

**A Demographic Perspective:
Youth Bulge and Crime
in West Africa**

Prof. Maria Rita Testa

SUPERVISOR

Prof. Mohammed Hashas

CO-SUPERVISOR

Valerio Rosa - ID 649492

CANDIDATE

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List of Acronyms

APC – The All Progressives Congress

AQIM – Al-Qaeda in the Islamic Maghreb

AU – African Union

ECOWAS – Economic Community of West African States

ENACT – The Organised Crime Index

EU – European Union

GDP – Gross domestic product

GNI – Gross national income

GTI – The Global Terrorism Index

ILO – International Labour Organization

IOs – International Organizations

IOM – International Organization for Migration

ISWA – Islamic State of West Africa Province

JNIM – Jama'at Nasr al-Islam wal Muslimin

MENA – Middle East and North Africa

OECD – The Organisation for Economic Co-operation and Development

PDP – The People's Democratic Party

PRB – Population Reference Bureau

RUF - Revolutionary United Front

UCDP – Uppsala Conflict Data Program

UN DESA – Department of Economic and Social Affairs of the United Nations

UNEP – The United Nations Environment Programme

WHO – World Health Organization

Abstract

Youth bulge has been a phenomenon addressed over time by scholars in connection with the transition model from high to low fertility. The interest was raised while different World regions went through the transition. Nowadays West Africa is the centre of this research on youth bulge. However, the field has shown stagnation by focusing predominantly on political violence for almost two decades. At the current stage, the study field tries to address the changing threat dynamics within society linked to youth bulge. This is the space in which the following work desires to collocate. The thesis addresses the relationship between youth bulge and crime in West Africa. Believing in criminality's disruptive role in development, it finds the linkage between population and crime trends. Next, it tries to show policy suggestions for reducing the role of criminality. Finally, the research emphasises West African countries' significance for Italian foreign policy.

Keywords: Youth Bulge, Demographic Divided, Crime, Violence, West Africa.

Introduction

The global population is projected to reach 9.7 billion by 2050 (UN DESA 2022b), with over half of the growth concentrated in sub-Saharan Africa. This magnitude size of change offers high opportunities and risks to the region. The unique demographic characteristics are linked with a gradual decrease in both fertility and mortality rates, marriage age, migration, education and health. These changes are influenced by several factors, such as high inequality, lacking access to essential services and exposure to regional and national insecurity.

National regional states and the international community have shown to struggle in tackling the issues in West Africa. This is while the urge for enhancing economic growth and the social dividend has become more and more needed. Regional states and Western foreign policies directed at improving the current situation have not reached the desired results. Many questions on the motives behind these failures are possible to be addressed. However, to explain the inability to enforce stability researchers in the field of demography have illustrated the current demographic situation of the region within the demographic transition theory towards a reduction of fertility rates. Scholars' works such as A. Coale's "*The Declining Fertility in Europe*" (Coale and Watkins 1986) and others proved the evidence of this worldwide phenomenon to exist. First, seen in the East Asian miracle (Bloom and Williamson 1998) in correlation with the reduced dependency ratio illustrated by R. Lee and A. Mason (Lee and Mason 2006). This effect has taken the name of demographic dividend. However, other scholars focused on another aspect of the transition model the increasing danger from violence in countries with an expanded youth bulge, or demographic bomb. The work of R. Cincotta "*The Security Demographic*" (Cincotta, Engelman, and Anastasion 2003) was one of the outlets of this niche of research. In the early 2000s, H. Urdal addressed the relationship between youth bulge and political violence, which opened a large expansion of the field. This was also due to the begun war on terrorism, followed by the Arab Spring. At this point, the field reached a level of redundancy and seemed to fade with the declining role of the fertility transition majorly worldwide. However, the re-engagement in West Africa has come in connection with the potential of an upcoming and progressing transition in the region. A positive outcome of the transition could be able to improve the well-being of one of the poorest

regions in the World. While East Asia appeared to benefit largely from the divided there is a high risk of the inability of West Africa to manage to gain successfully from the transition in terms of economic growth and future equality. As seen the ability to benefit during this period allows to impact transversally all the human activities in the region. Demography has shown to be a good forecasting tool. Because of these demographic trends, many different challenges could be anticipated in social, political, and economic spheres. There is an increasing number of questions on which demography studies could provide a new perspective. Issues such as overpopulation, environmental degradation, food security, energy resource utilization, urbanization, migration, geopolitics, and socio-religious conflicts all bear the indelible imprint of demographic dynamics. Being able to define these population trends allows policy-makers to anticipate proactively current and imminent challenges. Shifts in population dynamics consequently change politics, public policies, and global societies. By understanding these changes, we may better understand the future.

The research field has begun to search for new relations between youth bulge and violence. Some researchers are interested in the role of young people in the antagonism against democratization or their impact on social protest in violent or peaceful ways. However, the field in its current state has lacked in providing connections between youth bulge and crime. This is the niche of research which the following research will investigate. The outcomes will help understand the current state of this relationship, illustrate the negative impacts on the demographic dividend, and show the resolutions to these linkages at the regional level. Further, the research outcomes will illustrate what effect they have on the Italian foreign policy in Africa. The work addresses the region as a direct interest of Italy, particularly on concern of criminality and youth.

The work has a mixed methodology by using a qualitative and a quantitative approach. It has been divided into three chapters. Each of these aims to redirect readers' attention to relevant elements for understanding the relation between youth bulge and crime. The scope of the first chapter is to identify the existing literature on youth bulge, which concentrates mainly on instability linked to political violence in developing countries and the demographic dividend. The interchange of developing countries in the World has

given prominence to the study of East Asia, Latin America, the Middle East and, nowadays, Africa. However, the large similarity in research topics has pushed us to investigate new types of connections related to youth bulges in society. To answer this stagnation the following work is defined parallelly to new topics such as the role of youth bulge on democratization, protests, or the gender gap to research the link with crime. Criminality in West Africa is the focus of the next chapter, which further shows the relevance of the study. This region has been chosen for being the present transitioning region in the World with a renowned role in being a spot of illicit activities. This was possible by analysing the Organised Crime Index, maintained by European Union funding and run by excellence institutions such as Interpol, the Institute for Security Studies and the Global Initiative. Marked the degree of West Africa's crime market a demographic comparative perspective on Nigeria and Niger is held to enlarge the comprehension of interconnections between demography and crime. This leads to the implementation of a further analysis on the subnational level in Nigeria's states considering crime events and population statistics by a regression analysis on R. The chapter concludes with the investigation of a degeneration risk characterizing the nexus of crime and terrorism in contexts of progressed stages of violence, the case of the tri-border region shared between Mali, Burkina Faso and Niger is presented. The final chapter wants to express the potential of youth bulge in promoting a brighter economic development in the region through a correct economic and social policy in the region. This considers the future challenges based on the established links between crime and demographics. To enlarge the positive impact of the work, the last paragraph illustrates the importance of West Africa for the Italian foreign policy in Africa and its security connections in light of the outputs of the present research.

Chapter I – The Youth Bulges and Demographic Dividend

1.1 Contextualizing Youth Bulges

Demography has been a vital issue since the appearance of humankind. Population growth, decline and change have shaped the social structures and pushed toward the development of new technologies. On the other side, demographic changes have provoked political, social, health and economic issues. Researchers and philosophers have defined the science of population as a possible forecasting study of life. The first observations were made by ancient civilizations such as the Greeks, Egyptians, and Romans. However, the field we are known to address today is attributed to John Graunt, who wrote the “*Natural and Political Observations Made upon the Bills of Mortality*” in 1662. His work is become a pioneer for vital statistics. J. Graunt's book covered various topics such as mortality causes, survival rates across different age groups, healthcare and environmental factors, gender distribution, household size, demographic age patterns, workforce participation, population size, components of population growth, and the necessity of statistical data in managing public affairs (Rowland 2003). Starting from that moment national demographic offices appeared, and national censuses were held.

The theory that shaped the demographic modern scientific field was defined in the 20th century. When Adolphe Landry mentioned the transition theory and later F. Notestein properly analyzed it in his article “Population: The Long View” this theory by an analytical perspective (Frank W. 1945). The demographic transition pertains to the shift of mortality and fertility rates within a society. It involves a movement from a phase before the transition where both rates are high to a subsequent phase where both rates become low. This transitional period is marked by a significant shift in population growth and is characterized by a surplus of births over deaths (Rowland 2003).

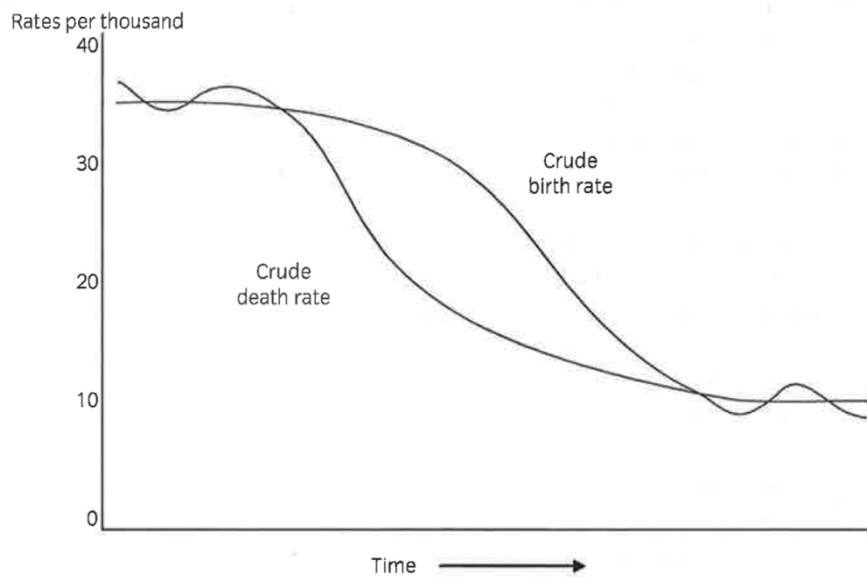


Figure 1 Classical Demographic Transition. (Rowland 2003)

As it is possible to see in Figure 1 there are three main stages of the transition paradigm. Where the pre-transitional stage is characterized by high or severe death rates and constant high fertility rates. The declining death rate is the signal of the transition, which leads to an increase in population because of still high levels of fertility and low mortality. At this point, A. Coale identified three prerequisites for a decrease in fertility, none of which necessitate economic development. These prerequisites are the acceptance of fertility control as ethical and moral; the perception among couples that fertility control is economically and socially beneficial; and the presence of knowledge and effective utilization of fertility control methods (Coale 1984). This allows the time-bond shift to the third phase of the transition with the appearance of a low level of fertility and mortality. A further development, the fourth phase, is the fall of the birth rate below the replacement level, which implies a reduction in the size of the population in a country with this specific pattern.

Even if the majority of the World has come through the transition stage some countries are experiencing an expanding population due to this phenomenon, such as West Africa, the Horn of Africa and Central Africa. The expanding population size creates a shift in the demographic cohort pyramid by accelerating the growth by the expansion of young age groups. The situation that forms due to these high levels of birth brings a larger youth per cent of young people over children and older ones. In this case, the 15-24 or 16-29 age groups bulge take the denomination of youth bulge. From this many scholars have

been researching the implications of the phenomena on societies. The disproportional large amount of youth has been demonstrated to affect countries' politics, economics and stability. They found several factors contributing to or reducing the youth bulge phenomena such as fertility rates, mortality rates, healthcare and living conditions.

There are two groups of thinkers in this regard. Some address the size of the young population as a destabilizing force inside a country, while others focus more on the development opportunities offered by this large group of young.

In fact, there is a possibility of a window of opportunity, called demographic dividend. Some requirements are needed for the appearance of this chance. They are reducing fertility and improving the health system. This allows a large youth bulge to reach prominent economic growth. Economic benefits are led by a large adult working population, which does not have to sustain financially a cohort of children and neither an elderly one, being smaller by the pyramid structure. Thus, it is relevant to question also the possibility of a positive role of youth bulge rather than only focusing on the higher risks of violence (Giordano 2021). In other words, when the age dependency ratio (represented as older and children to the working population) equals a number minor than one. This reduction in dependency can contribute to increased productivity, higher savings, and greater economic output. Scholars have highlighted other elements to be taken into account for fostering the demographic dividend. They are the improvement of health, education, and employment opportunities that will lead to an economic revenue increase.

Nowadays there are few regions of the world where the transition has not yet been over. These regions are seeable in Figure 2.

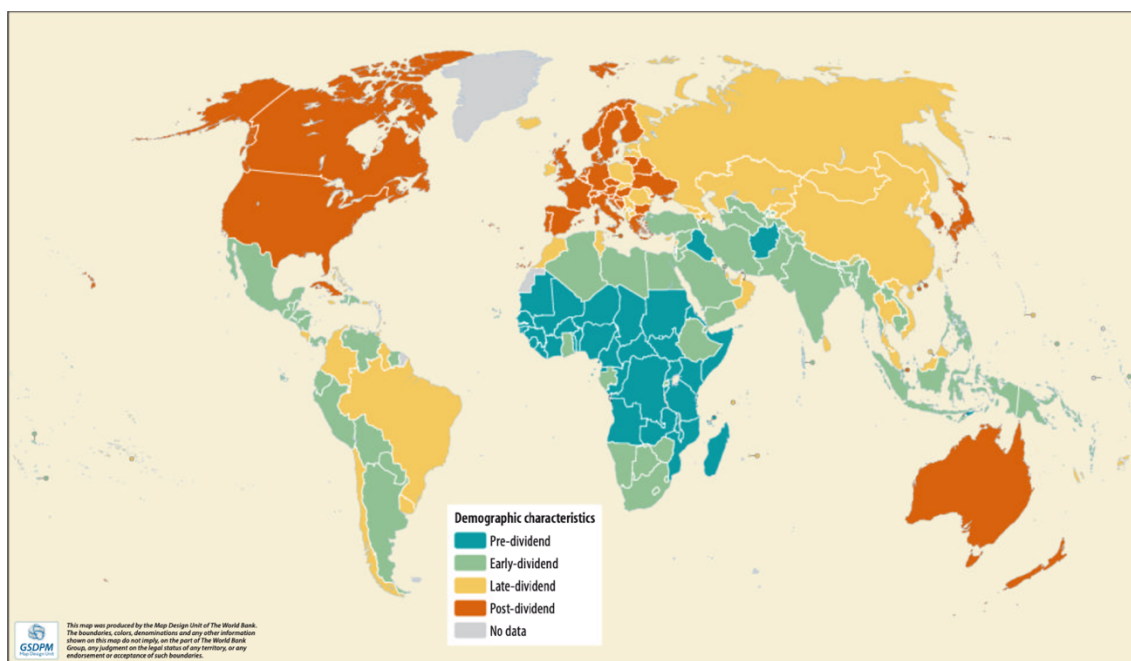


Figure 2 Transition theory phase and demographic dividend by country. (World Bank 2016)

However, these countries are facing many challenges in social, political and economic terms. The interest in the region is boosted by this set of factors that give an outstanding difficult framework for analysis. The development potentials are related to the ability to enforce some core aspects in these countries to gain the best effects of the demographic dividend in the future decades.

The youth bulge research has shown some issues in terms of definition. One of these is the age range of youth to be considered. R. Week and D. Fugate described three different types of definitions based on the research method: qualitative and descriptive, quantitative and generalized, and quantitative and constrained (Weeks and Fugate 2012). Already H. Urdal (Urdal 2004) argued how the definitions utilized by previous researchers were not completely satisfactory for studying the phenomena of youth bulges for the works of S. Huntington, J. Fearon and D. Laitin, P. Collier and A. Hoeffles, and A. Goldstone (Goldstone 2002; Fearon and Laitin 2003; Collier and Hoeffler 2004; Huntington 1997). He argued that the definition was not useful to research, because it was taking youth bulge (15-24 years) to the total population, instead of the total adult one. An additional analysis was provided by a branch of African researchers who considering the social, cultural and economic realities of Africa suggested considering a larger youth cohort. They developed

the idea of using the 15-16 baseline to the marital age or the employment of young Africans, average 30-35 years. To simplify, it is possible to take into consideration two common age-structures 15-24 or 15-29 years old. The issue implies that especially quantitative researchers have a high variety of datasets, which can be impressively different from others. This leads to a reduction in the cohesion of the analysis, to able the readers to understand the diversity of these definitions is reported in the table from the work of Sayce in Figure 3.

Theorist	Year	Measure of Youth Bulge
Davis	1963	Percentage of population under 30
Bouthoul	1970	Very high percentages 18-35 year olds
Huntington	1996	15-30 year olds (particularly in Muslim societies)
Esty et al	1999	15-29 relative to 30-54 age group
Goldstone	2001	Disproportionate numbers aged 15-25 relative to total population
Helgerson	2002	Disproportionate numbers aged 15-29 relative to total population
The Corner House	2004	Disproportionate numbers under 27 of age
Hart et al	2004	Disproportionate numbers in 16-25 age group relative to adult population
Urdal	2004	15-24 age group relative to total adult population (15 and over)
Heinsohn	2006	30%-40% of males belong to fighting age - 15-29
Cincotta	2008-9	Proportion of 15-29 in 15-64 age group.
LaGraffe	2012	Disproportionate numbers aged 15-24 as percentage of total population
Ortiz & Cummins	2012	Disproportion numbers aged 15-24 relative to total population
Lin (World Bank)	2012	15-29 age group
Schomaker	2013	More than 20% of population aged 15-24 (with 'children bulge' >30% 0-14)
Carter (Wilson Center)	2013	15-24 age group as percentage of total population
Lam	2014	Proportion of 15-24 in 15-64 age group

Figure 3 Definition of diversity on youth bulge age. (Sayce 2016)

The paragraph has illustrated the youth bulge phenomenon and its causes. The following paragraph focuses on a further relationship between youth bulge and violence by analyzing the existing state of literature.

1.2 The youth and violence

Since the 1990s there has been a rise in scholarly works linking violence and young people. This has developed in a vast literature in academia, IOs and practitioners. As we already stressed Africa is the continent where the youth bulge phenomenon is undergoing. Due to population patterns, West Africa will become the future centre of youth and the place with a faster-expanding population worldwide. This is the reason for choosing this region. To make the literature review more understandable it has been organized into three main clusters of research. The first is the *environmental and demographic* analysis, which links population expansion to environmental changes or challenges. The second is the *grievance literature* focusing on inequality and unfairness within the society both horizontally and vertically. The third is the *economic-based* evidence argumentation. Following each section it will be presented a critical assessment of the niches on behalf of the work of I. Olawale and O. Funmi (Ismail and Olonisakin 2021).

The demography-environment cluster had a rapid rise and success due to some factors. Surely, the development of the field is raised as secondary evidence within historical and geopolitical thinking. It was also applied for national foreseeing, but on academic, strict, terms it appeared in the late 1990s. During the development of the research field, the international agenda increased interest. R. Kaplan's publication "The Coming Anarchy" stressed different aspects of the international agenda of the time and within them focused on the growing population and its pressure on the environment, the scarcity of natural resources and the consequential degradation of natural and social patterns (Kaplan 1994). As mentioned before Kaplan's book other authors addressed the youth bulges as a cause of violent conflicts such as N. Choucri (1974), H. Moller (1968) and S. Huntington (1996). These researchers emphasized that population pressure linked to fragile states could exacerbate the levels of violence. Additionally, the early 2000s were defined by the rise of terrorism and the Arab Spring. This raised the interest in the study of youth bulge phenomena. The theory behind this is the demographic transition theory, which is defined by high fertility rate persistence and a reduction in death rates which leads to the expansion of population. Due to this, the rate of infant mortality has been defined as a crucial indicator of forecasting political risk (Urdal 2004). Urdal's research found a link

between the young population and violence and stated that rising 150 per cent of more likelihood of political violence within a society is composed of 35 per cent of the young (Urdal 2006). Similarly, others found a correlation between the size of the youth bulge structure in the population with the violence of conflicts and the rising level of state repression (Fearon and Laitin 2003). This is also emphasized by the biased killings of young males to avoid their further participation in fighting. Others emphasized through qualitative research the existence of wrongful assumptions. A. Goldstone defined the irrelevance of the scarcity theory and emphasised the role played by the elite in triggering and interconnecting young toward conflicts for achieving resources (Goldstone 2002). Within the ecological perspective there were other niches of research such as C. Mesquida and N. Wiener researched the role of high competition before the age of marriage among males fighting between themselves and the older males controlling resources (Mesquida and Wiener 1999).

However, further research in the field showed the interconnection between different factors and clusters such as the grievance and the greed and the economic analysis. Many variables were introduced in the demographic environmental approach unemployment, level of education or regime type (Urdal 2006). The rising population has shown to have implications and change because of migration, high urbanization and fragile governance. S. Commins' work expanded the rising levels of urbanization as a driver of state fragility (Commins 2011). He stressed the consequences of unmatched social services and security provision in urban areas. The concern is to be seen as high considering the rapid expansion of major cities in Africa.

In an introduction, H. Urdal wrote "*large youth bulges relate not to demography alone, but to a very considerable degree also the availability of opportunities of large youth cohorts for completing an education, for getting into the labor market and for participating in governance.*" (Brown and Langer 2012). New researches underline how there is no evident correlation between youth ratio and violence, but a situation characterized by a "*demographic bottleneck*" (Weber 2019), bottleneck which is defined by external variables such as GDP, education or infant mortality.

Evidence of the importance of the youth bulge was already shown in the Arab Spring, a more recent case was in Egypt during the 2013 protest when a high level of

unemployment between graduates and 54 per cent of young people under 24 years old and 29 per cent of people between 16-29 (Alfy 2016).

The environmental and demographic pressure cluster has some critical points to be addressed. The existing link between youth and violence is indirect. The theory does not address the motivation and rationale behind violent actions for young. It avoids addressing a deeper communal and individual level shaped by cultural and social patterns. The following criticism is based on the quantitative methodology applied, which lacks in defining causality. This degree of concern is increased by considering the state of the data collection, the diversity of the datasets and the absence of subnational data on which research is based. To this, some relevant variables cannot be measured precisely such as political and social factors. Further, the cluster fails to address the flexibility of human society to adapt to challenges and technological upgrades, which can change the levels of perspective on the willingness to resort to violence. Finally, a clear criticism is the degree of inflexibility toward the youth bulge-biased negative violent perspective. In fact, youth bulges are mainly nonviolent, but a minority may resort to violence. To refine the research will be highly valuable to define clean datasets and the following research in intra-national and comparative evaluation of the existing theoretical frameworks. This may be such as rural-urban and inter-state comparison.

The grievance cluster tries to explain the motivation of the young toward violence. Choosing violent actions is a result of a long exposure to injustice, unfairness, and deprivations. To this extent, it is possible to define different spheres where grievance could originate. There could be found in economic disparities, political exclusion, social injustice, discrimination, or cultural alienation. The inability to cope with grievance leads the young to escape from this condition through violence. Liberating from oppression by large groups may appear in many forms from protests to armed conflicts. The grievance theory relates to J. Galtung's structural violence. He has evaluated the role of social injustice, which is the root cause of physical violence (Galtung 1969). In addition, to this concept, he expanded it to the role conflicts between intergenerational and gender dimensions (Galtung 1990). In this regard, it is possible to line a two-folded aspect in the grievance approach. First is an unmatched request of representation within the decision-making structure of the society, which makes the young feel the lack of voice. And

second, is the transformation of this ungiven society role in the feeling of injustice. However, the line is thin and is not uncommon to overlap or exchange the two dimensions. The absence of a pre-defined negative approach to the youth bulge is a positive outcome of the theory. This can help in addressing negative social issues to reduce violence. Unfortunately, this theory is complex for practitioners as it presents a systematic challenge in many spheres and the involvement of many stakeholders. However, there is a niche of literature which tries to address this opportunity by evaluating the existing progress. One is the study of the peacebuilding motion of youth bulge in Zimbabwe (Yingi 2023).

This theory has been applied largely to explain conflicts in Africa. Researchers applied the methodology to motivate the rise of armed conflicts and rebellions including in Mali, Nigeria and Kenya (Ismail and Olonisakin 2021). The study of the civil war in Sierra Leone evidences the grievance approach that found the relation between young education, unemployment and underrepresentation to push young people to join the armed conflict (Honwana 2005). Because of the logic applied the young are seen as the perpetrators and victims of violence. The choice to turn violent is a rational and logical effect of marginalization and exclusion (Copans 1998). The RUF idea was based on the establishment of a radical democratic and egalitarian social order by overthrowing the government, but the conflict was twelve years long and ended with a Special International Court for Sierra Leone punishing war crimes and abuses. The recurring violence in Southern Nigeria has been also attributed to grievance issues (Gore and Pratten 2003). Similarly, scholars defined the Senegal, Ivory Coast and West Africa violence. More recently the rise of the Boko Haram insurgency was linked to the Islamic code of justice, which became an alternative escape for marginalized young people (W. Hansen 2017; S. J. Hansen 2013).

There are constraints that the grievance cluster should deal with. From the practical point, the approach has little impact on policymaking, probably because of its complex political and social structure of analysis. To overcome this, it could be an incentive to research some of the policies that might improve the grievance within African societies. Research can focus on the positive reduction of grievances in young thanks to targeted policies. As it might be seen in the illustrated case studies there is a level of internationalization in conflicts, which is empirical evidence non-explained by the grievance cluster. The

presence of foreign fighters in armed conflicts could be explained by common ideological beliefs, financial gains or shared grievances. Thus, there is a need to expand the research field beyond local communities and countries to larger contexts. In addition to the weaknesses the share of young participating in violence is far from being total, which means that there is a gap in understanding why the main part of young does not recur to violence. Searching for a response could help to define the components that disincentive violence. Finally, focusing on the gender dimension of youth may have a positive outcome in expanding our knowledge of youth participation in violence. Especially relevant in defining better the female and male behaviour toward violence in frameworks of marginalization, inequality and underrepresentation. This level could also help in further research in the field of peacebuilding in terms of policies directed to the reinforcement of social and gender equality.

The economic-based cluster finds its ground in the opportunity-based literature, which through the deprivation theory defines youth participation in violence as a response to unhealthy economic opportunities and grievances. The young choose the more convenient path by the comparison of costs and benefits to achieve the desired social-economic position. There are mainly a few relationships to be underlined. The one between macro-economic and the risk of violence (GDP); the micro-economic factors linked to motivation for violence in youth (individual costs); and the most researched niche of unemployment and involvement in violence. Consequently, the economic cluster has an intrinsic assumption in the rationality of actors, which are able to define and pursue the most beneficial path of action.

B. Blomberg and G. Hess highlighted the role of economic regression and the rising level of internal conflicts and the negative role of the intervening variable enhanced in external conflicts proximity (Blomberg and Hess 2002). In the following research, they established the nexus between poverty and conflicts by finding that a minor growth in private, public, and human capital exacerbates the conflict probability (Blomberg, Hess, and Thacker 2006). The literature review on civil war and economic factors has shown the role of rising global prices being relevant in the likelihood of conflict outbreaks (Couttenier and Soubeyran 2013). P. Justino investigated the relationship between violent conflicts and chronic poverty and found that the two are linked by a circular relation,

which means both facilitate each other's proliferation (Justino 2006). The major scholar in the economic literature in Africa is P. Collier, who has focused on the opportunity-cost rationale behind youth choosing violent actions. He argued that the youth act violently because the potential gains outweigh the costs of joining violent or organized crime networks (Collier 2000; Collier and Hoeffler 2004). He also drowns the disputable idea of inverse relationships between education and recruitment or participation in violence. He believes that further education allows employees to find more profitable job positions, which puts a major level of cost on turning to violence. However, a criticism is that educated people have higher expectations, which can be mismatched within the African job market. Many scholars found this relationship strong by correlations between youth bulge and education (Urdal 2006). Some further research found that different levels of education affect terrorism, particularly tertiary education (Danzell, Yeh, and Pfannenstiel 2020). Finally, P. Collier rebalanced the role of additional factors within the study on opportunity for rebellion (Collier and Hoeffler 2004). They have defined several factors such as financing, cost of rebellion, military advantage and demographic trends (population growth). On this trend, the research on violent clashes in Nigeria has shown the linkage between the rising violence and the low levels of employment (Uddin 2013), when unemployment reached 23.9 per cent in 2011 and over 50 per cent for youth. The analysis included a large spectrum of violent acts communal clashes, Boko Haram extremism and organized crime. Similarly, a study on community violence and youth found a relationship between youth unemployment, organized crime and community violence (Outwater et al. 2015). The urban context in Ghana has been provided with comparable evidence on the relationship between youth gangs and violence (Oteng-Ababio 2016).

The economic cluster has different weak aspects. The assumption of economic rationality of actors is limited because individuals act concerning social status, political life or self-defence. The youth are also brought out of the context and are not seen to be active participants in the political life of their countries by acting through economic rationality. This is a double rational weakness in the economic cluster. Politics is a fundamental aspect in shaping not only social but also political and economic aspects in a country. Thus, youth if disinterested in politics are also logically disinterested by economic rationality. A Further weakness has been shown because education has an inverse

proportionality toward violence. Statistical gaps are biasing studies because as known large portions of African youth are employed in the black market economy which makes it difficult to account for the actual degree of job-seeking force. Thus, the unemployment motives get weaker.

This literature review has tried to provide an overall picture of the field of youth bulge and violence. The other intent was to show the current niche of research to evidence the role of the research that will follow in this work. The following paragraph will address the demographic overview of West Africa by resuming the existing statistics and evaluating the state of the population in the region.

1.3 A demographic overview of West Africa

The last report of the UN DESA division on demography (2022) has shown that the World population is going to rise further in the following decades by reaching 8.5 billion in 2030, 9.7 billion in 2050 and 10.4 billion in 2100. By 2050 the larger expansion of the global population will happen in mainly eight countries: the Democratic Republic of the Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines and the United Republic of Tanzania. In detail, more than half of the World population is expected to account for Sub-Saharan Africa expansion through 2050. The Sub-Saharan size is going to rise until 2100 by projections (UN DESA 2022b). In fact, the rising population in Asia will gradually reduce, while in Africa it will rapidly increase (UN DESA 2022b) due to the ongoing transition. Another difference between global trends and Africa is the age structure of the population. In most of the World, the population is going to get older. For example, some developed countries are facing a decrease in population due to an expanding older population and an unmatched replacement rate under the 2.1 level. Instead, Africa is still growing in size with a large youth structure and a high birth rate such as in Sub-Saharan at 4.6 birth rate per woman (UN DESA 2022b).

Currently, West Africa is going to reach almost 500 million people in 2025, and 778 million in 2050 (PRB 2023a) and overcome the 1 billion people at the end of the century, see Figure 4.

