



Level of Economic Development and National Policies in Mexico and Nigeria (1970-2018): A Comparative Analysis of Growth and Institutions

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Abstract

The research compares Mexico and Nigeria's growth and development disparities using Sen and Collier's frameworks by examining various factors. It aims to propose policies on interest rates, FDI, external debt, government spending on health, education, and welfare. Results highlight positive impacts on Mexico's GNI from external debt, government spending, and FDI, and in Nigeria, all variables except interest rates positively affect GNI. Key recommendations include reducing Nigeria's debt by investing in bonds, using domestic debts and for both countries; enhancing welfare through Progresa, transparency in expenditure using online reporting, and infrastructure; boosting income and employment in Mexico with knowledge transfer, innovation, and transport improvements; and addressing violence by alleviating poverty through proposed subsidy programs and anti-corruption measures.

Keywords: *Economic Growth; Development; Policies; Welfare*

JEL Classification: O2, O10, O4, O43, H53

Introduction

Mexico and Nigeria: Commonalities and Disparities

Comparative analysis examines commonalities and disparities among regions, cities, or countries, allowing us to learn from their experiences and avoid potential pitfalls. Notably, countries like Ireland, Switzerland, and Norway have set global benchmarks with high Human Development Index rankings. This approach as applied in this research, aligns with established comparative development frameworks, championed by Nobel Laureate Amartya Sen, Professor Paul Collier of the University of Oxford, and supported by the Human Development Report and the United Nations since 1990.

The rationale behind using a comparative approach is the same as the fundamental basis of economic development as a science (Sen, 2001; Perkins, Radelet, & Lindauer, 2013; Todaro & Smith,

2015), in which the overall ideology is that every individual should share equal realities of existence in all ramifications regardless of region, ethnicity, and race since each individual has similar basic needs. However, approximately 80% of the global population previously considered poor by the United Nations resides in rapidly developing countries such as Mexico but some countries, like Nigeria, face development hindrances known as traps, such as the conflict trap, natural resources trap, or unfavorable geographical positioning. These traps impede development, and in some cases, even reverse prior progress (Collier, 2007).

It is important to understand that development is not solely reliant on achieving a high gross domestic product (GDP), technological advancement, and social modernization. Instead, it primarily hinges on the presence of opportunities and freedoms, as Nobel laureate Amartya Sen extensively described in "Development as Freedom" (2001). Poverty, in this context, is seen as capability deprivation, characterized by limited access to basic needs and social amenities, including infrastructure, along with constraints like low individual income, high unemployment, malnutrition, and social exclusion. Political participation and the ability to influence social arrangements are equally vital. A comprehensive approach to growth extends beyond GDP measures, aligning with the Human Development Reports' comparative style over the past three decades.

Few comparative studies exist on Latin America and African countries, despite their high comparability. Mexico and Nigeria share a common history of colonization, external debt, and violence. However, a significant disparity between Mexico and Nigeria persists. More similarities include social, economic issues, colonization history, and substantial crude oil reserves. Both adopted neoliberal policies while grappling with the problem of violence. The capacity of Mexico to achieve progress cannot be overlooked, such that it is rated Latin America's 2nd most competitive economy in 2018 according to the Global Competitiveness Report in 2019 whereas, Nigeria lags in competitiveness. Mexico's GDP consistently surpasses Nigeria's, with better infrastructure and living conditions and it is crucial to understand these disparities. Therefore, identifying reasons for these different growth and development trajectories is vital.

In 2018, despite Nigeria's population of 200 million people, its GDP was only US\$397.19 billion, while Mexico, with a population of approximately 127 million, boasted a GDP of almost US\$1.22 trillion (World Bank Group, 2020). Notably, Mexico exhibited higher development indicators in 2018 according to HDI reports, with a life expectancy at birth of 75.0, expected years of schooling at 14.6, mean years of schooling at 8.6, and a Gross National Income (GNI) per capita of US\$19,476 (2017 PPP), resulting in an overall Human Development Index (HDI) value of 0.776. In contrast, Nigeria's indicators were lower, with a life expectancy at birth of 54.3, expected years of schooling at 9.7, mean years of schooling at 6.5, and a GNI per capita of US\$929, yielding an HDI value of 0.534.

