings

This section presents the empirical results, beginning with descriptive statistics and first-stage diagnostics before reporting the causal estimates from the two-stage least squares (2SLS) model. The analysis

is based on an unbalanced panel of eight West African countries observed from 2000 to 2024, yielding a maximum of 192 country-year observations. We interpret the magnitude and significance of the findings and discuss their implications for the relationship between economic distress and militancy in West Africa.

Descriptive Statistics and First-Stage Diagnostics

Table 1 presents the summary statistics for the key variables in the analysis. The data reveal substantial variation, particularly in the dependent variable (Militant Events), highlighting the disparity between countries in conflict epicenters and more stable states.

Table 2: Descriptive Statistics

Variable	Mean	Median	Std. Dev.	Min	Max
Militant Events (count)	55.7	12.4	95.2	0	520
Youth Unemployment (%)	11.8	11.2	4.5	4.1	25.0
Commodity Shock (%Δ)	2.1	1.5	25.3	-60.5	80.1
GDP per capita (log)	7.0	6.9	0.7	5.7	8.5
Political Stability Index	-0.9	-1.0	0.8	-2.5	1.1
Urbanization Rate (%)	42.5	42.1	12.3	16.1	62.9

First-Stage Results

The validity of our IV strategy depends on a strong first-stage relationship. Table 2 reports the results of the first-stage regression, where the dependent variable is the youth unemployment rate. The coefficient on our instrument, Commodity Shock, is negative (-0.045) and statistically significant ($p<0.05$). This indicates that a one percentage point increase in the annual price of a country's primary export commodity is associated, on average, with a 0.045 percentage point decrease in the national youth unemployment rate. This aligns with theory: a positive shock to a country's key export price stimulates economic activity and reduces youth unemployment.

The coefficients on the control variables are intuitively signed: Political Stability is negatively associated with youth unemployment, while Urbanization shows a positive but statistically insignificant relationship. The within-country, time-series variation in the Commodity Shock instrument—after accounting for country and year fixed effects- explains approximately 15% of the remaining variance in youth unemployment. The Kleibergen-Paap rk Wald F-statistic of 22.5 comfortably exceeds the critical threshold of 10, and this conclusion holds when applying finite-sample corrections appropriate for our panel with eight country clusters, robustly rejecting the hypothesis of a weak instrument. This confirms that the instrument satisfies the relevance condition.

Table 2: First-stage regression results

Variable	Coefficient	(Std. Error)
Commodity shock	-0.045	(0.018)
GDP per capita (log)	-0.001	(0.001)
Political stability	-0.85	(0.20)
Urbanization rate	0.02	(0.03)
Constant	15.20	(2.10)
Country & Year FE	Yes	
Kleibergen-Paap rk F-statistic	22.5	
Observations	180	

Note: Robust standard errors clustered by country in parentheses. p<0.05, p<0.1.
(Dependent variable: youth unemployment rate)

Main Results: OLS vs. 2SLS Estimates

Table 3 presents the core findings, comparing the potentially biased ordinary least squares (OLS) estimate with the causal two-stage least squares (2SLS) estimate. The dependent variable is the annual count of Militant Events.

Table 3: The effect of youth unemployment on militant events

Variable	(1) OLS	(2) 2SLS	(3) Reduced Form
Youth Unemployment	1.15	3.82**	
	(0.70)	(1.55)	
Commodity Shock			-0.17
			(0.08)
GDP per capita (log)	-10.2	-8.5	-8.8
	(8.1)	(7.9)	(7.8)
Political Stability	-15.3**	-12.1*	-12.5*
	(6.8)	(6.5)	(6.4)
Urbanization Rate	0.5	0.3	0.4
	(0.4)	(0.4)	(0.4)
Constant	Yes	Yes	Yes
Country & Year FE	Yes	Yes	Yes
First-Stage F-statistic		22.5	—
Observations	180	180	180

*Note: Robust standard errors clustered by country in parentheses. Column (3) reports the Reduced Form estimate from regressing the militant event count directly on the Commodity Shock instrument and controls. * p<0.1, ** p<0.05.* (Dependent variable: annual militant event count)*

Interpretation of OLS Results

The OLS estimate in column (1) shows a positive but statistically insignificant association between youth unemployment and militant events. This weak correlation likely stems from the endogeneity problems outlined earlier: reverse causality (conflict destroys jobs), omitted variable bias (e.g., unmeasured governance failures), and measurement error in unemployment data. These issues attenuate the OLS coefficient toward zero, masking the true underlying relationship.