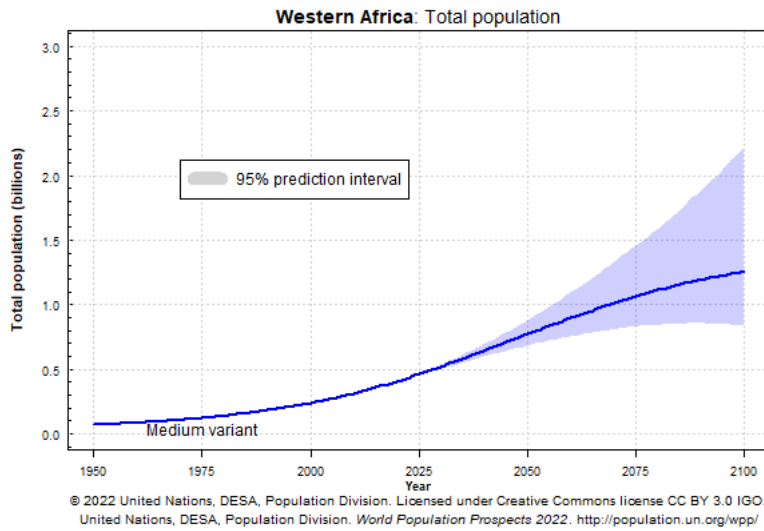


Figure 2 Total population in West Africa. (UN DESA 2022b)

The estimates for 2024 have shown picks in the total fertility rate over 5 in Nigeria, Burkina Faso and Mali. In Mali, the rise will be 6.6 points. As obvious these numbers will replace the existing adult population and amplify the young people in the region. The general trend in the youth population is visible in Figure 5. In the chart is possible to see how the 0-14 age group plus the 15-24 will compose the majority of the population until 2100.

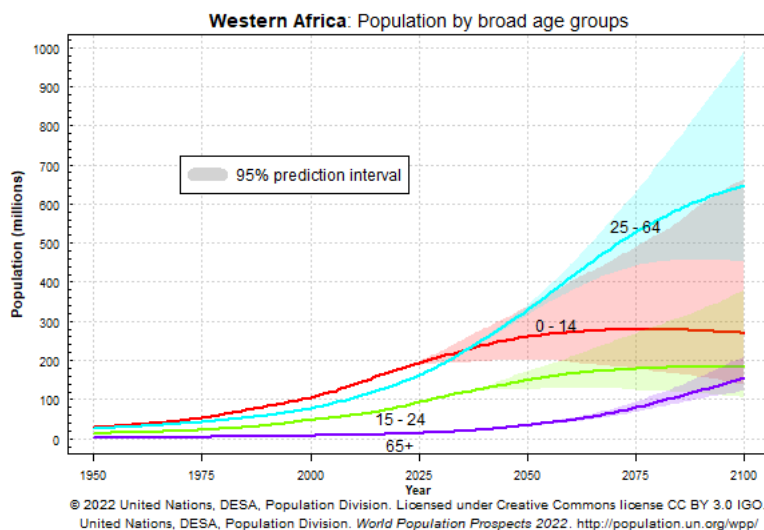


Figure 3 Population in West Africa by age groups. (UN DESA 2022b)

However, this group will remain most of the population for more time taking into account the projections of the fertility rates that will remain high all the centuries. A change in this trend will be reached at the end of the century when most of the West African countries are expected to reduce the fertility rate to the baseline of the replacement minimum. Thus, the phenomenon of youth bulges is going to remain relevant in the region until around 2100. However, with the reduction of the fertility rate we can predict a declining dependency ratio, which will have a positive effect on the economic trend. Between 2070 and 2100+ we can expect a rapidly rising level of wealth in Western Africa. What will be interesting, is to underline the median age of present West African countries which equals 15.4 years old. There is a slight difference between the countries considering the range of 15.4 in Mali to 20.9 in Ghana. The growing youth people cohort is evidenced in Figure 6, which illustrates the rising base of the triangular-shaped cohort structure of West Africa.

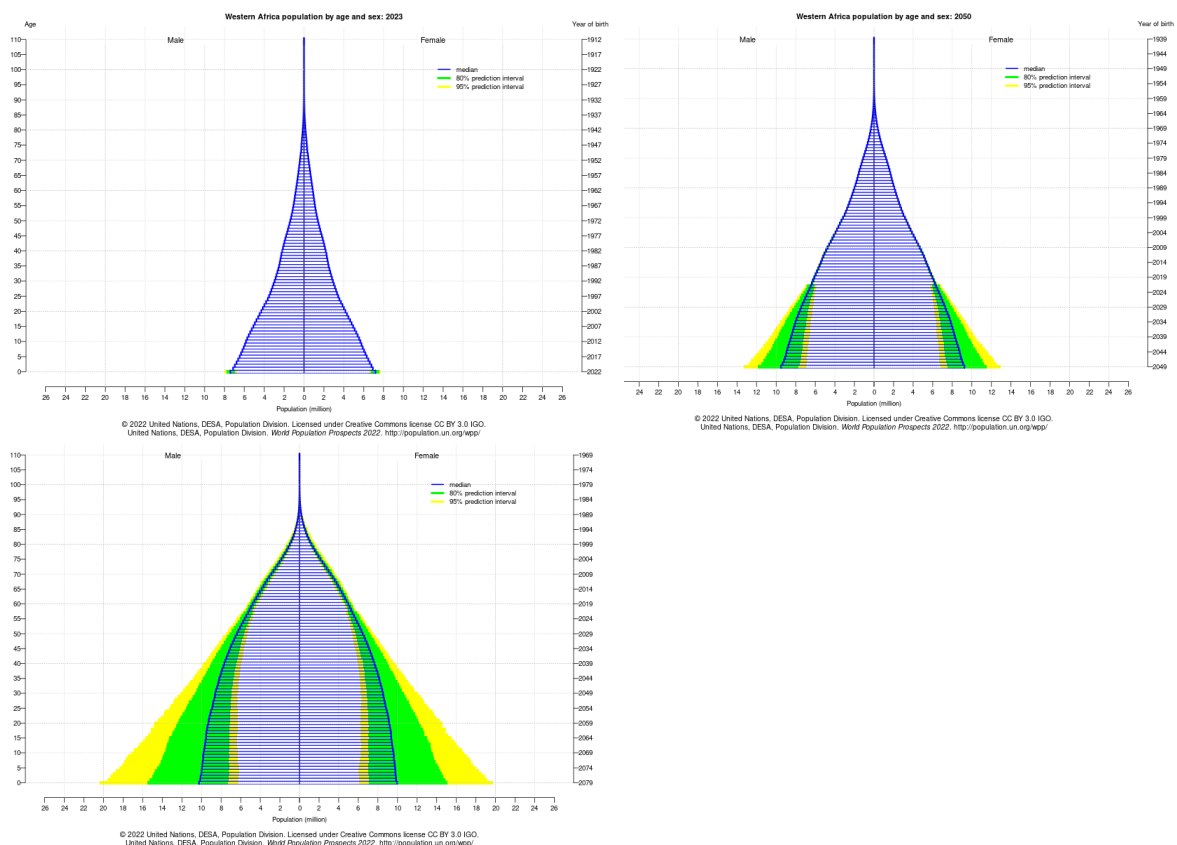


Figure 4 West Africa cohort pyramid per age group. These are the projections for 2023, 2050 and 2080. (UN DESA 2022)

This particular shape type is peculiar to a growing population because the next generation is larger than their parental ones. This has been possible after the reduction of the infant mortality rate in West Africa. The drop has been taking a gradual step-by-step process. In 1960 the average infant mortality rate was 200.6 per 1000 births and nowadays it has reduced to 53.6. Projections estimate an additional half to drop by 2075. However, these speculations are linked to the ability of the regional actors to improve the medical facilities and services, which should take into consideration many external factors such as instability, institutions, and economic strength. It is possible to think similarly in terms of the reduction of the fertility and death rates. A balanced interchange of the population will be achieved around 2100, see Figure 7.

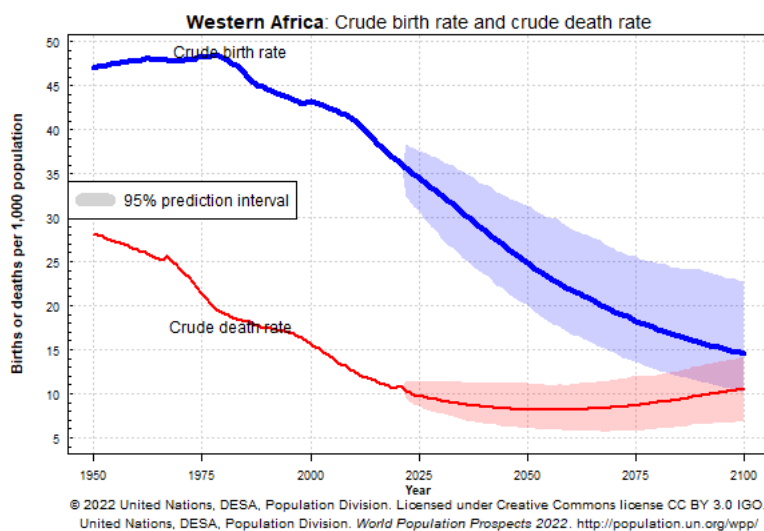


Figure 5 Crude birth rate and crude death rate in West Africa. (UN DESA 2022b)

In addition to the facilities provision, there is also a high level of contrast between the cultural traditions and contrast between rural and urban populations. While urbanization, which is going to shape new megacities in Africa, has reduced the traditional behaviours regarding the role of family and the use of contraception, as an effect of these there is a reduction in fertility and early marriages. Opposite to this trend, the rural inhabitants remain deeply bonded to historical-cultural traditions, which have a large imprint on the size of families and fertility (Avogo and Somefun 2019). In demonstration of this, it is possible to present the data relative to the percentage of marriages by age group. At the age of 15-19 in Mali marriages are close to 50 per cent. However, in the other countries of the region, the statistics show a minor level in the range starting from around 10 per

cent to 40 per cent. Turning to the 25-29 age group the percentage grows for all the countries above 50 per cent with countries such as Mali, Niger and Burkina Faso reaching picks above 90 per cent (UN DESA 2022a). By utilizing the data reported by the Demographic and Health Survey, it is possible to see a trend in the increase of the average age for marriages in Mali, Niger and Burkina Faso even if slight (The Demographic and Health Surveys (DHS) Program 2018). This can be seen as an indicator of the role of family in the region. A study on early marriages and childbearing has provided data as follows “*by age 18, 27.41 percent of adolescents are in union in Nigeria, 24.23 percent in Burkina Faso, and nearly 60 percent in Niger*”. Similarly, they found that “*by age 18, 13 percent of Nigerian adolescents, 12 percent in Burkina Faso, and 27 percent in Niger have had a first birth*” (Avogo and Somefun 2019). Within the same research, they illustrated by a quantitative analysis the relation between childbearing and education level, religion, and rural settlement.

Urbanization appears to be a large challenge for the West African region. Two main motives will increment the rising population in cities, the expanding population and the motion of growing cities by themselves. The global growing size of cities will account for 90% of Asia and Africa, achieving 2.5 billion (UN DESA 2019). The faster levels of urbanization will happen in Nigeria. In any case, the global share of the urban population will be equal to 22 per cent in 2050 in Africa. In contrast, Asia will compose the 52 per cent (UN DESA 2019). This large growth in urban population will bring new challenges in West Africa, such as housing provision, inequality, services, environmental impact, and urban governance. Considering, the current levels of instability in the region these may remain highly difficult challenges to face for governments.

Another statistic to be addressed to understand better the society in Africa is poverty and education. Poverty in West Africa, see Figure 8, is more common than in all the other regions of the World, particularly in the Sub-Saharan region. This can be linked to many factors such as historical, economic, governmental, insecurity and environmental.

The same figure 8 illustrates the distribution of lower education levels in West Africa among the population. This has a huge impact on the economy and population trend in the regions as we have already noticed in matters of fertility. Many scholars in the field of development have mentioned the high role of education in the possibility of achieving

the demographic dividend in West Africa. Considering the rising population this challenge will be amplified in terms of needed investments in the infrastructure and skilled employees, additionally, there is the issue of who can form this large population.

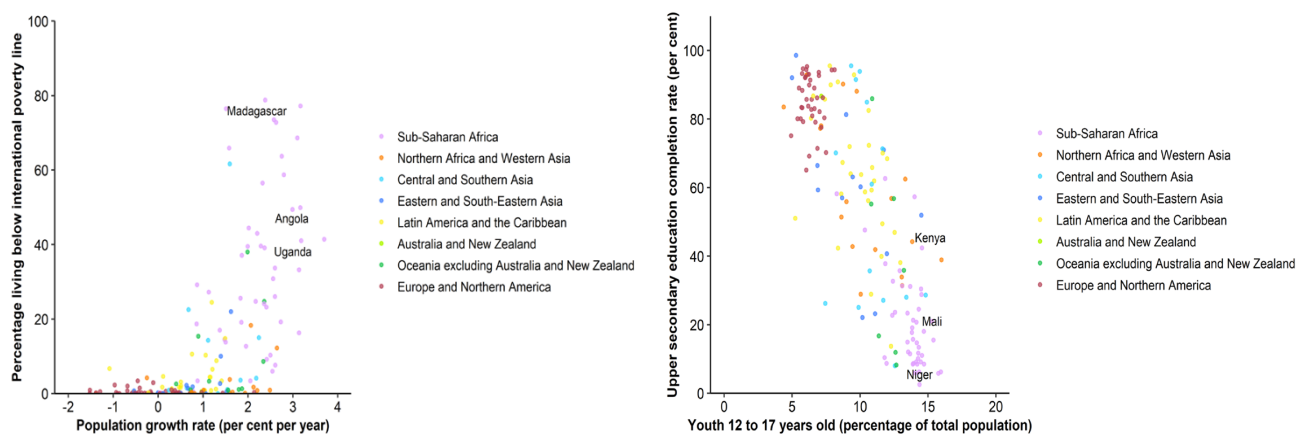


Figure 6 World regions by poverty and completion of education. (UN DESA 2022b)

In this paragraph, it has been addressed the role of youth bulge in West Africa. To sum up, we have seen the future expansions of the youth bulge phenomena in the region. This has been done to enforce the relevance of the following research in terms of the chosen region and to provide an outlook of the demographic trends in it. The upcoming paragraph will define the gap in the literature, in the next chapter will deep achieve an understanding of the connection between youth bulge and organised crime.

1.4 The Gap between Youth Bulge and Organised Crime

We have seen that the youth bulge phenomenon is largely present in West Africa. It shapes the social and political aspects of countries in the region. Because of this, it is relevant to research the implications and the possibilities arising from the African youth bulge. Even more relevant this becomes when West Africa will need to use at the best the possibilities given by the future demographic dividend. Besides the existing research, there is a gap in the literature, especially in West Africa. This niche is the link between crime and the youth bulge. Previous research mainly focused on the role of youth bulge and violence or political violence. However, the niche of crime has been slightly touched

by some works. A study of the youth bulge and organised crime in Mexico has demonstrated through a quantitative methodology the uneven relation between youth bulge and organised crime, but it has highlighted the role of indirect factors that can exacerbate this relation in education level, unemployment and age structure (Juárez, Urdal, and Vadlamannati 2020). Within the current economic cluster on Africa was done the study by the “*lens of labor*” (Atkinson-Sheppard 2023). This has shown the increasing possibilities of violence due to a large youth bulge and the presence of other factors. Later, we have illustrated the present demographics specificities in the region, which have reinforced the urgency to appeal to further research. Fox and Hoelscher have drawn a relationship that links crime and either political-institutional or social-economic factors (Fox and Hoelscher 2012).

The research aims to find if there is a link between youth bulge and organised crime in West Africa. In anticipation of the findings, it is predictable that the youth bulge is not directly responsible for the increase of crime and a major participation in it of young people. However, the coexistence of factors such as youth bulge, high unemployment, education and misrepresentation could be signals of a higher possibility of youth willing to join criminal networks or behaviours. As a collateral effect in grey regional areas with low state security enforcement is plausible to expect the rising levels in nexuses between organised crime and extremist and antigovernmental movements. Youth bulge and crime could be a relevant destabilizing factor inside unstable states in West Africa. Further, the economic implication of a high level of the shadow economy is responsible for a loss in the national GDP, which could be utilised in developing other socially beneficial policies. The following chapter will illustrate the state of the expressed relationship under research and will provide evidence to support it.

Chapter II – Linking Youth Bulge and Crime

2.1 Crime in West Africa: Trends and Activities

Criminal activities in West Africa are notoriously fostered by several factors. Some of these are structural conditions of the region, which have appeared for different reasons. They could be summarised in states' fragility. In fact, regional states suffer from a lack of well-structured institutions and an unclear positioning within democracy or autocracy regimes, which amplifies capability and capacity weaknesses. H. Urdal has already shown the relation between regime type and violence perpetrated by youth bulges (Urdal 2004). Researchers found a U-curve relationship between instability and regime type, represented graphically by a parabola. Mixed systems fall in the middle of the extremes of democracy and autocracy. The mixed condition is the worst concerning instability. To exacerbate this, the economies and the regulatory framework in the region are not performing as they authors could have desired, coupled with high cultural differences and globalization. On the matter of security, coup d'état and armed conflicts are reducing the capabilities of states to concentrate on fighting crime. The existence of extended land borders between the states plays a facilitating role. They are under-controlled (Alemika and Etannibi 2014). Missing control does not end in border proximity, but it spreads over major areas of countries, where institutional enforcement is limited. Surely, a historical perspective could interpret it as a regional peculiarity. Before colonization, the region had a system of governance that was often based on feudal relationships between rulers and the ruled. In such a system, it was not uncommon for villages at the periphery to have multiple rulers, which in turn required them to pay taxes to each of them. Later, colonizers at the Berlin Conference (1884-1885) approached the issue of controlling Africa from an economic standpoint to avoid exceeding budget requests due to institutionalization and provisions of services. As a result, rural areas in Africa have remained underdeveloped in terms of institutionalization (Carbone 2021). Since independence, the rulers of these countries were unable to make significant breakthroughs in these structural challenges. It is interesting to illustrate the concept of changing cultural relations in Africa. The concept originates from the impact of knowledge acquisition by Westerns in the continent. It affected several communities and ethnicities with an expanded division and grievance in

the region, as described by G. Carbone in his book “*L’Africa: Gli stati, la politica, i conflitti.*” (Eng: “Africa: states, politics, and conflicts”) (Carbone 2021). By developing Western colonization and the process of assimilation of knowledge of Africa ancestors applied a distribution of power based on possible wrong cultural power relations in the region expanding inequality by empowering ones over others. In fact, it is possible to find close cultural ethnicities divided by borders imposed by the colonial past such as in the case of Tuareg, who are known for their nomad tradition. The population distribution is also another factor, which facilitates crime, terrorism or armed groups to avoid national security forces in remote areas. Low-high density areas in the future are unfortunately going to increase for two main factors even if a huge rising population. They are the climate and the urbanization process in the region. The expansion of the lands impacted by climate change will reduce the ability of poor states to develop those areas and lead to further migration. The growth is going to overload drastically the cities’ expansions, which will probably lead to the expansion of urban crimes. This will also change the typology of crime moving from rural to urban based such as white-collar crime, cybercrimes and further expansions of corruption.

Before the progressive explanation of the types of criminal activities in the region is relevant to define the existing definitions and shortly illustrate a literature background to be considered further. Transnational crime, organized crime, transnational organized crime, and violent crime should be well defined being different entities.

Transnational crime refers to criminal activities that involve individuals, organizations or even regimes within two or more countries affected, while organized crime does not need to cross borders. Many scholars addressed the definition of organized crime (Lupsha 1983; Cressey 1969; Finckenauer and Voronin 2001; Albanese 1989; Abadinsky 1990). The work of E. Etannibi and O. Alemika has been emphasised the role of “(a) *its primary aim is profit-making; (b) its activities focus on outlawed goods and services; (c) the significance of violence and corruption in protecting the illegal operations, enforcing discipline among members, and for elimination of competition and competitors; and (d) its hierarchical structure and relative organizational permanency (Albanese 1989).*”. In the case if organized crime overcomes national borders it becomes transnational organized crime. The following is the definition adopted by the ENACT Organised Crime

Index, which will be further taken into consideration for illustrating the illicit market and actors for organized crime in West Africa, “*Illegal activities, conducted by groups or networks acting in concert, by engaging in violence, corruption or related activities in order to obtain, directly or indirectly, a financial or material benefit Such activities may be carried out both within a country and transnationally.*” (ENACT 2023).

The index should be seen as a complementary index to the Global Crime Index (Global Initiative 2023). The first presents a specific index for the African continent with details on the state of crime by trends and resilience of the state against crime. The Index has three main components:

- Fifteen criminal markets have a significant scope, scale, and impact.
- Five types of criminal actors have a notable structure and influence.
- Twelve resilience building blocks are used to measure the ability of countries to withstand and combat organized crime.

In the third edition of the Index five new markets and one more actor were introduced, because of this some changes in the index trend from the previous 2019 and 2021 should be underlined, see Figure 7.

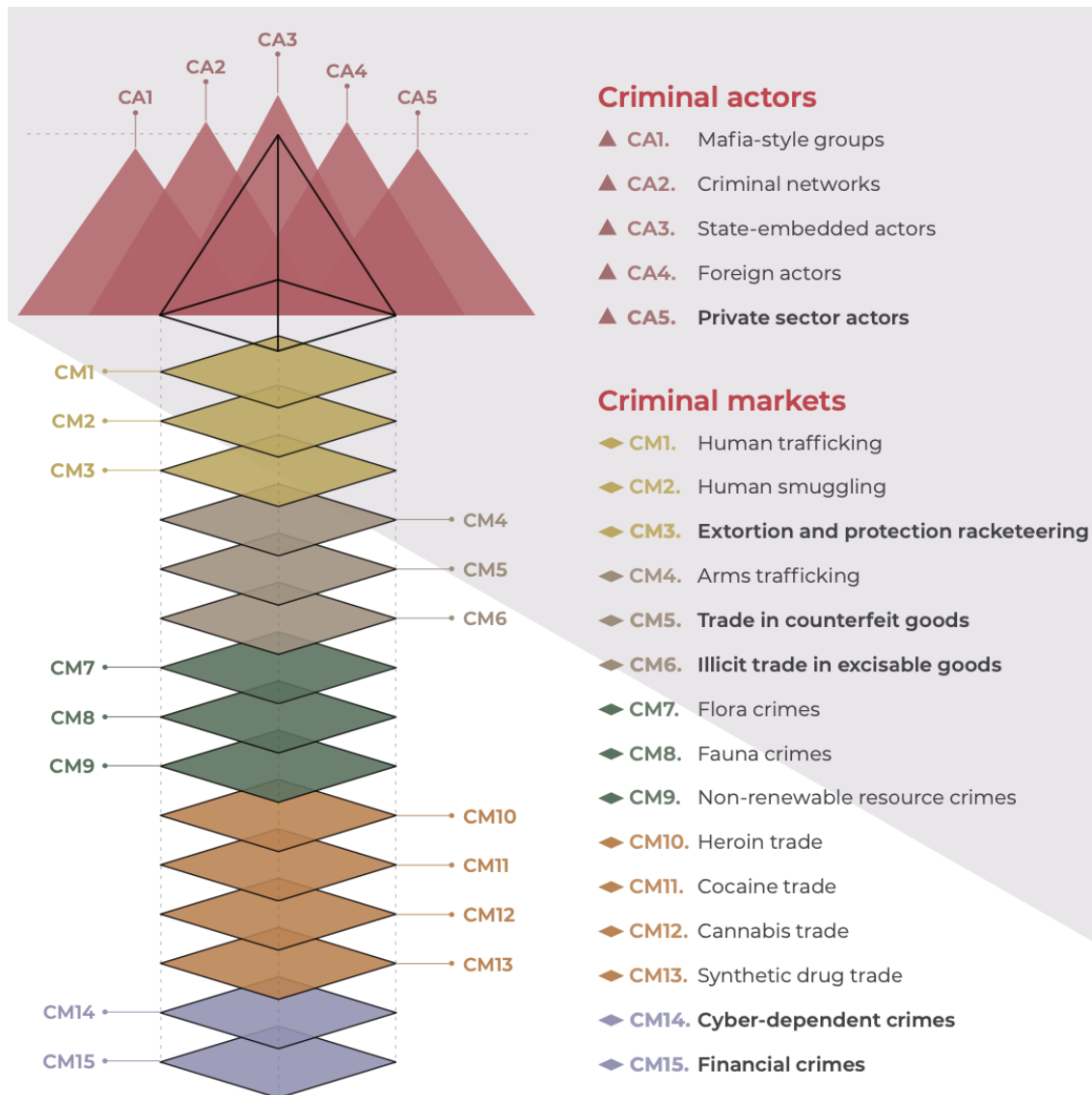


Figure 7 Components of the ENAC Organised Crime Index (in bold the new actor and markets). (ENACT 2023)

Based on the ENAC Organised Crime Index Report, Africa has shown a worsening situation regarding organised crime scoring 4.97 to 5.25 in 2019 and 2023. In terms of markets, human trafficking increased by 0.70 since 2019 turning to 6.06 representing the most spread illicit market in the continent. The factors that have boosted the increase are the high levels of violence in the continent due to conflicts. These events included consequent displacement, slavery, child soldiers and social turmoil increasing human trafficking. This market is connected with the second fastest-growing market, which only follows the cocaine trade, and human smuggling because they both involve overlapping routes and actors. The East African market has the highest score worldwide. Financial

crimes being one of the new markets scored averagely as the second on the continent with 5.95.

State actors are often regarded as the primary individuals involved in misusing public funds through embezzlement, committing tax evasion, and perpetrating financial fraud. In this North Africa has the highest score on the continent and globally. While cyber crimes have been less pervasive in the continent, maybe, because of the high costs and lack of internet infrastructure. Arms trafficking has demonstrated to be the third market in the continent with a score of 5.77 in 2023. Probably, this is motivated by the rise of arms flows from East and Central Africa. Africa has shown to be also affected by environmental crimes, concerning when acknowledged of climate change. A further market of vulnerability is related to synthetic drugs for non and medical uses, which is a strong health destabilizing factor. The epicentre of drug production and trafficking seems to remain in West Africa.

The most common agents of crime in Africa are state-embedded actors, which are usually involved in corruption for collusion with criminal groups to avoid institutional enforcement and control. On the other side, the report has found criminal networks involved in human trafficking and smuggling. A rising role in the continent is played by private actors such as mercenaries, mainly associated with the Wagner Group services. These are followed by less relevant on the continental scale of private actors and mafia groups actors. This is except for East Africa for private actors and some in terms of mafia organized groups such as Ahlu-Sunnah wal Jama'a/Al-Shabaab in Mozambique and Al-Shabaab in Somalia.

West Africa was the region with the second-highest scores on the index form 2019. However, the crime index slightly decreased due to the inclusion of new indicators, considering the same ones the value has increased. The report specifies that political instability, armed conflicts and rising insecurity are the main drivers for these increases. The region has the highest score for the cocaine market since being since the mid-2000s, an acknowledged hub for the transit of Latino American drugs to the European (UNODC 2013).

Crime in West Africa should be addressed with caution. Nigeria scored as the first spot of crime in the region (7.28) and the second in the continent only after the Democratic

Republic of Congo (7.35). The country may be seen as an outlier in the region, where the other scores are below 6 points. At the top of these countries is possible to find Côte D'Ivoire, Mali, Burkina Faso, Ghana and Niger. The main seizures of drug transportation were carried out in Cabo Verde, Nigeria, Gambia, Côte d'Ivoire and others. This should be seen as a negative trend after the partial reduction of this illicit flow after the law reforms and enforcement in the region after the pick since changes in the United States drug control in 2006 (UNODC 2013). Another market on the growth is the cannabis trade and synthetic drugs. This rise has been driven also by internal demand, which is rising.

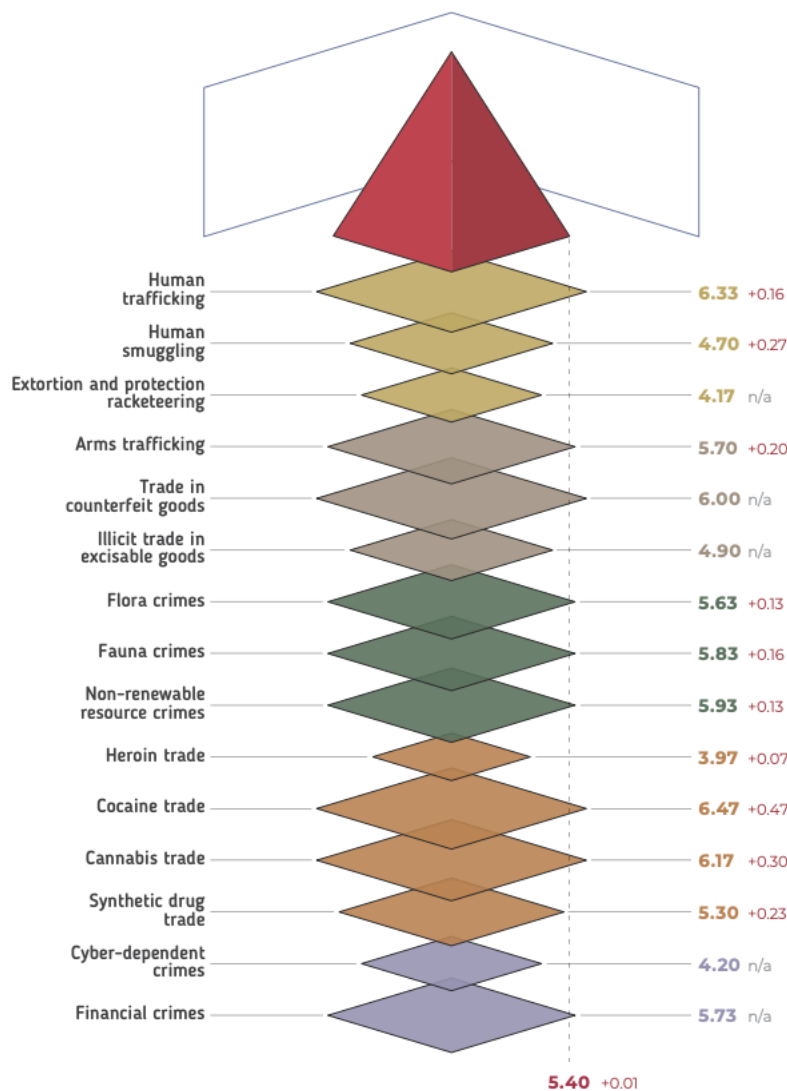


Figure 8 Criminal markets in West Africa, 2023. (ENACT 2023)

The second most spread market in West Africa was human trafficking (6.33). The extension of the market is evaluated as the second after East Africa in the continent.

Trafficking makes vulnerable large cohorts of men, women and children. The target population is the one that suffers from already insecure conditions in financial terms and cohabitating with close violence. The market expanded even more thanks to migrant flows from the region to the costs of North Africa to Europe. Exploitation in illicit labour is common such as in agriculture, artisanal mining, street selling, forced begging and sexual exploitation (ENACT 2023).

Interesting is the situation in cybercrime (4.20), the continent has a low level of crime in this sphere. Instead, West Africa scored as the first hotspot, where Nigeria leads the continent with an 8.0 score. This data is significant compared to the results in the World Crime Index this country's results are also showing it to be the main global spot for cybercrimes. The region was responsible for many attacks against European institutions in 2022.

Even with a minor impact cybercrime extortion and protection racketeering have shown disruptive growth, in particular, in Mali, Nigeria and Burkina Faso. This is related to warfare for punishment, intimidation and recruitment.