Furthermore, Mexico experienced a declining unemployment rate over the years, reaching 3.8% in 2018, according to World Bank data. In contrast, Nigeria witnessed a steady rise in unemployment, reaching 25.7% in 2018 according to the Nigerian Gross Domestic Product Report (Q2 2018) (NBS, 2018). These figures underscore the disparity in development levels between the two countries, despite Nigeria's abundant natural resources and human capital.

Hence, analyzing specific Mexican policies from the 1970s economic hardship to subsequent crises and growth till 2018 is vital. This examination will identify crisis causes, effective and faulty policies, informing Nigeria's policy formulation. Successful Nigerian policies could also offer solutions to Mexico's persistent issues. Thus, examining both nations offers insights for policy enhancement and formulation. The research addresses issues on quality of life reduce in Mexico and Nigeria and challenges theories such as Comparative Advantage and Absolute Advantage by assessing the impact of foreign direct investment in relation to Maquiladoras in Mexico which have not substantially improved living standards, worse still, Artificial Intelligence might rise and diminish the comparative advantage of cheap labor.

By scrutinizing past policies and preparing for the future, the research provides insights to enhance Mexican and Nigerian positions. Covering pivotal indices—education, employment, health, welfare, violence, FDI, interest rates, debt, government spending—the research offers a concise roadmap for governance goals. Serving as a policy evaluation, the analysis and recommendations inform more effective policies to achieve progress.

Living Conditions in Mexico and Nigeria; Regional Characteristics

Disparities in living conditions exist between Mexico and Nigeria in various dimensions. In Nigeria, 2015 survey data reveals regional differences: 77.5% in the north central own homes, 71% have 3+ room houses, 77% have cement floors, 4% have tiles, and 32% have cement walls. Unexpectedly, more urbanized regions show lower house ownership, unlike the poverty-stricken North. For instance, in the Northwest, 77.7% live in relative poverty, 76.3% in the Northeast, and 67.5% in the North central (Dodo, 2012).

In Mexico, official data (INEGI, 2021) from 2013 highlights regional housing disparities. Northern states are more affluent, with the North having the highest homeownership rate (48%) and the Northeast the lowest (18%). The central region sees 38% living in one-room houses, the northeast has 50% in three-room houses, and the west has the fewest at 18%.

Politics, Governance and State of Infrastructure in Mexico and Nigeria

Mexico and Nigeria share a comparable political history marked by parties remaining in power for extended periods, similar governance styles, and competence levels. Mexico as a country has had a fair share of turbulence politically and malpractices by those at the helm of government and top positions in several regimes. The Institutional Revolutionary Party (PRI) which is similar in characteristics to the People's Democratic Party (PDP) in Nigeria, dominated the politics of Mexico for several years and played a hegemonic role through the concentration of power among a small group of leaders who came into power through the revolution and whose source of power comes from political connections and different regional interest groups that have direct linkage to the workers and peasants, these leaders continually practiced "clientelism" and perpetrated corruption. Mexico's leadership, including President Calderon, faced criticism for job creation, growth, and security issues. President Pena Nieto's administration marked a decline in PRI's influence due to misconduct and distrust. The emergence of Andrés Manuel López Obrador (AMLO) in 2018 followed widespread criticism, aiming to address these concerns.

Nigeria's political landscape shares similarities with Mexico but it is further complicated by ethnic divisions. The People's Democratic Party (PDP) initially emerged as a liberator after the end of military rule, but later engaged in corruption and clientelism. Power has often rested with elites, who dominated during the tumultuous military era from 1966 to 1998. Frequent coup d'état and political instability hindered policy establishment. The military era ended with the death of General Sani Abacha, leading to the PDP's rise to power under Olusegun Obasanjo, a former military ruler.

During Obasanjo's administration, neoliberal strategies were employed, including privatization and successful programs like the National Economic Empowerment and Development Strategy (NEEDS) and GSM telecommunications. This led to reduced unemployment and economic growth due to foreign investment and the impact of GSM technology. However, corruption allegations surfaced, involving political figures across branches of government. The subsequent Yar'Adua/Jonathan administration reversed some of Obasanjo's policies, hindering investor confidence, causing economic contraction, and worsening corruption under Goodluck Jonathan's leadership.