Causal (2SLS) Results and Interpretation

The 2SLS estimate in column 2 provides the causal interpretation. The coefficient of 3.82 ($p<0.05$) indicates that a one-percentage-point exogenous increase in the youth unemployment rate—driven by a negative global commodity price shock—causes approximately 3.8 additional militant events in a country-year. The fact that the 2SLS estimate is more than three times larger than the OLS estimate is consistent with econometric theory and prior conflict literature. By using an exogenous instrument, the 2SLS model:

1. Corrects for reverse causality: it isolates variation in unemployment that is not caused by ongoing conflict.
2. Mitigates attenuation bias: it reduces the bias introduced by measurement error in the unemployment variable.
3. Addresses omitted variable bias: it purges the estimate of confounding factors correlated with both unemployment and militancy.

This result provides strong, credible evidence that deteriorating youth labor market conditions are a direct driver of increased militant activity in the region.

Substantive Implications

The estimated causal effect is substantively significant. For instance, a sustained 5-percentage-point rise in youth unemployment, a plausible scenario during a major commodity bust, would be predicted to generate approximately 19 additional militant events per country-year (3.82 * 5). In a high-intensity conflict country like Nigeria or Mali, such an increase could represent a meaningful escalation in operational tempo, territorial pressure, and civilian targeting.

This finding underscores that economic vulnerability is a powerful structural catalyst for extremism. It suggests that policies

aimed at stabilizing youth employment—such as counter-cyclical public works programs, support for sectors less tied to commodity exports, and vocational training in conflict-affected regions- are not merely developmental goals but are critical components of an effective counter-terrorism and peacebuilding strategy in commodity-dependent, demographically youthful societies like those in West Africa.

5. Discussion, Mechanisms, and Limitations

The empirical results demonstrate that the causal impact of youth unemployment on militant activity is substantially stronger than what conventional regression models suggest. The significantly larger 2SLS coefficient confirms that ignoring endogeneity severely underestimates the true strength of the unemployment–extremism relationship. By exploiting exogenous variation from global commodity price shocks, our identification strategy isolates a labor-market channel through which economic downturns create conditions conducive to extremist recruitment.

This finding aligns with qualitative accounts from former combatants and recent UNDP research (2023), which highlight economic need as a primary motivator. It also supports economic theories of conflict, where shrinking legitimate labor markets lower the opportunity cost of rebellion while intensifying grievances linked to state neglect (Collier & Hoeffler, 2004; Borum, 2021). In West Africa, where demographic pressures are acute and social protection is limited, economic shocks directly translate into heightened vulnerability. The results further underscore the structural fragility of economies dependent on a narrow set of primary commodities. Price collapses have direct security implications, accelerating insurgent recruitment and enabling extremist organizations to expand their operational capacity, thereby empirically linking economic governance to national security in fragile contexts.

Mechanisms and Heterogeneity

While our IV estimator identifies a clear causal effect, the precise micro-level mechanisms, whether the dominant channel is opportunity cost (economic calculation) or grievance (perceived injustice), are harder to disentangle with national-level data. It is plausible that both operate simultaneously, with their relative importance varying across individuals and contexts. This raises important questions about heterogeneity. The estimated effect is a national average, but the relationship likely differs across subgroups. For instance, the effect may be stronger for urban youth who face higher costs of living and clearer comparisons of relative deprivation, making them more susceptible to grievance-based recruitment. Conversely, for pastoralist communities in the Sahel, an economic shock might operate more through the opportunity cost channel, as dwindling livestock assets directly eliminate a primary livelihood, making alternative sources of income from armed groups more attractive.

We tested for this empirical heterogeneity by interacting the youth unemployment instrument with a binary indicator for a country's predominant context (Sahelian vs. Coastal) and found the effect on militancy to be approximately 40% larger and more statistically robust in the Sahelian countries ($\beta = 5.1$, $p<0.01$) compared to Coastal states ($\beta = 3.0$, $p<0.10$). This supports the theoretical proposition that the economic mechanism operates more powerfully in regions where formal alternatives are scarcest. Future research using subnational, individual-level, or survey data is needed to unpack these nuanced pathways and to design appropriately targeted interventions.

Limitations

Despite offering strong causal evidence, several limitations warrant consideration.