The newly added indicators were found to be relevant markets in West Africa. This is the case of financial crimes and trade in counterfeit goods. The last of the two markets is relevantly related to pharmaceutical products, making the region a hub in this production. Environmental crimes are exacerbated by conflicts, extremism and instability. The category is divided into three indicators flora, fauna and non-renewable resources.

The role of the illicit crime markets is relevant to our analysis because of the impact on the reality of the region in the economic, social and political realms (Caparini 2022).

There are many aspects to receive a negative impact from crime. The delay in development through tax evasion and illicit financial flows is crucial to undermining developing countries' efforts to achieve better standards. On the national level, the health system is weakened by the diffuse problem of falsified medical drugs. WHO estimates the annual deaths from the illicit market of drugs around 1 million, a fifth of which are reported to occur in Africa (Clark 2015). Counterfeit drugs are demonstrated to lack active ingredients or even worse to be contaminated and report side effects. Crime is also responsible for reducing the levels of environmental resilience due to illegal logging, illicit natural resource extraction, and trafficking in protected species to the dumping of

forbidden substances and waste materials. Considering the risks of climate change in the region it is highly dangerous for the future generation of young African people. For example, waste from the developed World is shipped to Africa (Côte d'Ivoire, Ghana, Guinea, Nigeria, Sierra Leone, Tanzania, Togo, Benin and Senegal) (UNEP 2018). Illegal mining can be another example, because it has detrimental effects on the environment, including radiation risks, pollution, devastation of native flora and fauna, mercury pollution from artisanal gold mining, and landscape degradation. Furthermore, crime has a tight relationship with armed conflicts, but this is not direct. Usually, it is possible to see this relation in the border regions. Periphery is more exposed to the presence of criminality in the case of 'weak governance' or the presence of a monopoly of power enforced by a few actors such as the military or law enforcement (Walker and Restrepo 2022). The presence of this condition allows crime to infiltrate governmental structures and achieve higher profit in local and global illicit markets, which utilizes the exploitation of local communities. The levels of grievance within the communities can rise and in this manner, the opportunity costs for people to join armed groups are reduced, as evident in Nigeria on the Niger basin river. In case of an outbreak of violence and its medium-long persistence in the region, it allows the formation of new links between armed formations and criminal activities. Crime uses the uprising role of armed groups to maximize profits and enter new markets such as arms trafficking, human trafficking or smuggling.

The paragraph has developed the crime market in West Africa and showed the role of amplification it can cause at local and regional levels to neglect economic and socio-political government efforts. The following paragraph develops a further connection between the effects of crime on population.

2.2 Socio-Demographics of Nigeria and Niger

Having addressed the state of the illicit crime market in West Africa, the following part researches through an analysis of two case studies of the space for crime. The chosen countries are based on their impact on regional economics, insecurity spreading and potentials, and their influence towards migration flows. Because of this, Nigeria and

Niger have been chosen. The first is characterised by being the main African driving economy, one of the most populated countries of the World in the near future, and the largest military in the region. Niger, instead, is one of the poorest countries in the World, the state has failed to modernize and diversify the economy and provide essential services since its independence in 1960 from the French. In addition, extremist movements, human trafficking, and drug dealers have affected the country. The country's environmental situation is worsening due to the progressive expansion of the desertic land which covers a significant part of it. The paragraph illustrates the socio-demographic situation in the two countries and leads to the contextualization of the current environment where crime develops. Connecting population and social challenges it would provide a stronger understanding of the weaknesses within which crime and other illicit activities can spread.

The demographic statistics for these countries are taken from the UN Data Portal Population Division, the World Bank and the National Bureau of Statistics. The comparative work considers the role of a large expanding population as the key element which the countries have to face. Thus, there are two main trends to be shown the youth bulge and the stalling fertility phenomena. Population statistics for both countries will help to define the degree of urgency.

Nigeria became independent in 1960 being free by British colonial rule. The early independence stage adopted a parliamentary system with Nnamdi Azikiwe as its first ceremonial president and Abubakar Tafawa Balewa as prime minister. However, Nigeria faced ethnic and regional tensions among its diverse population. The 1960s witnessed political instability, marked by a series of coups. Major General Johnson Aguiyi-Ironsi became the military head of state in 1966, only to be overthrown in a counter-coup later that year. General Yakubu Gowon assumed control and led Nigeria through the traumatic Nigerian Civil War (1967-1970) when the southeastern region sought to secede as Biafra. In 1979, Nigeria returned to civilian rule with the election of Shehu Shagari as president. However, his administration had to face economic difficulties, accusations of corruption, and political turmoil. A military coup in 1983, led by General Muhammadu Buhari, terminated civilian government. The subsequent years were characterised by a series of military coups and a brief civilian administration until 1999 when Nigeria entered the

new Fourth Republic. Olusegun Obasanjo was elected president, marking the return of civilian rule. General elections were held in 2007, 2011 and 2015 seen as credible. However, since the transition of party power between the People's Democratic Party (PDP) and the All Progressives Congress (APC), the next two elections of 2019 and 2023 have seen an increase in voting irregularities and intimidation at election offices. The government still has a difficult job ahead to institutionalise democracy and diversify the petroleum-based economy, whose earnings have been wasted for decades due to mismanagement and corruption.

Niger, similarly, has faced institutional problems demonstrated also by its recent military takeover, which occurred in July 2023, marking the fifth successful coup in the country's history since gaining independence from France in 1960. Prior coups took place in 1974, 1996, 1999, and 2010. In 1974, Diouri's government was overthrown in a military coup led by Lieutenant Colonel Seyni Kountché. Kountché's regime ruled the country until he died in 1987. His successor, Colonel Ali Saibou, continued the military rule until 1991 when a wave of pro-democracy protests led to the establishment of a multi-party system. The 1990s saw a series of democratic elections, and Mahamane Ousmane became Niger's first democratically elected president in 1993. However, in 1996 coup saw army officers overthrow President Mahamane Ousmane, citing a political deadlock threatening economic reforms. Lieutenant Colonel Ibrahim Bare Mainassara assumed the leadership but was killed in 1999, leading to another coup. Since the early 2000s, Niger has experienced a mix of democratic transitions and military interventions. The 2010 coup, orchestrated by the Supreme Council for the Restoration of Democracy, captured President Mamadou Tandja, suspended the constitution, and dissolved state bodies. New elections in 2011 brought Mahamadou Issoufou to power. The recent 2023 coup, led by General Omar Tchiani, involved the detention of President Bazoum, causing regional and international concerns. The military suspended institutions closed borders and the exit from regional and international cooperation. The coup received strong condemnation from the Economic Community of West African States (ECOWAS), the United States, France, and the United Nations.

The phenomenon of youth bulge has already been addressed in the first chapter, so it is time to turn toward the development of the transition model. The first significant step in the decrease of fertility levels per woman in Nigeria began in 1978 and 1985 in Niger. This development was seen as the beginning of the fertility transition in the two countries. However, the decline lasted around two decades in Nigeria and some years in Niger. After short the fertility either regained strength or defined itself as a plateau. In Nigeria, the case of a plateau lasted from two 1987-1989 and later in the 2000s it changed intermittently between peaks and downs until 2008 when the decrease in fertility stably regained strength. In the case of Niger, a plateau formed within the years 1988-1999. This is a year range by observing the data of the World Bank on the fertility of the two countries.

More precisely researchers address this differently and they call it fertility stalling. There are many disagreements on the theme, but some common ground can be found in three elements:

- “• *Fertility decline can only stall in a country where the fertility transition has already started. Countries which are pre-transitional are not counted as cases of stalling.*
- *Since only those countries which are in mid-transition can experience a stall, fertility should have fallen ‘quite a bit’ or ‘some way’ before stalling.*
- *Countries where fertility is already close to replacement level are also excluded from consideration. Just as it is important to distinguish countries which are countries which are at an early stage of transition from pre-transitional countries, so it is important to distinguish countries which are at a late stage of transition from post-transitional countries.” (Howse 2015)*

The trend was identified by the early 2000s (Bongaarts 2006). However, the existence of more than 20 countries in the condition of stalling transition was also challenged by numerous studies for lacking in consistency. A review of the literature on this can be found in the work of Bruno Schoumaker in his article “Stalls in Fertility Transitions in sub-Saharan Africa: Revisiting the Evidence” (Schoumaker 2019). The study also

redefined the new existing data by picturing in the case of Nigeria and Niger the intervals as in the following Table n.1.

Table 1 Indication of the presence of stall fertility and the étape of transition in Nigeria and Niger. (Schoumaker 2019)

	No stall	Slight stall	Stall
No transition	Niger: 1992-1998		
Early transition	Nigeria: 1990-2003; 2008- 2013	Niger: 1998-2006	Nigeria: 2003-2008 Niger: 2006-2012

The causes were researched by quantitative means, but the results have shown many contrasts. The several results highlighted the role of GDP per capita, education of women, and child mortality. However, there are different concerns from measurement errors in fertility and some of the stalls included in these studies cannot be accounted for by trends in socioeconomic factors and may not have occurred.

In any case, this phenomenon is a peculiarity in comparison with the other fertility transitions that occurred in Latin America, East Asia, and South Asia where the transition went through more rapidly. This is regarded as a possible level of concern in terms of a displacement of the demographic dividend, which the other regions in the World signed with a stable positive economic outcome due to reducing dependency ratio. It might imply that West Africa could miss the larger effect of the dividend and have to deal with a scaled problem of population requests in the future. This could fade in a long-term transition stopped by stalling fertility events. The urge to define a clearer understanding of the motives for the reduction of fertility decline may be crucial for the region's policy-making. Nigeria and Niger are two countries in the middle of the demographic transition and had seen the phenomenon of stalling fertility in their path. However, these common issues in terms of socio-demographic variables differ.

The Nigerian population growth of 2.4 per cent per year in 2022 represents a continuum high level of rising population, which will bring the country to be the fourth largest nation

in the World by 2050. UN projections show Nigeria will reach 377 million people in 2050 (UN DESA 2022a). This rising population is still a solid trend. Positive is the visible decrease in the graph Figure n. 9 in the total fertility of Nigeria. The median age structure of the population is a further indicator to be considered, which will reach 25 years old in 2060 (UN DESA 2022a). This is already representing a new challenge for the existing leadership, which needs to enforce a prospect of employment policies to able the new generations of young workers to obtain their first employment. In addition, the new generation living in a more globalized environment could be the origin of more social requests and a major empowerment. Thus, it is evident how a population pyramid where the bottom is heavy will further urge governments to keep pace with time and reduce negative tendencies. Another, issue arising from the fast-growing population is the large change between the rural-urban population, which reached 50 per cent in 2018 a 15 per cent growth from the year 2000 (World Bank, n.d.). This appears to enlarge the pressure on government management in cities, such as Lagos with 9 million inhabitants.

Evaluating the Social Statistics Report of Nigeria 2020 is possible to see the negative influence of rising corruption in the country, documented by the Independent Corrupt Practices and Other Related Offences Commission (ICPC) (National Bureau of Statistics 2020). The numbers of cases show an increase from 1,582 in 2017 to 1,650 in 2018 and further increased to 1,933 in 2019. The major affected cohort of the population by corruption is indicated to be the poorer, who have reasons to rely on the national welfare reduced by overwhelming corruption. The role of education has also a relevant place in the report being addressed as one of the drivers of national development. The numbers show a slight rise in the number of schools and the level of enrolments between 2017 and 2019. There is still a level of gap between female and male education, which is negative for the fertility transition. On the health system review, it is possible to see an improvement, which is still unable to cope with the existing needs of the population. However, the statistics from the mortality under five years show that the health system is improving in connection with life standards by reducing level of the deaths under five. On the social aspects is important to remember the numbers of the ethnicities present in the country and how they are divided between Muslims and Catholics. This heterogeneous population about inefficient governance in resources management has shown a high level of illegal activities and uprisings, particularly in the regions of the

river Niger. In addition, there are extremist movements, which are mostly concentrated in the northeast, widespread criminal banditry in the northwest, violence from secessionists in the southeast, and rivalry for resources and land across the country.

Niger has a projected population for 2050 of more than 67 million people (UN DESA 2022a). Similarly to Nigeria, the total fertility is reducing. The higher level of this indicator is explained by a later beginning of the fertility transition in Niger than in Nigeria. The median age of the population is under 15 years old and the projections will reach a median around 20 years old.

While Nigeria has been showing fast-growing levels of urban population, Niger is still prevalently rural, which reached 17 per cent in 2022 (World Bank, n.d.). The country has one of the lowest GDP in the World. In 2022 the World placed Niger at 133 places worldwide, but to contextualize the GDP is useful to remind that this low is not the lowest in West Africa but is quite close to the GDP of Burkina Faso and Mali. The higher GDP of Nigeria should be seen as an exception, because of the size and resources of the country. The condition is deeply concerning considering that the adult literacy rate is 35 per cent, which shows a low level of human capital (International Monetary Fund African 2023b). Compounding the shortage of healthcare workers, the vast extension of the country and the spatial distribution of the population. Elements that contribute to low health service coverage. Climate change is increasing natural disasters, which in the last two decades led to large economic damages and human costs. In Niger, losses from droughts average over USD 70 million (0.6% of GDP) (International Monetary Fund African 2023a). These events have increased food insecurity, poverty, malaria and domestic conflicts (Diallo and Tapsoba 2022). The low resilience level of Niger will further degenerate the conditions of the country. Sufferings are also coming from violence, which is mainly located in the southern and eastern regions, of Diffa, Marandi, and Tillabery. These regions are where the relevant country's production takes place, such as agriculture and trade with international partners. Spillovers are another element of concern from neighbouring Nigeria, Mali, Burkina Faso, and Chad.

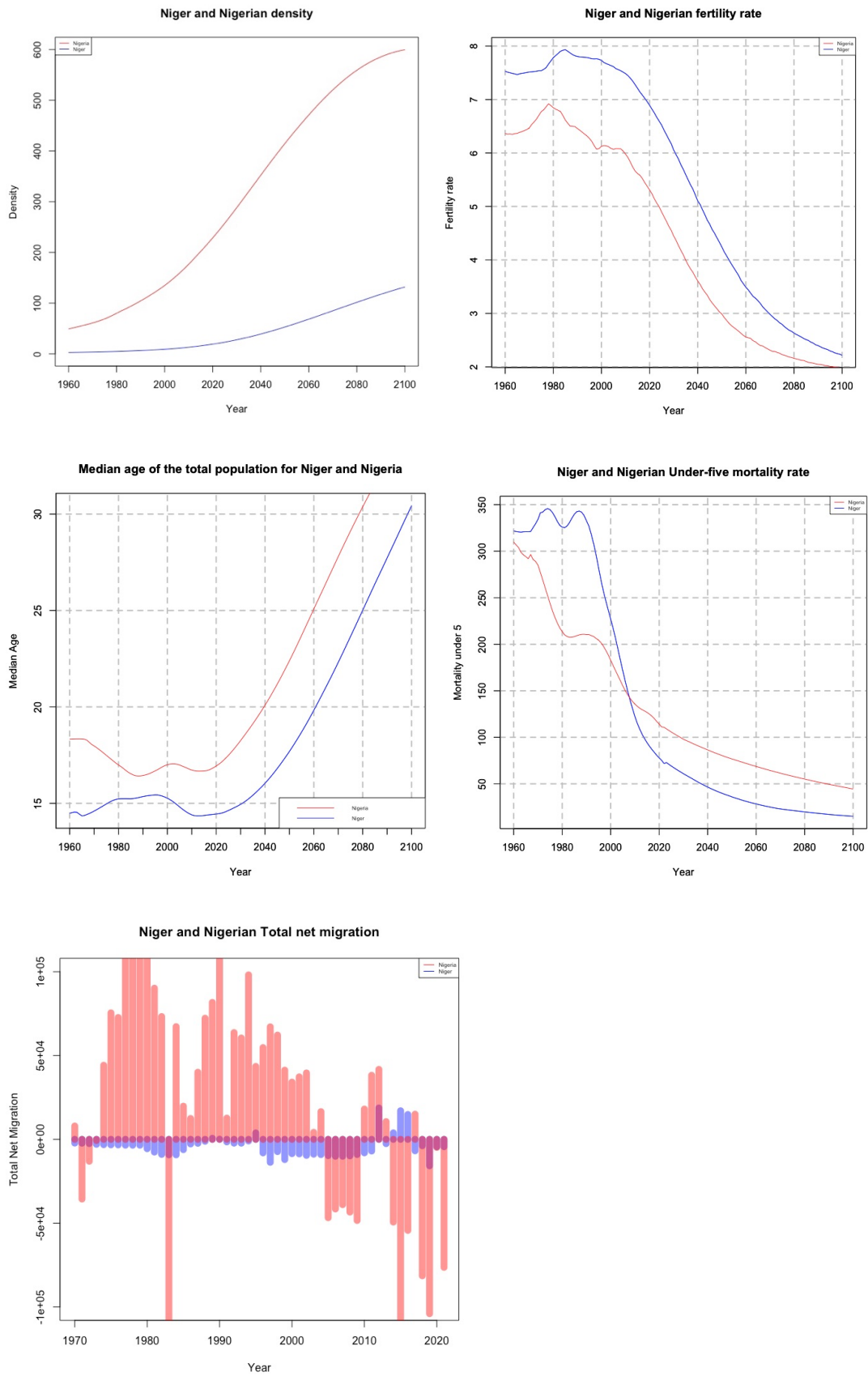


Figure 9 Plots for Niger and Nigeria. (Red – Nigeria and Blue – Niger). Produced on R.

2.3 Data and Linear Regression

The quantitative research has been conducted using data produced by the National Bureau of Statistics of Nigeria, the Demographic and Health Survey (National Population Commission and ICF 2019) and the Crime Statistics Reported Offences by Type and State (National Population Commission and Nigeria Police Force 2017). Starting from the National Survey it was possible to create a dataset with the national fertility rates of each state of Nigeria and the data connected to infant mortality under 5 per 1000 births. The two indicators are defined as follows: “*The average number of children a woman would have by the end of her childbearing years if she bore children at the current age-specific fertility rates. Age-specific fertility rates are calculated for the 3 years before the survey, based on detailed birth histories provided by women. Sample: Women age 15-49*” and infant mortality under five as “*The probability of dying between birth and the fifth birthday.*” and “*Deaths per 1,000 live births for the 10 years before the survey*”(National Population Commission and ICF 2019).

The Crime Statistics instead offered the data related to person, property, and lawful authority offences per state. Defined as: “*offence against persons are those offences against human beings e.g. murder, manslaughter, infanticide, concealment of birth, rape and other physical abuse while offence against properties are those offences against human belonging, properties of any kind e.g. stealing, receiving stolen properties, obtaining property by false pretence, robbery, burglary and house breaking. Offences against lawful authority are any offence commitment against any establishment of the law e.g. failure to pay your tax (FIRS) amounts to an offence against lawful authority in Nigeria.*” (National Population Commission and Nigeria Police Force 2017). This data was collected through the police offices departments throughout the country.

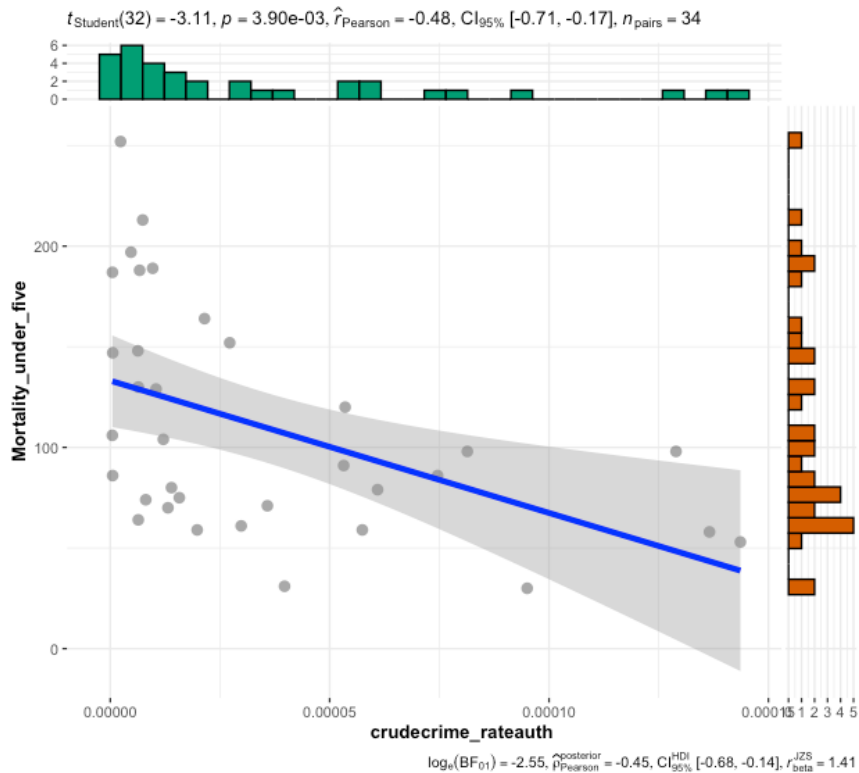
Surely, the dataset has some concerns such as the range of years in which the data was collected. The demographic survey involved observing the fertility rate for over 3 years and collecting data on the mortality rate for over 10 years before the survey. The survey was conducted in 2018 and was published by the National Bureau of Statistics of Nigeria a year later. Instead, the data on crime events is related to 2017, similar data was collected for 2016 by the work of the National Bureau of Statistics and the National Police of Nigeria. To avoid the comparison between the different States in terms of crime events

these numbers have been divided by the State's population so far the analysis utilized the crime rate was utilized in the analysis. On possible biases, the data could have been exposed to the Boko Haram insurgency in the North of the country particularly in terms of transparency for fertility and mortality rates under 5. Acknowledge the degree of corruption that Nigeria's institutions are facing, particularly in the more rural stations, the degree of the crime report could have suffered from some biases by institutional protectionism.

The analysis has carried out a linear regression model by using the Person coefficient of regression.

$$Y_i = b_0 + b_1X_i + \varepsilon_i$$

Where Y_i is the dependent variable, in our two models the fertility rate and mortality rate under 5, and X_i the independent variable, the crude crime rate. The data has been computed in R, see Figures n. 10, 11. The analysis searched for different relationships within the variables, which have shown interesting results. Among the correlations carried out the main outcomes in terms of significance appeared with mortality rate under 5, fertility and with the particular offence against lawful authority, while the relations with offences against persons and property showed less attendable significance. It is possible to mention the p-value of fertility and all aggregated crimes by state of 0,07, visible in the Appendix (Figure 19) to this thesis. The results of significance for mortality and crimes against lawful authorities show a coefficient of 3.90e-03, Figure 10, and for fertility of 0.02, Figure 11. This means that the correlation has a high significance, and the possibility of error is less than 1 per cent for mortality and 2 per cent for fertility. The regression value shows a negative relation also illustrated through the r Person which means an inverse proportionality between the analysed variables, for example at the increase of offences against lawful authority the value of under-five death reduces. This result is reinforced by the findings of the correlation between fertility and offences against lawful authority. A reduction in fertility due to crime can consequently reduce the mortality under 5.



Call:

```
lm(formula = crudecrime_rateauth ~ Mortality_under_five, data = database)
```

Residuals:

Min	1Q	Median	3Q	Max
-4.481e-05	-2.450e-05	-3.948e-06	1.416e-05	8.977e-05

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	7.381e-05	1.399e-05	5.275	8.93e-06 ***
Mortality_under_five	-3.534e-07	1.136e-07	-3.111	0.0039 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 3.638e-05 on 32 degrees of freedom

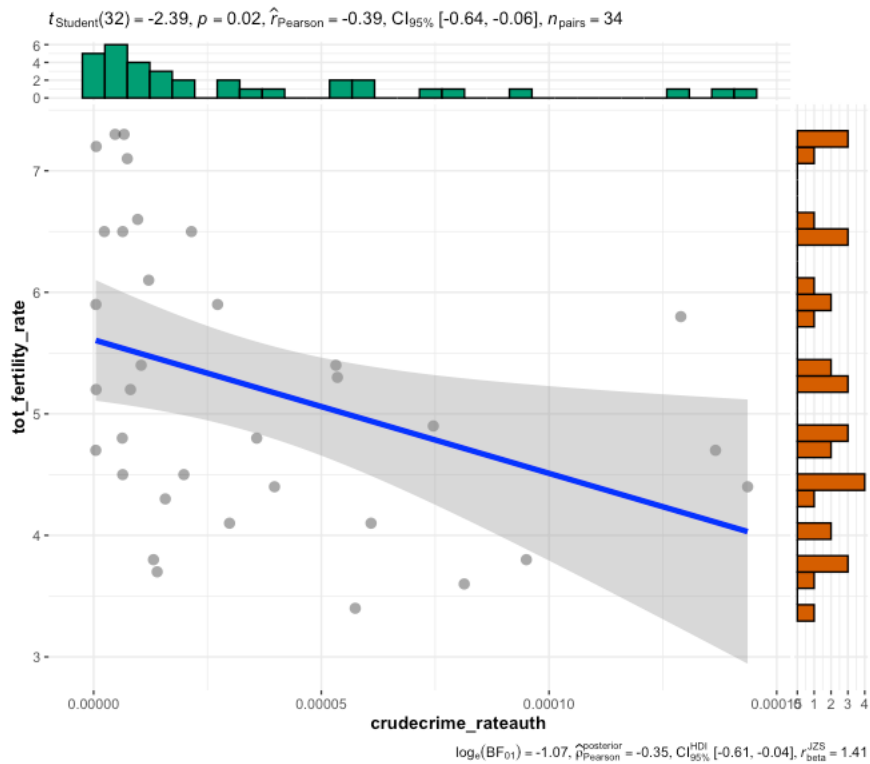
(3 observations deleted due to missingness)

Multiple R-squared: 0.2323, Adjusted R-squared: 0.2083

F-statistic: 9.681 on 1 and 32 DF, p-value: 0.0039

> |

Figure 10 Mod.1 Linear Regression of mortality under 5 and crude crime rate. Using the data visualisation package for R (Patil 2021).



Call:
`lm(formula = crudecrime_rateauth ~ tot_fertility_rate, data = database)`

Residuals:

Min	1Q	Median	3Q	Max
-4.190e-05	-2.505e-05	-6.378e-06	8.975e-06	1.020e-04

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.068e-04	3.083e-05	3.464	0.00154	**
tot_fertility_rate	-1.377e-05	5.764e-06	-2.388	0.02299	*

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 3.825e-05 on 32 degrees of freedom
 (3 observations deleted due to missingness)
 Multiple R-squared: 0.1513, Adjusted R-squared: 0.1248
 F-statistic: 5.705 on 1 and 32 DF, p-value: 0.02299

> |

Figure 11 Mod.2 Linear Regression of fertility rate and crude crime rate. Using the data visualisation package for R. (Patil 2021).

Another relevant aspect is the specific type of crime involved in the correlation. It may show the degree of instability within a community through crimes against the law enforcement system. However, the total distribution of crime in the country may shadow the relevance of the results in numerical terms. Crime statistics reported a total of 134,663 cases in 2017. Distributed mainly between offences against property (68,579), followed by ones against persons (53,641) and lastly ones against lawful authority (12,443). Summarizing the geographical distribution is possible to see how almost 40% of cases are reported in Lagos, next with around 10 and 5 per cent in Abia and Delta State. The lowest levels of crime events were signed in Kebbi, Kogi and Bauchi states with less than 0.3 per cent.

As illustrated the society in Nigeria suffers highly from inequality and internal divisions, which is a key element to evaluate the potentialities of escalation of crime and violence. Even if the present regression has shown a negative effect on the number of births due to crime there is a secondary effect on the potential level of well-being of the society and its economic development. Considering the years of data is possible to argue about a relationship between increasing crimes and political violence or its facilitation. As underlined in some studies in some Nigerian States the negative effect of resource division and the exploitation with a slow implementation of social prospects in interested regions have increased popular discontent. This has raised the levels of anti-governmental movements and crime. An evident facilitator in terms of crime affiliation is played by unemployment. In addition, to the already shown academic evidence of this relationship some Nigerian field Commanders have reported this existing relation (Babajide 2023). As the analysis illustrates crime has a consequence on the population in terms of demographic statistics. To offer an alternative explanation of the stalling fertility phenomenon, it is possible to assume based on an economic and environmental base theory (Urdal 2005; Collier and Hoeffler 2004). It has shown how negatively unemployment and insecurity could provoke unmet expectations in terms of family planning and numbers of children or disrupt family-based adulthood transition within communities with a different conception of adulthood. This can imply a rising level of violence against perceived uneven government management. The most exposed group cohort is the transitioning group mainly represented by youth bulge. Addressing the issue

should be a national priority being youth cohorts the major ones within the population. Furthermore, regaining the economic and social equality level may favour the rising level of birth. Except for the population moving the degree of urbanization, the rural population can show a reduced speed in the demographic transition or even an increase in fertility. This is a possible explanation for the known theory of stalling fertility decline, which appeared in reference to Africa in the early 2000s.

2.4 The Nexus of Terrorism and Organized Crime and Safe Havens

West Africa has become a new spot of political violence. There are multiple elements to assess to evaluate the causes of rising violence. The region is suffering from many issues simultaneously and the solution to these seems to be further and even worse to solve. West Africa has structural problems related to poverty, environmental changes, underdevelopment, and social grievance.

Within this issue, the central government's lack of resources to secure the whole territory leaves space for "vacuum zones," where new actors can replace the government by providing essential services to the local communities. Thanks, to the local communal grievances, different armed groups are spreading in the region.

The following part will demonstrate the importance of studying West Africa, specifically political violence in the tri-border region of Mali, Niger, and Burkina Faso. The concept of "border vacuums", as zones where the government's weakness allows local actors to balance power, will be illustrated. Armed groups have shown their ability to provide laws and enforcement in the periphery and their potential to become the new representatives of law. This is possible through a network of proxies and profitable cooperation between actors. Finally, it will assess the possible links between international terrorism, local militias, and criminal organizations.

The West Africa region is where political violence in the last decade has risen with terrifying speed. It has rapidly become a new spot of political violence. Datasets have shown a drastically rising share of deaths in global terms in the region. To provide some

context, in 2007, West Africa accounted for 1% of global deaths; by 2021, this figure had risen to 35 per cent (Institute for Economics & Peace 2022).

The Global Terrorism Index (GTI) of 2021 presented eighteen major cases of political violence events. The second and third deadliest events took place in West Africa, respectively, in the regions of Yagha (Burkina Faso) and Tahoua (Niger) (Institute for Economics & Peace 2022) (the attack in Burkina Faso was not claimed by any party, while the one in Niger was by ISWA), where more than 160 and 137 people lost their lives. Of these eighteen events, ten were located in West Africa. There are a few common elements in these attacks. The first and most evident is the use of two common means: bombing and gunfire; the second is that all these events happened in border provinces; and the third is the final target of the events: local militias or pro-government forces. Simplifying the analysis makes it possible to evaluate the existence of a direct connection between armed groups and the use of terroristic means with a different level of repercussions toward the civil population. This can be explained by dividing the existing armed groups into three main categories: a) groups concerned about local issues based on ethnic-national-religious frictions, for example, the Katiba Macina or Ansar al-Dine; b) groups activated after particular events, such as Koglweogos; c) and transnational terrorist groups, such as AQIM, JNIM, and ISWA (Institute for Economics & Peace 2022).