Although President Jonathan set out to reform electricity sector, after privatizing the power generating companies (GenCo) and distribution companies (DisCo), the supply of electricity remained poor. Consumption remained arbitrarily unmetered hence people continued paying more than they should. Also,

besides paying for their electricity, consumers oftentimes needed to collectively purchase transformers and other electrical wiring materials and meters causing additional burden to consumers. For instance, records from the Bureau of Public Enterprises (BPE) show that in 2013, the government sold stakes in six GenCo companies at an excessively high price of US\$1.269 billion (equivalent to N460.7 billion), while 10 DisCo companies (besides the Kaduna Electricity company that was sold later) were sold at US\$1.256bn (almost the equivalent of N455.9bn). The government, however, sold 60 percent shares but reserved 40 percent. Besides, the 1 million naira paid by each DisCo as license application fee to the Nigerian Electricity Regulatory Commission (NERC), they also paid US\$75,000 (about N27.1 million) as the main license fee which had only a 10-year validity.

In total, the 11 DisCo companies paid 298.3 million naira as license fees to NERC along with the application fees which amounted to N11 million in total (Sunday & Mc-Leva, 2019). According to the performance agreements, the privatized GenCos were mandated to generate additional 5,000 megawatts (MW) of electricity to the national grid by the end of five years (by 2018). These excessive charges are no doubt responsible for the decision of the investors to concentrate on short-term profit-making rather than to provide high quality services.

Dissatisfied with President Goodluck's administration and the PDP party, the masses threw their support behind Muhammadu Buhari from All Progressive Congress party (APC) who had a reputation of being tough on corruption, earning him victory in the 2015 election and ending the 16 years reign of PDP party. But by the end of 2018, the condition of all the sectors in the economy had worsened, unemployment rate went through the roof, violence increased, and sadly, corruption survived and even flourished.

It is noteworthy that the pattern of a long-ruling party getting replaced by a candidate from another party occurred in the political chronology of Mexico as well. Likewise, the political power in Mexico and Nigeria is shared by traditional politicians with electoral or partisan backgrounds and technocrats, but in Mexico, the technocrats have been occupying more top posts in the regimes notably from 1982 onwards (Lindau, 1996:295).

Regardless of the shortcomings and criticisms of the government in Mexico, the country exhibits better economic performance, public infrastructure, and living conditions. In Mexico, as reported by the National Household Survey 2016 — 68% of households have daily water supply, while in Nigeria, only 13.1% of households possess potable water as reported by the General Household Survey 2015.

Furthermore, 99.5% of Mexican households reported having electricity supply, contrasting with Nigeria's 59.3%, with daily outages affecting 49.6% of Nigerian homes, in fact, for an average household, a total of 19 hours daily power outage occurs and the consumption rate is merely 150 kWh per annum (Rubino, 2017:1). Mexico's efficient power distribution reduces outages to 31.7 minutes on average (Binz, et al., 2019:19). As of 2009, Mexico boasts 60.44 GW of electricity capacity (SENER, 2014), while Nigeria has 16.384 GW as recent as 2020 (USAID, 2020). Oxford Business Group reported that as at December, 2018, Mexico's road network spans 582,175 km, with 138,444 km of paved roads (INEGI, 2014), surpassing Nigeria's 195,000 km road network, with 60,000 km paved according to the Government Infrastructure Concession Regulatory Commission. Nigerian roads face aging, poor maintenance, and low-quality repairs, causing deterioration (Logistics Clusters, 2019). Evidently, Mexico surpasses Nigeria in terms of infrastructure in various aspects.

History of Colonization and the Onset of External Debt in Mexico and Nigeria

Both Mexico and Nigeria share a colonial history that shaped their present states, yet they differ in levels of progress. Mexico's history, under Spanish colonial rule, saw heavy taxation of the Mexican silver and economic setbacks, impeding growth. Unfair laws and controls hindered local and foreign trade, limiting economic development. Post-independence cycles of prosperity and decline were marked by political instability and conflicts between liberals and conservatives, affecting industry and infrastructure

growth. The 20th century witnessed debates between protectionists and liberals, resulting in inequality despite economic growth. In contrast, Nigeria's history is marked by the colonization by the British, leaving a legacy of ethnic divisions. Both countries have encountered challenges in their paths to development, but their trajectories have been influenced by distinct historical factors.

President Lázaro Cárdenas nationalized the Mexican petroleum sector in 1938, sequestering assets and foreign oil companies. After World War II, regulations on foreign direct investment were revived, leading to sector exclusions and asset ownership restrictions. The 1960s-70s saw increased foreign investment, termed the "Economic Miracle." However, by the 1980s, debt rose, leading to a payment deferment and emergency aid from the IMF and US institutions. In 1982, Mexico nationalized its banks and imposed exchange controls.