Exclusion Restriction Concerns

The IV strategy relies on the assumption that global commodity price shocks affect militancy only through youth unemployment. While theoretically plausible and consistent with practice in conflict research (Bazzi & Blattman, 2014), this assumption is untestable. The significantly reduced form relationship (Table 3, Column 3), where a one percentage point positive commodity price shock corresponds to approximately 0.17 fewer militant events, confirms the instrument's relevance to the outcome and establishes the empirical link through which the IV operates. We mitigate remaining concerns about the exclusion restriction by demonstrating that results remain stable when controlling for potential alternative channels like government military spending and fiscal shocks.

National vs. Subnational Measurement

The analysis operates at the country-year level, which masks local heterogeneity. Recruitment is often clustered in borderlands, rural peripheries, and marginalized regions. Future research should leverage subnational data on unemployment, local commodity production, and high-resolution conflict events to capture these localized dynamics.

Labor Market Measurement

Youth unemployment rates in fragile states are subject to measurement challenges, including underrepresentation of informal and underemployment. Although ILO harmonized estimates improve reliability, these structural data constraints should be acknowledged when interpreting the magnitude of effects.

Potential Omitted Pathways

While we control for key macroeconomic and political variables, other unobserved local factors (e.g., hyper-local governance quality, community-level social cohesion) could simultaneously influence

unemployment and conflict. The fixed-effects approach and use of an exogenous instrument significantly mitigate, but cannot fully eliminate, this concern.

Policy Recommendations

This study demonstrates that youth unemployment is a significant causal factor in the rise of militant activity in West Africa. Crucially, it shows that economic shocks, particularly from volatile global commodity markets, have direct security consequences. The following policy directions emerge:

Economic Diversification as a Security Strategy

Heavy dependence on a narrow range of commodities exposes economies to volatility that deteriorates labor markets and creates recruitment opportunities. Governments should therefore prioritize economic diversification into manufacturing, agro-processing, and digital services. Such diversification should be viewed not only as a development goal but as a national security imperative to build resilience against external shocks (Arezki et al., 2022).

Counter-Cyclical Stabilization Mechanisms

Governments and development partners should institutionalize automatic stabilizers to cushion employment during downturns. These should include counter-cyclical public works programs, emergency youth employment schemes, and temporary social protection expansions to reduce the pool of economically distressed individuals susceptible to recruitment (UNDP, 2023). In addition, fiscal frameworks should be strengthened to enable rapid response during commodity-driven shocks.

6.3 Integrating Youth Empowerment into Counter-Terrorism

The findings provide robust evidence for integrating youth economic empowerment into core counter-terrorism and prevention

strategies. Governments should expand vocational training, improve access to credit for young entrepreneurs, and create formal labor market pathways to reduce recruitment incentives, complementing necessary security measures. In fragile contexts, empowerment programmes should be targeted toward high-risk localities with measurable employment and security outcomes.

A Whole-of-Government Approach

The results underscore that economic governance and conflict dynamics are deeply intertwined. Governments should therefore adopt a cohesive policy framework that aligns economic, labor, and security planning. Investments in economic resilience and employment creation should be reframed as proactive, foundational elements of national security policy in fragile states. Effective implementation will require strengthened inter-ministerial coordination and shared accountability mechanisms for youth employment outcomes.

Regional Coordination

Given that commodity cycles and extremist networks transcend borders, policy responses must be regional. ECOWAS and the AU should strengthen regional coordination to amplify stabilization efforts, support data-sharing, and prevent any single country from becoming a recruitment hub during regional economic downturns. Regional institutions should also promote joint labor market monitoring and coordinated emergency youth employment interventions in areas vulnerable to spillover violence.

Conclusion

This study demonstrates that youth unemployment is a significant causal factor in the rise of militant activity in West Africa. Crucially, it shows that economic shocks, particularly from volatile global commodity markets, have direct security consequences. Overall, the results underscore that economic governance and conflict

dynamics are deeply intertwined, and that employment conditions, especially among youth, shape the broader security landscape. The study therefore establishes that addressing youth unemployment and strengthening economic resilience are not merely social policy priorities but essential components of sustainable peace and security in fragile states across the region.

This article makes an original contribution by providing robust causal evidence linking labour market distress to extremist recruitment dynamics, thereby strengthening the argument that counter-terrorism interventions must be complemented by economic governance strategies. In particular, it reframes youth employment not only as a development issue but as a preventive security mechanism capable of reducing recruitment incentives and limiting the expansion of militant networks during periods of economic downturn. Future research could build on these findings by examining sub-national variations in unemployment shocks, exploring how institutional quality and local governance shape resilience, and assessing whether targeted youth employment programmes produce measurable reductions in recruitment and violence. Such extensions would deepen understanding of the mechanisms identified in this study and support more context-sensitive policy interventions across West Africa.

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