Narrowing further the goals of the groups, it is relevant to define three types: identity militias, political militias and internationalised ideological groups. Identity militias are typically organised around a specific concept that distinguishes the group from others and from which they attempt to defend their values and diversity, such as religion, ethnicity, or regionalism. While political militias are more focused on the development of political goals, this also implies a more organised network in terms of subordination due to the need for political tactical and strategic positioning. However, it should be mentioned that this division does not limit the two categories' overlap in their goals.

The ability of these militias to rise and organise into bigger entities that lead to the spread of violence has been increasing since 2007, and it had reached its first peak mostly by 2014–2015, mainly due to Boko Haram territory gains. After these events, a unified coalition of African States was organized to fight the spreading terrorism. However, nowadays a new circle of violence may be rising, especially in the tri-border region after the series of coup d'état.

In addition to the joint response of the G5 African countries, there was the involvement of the French forces at the request of the local governments. However, the French mission has shown many elements of concern, in particular its inability to be accepted as an effective and legitimate actor by the local population. The French military has been the target of major local uprising attacks, which have targeted both the French military and their local escorting. The failure of the mission has been due to its inability to reach the local audience for clarification of its role, which has been seen as another military failure and biased intervention for resource allocation. Furthermore, the persisting political violence has become the second point of popular rebellion against the French forces, which has come to be seen from a more post-colonial perspective. Because of these, France is facing a high level of pressure from two sides: the locals' African communities and the French perception of a useless endeavour that affords unpopular action in these countries even if supported by the majority of the governments. This balance was defeated by the new governments, who requested the French and other international forces to leave. Today, the role of affiliated military groups is rising in the region. An element of concern by leaving actors is the rising role of private military groups, such as ex-Wagner.

Having stated a few of the main elements of political violence and the response to them, we turn to the analysis of the distribution of the events. In the last few years, according to research (OECD 2022) there has been increasing evidence of how political violence events in the region are highly correlated with border proximity.

The method used to analyse this pattern is based on two main assumptions: the first considers the borderland zone in distance terms within a defined value, and the second evaluates the time required by dividing the accessibility of an internal point by a specific amount of time.

Figures n. 12 and 13 relative to the tri-border of Mali-Burkina and Niger show how around 44% of all the cases occurred within 100 kilometres and their distribution.

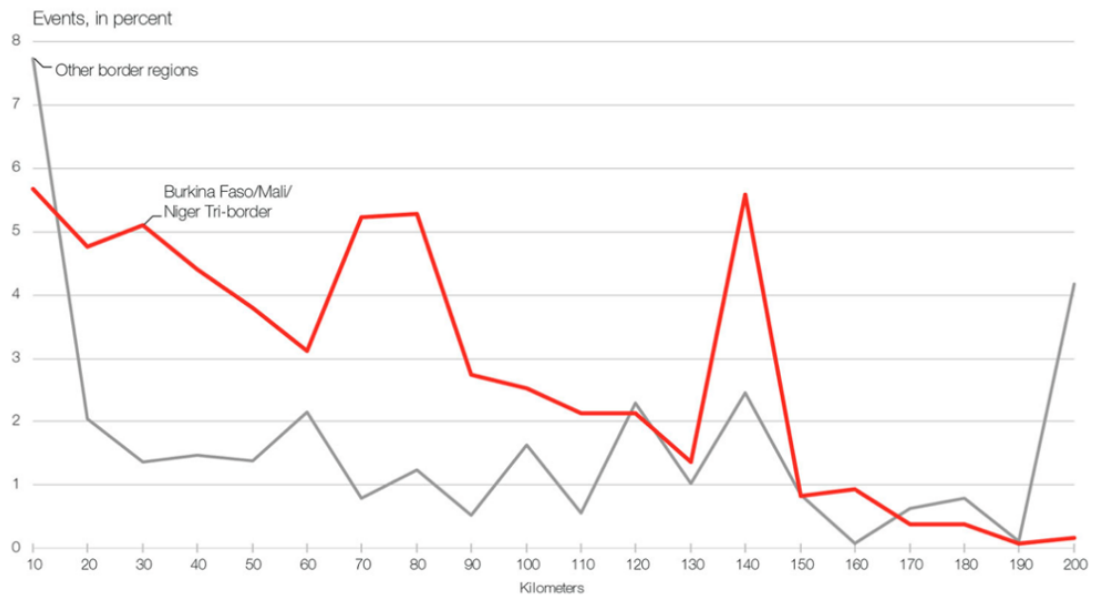


Figure 12 Percentage of Events by Distance in the Mali-Burkina Faso-Niger Tri-border Region and Other Borders Regions. (OECD 2022)

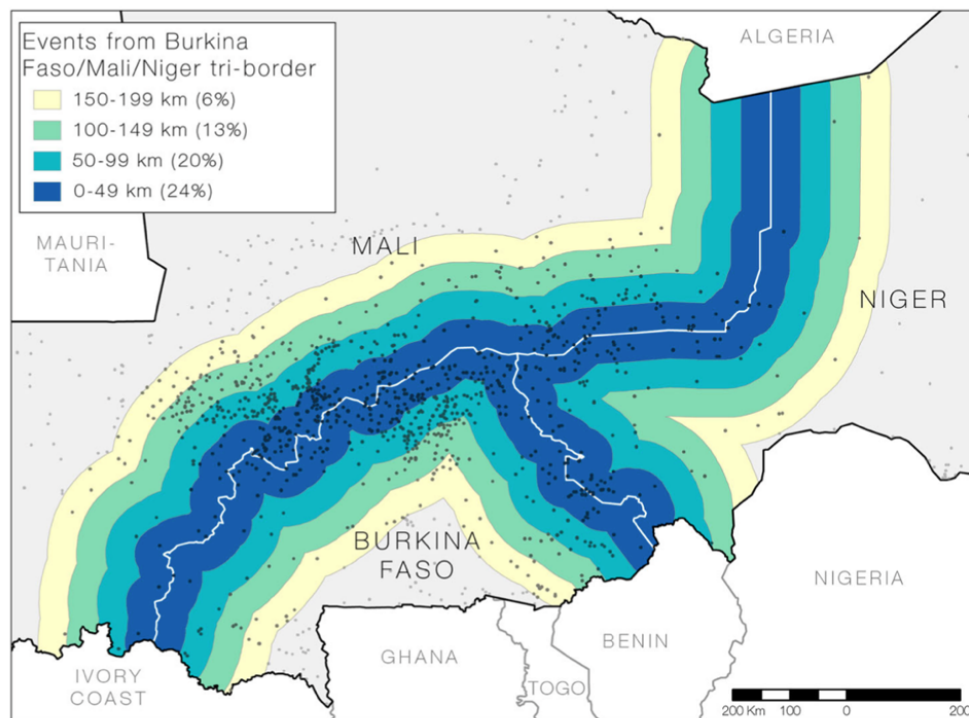


Figure 13 Violent Events Between Mali, Burkina Faso and Niger. (OECD 2022)

In addition to this, the way events are distributed is relevant to assessing the ability of political violence to spread further in the region. The data (OECD 2022) shows a

prevalence of clustered events in the tri-border region, which means a high intensity and localization. More concerning is the assessment of the overall changes in West Africa from 2011 to 2021, where the clustering of events has decreased from 95% to 82% of all events. This is a negative signal of a possible expansion of violence toward new zones in the region. In fact, the clustered events are more concentrated in the peak violence spots, and the rising dispersion grows in the periphery of these spots, which can lead to a rise in violence in other countries.

The grounds on which violence rises in the region are different and difficult to address all at once. However, excluding demographic ones, three macro-levels that have stimulated the rise of violence in the last decade can be identified: a) weak institutional resilience and a high frequency of coups d'état; b) increased regional instability as a result of new spots of violence in nearby regions as a result of north and middle east revolutionary movements and interventions; and c) increased grievance and greed among locals as a result of general economic and social deterioration. These given elements should not be seen in isolation because, if deeper into their roots, it is clear how each element is interconnected with the other.

Considering the raised level of social riots and coup d'état, many new factors are interfering with institutional instability and the capability of minor groups to mobilize to action the society. One of these is the new media and fast messengers allowing groups to organize better their visibility in the political audience reaching and the ability to quickly deploy social uprising on the ground streets. Another advantage given by the democratisation of the media was the creation of a network of political proxies defending the interests of different groups (Schritt 2019).

The second presented factors related to the "Arab Spring" that raised the level of migration flows and different groups of nomads' groups had to move and created a chain process between these populations, such as the Tuareg. The conflict between these groups was also raised by an economic decline and the increased pressure on already weak infrastructures. This has consistently increased the degree of grievance among the hundreds of local ethnicities.

Moving on to what concerns borderlands, there are different types of motives to think about why borders are the main spots of violence. On the one hand, local identity and

political militia goals are settled in the uprising region itself, and because of this, their role is intrinsic to province issues; on the other hand, non-local groups of different kinds can use borders for many objectives. Borders are sometimes less secured by the central government, or the government itself is more tolerant of enforcing strict responses to periphery violence; this allows militant groups to use these zones as "safe havens" and relief from the battlefield. Another positive element of the border in this case is the ability of the militants to find a disaggregated institutional fabric and be able to network, recruit, or even establish the missing social securities.

One major factor contributing to political violence is the government's failure to provide basic utilities like political security and the unbalanced distribution of them both vertically and horizontally. It is necessary to define the contrast between the OECD's conception of a functioning state and the regional realities within the environment. The OECD's countries agree on five core pillars: prevention of violence, provision of justice, effective institutions, economic foundation, and dealing with arising social, economic, and environmental shocks (OECD 2015). Instead of using this larger notion of fragile states, it will better focus on the ability of the state to provide the basic political securities (Kostelyanets, Segell, and Solomon 2021). A stricter definition of fragility in the context of West Africa will lead to a different conceptualization of the needs of the region and will change the organisation of policies for development and fighting political violence. Having so far defined the notion of a "fragile state," we can address how the tri-border states should be addressed in these terms. The region suffers from the inability to enforce a durable stability in politics due to coup d'état, which increases the circle of diminishing control and after the establishment of the new power control enlarges the illicit decision-making processes such as through corruption (Institute for Economics & Peace 2022). The linking step toward political violence corresponds by deepening the illegitimacy of the government and its inability to secure in a short time control over the national territory leaving more space for the formation of vacuums replaceable by local militias.

Thus, it could become thin the line between a nationally legitimate government and not, which will push minorities into isolation and cause them to grieve between local communities and institutions. The massive effect of cheering in the afterwards population following the coups has shown a high degree of grievance against the existing political forces. This means they were unable to fight the communication battle or transparently

disregard the role of political responsibility demonstrated by massive corruption and, consequent, unpopularity. Because of the absence of political strength periphery shows signs of illicit crime and extremism outbreaks.

For example, the Tuareg population has historically been nomadic, and they have always been moving in territories of today Libya, Algeria, Mali, Niger, Burkina Faso and Nigeria. Their way of moving between countries put them at a disadvantage compared to the other settled ethnicities in the region, both in economic terms and in terms of political representation inside the governing institutions. Furthermore, there is a self-identification diversity among Sub-Saharan and Tuareg ethnicities. This is a discriminative attitude the two have in distinguishing themselves as African and Arab.

The coexistence of an ethnic and economic-political disruption between the groups, such as Tuareg and Fulani, and settlers in the area creates high tension and grievance (Kostelyanets, Segell, and Solomon 2021), which is one of many causes of the proliferation of political violence.

The Tuareg have developed the ambition to establish the state of Azawad, which was auto-proclaimed in 2012 and lasted around one year. The Tuareg people have faced underrepresentation and intolerance from central governments, leading to separatist movements and even ethnic cleansing by the governments.

Another element of concern is the compound of institutional corruption and splits inside armed groups, which makes inefficient peace and ceasefire settlements. In fact, the separatist movement has seen many attempts to settle agreements for a major representation and cessation of the conflict. While one of the major militias tries to achieve the path of political and social inclusion, other, more orthodox groups act against peace agreements through the escalation of the conflict by terrorist means. In these situations, the presence of organized crime links with separatists or armed groups increases the chances of inability to enforce peace, because of a negative impact of it on the criminal business revenues. Their mutual connections in armed groups and institutions may be valuable in disrupting peace talks.

The group that called itself as Jamaatu Ahlis Sunna Liddaawati wal-Jihad (UCDP 2022) (A near translation of which can be "People Committed to the Propagation of the

Prophet's Teachings and Jihad". They called themselves in such way in 2010.) is more commonly known as Boko Haram, gives a deeper understanding of the long historical roots the group tries to connect with (Kostelyanets, Segell, and Solomon 2021). However, the following part will concentrate more in detail on the problem of networking abilities and the use of safe havens. In order to achieve these two concepts, it is relevant to first focus on a few elements that are characteristic of the tri-border and Chad Lake region. They are poverty, marginalization and underdevelopment. These factors have been shown slightly before.

The Boko Haram group was able to create a Caliphate in the northern region of Nigeria, on the border with Niger and Chad. The group has, over time, split into many groups and spread over the region as the Islamic State in West Africa Province (ISWAP), which is especially active in the Chad Lake region.

The interest in the group, in this case, arose after the large offensive of the Multinational Joint Task Force in 2015, which caused the group to disperse to the borderland regions for relief (OECD 2022). These were the provinces of Chad, Cameroon, and Niger.

Boko Haram has been able to find high support among the population thanks to the use of local economic grievances (Kostelyanets, Segell, and Solomon 2021).

Turning to the *rationale* for the population to join the armed combatants, the contextualization should better explain it. In fact, Nigeria is split in two, with Catholics in the south and Muslims in the north. The Muslims, being a minority in the country, have faced marginalization, and after the rise of Asian economies, they also faced a declining share of their income due to their low relative advantage in economic terms (Kostelyanets, Segell, and Solomon 2021). In addition, marginalisation and grievance have been increased by the disparity between the two confessions in economic performance rates, which escalates the unrest in northern Muslim regions. The final factor that should be evaluated in this context is the problem of desertification and the race toward water access. These are the factors that created the groundwork for successful networking for Boko Haram.

Leaving aside the role of recruitment and support in the region, it is time to address the question of the ability of the group to remain highly resilient and active during a long period in the region. After the defeat in the main zone of activity by the G5 states' group,

Boko Haram was able to rebuild its ability to intensify its attacks again. This was made possible by the large cells that served as the foundation of the terrorist network. The ability of the group to achieve high intensity and internal and transborder movement.

Previous researchers (Prieto Curiel, Walther, and O'Clery 2020) argued on the matter of centralized or decentralized organization of the group. Speculating on this, if you consider the ability of the group to employ and be accepted as an appealing alternative to the central government, the group needs to have deep social connections. Thus, the idea of a large cell network organisation seems the most convenient to explain these patterns.

Boko Haram's ability to achieve a high level of efficiency, with an average of two events per day and a daily death rate of eleven people, is possible due to an intrinsically contextualised socio-economic grievance and the notion of well-fitted networking for the given region.

How it has been already understandable the notion of vacuums in connection with the absence of power is not reaching the needed modelling for the interpretation of the existing realities in West Africa. In fact, vacuums should be seen as the absence of an enforcement of security by the central government. Local forces of power are used to replace security with locally oriented proxies' relations between distinct influential groups where this missing notion of state is seen. The relationship between identity and political militias will be addressed under the common notions of local militias, organised crime, and international terrorism.

The main difference between organised crime and militias is evident when considering their final goals. While crime seeks to increase its wealth by exploiting local Muslim communities and infiltrating state institutions, militias base their actions on a strict political and ideological foundation (Barnett, Murtala Ahmed, and Abdulaziz 2022).

However, this evident difference does not exclude a possible nexus between the two actors. The capacity to profit inside the governmental institutions and by using communal grievances gives the groups a good level of networking inside underdeveloped communities. Organized crime is also involved in highly profitable illicit businesses such as human, narcotic, and weaponry trafficking or hunting control. These spheres expose the local population to illicit business and provide them with better life expectations and

social mobility. Because of this, especially in urbanised zones, crime can be a vacuum-filling actor.

Armed militias are not directly interested in accumulating wealth, but they are heavily involved in financing military expenditures and gaining public approval.

Previous research has shown how the militia-crime nexus, despite having different final goals, can be tactically improved by exchanging services between the two parties. Theoretically, three main paths of nexus success have been developed: coexistence, where crime and militias agree on common interests and stop seeing each other as threats; cooperation, where crime and militias agree on common interests and stop seeing each other as threats; and convergence, where crime and militias establish a deeper relationship and further interconnection in different fields of action (Alda and Sala 2014). The spheres being demonstrated to be the most interrelated seem to be kidnapping, human smuggling, and illicit finance. In addition, as was already mentioned, organised crime is more present in urban zones; instead, armed militias are more common to move in some safe haven corridors in the region and are mostly connected with rural areas (Prieto Curiel, Walther, and O'Clery 2020). This means that the nexus can lead to better coverage of the territory by the combined forces of militias in rural areas and organised crime in urban ones and as a logistic linkage. The result will be a more efficient, capillary system of business relations.

However, the nexus is more complicated than it seems. One reason behind this is the exposure that organised crime must face after entering into co-organization with jihadist militias related to political violence. Thus, the costs that organised crime should consider when entering this nexus are greater than those that militias should. The surplus for organised crime, clearly, should be essentially deep with high-profit revenues; otherwise, the deal will be counterproductive.

Another reality for cooperation finds its roots in the high level of fragmentation and communal marginalisation, which opens the space for forming bandit groups. These groups are involved in similar profiting illicit business kidnapping, human trafficking or smuggling. These banditry groups have a worse coexistence with militias because of their internal fragmentation, which leads to gang division and fights among each other. Their fragmentation enables other actors to see them as trustworthy and cooperate with them.

Banditry is a real threat to local villages because of raids and violence. This characteristic gives some potential to militias and puts them at the nexus of organised crime and militias. Local communities or businesses aiming to protect their environment could resort to utilising military means in self-defence, such as armed groups. These groups may be private organizations or self-formation. Similarly, organized crime may be a provider of services of protection or escorting by third-party involvement. In any case, this is a further escalation of violence. Developing at a more extended degree this idea is possible to claim a governmental crime interaction in the possible use of private military companies, being aware of the different approaches to these groups.

Consequently, West Africa has the characteristic of being a large space for mutual proxy relations between the government and local communities with organised crime or militias. Militias benefit greatly from the ability to enforce civil law, punish, and provide security in vacuum areas. A major area of interest in this concern is the Liptako-Gouma region, Figure n. 14.

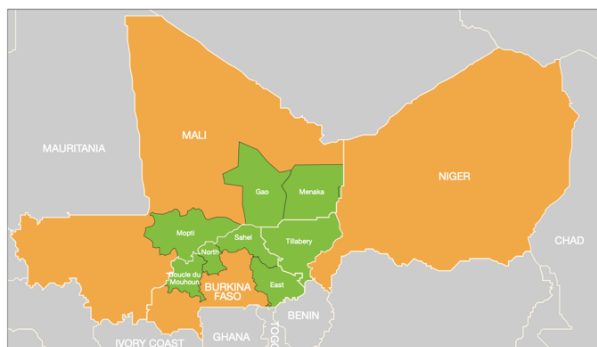


Figure 14 Regions interested by proxy relations. (Assanvo 2019)

The jihadist groups are proliferating in these zones and were able to enter a large spectrum of fields, such as economics, illicit trafficking, and the enforcement of security and ceasefires (Assanvo et al. 2019). The sphere of communal division and friction is where jihadists are able to enforce protection and temporary peace. These actions are the elements that allow for penetration into communities in terms of social composition and the balance of local powers (Assanvo et al. 2019; Perliger 2014).

This paragraph has shown how a possible nexus between organised crime, extremists and militias can be formed through cooperation based on mutual understanding and profit.

Instead, the relationship with banditry is more complicated, mainly because of the high fragmentation of bandits and the gains in status that jihadists have made by mediating between communal friction and defending them from bandits.

Chapter III – The Edge Against Crime

3.1 Youth Bulge Rejecting Violence

The previous chapter has illustrated the linkage between demographic trends and crime, which affects the large cohort of young people in the region. The research on youth bulge has shaped young as a negative or at least a potential force of instability. Nevertheless, the development of the field has shifted to a more balanced interpretation. The role played by the opportunity cost in joining violence and crime has been demonstrated to exist, especially, in correlation with ill-disposed economic, social and security situations. At the same time, a large number of studies have underlined that the majority of young people do not intend to join any militant groups or crime networks (Enria 2015; Oosterom 2019). Instead, the negative effect of violence and insecurity reduces their well-being. Youth aspirations are connected with the benefits coming through a developing economy and financial independence. These will be the conditions for an at least equal society. Thus, it is possible to conclude that a brighter future drives these people. The literature has evidenced the role of the demographic dividend in responding to these requests. Some elements are explained in the paragraph, which does not pretend to be an exhaustive compilation of issues interconnected to crime and population, but it will focus on some relevant ones. The youth bulge desire illustrates a keen belief in a peaceful and secure perspective for the future. To strengthen this claim of positive expectations of young the Afro Barometer survey results are provided. The polls allow us to distinguish the main concerns of the West African population, which supports the further analysed policy targets. The chapter will leave space for better policy brainstorming, but it aims to become an outline for more specific research. The first poll of statistics from the Afro Barometer is related to the more socially pressing issues that the society perceives in Western African states, which has highlighted these issues: security and crime, unemployment and economic mismanagement (Afrobarometer 2023).

The first aspect addressed is the job market. The importance of delivering employment is an essential step for the interpretation of crime and instability and of the next elements that will be discussed.

Scholars evaluate the possibility of a flourishing speed-up in Sub African economics due to the demographic transition, similar to the effect observed in East Asia. However, the recent study entitled '*Demographic Dividends across the Global South: A Comparison of Africa, Asia, and Latin America (1970–2020)*' (Han et al. 2023) has shown a comparison between the demographic transitions and dividends in the Global South. The research has illustrated a clear imbalance between the expected and the real dividends between different World regions. The East Asian result in growth seems to be unreachable for the other parts of the Global South. This is because of the complexity of the iteration to replicate the demographic dividend, which is linked to the environmental diversity of each socioeconomic system and its historical background. Considering the current situation in the Global South, the dividends will more probably be represented by a future leopard pattern distribution. Where distinct spots countries will reach the desired high level of dividend economic growth, but this could result in being more an exception than a trend. For example, the real winner in terms of the progressing window of opportunity in the MENA region has appeared arguably to be Egypt, which shows high levels of GDP growth per year.

The stalling fertility will play an intervening role in the equation of achieving the demographic dividend by reducing the fertility transition speed and, consequently, changing the picture of growth. The effect on the essential dependency ratio will be inevitable and the outcome of instability rise. However, an investigation into the desired speed of the fertility transition connected to the specific national readiness to fruit from the demographic dividend could be a step to further understanding this process.

Another concern for the dividend is the inability of West Africa to repeat the large movement toward an intensive productive economy in comparison with the East Asian experience. In this regard, there is a double interpretation. Ones rely on the need of the region to improve human capital and the others address the issue from a strictly economic system failure. The first group underline the mismatch between skills and industry needs. The seconds show that the issue lies in the inability to create a dynamic job market to absorb the unemployed by governments. Figure n. 15 illustrates the distribution of responses regarding the employment status of a sample population in different countries of West Africa. The results are highly concerning. At the exclusion of Ghana and Nigeria with around half of the respondents answered to be employed, numbers for Burkina Faso,

Côte d'Ivoire, Mali and Niger are drastic. These countries have an unemployment around 40 per cent and the other half are not seeking a job, considering the words of the respondents for the following questions “Do you have a job that pays a cash income? [If yes, ask:] Is it full-time or part-time? [If no, ask:] Are you currently looking for a job?” (Afrobarometer 2023).

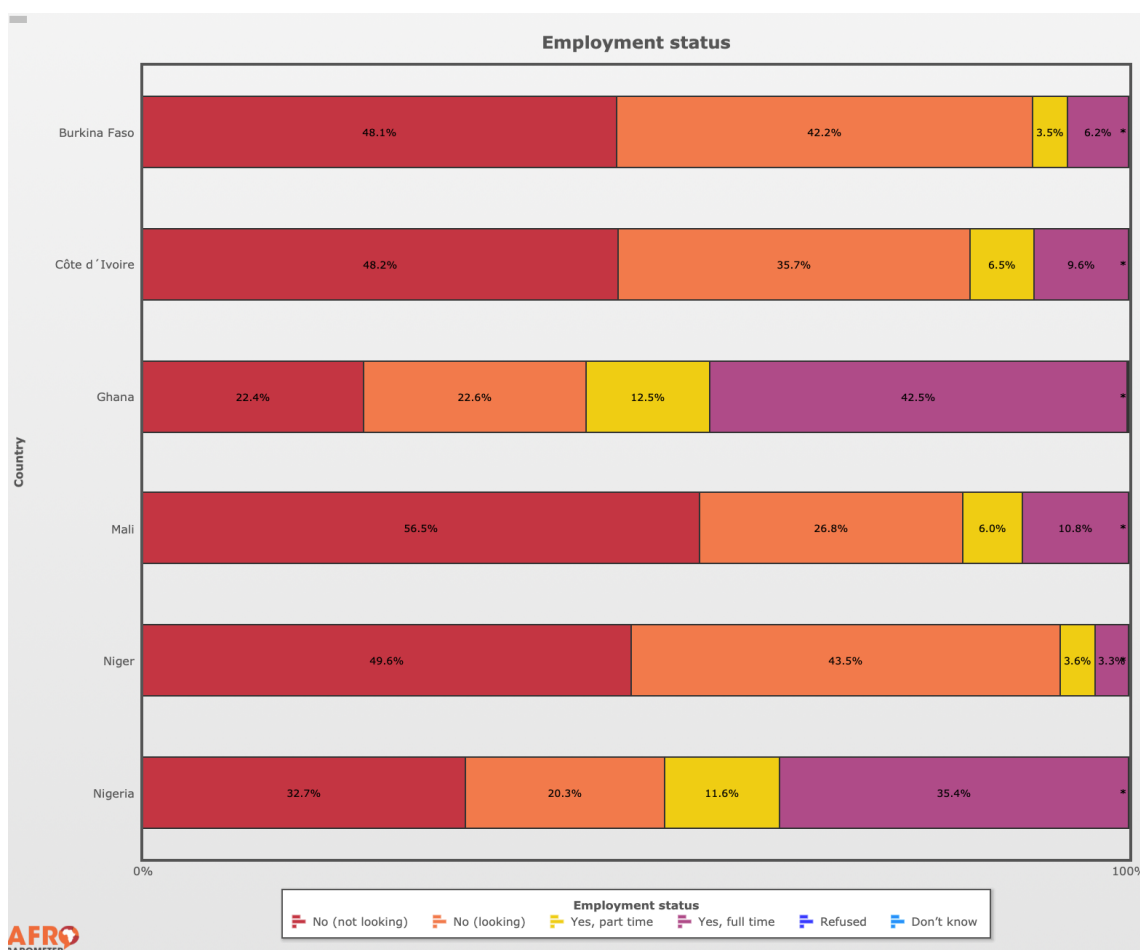


Figure 15 Survey on the employment status. (Afrobarometer 2023)

However, this data is collected from a small sample population and it may also have some differences due to the interpretation of the meaning of “job”. Most probably some unemployed people are involved in some sort of household or irregular occupation, which could be considered as self-employment instead of a “job”. In fact, the ILO estimated that 89 per cent of all African employment was informal and 20 per cent were without a regular contract in 2018, which implies the absence of social protections (ILO 2018). In addition, it is important to refer to a directly related problem: the wage-work balance. In

detail, more than 40 per cent of employees in the informal sector earn below the minimum wage. In Burkina Faso, this number is as high as 61 per cent (Mbaye and Gueye 2018). Some evidence, unfortunately, specific to Ethiopia, has shown that 77 per cent of new youth employees left the firm in a year for low conditions and salary and abandoned the industry in general (Blattman and Dercon 2018). This linked with the high levels of informal work, present in West Africa, and the undermining salaries can allow us to consider this trend in expansion in the region similar to the data from Ethiopia.

Niger, Mali and Burkina Faso are both the least urbanized and rich in the region. Countries with a predominantly rural population are more exposed to worse conditions based on this data, in terms of salary. This can support even more the assumption of a current inability to access the high-intensity labour production per hour requested by the East Asian model of the demographic dividend in the countryside. In addition, it evidences the incorrect economic management and the inability of the governments to promote an efficient system for the agricultural or rural sector. Some researchers have addressed the problem from a distribution perspective (Sumberg et al. 2021), which also emphasises the earlier presented problems in peripheral provinces. This becomes a more important issue when considering the expanding climate change, that enlarges the unusable lands for agriculture. The sector is highly relevant in the expansion of job opportunities and also in non-land-based production. The OECD estimated that 31 per cent of all non-agricultural jobs in West Africa are in off-farm segments of food production (Allen, Heinrings, and Heo 2018). The same report has shown that 64 per cent of young between 20-29 are employed in the food economy. At the same time, by improving the agricultural sector could be possible to further expand the job market and lead the rise of private capital for further entrepreneurship in the country. This could be possible with transparent and meaningful land access and to further non-farm food production. The evidenced issue can be crucial for mainly agricultural economics as the Nigerien, where almost 40 per cent of the GDP is based on this sector (World Bank 2023). Another problem in the countryside is related to the definition of youth. Many young people still under the legal working age are informally employed in land labour or households. This, surely, poses some issues. The need for legal protection from the exploitation of child labour should be enforced, but rural Africa still shows levels of poverty enabling parents to support education and feeding for their children. For this

reason, the inclusion of legal status, especially in rural areas with low capital, could ease the problem including a degree of protection under the law of child labour. Further, some supporting steps could be adopted for child labour. This may be a promotion of targeted policies for the promotion of standardised conditions and access to financial support for children. However, access to financial benefits or services should be followed by support in education for their use. Examples of the need for new regulations in terms of legal youth accessibility to services are presented in the work “*Africa’s “youth employment” crisis is actually a “missing jobs” crisis*”, which underlined some of these elements:

“minimum age regulations or norms (to do a certain job, obtain a driver’s license, open a bank account, apply for a bank loan, etc.), minimum experience regulations or norms, gender-based regulations or norms (or others based on social difference), or age-based restrictions on trade union membership.” (Sumberg et al. 2021).

This model can be beneficial for expanding the levels of independence for early-age working children. This process might reduce the level of illicit fruition from child labour. A parallel issue relates to the gender gap. As an issue of high relevance, a short background on the demographic effects will be positive and will better define the existing trend in the region. One of the important factors that has been shown to positively affect the fertility transition is reducing the gender gap. This can be achieved through promoting female education and delaying marriages, Figure n. 16.