During colonial rule in Nigeria, World War II spurred agricultural projects, improving cultivation of oil palm, cocoa, cotton, rice, and wheat. British policies led to disparities through trade licenses, price controls, and wage restrictions, fueling independence movements. Hence, the number and activities labor unions grew, fostering nationalism. Finally, educated individuals, among them, were business owners and union leaders who demanded for political participation leading to Nigeria's 1960 independence. Oil discovery in 1958 caused neglect of other sectors, resulting in "Dutch disease." Oil revenue growth neglected sustainable policies, causing excessive borrowing and vulnerability to oil price collapse. Manufacturing suffered due to protectionist policies and costly infrastructure projects.

Between 1979 and 1983, Nigeria's oil earnings became insufficient to cover external debt interest. Similarly in Mexico, imports became difficult to finance. Nigeria faced challenges paying for imports due to excessive licenses and insufficient foreign exchange reserves. Private companies struggled to remit payments, leading to a crisis.

Due to scarce dollars, shipping companies demanded payment as debts lingered up to a year. IMF intervened, advancing dollars on behalf of Nigeria to creditors. Public expenditure grew significantly, from 13% to 25% of GDP, causing fiscal deficits, inflation, and monetary expansion. The "Jumbo Loan" of US\$1 billion was obtained in 1978, leading to an appreciated naira, slower GDP growth, and external surplus. By 1980, external debt reached US\$4.1 billion (5% of GDP), increasing to US\$33.4 billion (119.9% of GDP) in 1990 due to devaluation and economic challenges.

As already mentioned, Nigeria's public expenditure surged from 13% to 25% of GDP in the late '70s, causing fiscal deficits and rapid inflation. A "Jumbo Loan" of US\$1 billion was obtained in 1978. Naira appreciation post-1973 oil price surge hurt competitiveness, slowing GDP growth. Oil buoyancy maintained an external surplus, but by 1980, external debt reached US\$4.1 billion (5% of GDP). The debt-service ratio rose to US\$33.4 billion (119.9% of GDP) in 1990 due to devaluation and economic challenges (World Bank, 2013).

Conflict and Violence in Mexico and Nigeria

Both Mexico and Nigeria have faced violence-related challenges –in Mexico, drug violence began in 1982, while Nigeria experienced ethnic, political, and religious conflicts. These divisions divert efforts and resources from development to conflict resolution. In Nigeria, conflicts like the civil war in 1960 led to significant economic consequences. Religious conflicts and tribal clashes followed, with Boko Haram's Islamic terrorism being a major issue. Boko Haram's actions have led to destruction, displacement, and economic losses. Religious and regional conflicts, like herders' clashes with farmers, exacerbate the situation, causing significant economic losses and hindering development.

Prior to the insurgence of Boko Haram and herdsmen killings, the Niger Delta militant groups had been fighting against the government. They burst oil pipelines to siphon petroleum, attack oil refinery companies such as Shell in Nigeria, and kidnap expatriates who work for the oil companies for money or

kill them, and in some instances, they force the government to give them benefits from the expanse crude oil reserve on their land, because they have been marginalized and have endured environmental dislocation for years due to soil contamination as a consequence of oil exploitation activities, the pollution of water bodies that produce fishes, and the total depletion of the soil fertility of the soil. Consequently, many of the people live in abject poverty amidst immense wealth enjoyed by oil workers and expatriates, and that exacerbates the feeling of anger among the indigenes.

The results of the sufferings of this ethnic group are violent acts and activities of the Niger Delta militants that have been urging government intervention. It has been estimated that the economic cost of the militants' activities in Nigeria is close to 3.5 billion USD annually. Also, profits in excess of 1 billion USD are said to be made from the illegal business of oil bunkering annually (Odunniyi, 2003). The government finally had to resort to an amnesty agreement to end the excessive loss of revenue. As part of the amnesty agreed on in 2009, each former militant is entitled to 65,000 naira (US\$206) a month with job training. Militants were offered cash stipends under the condition that they cease oil pipeline attacks and kidnappings in the volatile region. In 2017, an extra 35 billion naira (US\$111 million) was allocated in the budget for an amnesty program aimed at the militants (Iaccino, 2017).