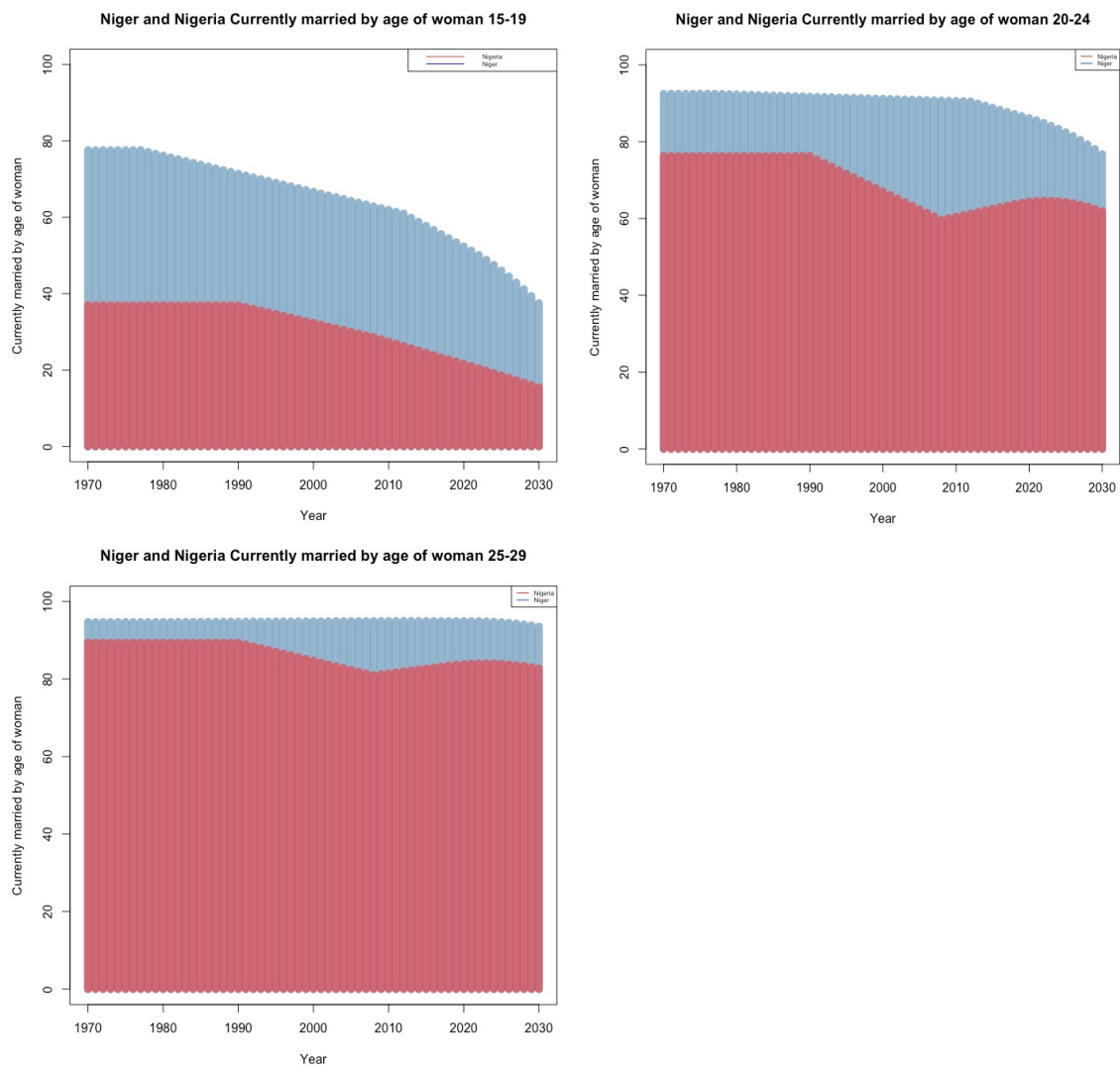


Figure 17 Women’s marriage age in Nigeria and Niger between 15-19, 20-24 and 25-29 years. Produced on R.

Currently, in West Africa, marriages for women between 15-19 years old are still high, which reduces the duration of education and skills development in women. Consequently, women’s empowerment should be addressed because it affects fertility rates and the general economic performance of countries (Sumberg et al. 2021). In addition, the culturally hierarchical family and social imprint provoke a negative effect on unmarried women. The absence of this status can cause a higher level of jeopardy toward harassment at work, which may lead to the reduction of women’s participation in the job market. An in-depth interview-based study on 27 victims of work violence has shown the negative effects on their future employment and the reduction of productivity (Loya 2015). Thus,

the distortion of the market is associated with a reduction in competitiveness or worse in health and productivity.

Scholars explain the demographic dividend in East Asia thanks to the orientation toward an international competitive export sector. This was possible thanks to a fast-growing urbanisation with a respective growth in the high-intensity production labour. The shift from an agrarian predominance to an industrial sector led to the expansion of revenues. This was also linked to the expansion of primary and secondary education, which increased the level of human capital for the future economic transition. However, the present labour market and capital potentials do not foster the belief in the same potential in West Africa. In support of this, the large informal employment illustrates the illness of the economic pattern. These are several lacking economic transformations and a missing level of formal non-agricultural employment jobs. Positions which are indispensable for a positive demographic dividend. Thus, the expanding promotion of skills sharing and knowledge is not sufficient to boost the economy in the region. The problems become more intrusive in society by interpreting the inequality and social unrest potentials of youth bulge. In addition to unemployment, a role is played also by underemployment, which supports the picture of a failing ability to promote an efficient economic system. The critical point in underemployment is to support migration and unmet expectations for educated young people, which has been regarded as a destabilizing element in societies. Despite all the concerns about the transition in West Africa, there is still hope to improve these before reaching a later phase of the transition.

The general failure in the economic transition is represented, also, by migration flows in the region. West Africa hosted 7.64 million international migrants in mid-year 2020, of these almost 90% were internal to the region (UN DESA 2021). Côte d'Ivoire and Nigeria hosted the majority of migrants. The reported year was signed by the COVID-19 pandemic which could imply a reduced number of migrants in the region. The main reasons behind migration are defined as “*finding work*”, “*economic hardship*”, “*poverty*” and “*better business prospects*” accounting for 70-90 per cent of migrants, only less than a small percentage motivate it with education or family reunion (Afrobarometer 2023). On the base of these preconditions of migration, there is more room for grey zones for

illicit migration and their employment. Usually, this category of labour refers to particular services provided by individuals connecting them with the destination employers. The scheme is commonly based on reciprocal trust without any guarantee, which ends in many cases with exploitation. The urge of migrants is one of the reasons for the inability to control them at local and family levels because the urge and the desire for a final award are high. Informal agreements on remuneration are followed by cases of partial payments or rewards. Rural youth migrants are willing to engage with informal job intermediaries for a promised motorbike or a small amount of money that will allow them to earn a small revenue upon their return. Youth women are more susceptible to misconduct in destination countries, where they are often employed for prostitution.

The last element to identify the youth involvement in participation in a more secure and equal environment is represented by the formation of local self-defence groups. Self-defence groups began to form themselves in opposition to armed conflicts and criminality by community mobilisation in the past decade. Usually, these formations rely on the oversight of local communal assemblies. The rise of self-defence groups has shown positive effects, especially in Mexico during the fight against Cartel organized crime (Le-Cour-Grandmaison et al. 2023). However, it has also shown the rise of some concerning problems, such as ethnic violence and substitution to previous criminal entities. These groups are organised commonly on an ethnic basis and they could detain a local strength to fight crime, but also define zones out of governmental control on local territory. The two most dangerous aspects are the exacerbation of the intercommunal ethnic clashes and the unlawful use of power on the local population especially when oversight by local assemblies or communities is lost. The ethnic issue is highly important in West Africa. In the previous section, it has already illustrated the possibilities of connection between these groups and crime. To address these challenges and the crime growth in the region the central governments began to incorporate these new groups into the national system of security services. However, an example of the inclusion of the Yan Sakai group established in Hausa communities from the Zamfara state in North West Nigeria, around 2011, shortly after the 2020 integration and the high local support of the group inter-ethnic clashes with Fulani began. This enlarged the crisis in terms of inter-communal violence between Fulani and Hausa's (Le-Cour-Grandmaison et al. 2023).

These illustrated youth behaviours in connection to employment, migration and self-defence are a few of many exemplifications of the need to address these problems with an accurate policy to decrease the causes and triggers of crime and violence in the region through preventive packages directed towards young people, but also to the general job market excluding the division between youth and adulthood job seekers.

3.2 Assessing Future Demographics and Crime Trends

The evolution of newly independent African countries has been characterized by a low-density population and a lacking level of qualified personnel for the governmental structures left from the colonial time, if such existed. Some scholars argued that absent resource scarcity in the region has discouraged the formation of competition. This phenomenon limited the formation of strong national states. However, the rapidly expanding population in the region puts the old-fashioned governance based on clientelism behaviours in front of a new scarcity of resources. To complicate the situation is the ethnic diversity of countries' composition, which had not been accounted for in the independence borders delimitation. In fact, the Organization of African Unity in 1964 decided to agree on the *status quo*. The increasing level of violence between different ethnicities can be one of many outcomes in the region. Because of the complex integration process of diverse communities in the region, it could be interesting to link this process with the demographic transition. The model shows that the pressure on resources will still rise until fertility is equal to the replacement level. Afterwards, the new two decades will be defined by a more dangerous youth bulge pressure. As we mentioned the unmet demographic dividend is likely to happen in a large number of states of the region and only a few will benefit from it. The unbalanced distribution of regional benefits from the transition will further push migration, displacement and inter-ethnic grievances. Managing these issues will be a challenge for faster economies especially for infiltration of negative crime networks and money flows.

In second place, two different effects might be visible. Regional developing economies' populations will improve in education, and health and see new steps in the demographic transition, instead countries with low economic growth might show a rising level in the

stalling fertility phenomenon. This disbalance will be difficult to tackle due to the possible low level of institutionalization of these countries, and that staking in the transition could also suffer from a delay in governance improvements. The obvious question is how developed and regional developing countries should prevent this issue from happening or mitigate it.

The effect of this possible scenario will also provide more earnings to organized crime that will benefit from either the developing countries as higher profiting markets and weaker neighbours for logistics and possible production. A bivariate effect on crime will be the differentiation between more sophisticated crime organizations concentrating in more developed countries and less complex organizations in less developed ones. However, a second scenario could be different. In this case, the driving economies of the region will be able to implement a regional program of development and support the less-developed neighbours. Considering the current situation that does not promise much hope in this direction, which does not seem to be cost-effective.

An increasing regional vulnerability in this stage is climate change. More exposed countries are also the ones with fewer capabilities to achieve a higher level of dividend. The consequence could be further natural damage that might compromise more rapidly growing economies in the future. Instead, enforcing a strong agricultural sector, with particular attention to the green agenda, could benefit the region. However, there is a need for high investments in natural protection, which is lacking at the moment, and provisions to improve checks on the exploitation of resources. This issue will trigger forced displacement and additionally put pressure on regional states. IOM statistics predict a rising level of displacement of 9 per cent in 2024 reaching 13.6 million people. The new conflicts and competition over resources because of climate change and poverty will further increase the vulnerability in the region (IOM 2023a). The particular case of the Liptako Gourma region can show the magnitude of displacement and consequent pressure. The region saw 3,011,292 displaced people, of which 2,636,880 are internally displaced and 374,412 are refugees. Of the displaced populations, 2,100,130 people lived in Burkina Faso, 419,468 people in Mali, 287,258 people in Niger, and 104,324 people in Mauritania (IOM 2024). Lately, Benin, Ghana, Togo, and Côte d'Ivoire have also been affected. The refugees moved from the Central Sahelian.

The more likely scenario remains the first one. For more support the case of South America is relevant. In 1980, the dependency hit under 80 per cent and meant the beginning of the potential benefit from the dividend. However, the effects were not as expected in 2020, because of the debt crisis that affected the region. The GNI grew from \$5969 to \$15,243 since 1990 but remained under the global average (Han et al. 2023). As it is known the region has been and remains a spot of high levels of criminality with a large number of crimes attributed to urban gangs. In addition, the majority of regional nations struggle for a democratic and legitimate transition of power. Considering, the similarity of coup d'état persistence in both regions the outcome is more negative than positive.

Another interesting effect could be seen by a further study of gender theory in researching the outcomes of women empowerment on crime in Latin America and in mitigating the instability process in the region. Further research may investigate through regional comparison of the criminal influences of the transition in the Global South.

3.3 Growth and Crime: Few Steps for Improvement

Economic growth could lead to a reduction in crime, but it remains a complex question. IMF defines the relationship as bidirectional. In particular, it means that crime and economic trends have a direct proportionality (Valdes and Machado Parente 2023). Although most studies have been conducted in Latin America. Researchers on crime have demonstrated the high social and economic costs of affected countries, for example, in five Latin American countries the negative effect of crime on GDP has been shown to range between around 2 to 10 per cent (Aboal et al. 2016). These costs are composed of the personal harm of victims as well as the costs of administration and services provided by the state to victims and through trials (McCollister, French, and Fang 2010).

Thus, the paragraph will address factors influencing the reduction of criminality and violence alongside economic elements. The assessment will cover more in-depth an economic strategy, the cohesion and ethnic division, a crime-specific focus and a possible outcome on a possible future dividend in West Africa.

The Afro Barometer survey on the perception of unfair treatment on an economic basis illustrates, in Figure n. 17, a lack of support by the governments to the population. The data is relevant because it can explain the degree of vulnerability of youth bulge and labour force in front of potential participation in violence and crime. The discontent is almost more than 50 per cent per country, considering answers “often” and “always” unmeet support.

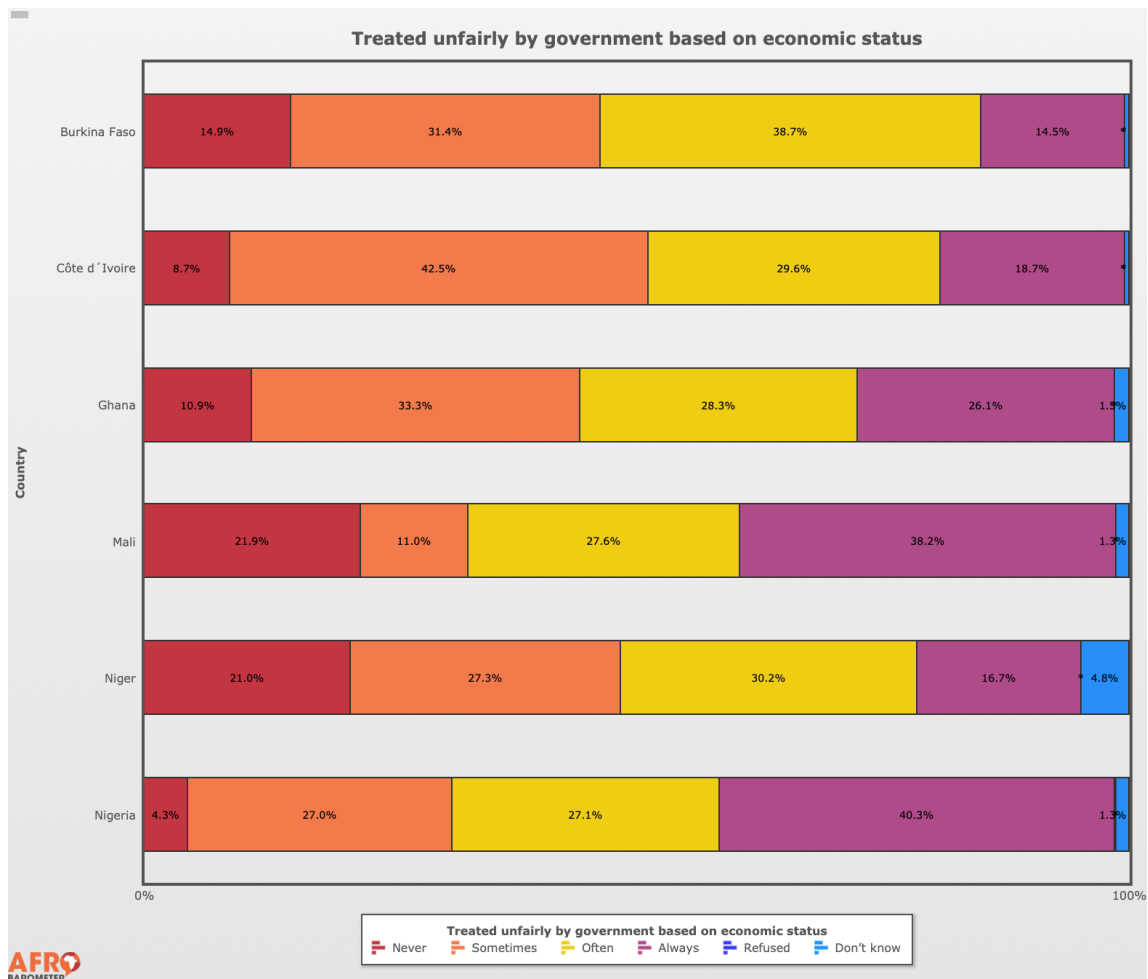


Figure 18 Survey on unfair treatment by the government on economic status. (Afrobarometer 2023)

The region is showing a good performance in average GDP, but in more detail, it is possible to notice a concerning trend. First of all, the growing economies in the region are also the poorest countries in the World and they are a smaller part of the overall GDP of the region. The main driver of regional growth and the entire continent is Nigeria. In fact, the stagnation and recession of the Nigerian economy were responsible for a 30 per cent continental slowdown (Mayowa Kuyoro et al. 2023). This is explained by the

reduced consumer spending due to the economic contraction. A second aspect is the inability of West African countries to promote the manufacturing sector. There is one exception in the region represented by Ghana, where the productive sector increased from 10 to 16 per cent between 2010 to 2019 (Mayowa Kuyoro et al. 2023). The need for this transformation of the economy is indispensable for a stronger future dividend, because of the large role of the sector in increasing the real productivity per hour. However, it is possible to see a similarity with the Indian growth that shifted from the agricultural sector to the one of services but has not developed in manufacturing. India, similarly, has large social issues in education, health and job market spheres. The Indian case could be a possible comparative country for the region an exception for the institutionalisation process. Although GDP growth remains high, it is difficult to generate a large job market without expanding the productive sector for current and future workers. The same is true in West Africa. In addition, the consumer side, the driver of consumption, is subject to different shifts due to high or low levels of liquidity and inflation. The West African population is employed for its majority in an informal job market, which has been shown to provide low wages and spread insecurity. The inability of the economy to create new small-medium manufacturing firms lies in the low level of local private investments and product demand.

To develop a better basis for private investment, supported by loans, without using large national investments by national budgets directly for firms could come by a betterized food security production. Even if agriculture is not the best sector for capital growth it is responsible for more than half of the national GDPs of many countries in the region. The sector demonstrated to have a high potential for further expansion. Possible, especially, thanks to the implementation of some strategies. The definition of the best crops can raise earnings, because of their higher competitiveness. In addition, better management of logistics in the delivery of the products to target markets will increase revenues along with new intermediary management between farmers and the market for more profit for producers. The most interesting element is the agro-processing industry development. The 2023 McKinsey report has underlined the possible potential of the general sector to increase production by 20-30 per cent (Mayowa Kuyoro et al. 2023). These improvements in the sector will also have a huge impact on the food security of the region. The low attractiveness of the sector should be addressed in terms of raising earnings for farmers

and field workers. The main solution can be the assessment of the possibility of an equal distribution of the land for scaling production and the provision of more advanced methods through investments. To further improve the economic possibilities of local farmers, it is relevant to address the issue of minor labour legislation, explained already in the previous paragraphs. These can improve the demand in manufacturing, but in this regard, attention should fall on the level of protection from abroad productions.

The countryside is the main origin of urbanization flows of people, and because of this a major economic freedom in countryside residences can allow an easier migration process, reduce the urge for informal job services, and slow down urbanization. The latter may be driven by an increasing individual cost of leaving the agricultural sector. Consequently, it will reduce the rate of urbanization and internal migration and increase the level of competition in urban salaries by reducing the large number of job seekers. In this regard, the implementation of a unified digital system of job research can have a positive impact. To enable access to the platforms there is the need for a better coverage of connectivity in West Africa. A similar process could be done in the cooperation on regional migration. This could also improve from the implementation of targeting educational centres, strictly connected with the employers' needs. Some other cooperation entities are performing this kind of service and the claims seem to be positive, such as in the Almaty Process in Central Asia.

Another issue is the level of brain drain from the region. This should be a priority for the region being high-profile specialists necessary for the productive transition in the economy. Particular policies should be developed in this direction to minimize the drain. For future economic development, the demographic growth in the region is crucial and dangerous at the same time. Utilizing the incentive given by the rising population will require meeting the needs in terms of infrastructure. Since the population of the region will reach 778 million (PRB 2023b) people in 2050, more than today's entire European population. To support this population change a massive infrastructure will be needed. In addition to essential access to transport, water, energy, interconnectivity, housing, health system, and education, which bond together could improve extremely the population's well-being and productivity. For example, being women traditionally dedicated to childbearing an improvement in fast access to primary needs will facilitate their individual and social activeness. The development of transportation hubs is another

crucial step to allow the continent to ensure growth and access to the international market. This can be crucial for the development of the productive sector because the small internal demand could be replaced by the international market. A process that has characterised the East Asian demographic dividend disruptive growth could promote a better dividend even in West Africa, the enlarging industrial sector. The advantage in the region will be represented by the huge working population and the assets of natural resources such as cobalt, uranium, copper, bauxite, silver, petroleum and iron. These are also valuable materials for the ecological and technological transition. The technological transition may be a driver for the future economic growth of the region and allow a better use of innovation for supporting the massive increase in population. Three infrastructure strategies should be considered. The first is the formation of regional advanced logistic international hubs, which will drive the entire country's development. The second is the creation of pivotal projects that will be replicable in scale. This is the connection of the West African networks of infrastructures, which will ensure major resilience and also increase the benefits for less developing countries in the region. The third is to proceed with road infrastructure and transportation, which will increase national connectivity and positively impact the everyday well-being of megacities and rural areas.

These improvements, if successful, can reduce drastically the instability related to youth bulge and increase resilience against criminality. Increasing accessibility to "good" jobs, in terms of per-hour productivity and salary, will reduce the unrest sentiment in the population. From a demographic perspective, this positive change in earnings and availability of time will reinforce the process of transitioning closer to a replacement zero-net. Disaggregating this notion we should expect a gradual reduction in fertility rates due to a correlation between factors such as education and financial independence equal to more empowerment in youth and young women, particularly. Elements that will also have a large impact on upward social movement by the creation of a more dynamic society in terms of participation in politics on different levels. This expansion will raise the political competitiveness, otherwise disruptively requested by the population itself, leading the countries that will reach this point of development to the formulation of either a Western model of government or an autochthone model. The establishment of governance based on local specificities would be positive, if consistent and efficient, because of two main points. The diversity of the development of the national building in Europe and the region,

where the formulation of national states has lacked a clear demarcation as in the Old Continent through centuries of conflicts and political revolutions. West Africa's intra-national diversity could need a new level of transparency and policy equality.

The demographic transition will also have repercussions on the crime situation in West Africa. The analysis conducted in the previous chapter will suggest that the criminal rate will rise. To explain this, it is possible to consider a transition period from high youth bulge percentages in the population and its progressive decline. Reaching the net balance in replacement rate the level of crime (accounted as fixed to a base-year) is more likely to remain high, but with a reducing trend due to the decreased level of the new workforce entering the job market in the future years. The decrease in job seekers will reduce the levels of general criminality. However, there are some exceptions. The main intervening typology of crime is organized crime, which is not directly linked with occupation being often transnational and interlinked between different regional entities or even transcontinental. As anticipated the level of high dividend achievement will be difficult to reach, which will generate a probable proximity of high criminality countries and low ones. In this condition, organized crime will appear as a main drive of criminality in the region. Being organized crime mainly responsible for drug and human trafficking. On the other side, probably a decrease in the markets of arms trafficking, health drugs and illicit trade in non-renewable resources could be achieved with the implementation of policies directed at contrasting the markets, and the development of industries interests towards a national production of these goods.

Reducing regional violence and crime requires the promotion of cohesion and reduction of ethnic division. To address this issue is important to deliver better local representation and transparency through a transfer of power from the community to the governmental level. Enforcing the ability to represent from the bottom to the top could need the formation of stronger civil societies, which will be able to provide a direct audit of the misconduct of national officers and also anticipate policy-makers with potential issues arising from local communities. The expansion of these levels of oversight will also allow for enlarging the base of political leaders and future elites producing an interchange platform for government institutions. However, these propositions are under the lead of the central government implementation and the formulation of a national-level sponsored

policy with guarantees and protection. The empowerment of local assemblies and civil societies will also be a positive element for checking the local self-defence groups. A process of institutionalization of self-defence forces could also improve local control of corruption and clientelistic government networks, which might be possible through the maintenance of close relations with the local community. However, the achievement of the fight with a clientelistic approach should be fought thanks to the major competitiveness between political different forces within a multi-party system.

By implementing a good governance procedure the degree of inter-ethnic clashes will be reduced, especially during an economic growth period.

Strengthening the resilience against crime will play a relevant role in securing a more attractive economy and vibrant society growth. A high level of criminality is responsible for the reduction of international investments in the economy of a country. Because of this some positive steps to achieve deeper cooperation and integration of the regional systems of crime fighting will produce a better output. For example, the ECOWAS and the African Union (AU) are two regional organizations that participate in promoting cooperation in the region between states. However, the main level of engagement should first come from the national governments, which later could translate into better regional resilience through cooperation. A positive outcome from regional or bilateral cooperation on crime prevention can come from conjunct border surveillance by the use of drones to identify illicit traffic. Considering the high price of more advanced technologies the use or cheaper variations of surveillance could be in any case beneficial for human, illicit goods trafficking prevention and extremism groups movements. Another aspect of cooperation is the addressing of financial crimes, which should be fought on the regional level and with further cooperation with other international institutions and countries.

A different potential problem in crime expansion could be the targeting of key national projects in industry development and infrastructures. For example, the pharmaceutical industry, which is showing potential in the region should deal with the high level of illicit drug market in the region. Infrastructure could become a profitable space for financial and other types of crimes, which should be prevented to deliver good levels of infrastructure standards and prevent delays.

The paragraph has tried to illustrate the value of crime fighting through different perspectives, the economic, social and crime-specific ones. The success in these sectors will respectively be beneficial for the others, which could lead to an exponential regional improvement or otherwise a degradation.

3.4 Recommendation for Italian's foreign policy in West Africa

After decolonization, Italian governments neglected the formulation of strategic policies toward Africa. Only one prime minister visited Sub-Saharan Africa between 1985 and 2014. Since the 2010s, Italy has turned back its interest to Africa. However, this was more a necessity than a choice. G. Carbone in his research highlighted that three main national issues pushed the Italian leadership to reengage in Africa: the economic crisis (2011-2013), the growing pressure from the South (2014-2016), and the need for more energy resilience (Carbone 2023). The latter has become even more critical since 2014 and 2022 following sanctions on Russia.

The focus of the following section evaluates the role of West Africa in the future Italian foreign policy in Africa. The requirement to develop a further analysis is to define the new strategic interests of the Italian leadership that should be achieved through re-engagement in the continent. One of the targets of the new policy is to address migration, to reduce it. Although, this is not the only possible national objective in the region.

So far, the demographic analysis has shown the rapid changes occurring along the African continent, particularly in West Africa. It is not a case of the international interest in the region by China's large infrastructure investment, European attempts to counterbalance the latter, US, Russia and France's military presence. Furthermore, West Africa will count as one of the largest populated countries in the World namely Nigeria. The country will become the third-largest nation, which can represent an asset for national growth in economic terms. Thus, the new demographic balance will increase competition in international politics and economics. The relative proximity of this region to Italy should define a new strategy to defend the national economic interests and to maximise foreign economic potential. This process should be able to anticipate international competitiveness in the region or gain enough strength to compete with the new

international system. One future characteristic is the gap between developed and developing technological potentials. Because of this, it is key to safeguard the national economy from unfair competition, which has been demonstrated to be a real threat by other fast-growing economies threatening it. The changing balance of forces due to demographic balance will change the conflict potentials and their types in the region and will affect bordering regions. Therefore, the difference between the population size will imply different requests for national security. This is a precious point for analysing the future development of Italian national defence and security. In addition, West Africa has already shown its potential threats in the sphere of cybersecurity. Finally, Italy has a geographic advantage in representing the European Union toward Africa. In this context, the increasing role of Italy will leverage the national prestige and weight in EU decision-making.

To resume the potential Italian's interests is possible to refer to them in four pivots migration, economic security, national security and political interests. Being the work centrality directed to youth bulge and criminality the following will develop the disrupting role of crime in West Africa for the enumerated pivots of the Italian foreign policy. Thus, the region should be addressed to reach the Italian national objectives in Africa.

Youth bulge has shown to be a potential threat and opportunity to the peaceful development in West Africa. The demographic transition difference between European and African countries will further affect the assets and weaknesses of these countries. Rapid urbanization in West Africa will lead to structural and infrastructural problems related to pressure on resources and resilience. Instead, the European advanced transition phase will increase the need to rely on new technologies, which can close the gap between a declining population and ageing. The difference in human capital is a key to understanding the capabilities of the two regions. Until Europe and Africa are divided by a high gap in professional specialization, Europe will benefit from its primacy in development and technological advancement. However, the rapid technological change could lead new demographic powers to overcome the Old Continent in the production and applications of new technological items. Thus, the European policy should focus on maintaining privileged access to strategic technologies to counterbalance the exposure to

limited human resources. The reduction of this technological innovation gap will reduce the international stance of the Old Continent, which can result in a reduction in international security resilience. Instead, developing countries will face issues related to the inability to manage the rising population. In addition, different disruptive elements have been illustrated before, starting from criminality and the crime-extremism nexus. These two new socio-demographic challenges might shape the technological revolution in the future.

It has been introduced that criminality in West Africa is a variable that disrupts Italy's pursuit of its national interests in Africa. Therefore, policymakers should assess the impact of criminality. The high concern should address different crime markets, addressed in the second chapter. These are human trafficking, arms trafficking, drug trafficking counterfeit goods and cybercrimes. In addition to these bunch of threats, the perspective growth in mafia criminality has a potential in the regions, because of corruption pervasiveness and the future need for massive national investments in different sectors, such as infrastructure.

The role of human trafficking and smuggling is of key importance in the migration pivot of the Italian foreign strategy for Africa. Irregular migration is one of the main drivers that has triggered high concern in European and Southern European countries. Italy was not an exception, being the central spot on the Mediterranean route the country became the epicentre for the pick of irregular migration, registered between 2013 and 2016. The effect was an increasing public and political appeal to the issue. It reached extreme terms for populist claims and European historical moral duty towards migration. The 2023 trends have shown a new escalation in irregular migration. Migrants and refugees that reached the EU were around 380.000. This marked a 16 per cent increase marked the highest level since 2016. The 41 per cent was attributed to the central Mediterranean route, which was a 49 per cent increase since 2022. The 2024 accounted for 157.652 migrants and refugees landing in Italy (ANSA 2024).

IOM has estimated that the levels of irregular migration to Italy, Spain, Greece, Malta, and Cyprus have increased in 2023 compared to 2017, the base year considered. The role of West Africa and Central Africa remains high being the region origin of around 27 per

cent of irregular migrants. Migrants, from these regions, who arrived in Europe between 2017 and 2023 were mainly from Guinea, Côte d'Ivoire, Mali and Nigeria. In addition, these particular flow migrations have been shown to represent an up-trend. In 2023 the arrivals to Europe from West and Central African nationals increased to 39 per cent (76,620 nationals), compared to the previous years (IOM 2023b).

Another destination choice depends on the origin states of West or Central Africa. Generally, Italy is the preferred destination from these two regions, which represented 84 per cent in 2023 of arrivals (64.569 migrants). The other distributed as follows 12 per cent to Spain, 2 per cent to Greece, and 2 per cent to Cyprus or Malta (IOM 2023b).

Crime should be seen as a facilitator of irregular migration and a regional internal driver for major population pressure to migrate because of rising inability and uncertainty. However, the development of regular channels of migration could be positive, especially considering the ageing population in Italy. The ability to attract qualified migrants or students from Africa might improve economic growth.

The connection between crime and the economic pivot is strong. As already illustrated crime reduces the international interest in developing economic cooperation with the region. Italian interests in the region are also negatively affected by the rising levels of crime and corruption, because of intentionally distorted allocation of resources and equal access to public capabilities in respect of illicit network ties within the system. This accounts for a reduction in the ability of Italy to defend its own firm's interests abroad. A consequent threat is the expansion of West African organized crime and mafia in Italy. Overlapping with the common European interest in maintaining primacy in the technological field the region is crucial in terms of resources. This makes crime a vulnerability that can form discriminatory access to resources, which will backfire against the private firms in the region and Italy as an effect. The Italian presence in the region is mainly represented by ENI, which adopted a protectionist approach. The development of offshore platforms for hydrocarbons has proven to be effective in reducing the risks of crime and sabotage of logistic lines. At the same time, this decision is highly limiting the profits in the region, which gives an advantage to more risk-bond international projects. An interconnection between pivots is inevitable. The provision of stability in the region is the key to defining the increasing level of investments and attractiveness in them. The

last example relates to the potential sector of agro-alimentary cooperation in West Africa, which could be more intense if major stability is ensured for the smaller representatives of the Italian sector.

The relation of resilience in West Africa and Italian national security are bound together. The levels of crime are responsible for the increasing instability in the region. The nexus between crime and extremism is an example. In addition, crime is responsible for creating a worse environment for equality and fair access to financial independence in the population in the region. Being the main goals of national security defined by extremism prevention, cybersecurity and reducing anti-European sentiment it is important to address the notion of security in the region fighting criminality and corruption.

As a summary of the presented issues related to pivots and crime, it is evident how the three elements that concern illegality are strictly interconnected one with another. Consequently, to reach a successful African policy it is relevant to impose a strict interaction between different pivots with a global interpretation of their objective achievements. Thus, the task of a multifaced necessity in fighting crime in West Africa is a complex opportunity to obtain better results in a variety of strategic interests. Only as a consequence, this can lead to a major success for the Italian side in gaining centrality in the Southern European policy. This will increase the weight of Italy in internal EU affairs and further strengthen the position of the country in the African continent. This means the ability to lead or influence the new EU policy plans toward the Mediterranean. Surely, at the moment the situation in West Africa helps the Italian side represent the EU interest by military and better bilateral relations after the season of coup d'état in the region. However, crime could negatively affect the Italian achievement of representing the central European energy hub, because of its capability to spread insecurity. As a consequence, the loss of any of the following pivots will be a threat to the ability to reach a result in this pivot.

West Africa's crime has been illustrated to be capable of jeopardizing the Italian national interests in Africa. To respond to these the work will refer to the previous findings, which can lead West Africa to improve the crime situation in the region. The next policy

suggestions represent the sectors where Italy and West Africa may be able to reach a common ground to identify a working cooperation. The centrality of common accounting of interest will be the main point for developing good bilateral relations with the regions and safeguarding future cooperation from backdrops due to a neo-colonialist approach to the region.

To address the migrant flow it is important to facilitate the creation of new jobs in West Africa. The role of agriculture is high in the region, as illustrated in the previous paragraph, and Italy has a high expertise in the field. Cooperating by sharing this expertise can result in an increasing level of production and added value for food production in several interested countries of the region. The process could be facilitated by the worldwide Italian culture of well-being thanks to the popular and healthy Italian lifestyle. Additionally, this could lead to a positive balance between internal and extra-regional migration. Without a program directed to enlarge the job market in the origin countries, the flows will be challenging to stop, because of the imperative behind migrants' choice to leave their countries. The agriculture sector rise might be a positive impulse for industrial productive investments and a consumer basis enlargement. This will have a positive impact on regional resilience to criminality and other violent events through the job market expansion.

In connection to the agricultural and productive sectors, it is important to evaluate the impact of this sector's growth on Italian producers. Even if some investigations in the sector have shown that the main consumers of West African goods remain inside the continent. The economic pivot could give advantages in terms of resource access and access to a future large market of consumers. To achieve this the Italian firms should be represented in the region and find sector niches that increase their possibilities of profit in the region. A model for facilitating the creation of interconnections between medium Italian firms with the regional market could be a possible incentive for this expansion. In fact, the mid-small size of the Italian productive sector could have a disadvantage in front of the international competition. Another solution to this could be the involvement of large Italian companies in multisectoral projects to employ the sub-presence of multiple smaller national firms in the region. However, the ability to enforce these prerogatives should be subject to the definition of the level of risks the Italian side wants to incur.

Being West Africa still threaten by instability and drastic social challenges the degree of risk could be high.

The security resilience in West Africa is crucial to defend the national Italian security pivot against crime. This as we have seen, is threatened by different factors. The destabilising role of extremists has been seen in the 2010s and it is still a threat to stability in the region. On this matter cooperation with France will be positive and some steps for this have already been taken through the Quirinal Agreement for cooperation in the field of defence, security and migration policy. Although, the current anti-French sentiment raised in the region should be considered. A success of the Italian policy in the region has been the permanence of its military operation in Niger, which plays a positive role in combating irregular migration and extremism. The main Italian role until now has been to train national Nigerien security forces. After the coup d'état in Niger in 2023 and the expulsion of French forces, the increasing role of Italian forces in the region could be positive to guarantee stability in the main route to the Mediterranean shores. The presence in Niger can also provide a positive effect on possible proposals of cooperation in the surveillance of the tri-border region between Niger, Mali and Burkina Faso. The control of strategic routes may reduce the trafficking of humans, arms, drugs and contraband goods. In fact, the pressure on Italian institutions could rise in the case of a peak market activation in the region directed towards new potential consumers in the EU. Being the issue multiform it is crucial to work on prevention, which can prevent further spending on internal health population distortion and policies directed to reduce the use of drugs. This will also increase the resilience of the Italian economy because of the negative influence that drug distribution provokes on workforce productivity.

Another concern coming from crime is its interconnection with instability and the rise of political violence. These issues will surely be positively reduced by the already enumerated policies toward reducing migration flows through economic cooperation in agriculture and production.

A further concern is the anti-European sentiment in the region, which may be the cause of threats if under-considered. Italy is an exception in this contest having been lately involved in the colonial historical past but being a direct member of the European and Atlantic community, it cannot avoid considering this problem. To ensure a reduction of

this sentiment policies a fundamental is the principles of equality. Otherwise, the repercussions will, first, negatively affect the economic sector in the region and later the security of Southern borders. A peak of terrorism could also be a result of neglecting the issue. Considering that the main migration flow of the region is directed to Italy, it will produce a large number of West African diasporas in the country, which should be further considered in the national security as a potential destabilizing basis for criminality and extremism. Because of this problems related to equality and diaspora-oriented policies should be considered. Fortunately, in this context, the Italian government can rely on the European experience. In addition, researching the ethnic origins of migrants could help understanding risks and challenges.

Another concern should be directed to cybersecurity. In this field, national security should concentrate on two different perspectives of threats. The criminal and national-sponsored cybercrime. The two will differ because of their final goals. The first will concentrate on economic direct revenue from frauds, scams or cyber extortion. The second will potentially be deployed in economic unfair competition through industrial intelligence and productivity attacks directed at efficiency reduction, which could be plausible considering the tech gap. In addition, national cybercrime could be researched to disrupt national security in the field of information and politics. The formulation of an efficient system of cyber resilience will be essential to prevent a massive impact on the Italian state. The ability to define good relations of trust and cooperation with upcoming governments in the region and avoid political disengagement and categorical positions will have a positive effect on national cybersecurity and possible cooperation in the field. The Italian capabilities in the region appear to consist more of reactive policies to potential threats than a logically developed strategy to fight crime in the region. To better represent the interest in the region national security should also create a regional human capital with ties with the Italian side, which further could help in formulating a better strategy to achieve the security threats coming from the region and participate in the debate of regional national's agendas. In terms of the promotion of the national image in the region, which may be beneficial for the economic and the security side. It is important to support national initiatives to promote the international goals of development and equality in the region. A twofold approach is possible by utilizing national institutions

and a large number of national NGOs, such as Sant'Egidio (famous for the Rome peace agreement for Mozambique 1992).

The paragraph illustrated the relation that crime has with the Italian agenda in Africa and how relevant is the West African region to pursuing the established national pivots for the continent. In this context, demography is an interconnector of trends and future needs which can predict elements for shaping the future national security policy.

Conclusion

Before this research, few scholars' works addressed the relationship between youth bulge and crime. Consequently, this was the niche on which the current research has focused. The results have illustrated that the relationship between youth bulge and crime exists and that it is highly negative for the outcomes of the demographic dividend. Further, the analysis has been applied to define some strategies to reduce the impact and the participation of young in criminal activities. At the same time, the Italian foreign policy has been addressed by analysing the previously obtained results. This aimed to identify the potential benefits and provisions to defend the Italian interests in the region while implementing an African agenda. This developed in the suggestion to reengage in West Africa to secure the African national foreign policy and security.

Through the definition of the pre-existing academic background, it was possible to evidence the role of youth bulges in affecting politics, economics and social stability. Its role has the potential to impact the interested countries positively and negatively. West African projections on population have been one of the reasons behind this research. The region expects the population to grow to 788 million by 2050 and to 1 billion by the end of the century. Considering, also that the region is one of the poorest in the World the importance of the transition is high. In this context, the demographic dividend represents an opportunity to turn the large working force into a positive economic growth with general population benefits, such as in education, health or employment opportunities.

Being difficult to enumerate a complete fulfilling list of factors involved in the relationship between crime and youth bulge, it will be useful to divide them into three categories: *demographic, economic, and social-political*.

The demographic aspect has defined two levels of analysis, the first on macro trends. This has shown the consequences of the transition theory on criminal markets and the future ability to spread. The transition theory has illustrated different speeds in the transition across West Africa explained by the fertility stalling, which has reduced the decrease in fertility rates or even inversed them. Therefore, the distribution of the potential of the demographic dividend is not distributed evenly through the region. The problem in this

is the possible mismatch with the dividend requirements, which might appear but with a lower intensity and economic benefits. As a consequence, the research has developed a new projection on the demographic dividend. This will take place in the region by a leopard pattern distribution and different outcomes. Where some states will be able to provide or for some peculiar specificities will achieve a higher level of development benefiting from the dividend, while others will not. Crime might respond to these changes in two ways. The first aspect will be represented in a reduction trend of criminality after reaching a peak, which probably will be shifted upward to the final stage of the fertility transition. The second, instead, will be represented by the leopard pattern produced by the uneven demographic dividend capitalization. The faster-developing countries of the region will see this trend in a future reduction of general crime, while the countries without substantial gains from the dividend will show a sharp unchanged crime level. However, in both countries, organized crime will continue to operate by diversifying into more sophisticated crimes in the richer countries and more stable trends in the other countries. The demographic analysis has also shown a different level of indicators that facilitate the rise of crime in connection with youth bulges. It is important to evidence a few in urbanization, population density and climate change. Considering the role of fertility rates and mortality under five in the previous research in the field of youth bulges the thesis conducted a regression model analysis to define the relationship between these two variables with crime events. The outcome has been positive, but some concerns remain. In fact, the relations appear to be inverse, which means that the increase in infant mortality corresponds to a reduction in crime rate. The same has appeared for the fertility rate and crime rate. This result could be limited by some issues connected to the data. The improvement in this direction could be possible by better data collection at the sub-regional level and by utilizing the upcoming Nigerian national census.

The economic category evaluated the possible elements which will help the region to achieve the demographic dividend and it showed the disruptive role of criminality. It has shown the relevance of the level of unemployment, underemployment and the economic system's failure to provide a good job market. In this context, the rise of human trafficking criminals and smugglers has been reviewed. The negative possibilities for youth, but also workers, to find jobs create a bottleneck and urge to utilize illicit services or to recur to

migrate. To enforce this negative trend the role of low salaries and informal work have been expanding the issues.

The social-political category has shown the role of inequality and perceived unfair treatment by individuals by their governments, which are responsible for the rise of inter-communal ethnic clashes and instability. This has also appeared to be a consequence of the improper institutional governance behaviour of the leadership, which prefers clientelist means to equal resource distribution. In this context of instability, crime can positively utilize new forms of power and violence to enlarge its illicit business by forming potential nexuses with armed groups.

The thesis then focuses on the assessment of the potential solution to these three categories. The results were that regional states should be aware of their need to reform the economic system and, in particular, the job market. The expansion of the job market in pre-transition countries has been largely linked to the role of the development of the productive sector, which was the basis for the successful dividend in East Asia. However, the manufacturing sector appears to be currently stagnating in West Africa. To reverse this, it is necessary to encourage private capital investments and stimulate the formation of a large base of consumers. The highlighted measures were mainly two, enlarge an export-oriented economy and create a more attractive agricultural sector with higher salaries. To access international markets, developing transportation hubs and interconnecting the region's infrastructure is essential. These policies will be able to reduce the unemployed mass of young and consequently reduce the urge to enter or utilize illicit services. An outcome will be a reduction in criminality.

The links between crime and its disruptive effect on Italian foreign policy have been illustrated in four pivots, which represent the Italian objectives in Africa. They are migration, economic security, national security and political interests. The fight against crime is crucial because it can undermine the migration pivot by transferring migrants from West Africa to the Mediterranean route. The economic security connection to crime is evident by considering the impact that crime has on the possibilities related to accessing the regional market for international actors and the risks it implies. The expansion of drug trafficking, cybercrime and mafia organizations could be a challenge for Italian national institutions intent to protect the economy, the socio-political sphere and the crime

expansion in the country. The political interest in Africa will be impossible without stability in West Africa, otherwise, an expansion of instability to close regions such as MENA could appear. The region where the major Italian interests are based. The result will be the inability to achieve a leading role in the EU foreign policy towards Africa.

In addition, the already mentioned limitations on the present data for producing the regression model are not the only ones. It is possible to find that the economic perspective in the resolution of crime in the region and endorsement of the demographic dividend can be limited in terms of individual perceptions of inequality and injustices. However, crime has an objective economic aim. Another reason for focusing mainly on an economic level of policies is ruled by the idea of easier applicability by practitioners. Another aspect regards the demographic projection of crime in the upcoming evolution of the transition model. The jeopardizing concerns on fertility stalling theory are based on a large number of studies, which are broad in conclusions. Some of these studies have been successfully challenged. A further limitation is linked to the nexus of crime-armed groups which is difficult to evaluate because of the illegality of these networks and some base assumptions. Crime is led by earning rationality, which implies an accurate evaluation of entering dangerous nexuses with different types of organizations.

During the study some elements have arisen for future research such as the different women and male behaviour in the context of marginalization, inequality and underrepresentation concerning crime; or the role of women in mitigating crime activities in the Global South and particularly in Latin America; a comparative analysis between the similarities and differences in West Africa and Indian demographic dividend. Further, the definition of a more detailed case study in the region on crime and young people could be positive for the expansion of an individual-level analysis.

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Studies,

May,

00219096231173392.

[https://doi.org/10.1177/00219096231173392.](https://doi.org/10.1177/00219096231173392)

Appendices

Appendix 1: Figures

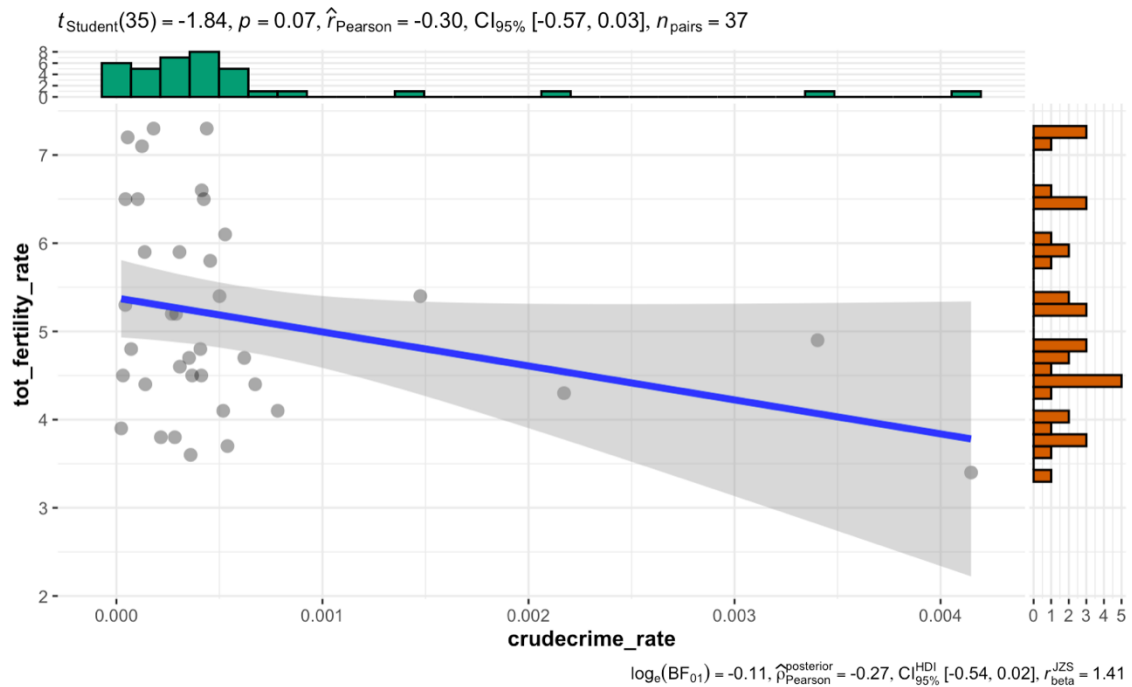


Figure 19 Linear regression for total fertility and aggregated crime in Nigeria.

Appendix 2: Script

Valerio Rosa

2024-02-17

Calling libraries

```
library(readr)
library(ggplot2)
library(tidyverse)

## Warning: package 'tidyr' was built under R version 4.3.2

## — Attaching core tidyverse packages ————— tidyv
erse 2.0.0 —
## ✓ dplyr      1.1.4    ✓ stringr    1.5.1
## ✓ forcats   1.0.0    ✓ tibble     3.2.1
## ✓ lubridate 1.9.3    ✓ tidyr     1.3.1
```



```
## ✓ purrr      1.0.2
## — Conflicts ————— tidyverse_c
onflicts() —
## ✗ dplyr::filter() masks stats::filter()
## ✗ dplyr::lag()   masks stats::lag()
## ⓘ Use the conflicted package (<http://conflicted.r-lib.org/>) to f
orce all conflicts to become errors
```

```
library(ggstatsplot)
```

```
## You can cite this package as:
## Patil, I. (2021). Visualizations with statistical details: The
'ggstatsplot' approach.
## Journal of Open Source Software, 6(61), 3167, doi:10.21105/jos
s.03167
```

```
#citation("ggstatsplot")
```

Import the initial dataset

```
setwd("/Users/valeriorosa/Library/Mobile Documents/com~apple~CloudDocs
/Studies/LUISS/Thesis/Datasets")
dataNN<-read.csv("unpopulation_dataportal_20240124221550.csv")
#View(dataNN)
```

Generation of the dataframes for Niger and Nigeria

```
#creation of the array years (range considered by the data)
year<-c(1960:2100)

# 999999 = missing values after the loop
underfive<-rep(999999, 141)
crude<-rep(999999, 141)
marridge15<-rep(999999, 141)
marridge20<-rep(999999, 141)
marridge25<-rep(999999, 141)
age<-rep(999999, 141)
density<-rep(999999, 141)
fertility<-rep(999999, 141)
migration<-rep(999999, 141)

#dataframes for Niger and Nigeria
Niger<-data.frame(year, underfive, crude, marridge15, marridge20, marr
idge25, age, density, fertility, migration)
Nigeria<-data.frame(year, underfive, crude, marridge15, marridge20, ma
rridge25, age, density, fertility, migration)

#Niger
i<-1
while(i<2059){
  if(dataNN$Location[i] == "Niger"){
    if(dataNN$IndicatorName[i] == "Under-five mortality rate (U5MR)") {
      Niger$underfive[which(Niger$year==dataNN$Time[i])]<-dataNN$Value
```

```

[i]
} else if(dataNN$IndicatorName[i] == "Crude birth rate"){
  Niger$crude[which(Niger$year==dataNN$Time[i])<-dataNN$Value[i]
} else if(dataNN$IndicatorName[i] == "Currently married by age of
woman (Percent)" & dataNN$AgeStart[i]==15){
  Niger$marridge15[which(Niger$year==dataNN$Time[i])<-dataNN$Value[i]
} else if(dataNN$IndicatorName[i] == "Currently married by age of
woman (Percent)" & dataNN$AgeStart[i]==20){
  Niger$marridge20[which(Niger$year==dataNN$Time[i])<-dataNN$Value[i]
} else if(dataNN$IndicatorName[i] == "Currently married by age of
woman (Percent)" & dataNN$AgeStart[i]==25){
  Niger$marridge25[which(Niger$year==dataNN$Time[i])<-dataNN$Value[i]
} else if(dataNN$IndicatorName[i] == "Median age of population"){
  Niger$age[which(Niger$year==dataNN$Time[i])<-dataNN$Value[i]
} else if(dataNN$IndicatorName[i] == "Population density"){
  Niger$density[which(Niger$year==dataNN$Time[i])<-dataNN$Value[i]
]
} else if(dataNN$IndicatorName[i] == "Total fertility rate"){
  Niger$fertility[which(Niger$year==dataNN$Time[i])<-dataNN$Value
[i]
} else if(dataNN$Value[i]!=1000){
  Niger$migration[which(Niger$year==dataNN$Time[i])<-dataNN$Value
[i]
}
}
i=i+1
}
#View(Niger)

#Nigeria
i<-1
while(i<2059){
  if(dataNN$Location[i] == "Nigeria"){
    if(dataNN$IndicatorName[i] == "Under-five mortality rate (U5MR){
      Nigeria$underfive[which(Nigeria$year==dataNN$Time[i])<-dataNN$Value[i]
    } else if(dataNN$IndicatorName[i] == "Crude birth rate"){
      Nigeria$crude[which(Nigeria$year==dataNN$Time[i])<-dataNN$Value
[i]
    } else if(dataNN$IndicatorName[i] == "Currently married by age of
woman (Percent)" & dataNN$AgeStart[i]==15){
      Nigeria$marridge15[which(Nigeria$year==dataNN$Time[i])<-dataNN$Value[i]
    } else if(dataNN$IndicatorName[i] == "Currently married by age of
woman (Percent)" & dataNN$AgeStart[i]==20){
      Nigeria$marridge20[which(Nigeria$year==dataNN$Time[i])<-dataNN$Value[i]
    } else if(dataNN$IndicatorName[i] == "Currently married by age of
woman (Percent)" & dataNN$AgeStart[i]==25){

```

```

    Nigeria$marrriage25[which(Nigeria$year==dataNN$Time[i])]<-dataNN$
Value[i]
  } else if(dataNN$IndicatorName[i] == "Median age of population"){
    Nigeria$age[which(Nigeria$year==dataNN$Time[i])<-dataNN$Value[i
]
  } else if(dataNN$IndicatorName[i] == "Population density"){
    Nigeria$density[which(Nigeria$year==dataNN$Time[i])<-dataNN$Val
ue[i]
  } else if(dataNN$IndicatorName[i] == "Total fertility rate"){
    Nigeria$fertility[which(Nigeria$year==dataNN$Time[i])<-dataNN$V
alue[i]
  } else if(dataNN$Value[i]!=-59996){
    Nigeria$migration[which(Nigeria$year==dataNN$Time[i])<-dataNN$V
alue[i]
  }
}
i=i+1
}
#View(Nigeria)

```

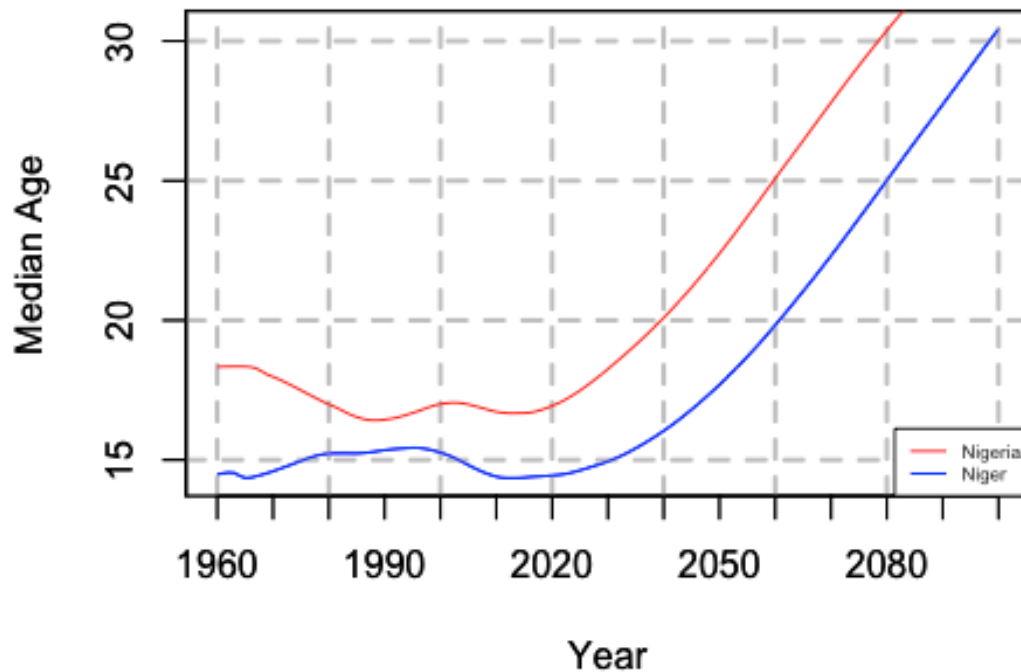
Plots for Nigeria and Niger

```

#Plots
plot(Niger$year, Niger$age, type = 'l', main = "Median age of the tota
l population for Niger and Nigeria", xlab = "Year", ylab = "Median Age
", col='blue', xaxp=c(1960,2100,14) , yaxp=c(0,120, 24))
grid(nx = NULL, ny = NULL,
     lty = 2,      # Grid line type
     col = "gray", # Grid line color
     lwd = 2)     # Grid line width
par(new=TRUE)
plot(Niger$year, Niger$age, type = 'l', main = "Median age of the tota
l population for Niger and Nigeria", xlab = "Year", ylab = "Median Age
", col='blue',xaxp=c(1960,2100,14) , yaxp=c(0,120, 24))
lines(Nigeria$year, Nigeria$age, col='red')
legend("bottomright", legend=c("Nigeria", "Niger"), col = c("red", "bl
ue"), lty=1:1, cex=0.5)

```

Median age of the total population for Niger and Nigeria

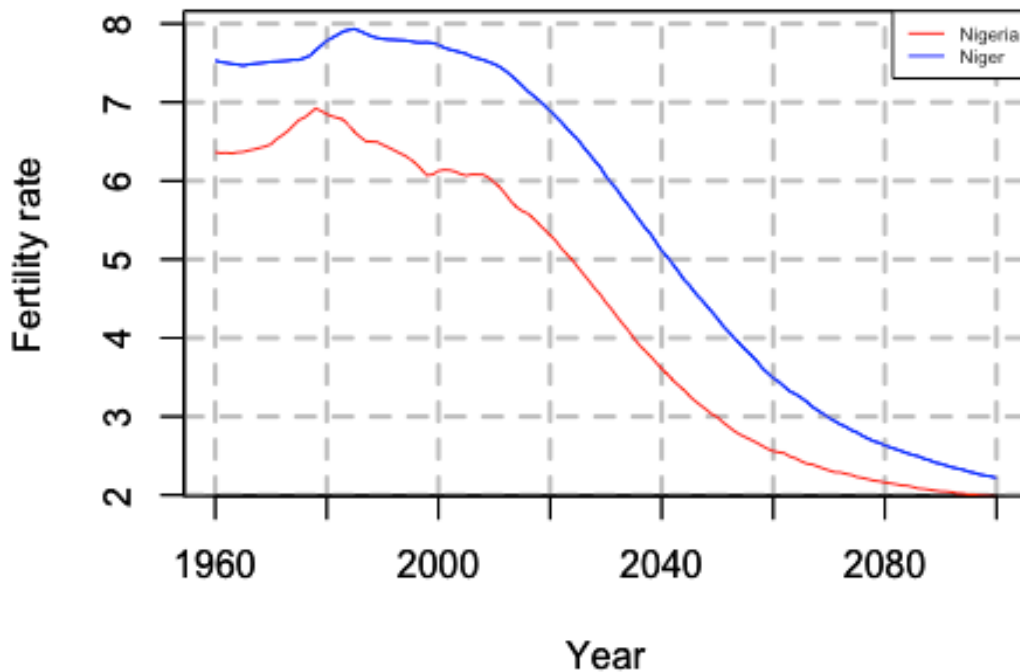


```

plot(Niger$year, Niger$fertility, type = 'l', main = "Niger and Nigeria
an fertility rate", xlab = "Year", ylab = "Fertility rate", col='blue'
)
grid(nx = NULL, ny = NULL,
     lty = 2,      # Grid line type
     col = "gray", # Grid line color
     lwd = 2)    # Grid line width
par(new=TRUE)
plot(Niger$year, Niger$fertility, type = 'l', main = "Niger and Nigeria
an fertility rate", xlab = "Year", ylab = "Fertility rate", col='blue'
)
lines(Nigeria$year, Nigeria$fertility, col='red')
legend("topright", legend=c("Nigeria", "Niger"), col = c("red", "blue"
), lty=1:1, cex=0.5)