Similarly, Mexico also has a history of coup d'état and civil war in the early 20th century which resulted in the death of about 500,000 Mexicans (Scheina, 2003) and led to the creation of Partido Revolución Institucional. During the late 1960s and 1970s, a war was waged against leftists with Marxist/Leninist leanings, resulting in the indiscriminate shooting of students at Tlatelolco, a public square near the Foreign Ministry. In 1994, a group called the *Ejército Zapatista de Liberación Nacional* (EZLN), supported by foreign allies, sought autonomy over forest lands in the state of Chiapas and aimed to replace the government, coinciding with Mexico's entry into the North American Free Trade Agreement. Although civil unrest has diminished, the country now grapples with the challenge of violence perpetrated by drug cartels.

In 2018, the economic impact of drug-related violence in Mexico totaled 5.16 trillion pesos (US\$268 billion). This figure represented a 10 percent increase compared to the previous year and accounted for approximately 24 percent of the country's GDP (IEP, 2019). In order to mitigate the effects of violence, Mexico allocates 0.81 percent of its GDP to domestic security and the justice system, which is half the average expenditure of 33 OECD countries. The economic repercussions of violence translate to 41,181 pesos per person, surpassing the average monthly salary of a Mexican worker by more than fivefold. However, the individual economic impact of violence varies significantly across states, ranging from 10,808 pesos in Yucatán to 83,167 pesos in Colima (IEP, 2019).

It is important to understand that violence in Nigeria unlike Mexico is primarily driven by political or drug-related factors rather than religious motives, depending on the period under consideration. The Mexican drug war is fueled by the availability of quick money, with lower-class individuals often joining criminal organizations due to the lack of access to formal education and well-paid employment opportunities. In 2012, it was estimated that Mexican cartels directly employed over 450,000 people, while the livelihoods of an additional 3.2 million people depended on various aspects of the drug trade. This can be attributed to the government's failure in providing legal avenues for the creation of well-paying jobs. In the period from 2004 to 2008, the percentage of the population earning less than half of the median income increased from 17% to 21%, and the proportion of people living in extreme or moderate poverty rose from 35% to 46% (52 million individuals) between 2006 and 2010 (CONEVAL, 2013).

Statement of Problem

The problems identified in this study are poverty, under-industrialization, conflict trap, various traps, and brain drain as key economic and social challenges. Poverty encompasses food, health,

employment, and income policies. Trap issues pertain to policies and growth-related variables, while brain drain is linked to education analysis.

Poverty

The issue of poverty is a prevalent condition and a constantly discussed topic in Mexico and Nigeria. According to CONEVAL, in 2012, about 53.3 million were recorded as poor people in Mexico (45.5% of the total population), compared to 52.8 million (46.1%) in 2010 that lived below the national poverty line based on the multidimensional approach of Mexico government. Between 2010 - 2012, the population living in extreme poverty dropped from 13.0 million people (11.3% of the total) to 11.5 million (9.8%) (CONEVAL, 2013). There is a declining poverty rate in Mexico but income inequality remains high (World Bank, 2019). In Nigeria, 53.5% of the population lived below the poverty line (US\$1.90) in 2009 (World Bank, 2018) while people living in extreme poverty 47.7% of the population with a high level of inequality (World Poverty Clock, 2020). From these statistics, it can be deduced that although poverty exists significantly in both countries, it is worse in Nigeria.

Lower Level of Industrialization & Competitiveness

A low level of industrialization and competitiveness is one of the economic problems plaguing especially Nigeria while in Mexico, this point only applies when compared to richer economies such as USA, a neighboring country to Mexico. It is necessary to identify why and how Nigeria fell behind in industrialization and competitiveness and how Mexico can improve in this aspect. A series of external shock during the 1970's oil crisis including a sudden drop in oil price, decreased commodity price, rising real interest rate, withering public coffers and limitation of domestic markets truncated the growth of manufacturing in Nigeria thereby keeping the level of competitiveness low. Mexico has a higher level of competitiveness but the level of investment in research and development is not at an optimal level at 0.5% of the GDP, growth of innovative companies is above average but has slowed down in 2019 compared to 2018. The higher growth in innovative companies in Mexico compared to Nigeria could have emanated from embracing the idea of linking companies to universities for knowledge transfer. Regardless, the skillset of graduates in Mexico is 4.1 which is less than that of Switzerland.