```

Niger and Nigerian fertility rate

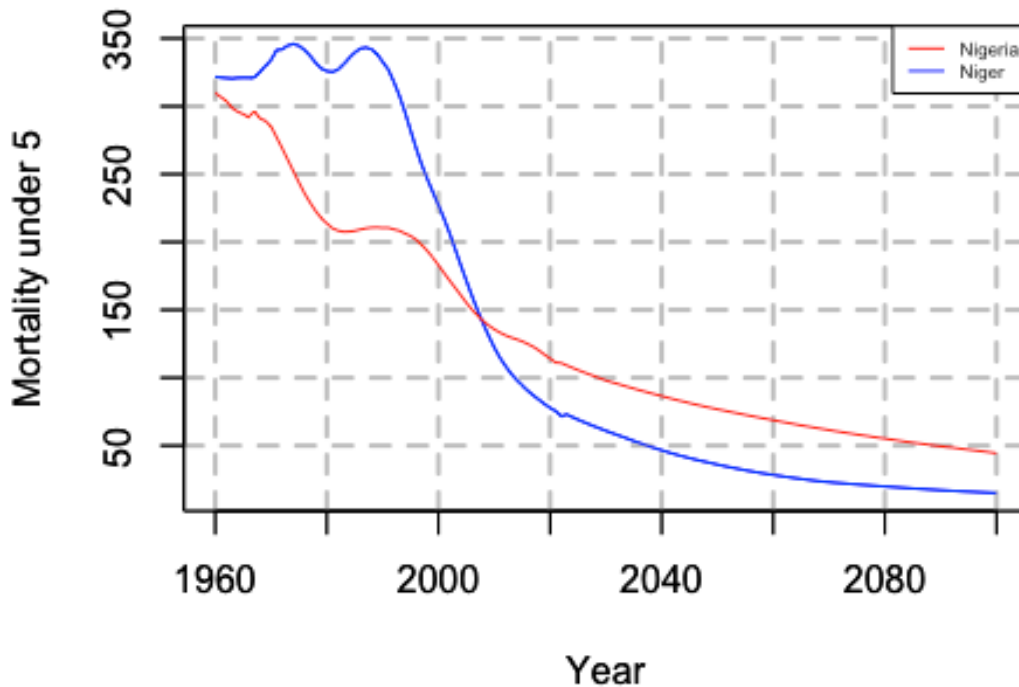


```

plot(Niger$year, Niger$underfive, type = 'l', main = "Niger and Nigerian Under-five mortality rate", xlab = "Year", ylab = "Mortality under 5", col='blue')
grid(nx = NULL, ny = NULL,
      lty = 2,          # Grid line type
      col = "gray",    # Grid line color
      lwd = 2)         # Grid line width
par(new=TRUE)
plot(Niger$year, Niger$underfive, type = 'l', main = "Niger and Nigerian Under-five mortality rate", xlab = "Year", ylab = "Mortality under 5", col='blue')
lines(Nigeria$year, Nigeria$underfive, col='red')
legend("topright", legend=c("Nigeria", "Niger"), col = c("red", "blue"), lty=1:1, cex=0.5)

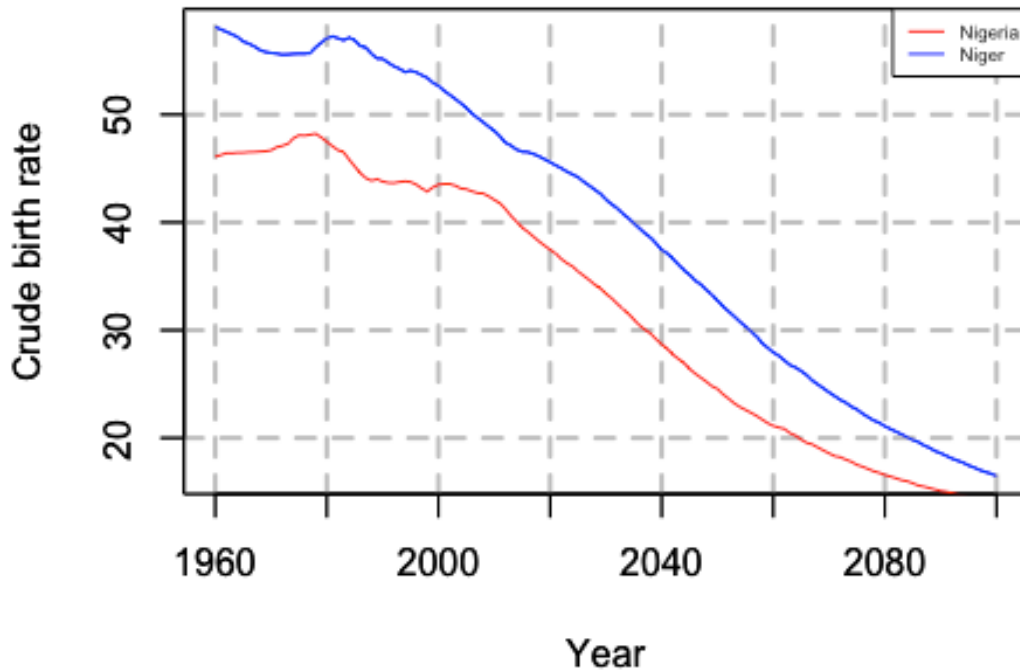
```

Niger and Nigerian Under-five mortality rate



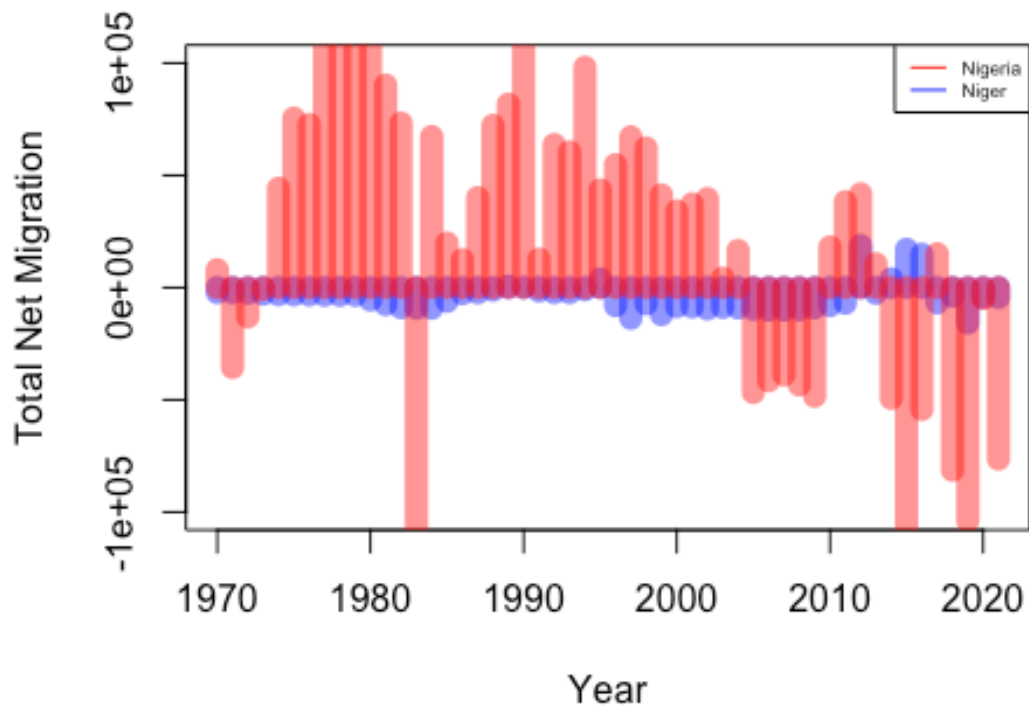
```
plot(Niger$year, Niger$crude, type = 'l', main = "Niger and Nigerian c
rude birth rate", xlab = "Year", ylab = "Crude birth rate", col='blue'
)
grid(nx = NULL, ny = NULL,
      lty = 2,      # Grid line type
      col = "gray", # Grid line color
      lwd = 2)     # Grid line width
par(new=TRUE)
plot(Niger$year, Niger$crude, type = 'l', main = "Niger and Nigerian c
rude birth rate", xlab = "Year", ylab = "Crude birth rate", col='blue'
)
lines(Nigeria$year, Nigeria$crude, col='red')
legend("topright", legend=c("Nigeria", "Niger"), col = c("red", "blue"
), lty=1:1, cex=0.5)
```

Niger and Nigerian crude birth rate



```
plot(Niger$year[11:62], Niger$migration[11:62], main = "Niger and Nigerian Total net migration", type = 'h', col= rgb(0, 0, 1, 0.5), lwd = 10, xlim = c(1970,2021), ylim = c(-100000,100000), xlab = "Year", ylab = "Total Net Migration")
lines(Nigeria$year[11:62], Nigeria$migration[11:62], type = 'h', col= rgb(1, 0, 0, 0.5), lwd = 10)
legend("topright", legend=c("Nigeria", "Niger"), col = c("red", "blue"), lty=1:1, cex=0.5)
```

Niger and Nigerian Total net migration

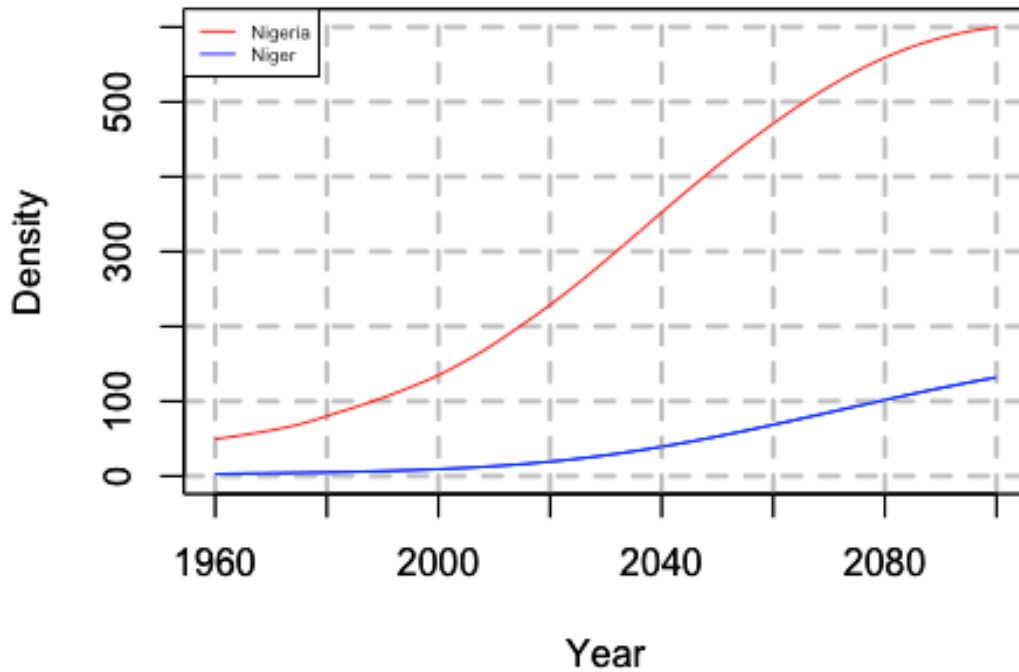


```

plot(Niger$year, Niger$density, type = 'l', main = "Niger and Nigerian
density", xlab = "Year", ylab = "Density", col='blue', ylim = c(0, 600
))
grid(nx = NULL, ny = NULL,
      lty = 2,      # Grid line type
      col = "gray", # Grid line color
      lwd = 2)     # Grid line width
par(new=TRUE)
plot(Niger$year, Niger$density, type = 'l', main = "Niger and Nigerian
density", xlab = "Year", ylab = "Density", col='blue', ylim = c(0, 600
))
lines(Nigeria$year, Nigeria$density, col='red')
legend("topleft", legend=c("Nigeria", "Niger"), col = c("red", "blue")
, lty=1:1, cex=0.5)

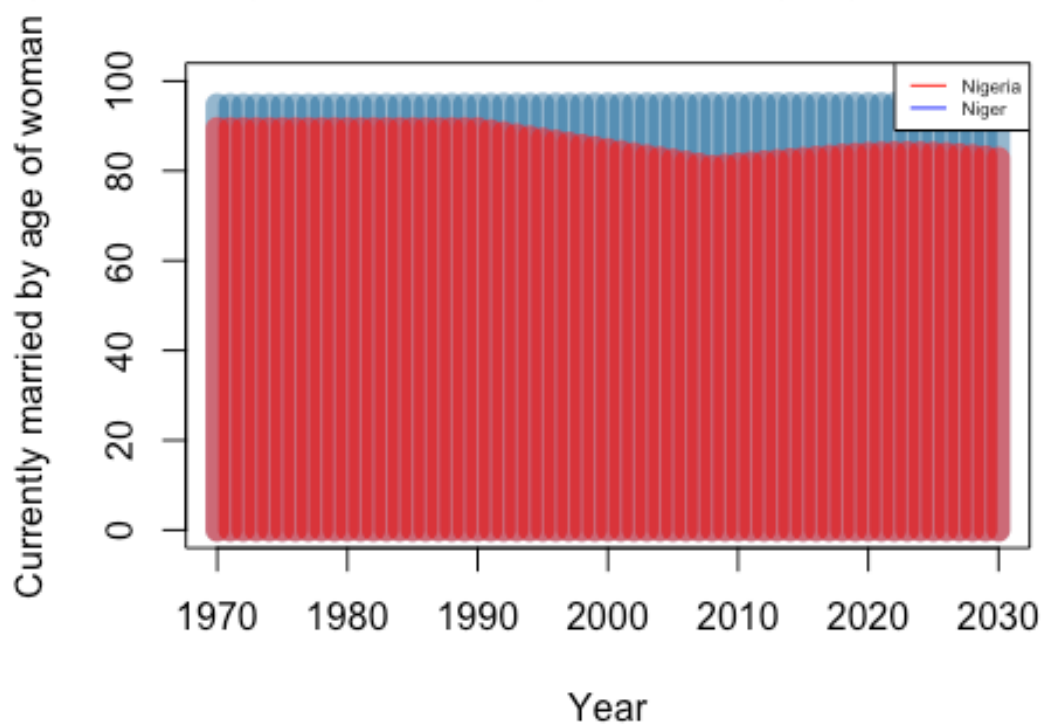
```


Niger and Nigerian density



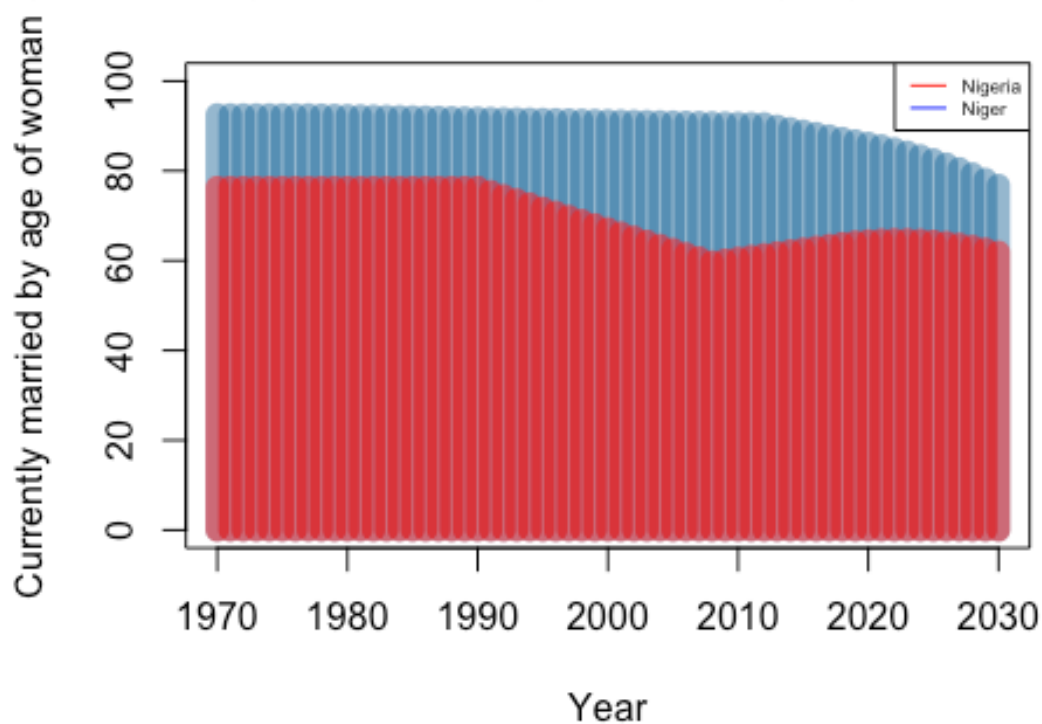
```
plot(Niger$year[11:71], Niger$marridge25[11:71], type = 'h', main = "Niger and Nigeria Currently married by age of woman 25-29", xlab = "Year", ylab = "Currently married by age of woman", col= rgb(0, 0.4, 0.6, 0.5), lwd = 10, ylim = c(0,100))
lines(Nigeria$year[11:71], Nigeria$marridge25[11:71], col= rgb(1, 0, 0, 0.5), lwd = 10,type = 'h')
legend("topright", legend=c("Nigeria", "Niger"), col = c("red", "blue"), lty=1:1, cex=0.5)
```

Niger and Nigeria Currently married by age of woman



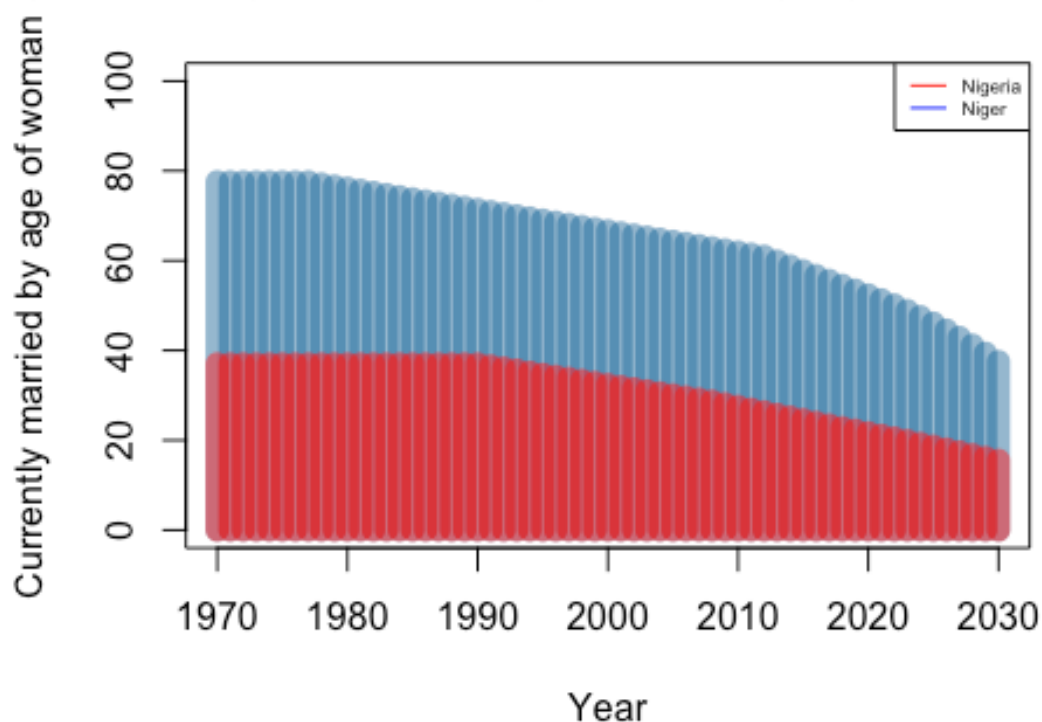
```
plot(Niger$year[11:71], Niger$marrriage20[11:71], type = 'h', main = "Niger and Nigeria Currently married by age of woman 20-24", xlab = "Year", ylab = "Currently married by age of woman", col= rgb(0, 0.4, 0.6, 0.5), lwd = 10, ylim = c(0,100))
lines(Nigeria$year[11:71], Nigeria$marrriage20[11:71], col= rgb(1, 0, 0, 0.5), lwd = 10,type = 'h')
legend("topright", legend=c("Nigeria", "Niger"), col = c("red", "blue"), lty=1:1, cex=0.5)
```

Niger and Nigeria Currently married by age of woman



```
plot(Niger$year[11:71], Niger$marridge15[11:71], type = 'h', main = "Niger and Nigeria Currently married by age of woman 15-19", xlab = "Year", ylab = "Currently married by age of woman", col= rgb(0, 0.4, 0.6, 0.5), lwd = 10, ylim = c(0,100))
lines(Nigeria$year[11:71], Nigeria$marridge15[11:71], col= rgb(1, 0, 0, 0.5), lwd = 10, type = 'h')
legend("topright", legend=c("Nigeria", "Niger"), col = c("red", "blue"), lty=1:1, cex=0.5)
```

Niger and Nigeria Currently married by age of woman



Import dataset on crime events and creating the crude crime rates

```
#Regression Nigeria
database<-read_csv("Crime_Nigeria_Region.csv")

## Rows: 37 Columns: 9
## — Column specification —————
## Delimiter: ","
## chr (2): state, Region
## dbl (7): against_person, against_property, against_lawauth, tot_crime, tot_f...
##
## ⓘ Use `spec()` to retrieve the full column specification for this data.
## ⓘ Specify the column types or set `show_col_types = FALSE` to quiet this message.

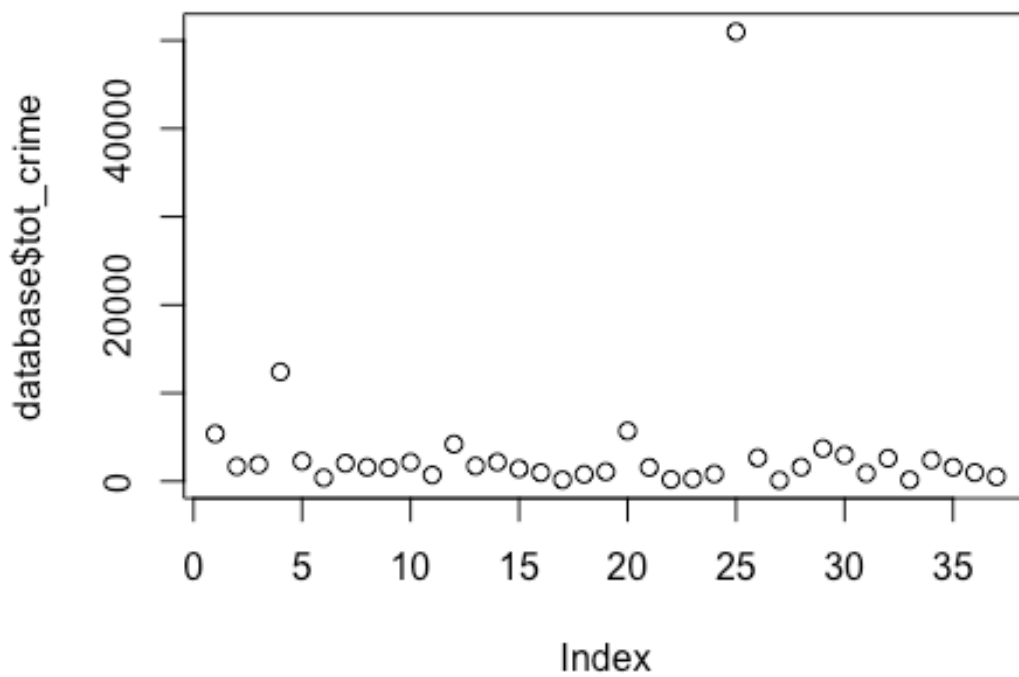
#View(database)

#crude crime rate
crudecrime_rate<-database$tot_crime/database$reg_pop2017
crudecrime_rateperson<-database$against_person/database$reg_pop2017
crudecrime_rateproperty<-database$against_property/database$reg_pop2017
```

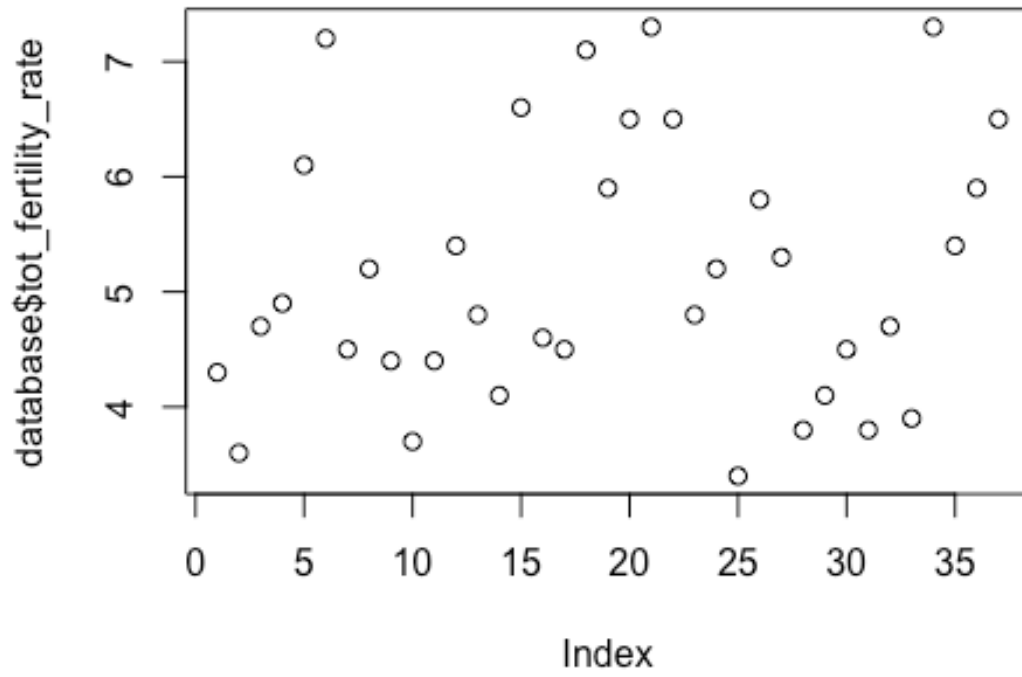
```
crudecrime_rateauth<-database$against_lawauth/database$reg_pop2017
database$crudecrime_rate<-crudecrime_rate
database$crudecrime_rateperson<-crudecrime_rateperson
database$crudecrime_rateproperty<-crudecrime_rateproperty
database$crudecrime_rateauth<-crudecrime_rateauth
```

Regression models and distribution plots

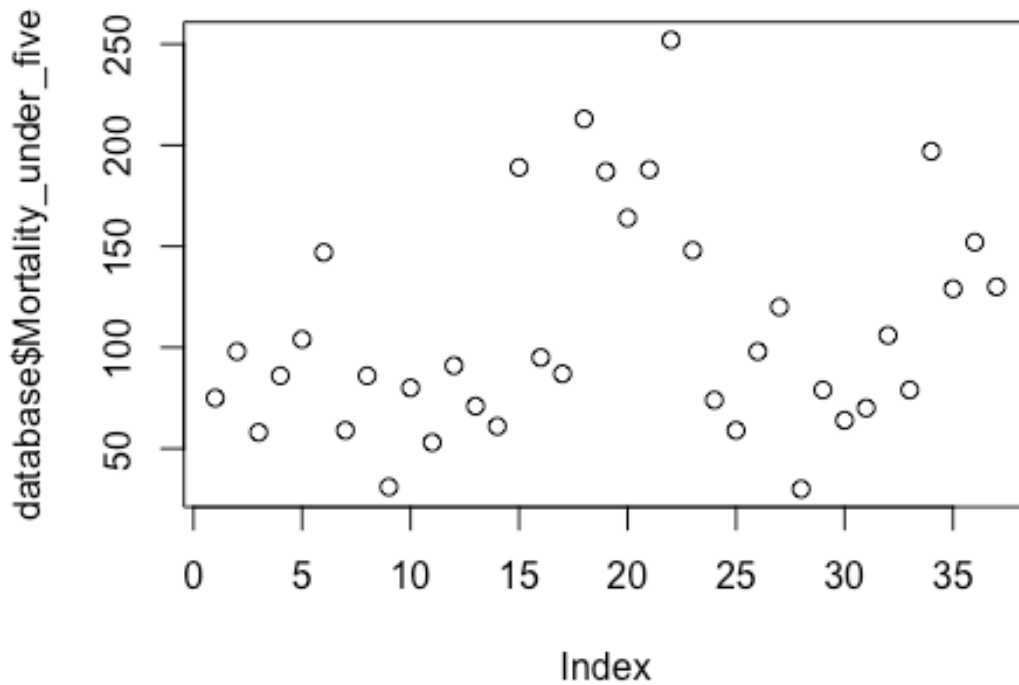
```
plot(database$tot_crime)
```



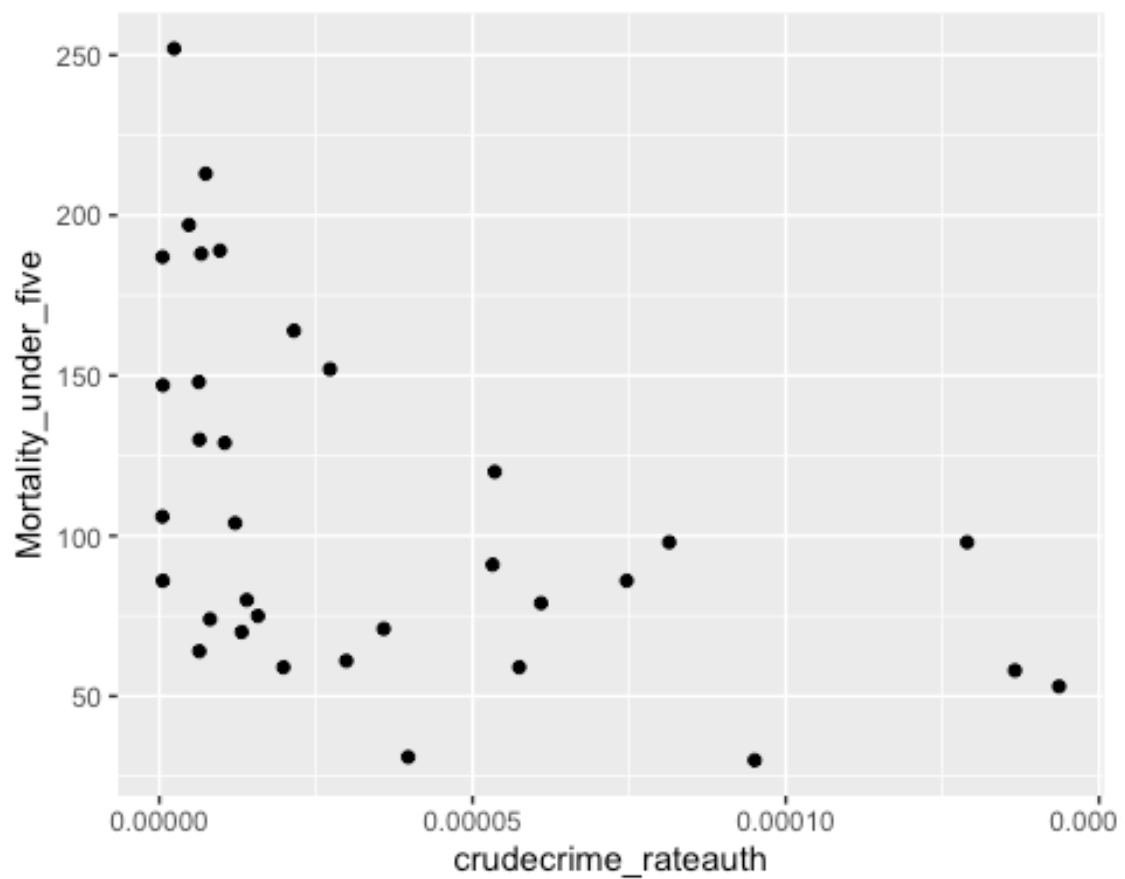
```
plot(database$tot_fertility_rate)
```



```
plot(database$Mortality_under_five)
```



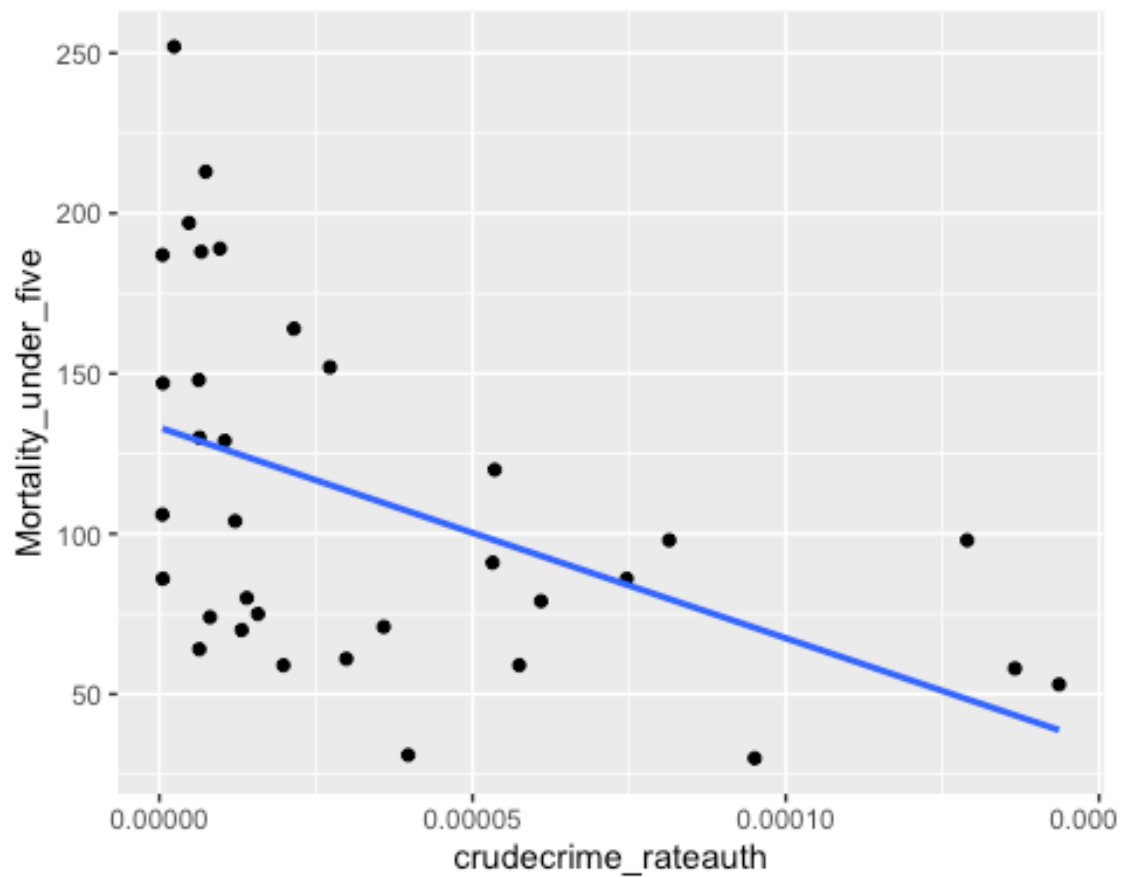
```
qplot(crudecrime_rateauth, Mortality_under_five, data = database, geom = "point")  
  
## Warning: `qplot()` was deprecated in ggplot2 3.4.0.  
## This warning is displayed once every 8 hours.  
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was  
## generated.  
  
## Warning: Removed 3 rows containing missing values (`geom_point()`).
```



```
qplot(crudecrime_rateauth, Mortality_under_five, data = database, geom = "point") + geom_smooth(method = "lm", se=FALSE)

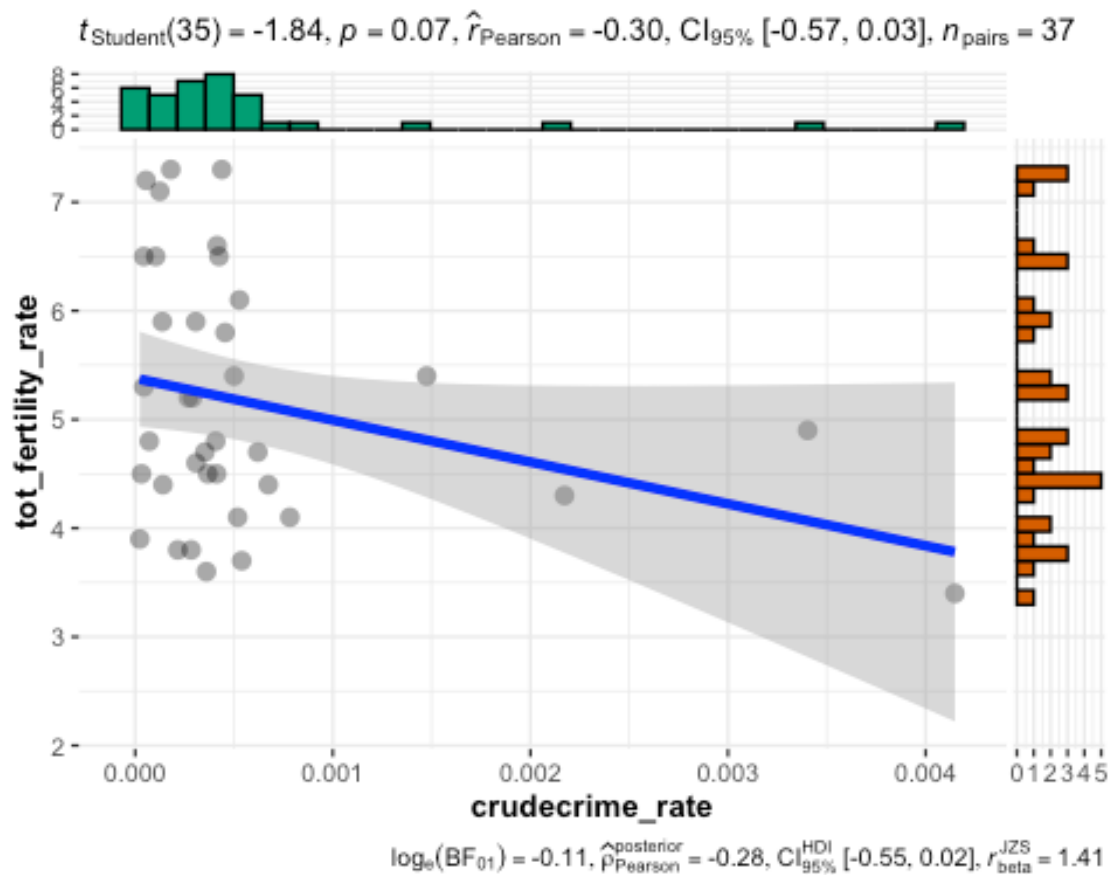
## `geom_smooth()` using formula = 'y ~ x'

## Warning: Removed 3 rows containing non-finite values (`stat_smooth()`).
## Removed 3 rows containing missing values (`geom_point()`).
```

```
ggscatterstats(data = database, x=crudecrime_rate, y=tot_fertility_rate, type = "parametric")

## Registered S3 method overwritten by 'ggside':
##   method from
##   +.gg   ggplot2
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

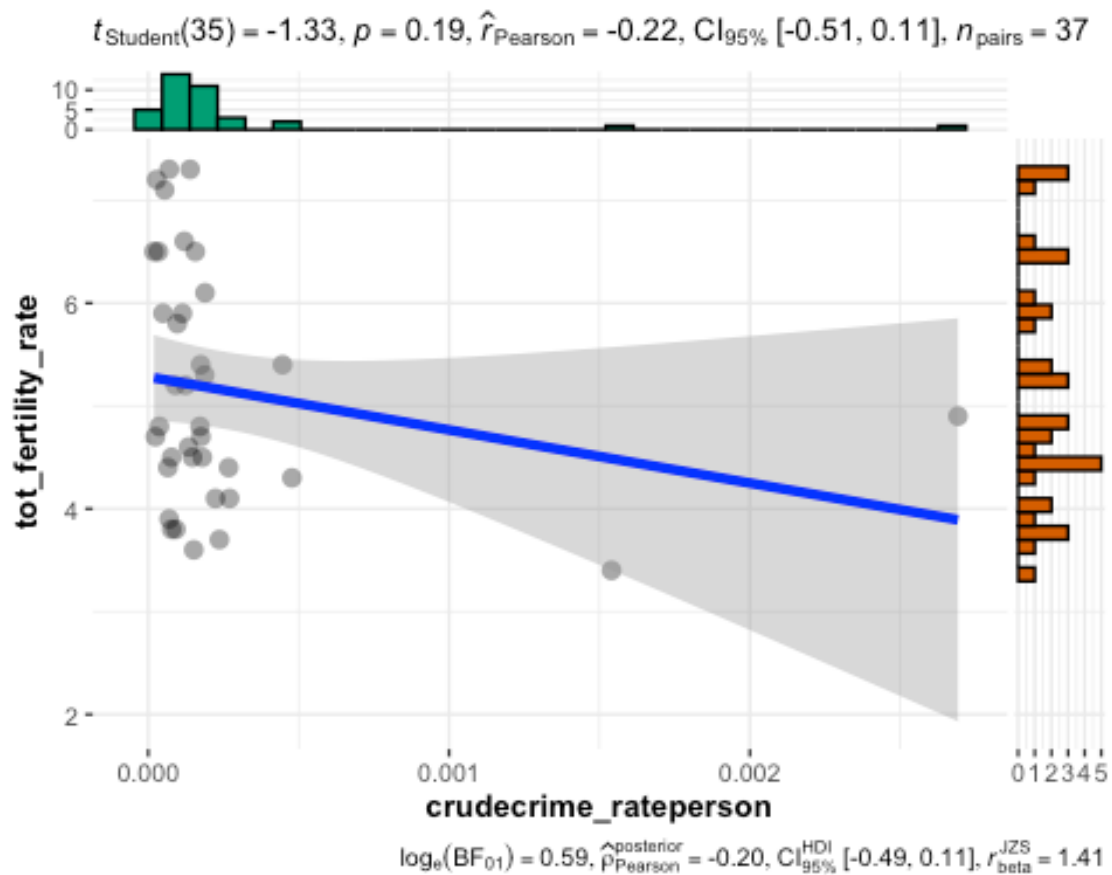


```

ggscatterstats(data = database, x=crudecrime_rateperson, y=tot_fertility_rate, type = "parametric")

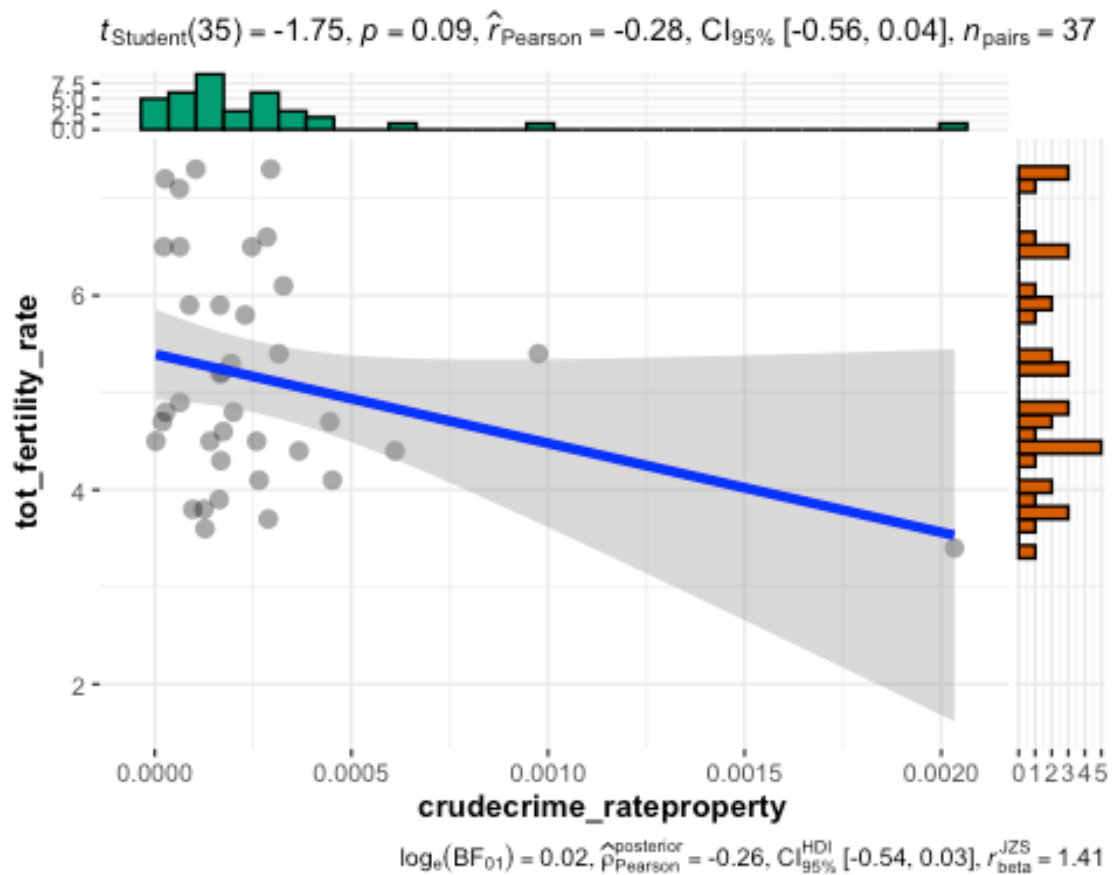
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.

```



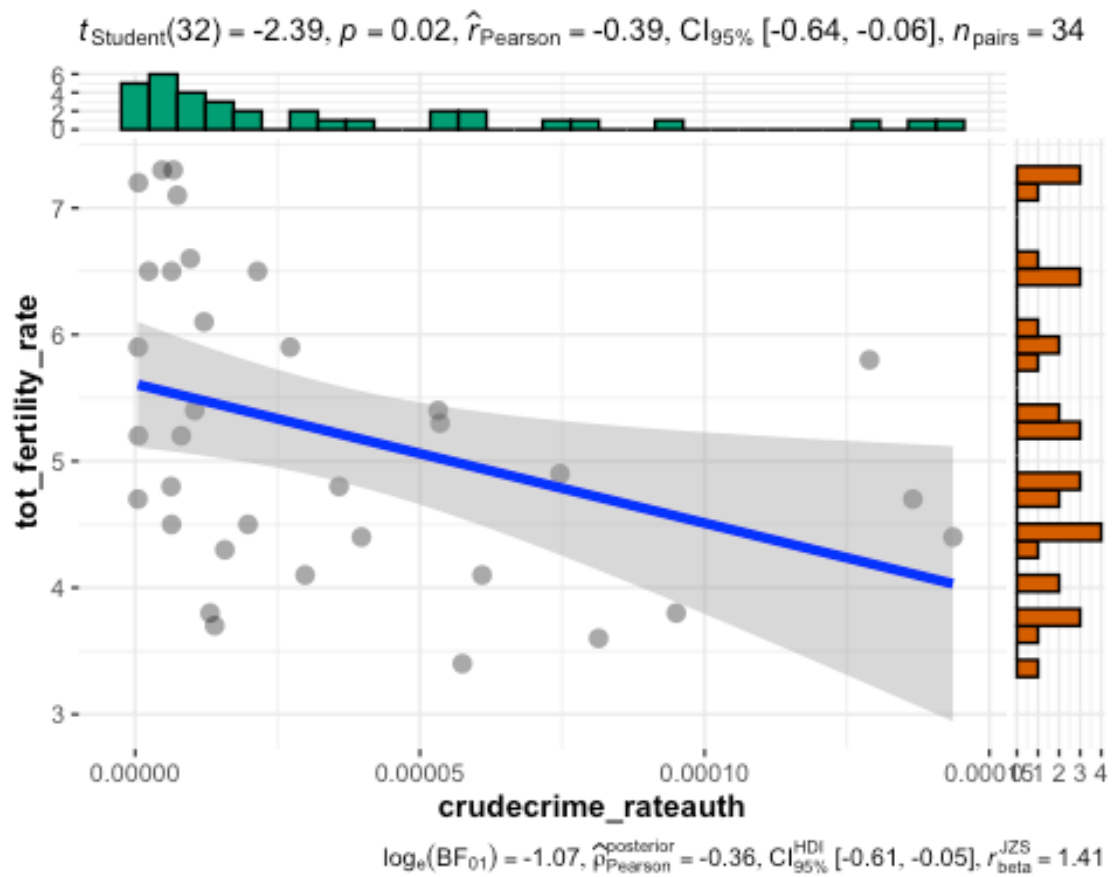
```
ggscatterstats(data = database, x=crudecrime_rateproperty, y=tot_fertility_rate, type = "parametric")
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



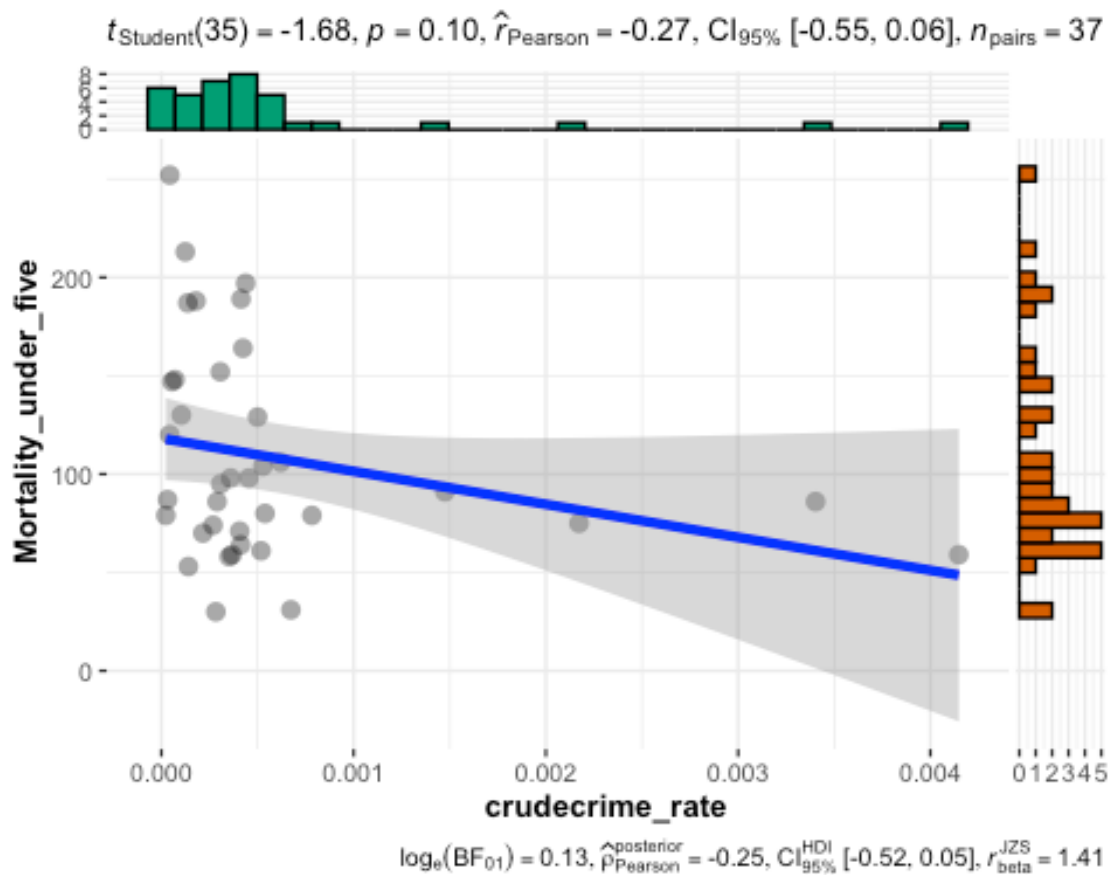
```
ggscatterstats(data = database, x=crudecrime_rateauth, y=tot_fertility_rate, type = "parametric")
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.  
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



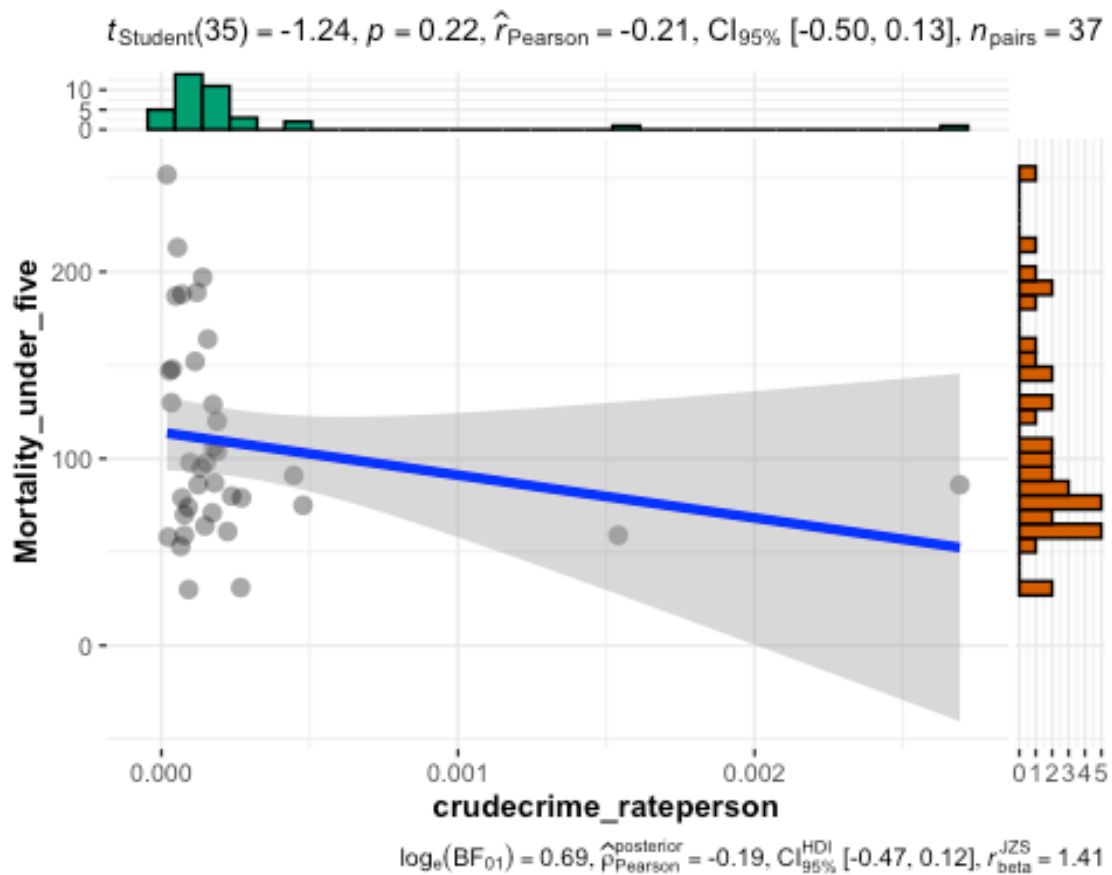
```
ggscatterstats(data = database, x=crudecrime_rate, y=Mortality_under_five, type = "parametric")
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



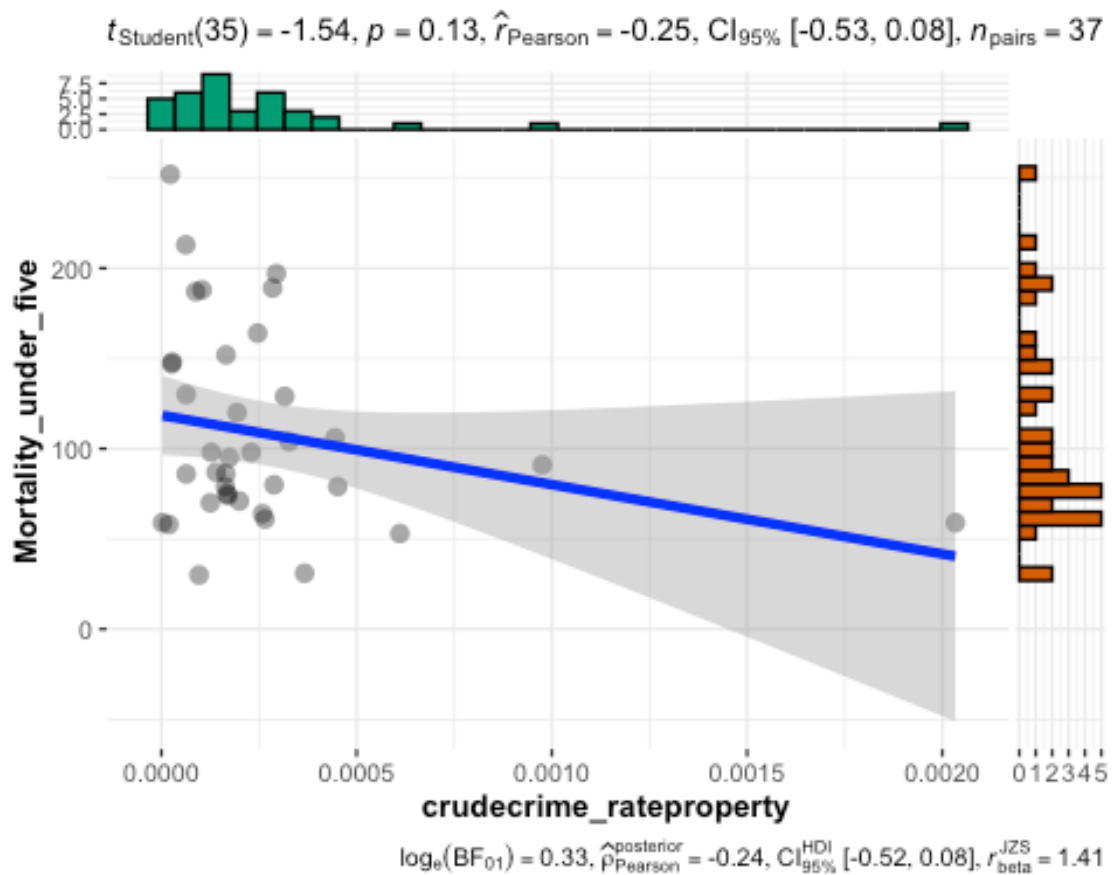
```
ggscatterstats(data = database, x=crudecrime_rateperson, y=Mortality_u
nder_five, type = "parametric")
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



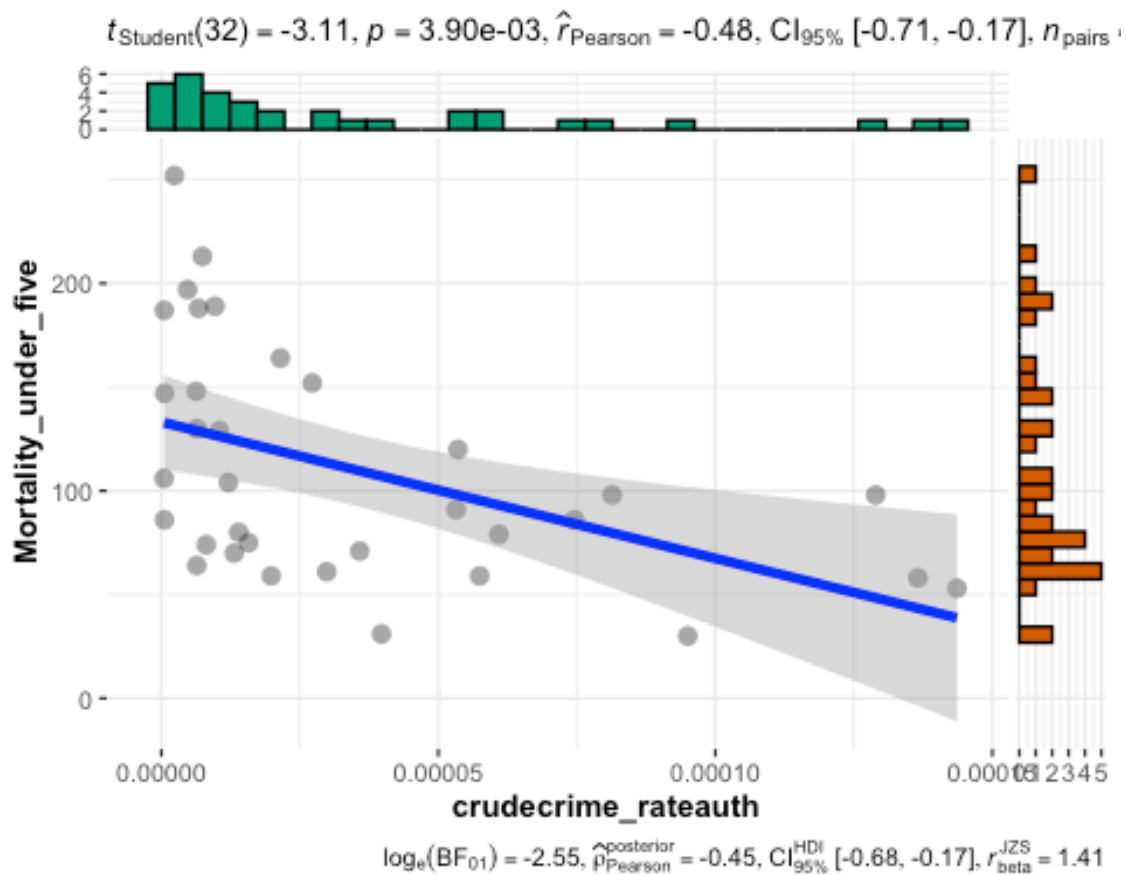
```
ggscatterstats(data = database, x=crudecrime_rateproperty, y=Mortality_under_five, type = "parametric")
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



```
ggscatterstats(data = database, x=crudecrime_rateauth, y=Mortality_und
er_five, type = "parametric")
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

```
mod1<-lm(crudecrime_rateauth ~ Mortality_under_five, data = database)
mod2<-lm(crudecrime_rateauth ~ tot_fertility_rate, data = database)
summary(mod1)

##
## Call:
## lm(formula = crudecrime_rateauth ~ Mortality_under_five, data = dat
## abase)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -4.481e-05 -2.450e-05 -3.948e-06  1.416e-05  8.977e-05
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)      7.381e-05  1.399e-05   5.275 8.93e-06 ***
## Mortality_under_five -3.534e-07  1.136e-07  -3.111  0.0039 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 3.638e-05 on 32 degrees of freedom
## (3 observations deleted due to missingness)
## Multiple R-squared:  0.2323, Adjusted R-squared:  0.2083
## F-statistic: 9.681 on 1 and 32 DF, p-value: 0.0039
```

```

summary(mod2)

##
## Call:
## lm(formula = crudecrime_rateauth ~ tot_fertility_rate, data = datab
ase)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -4.190e-05 -2.505e-05 -6.378e-06  8.975e-06  1.020e-04
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    1.068e-04  3.083e-05   3.464  0.00154 **
## tot_fertility_rate -1.377e-05  5.764e-06  -2.388  0.02299 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 3.825e-05 on 32 degrees of freedom
## (3 observations deleted due to missingness)
## Multiple R-squared:  0.1513, Adjusted R-squared:  0.1248
## F-statistic: 5.705 on 1 and 32 DF,  p-value: 0.02299

```