Additionally, a better quality of road infrastructure, very high road connectivity – 90.3% and higher railroad density at 7.3 km/1000km², and more access to electricity has also contributed to higher competitiveness in Mexico although the electricity supply quality is only 12% of the output (Schwab, 2019:387). On the other hand, Nigeria ranks lower in the level of competitiveness due to factors such as lower quality of land administration at 7.2 out of 30 and intellectual property protection is 3.0 out of 7 points. In the aspect of infrastructure, road connectivity is 77.5%, quality of road infrastructure is worse; 2.5 out of 7 points, railroad density is 4.2 km/1000 km² and the supply of electricity is insufficient (Schwab, 2019:431). These indicators show clearly that Nigeria is not facilitated for industrialization compared to Mexico.

Other factors that contribute to the lower level of industrialization and competitiveness in both countries and the condition being worse in Nigeria are a lower quality of education and inadequate human capital made worse by migration of highly skilled workers, low level of domestic demand, being landlocked by poor countries in the case of Nigeria and dependence on natural resources for revenue (natural resource trap). For these reasons, it is necessary to devise means of alleviating these problems.

Conflict Trap

Violence and crime stem from economic stagnation, informal economy size, poverty, inequality, and non-inclusive policies. The rate of crime and corruption in Mexico is one of the biggest problems for the companies doing business in the country (Rodriguez-Sanchez, 2018); (GAN Integrity, 2020). Mexico ranks 135 in Corruption Perceptions Index 2017, compared to New Zealand at 1. Violence disrupts progress

by affecting commerce, jobs, and infrastructure. Nigeria shares similar violence issues, compounded by entrenched corruption. Nigeria's 2017 corruption index ranks 148 out of 180. Nigeria's conflicts, including civil war and Boko Haram, have cost billions, and violence between farmers and pastoralists have led to significant losses, up to US\$13.7 billion annually (Mercy Corps, 2015: 1). Nigeria's Niger Delta militant group's actions against marginalization have disrupted oil production (Odunniyi, 2003). While the Niger militant group negotiated with the government, corruption reversed progress, leading to resumed violence. Mexico also grapples with violence; in 2018, its economic toll reached 24% of GDP (IEP, 2019). Lower-class involvement in crime drives the Mexican drug war, while in northern Nigeria, religious extremism, and poverty fuel conflict. Violence hampers growth in both countries, necessitating policy intervention against poverty and corruption.

Other Traps

Traps are concealed pitfalls that impede a nation's prosperity or revenue generation methods (Collier, 2007). Comparing revenue sources in the USA, Mexico, and Nigeria illustrates how Mexico and Nigeria are ensnared in overreliance on natural resources – a key trap. In the USA, individual income taxes contribute most (46.5%); Mexico relies significantly on petroleum sector revenue (31% on average, 1977-2018). Nigeria's oil revenue constitutes 70% of total revenue (1970-2018). This dependence on volatile resources hampers economic diversity, especially in the case of Nigeria.

Traps are not limited to natural resources, being landlocked by bad neighbors (Collier, 2007) is another factor to be considered but it must be noted that Nigeria is not landlocked completely –there are ports in the South of the country but the neighboring countries are poor countries –Benin, Cameroon, Chad and Niger. Besides the lower size of market provided by these neighboring countries, they frustrate the protectionism policies implemented by the Nigerian government, worse still, they exacerbate and facilitate the smuggling of banned goods and illegal items or commodities, as well as the bane of insurgency and terrorist attacks that plague Nigeria. However, it is important to note that the issue of bad neighbors only applies in the case of Nigeria.

Furthermore, it is important to examine the ways in which Nigeria's neighboring and surrounding countries have impacted its progress. In August 2019, Nigeria implemented the closure of its land borders with these neighboring nations. While individuals were still able to traverse the borders, the movement of goods was restricted by the Nigerian government to combat the smuggling of controlled or prohibited items. However, the deep socio-economic connections among communities residing on both sides of the border, particularly the Bariba, Fulani, Egun, Hausa, and Yoruba/Nago facilitate easy crossing for smugglers. Familial ties, as well, further complicate matters by blurring the line of difference among nationalities. Typically, these border communities face marginalization from government development initiatives, leading to a lack of economic support and making smuggling an appealing means of generating income. Consequently, promoting domestic production within the country has become challenging.

The case of smuggling is exemplified by Benin, which serves as a significant route for second-hand cars entering Nigeria, despite the prohibition on importing vehicles older than 15 years. While only approximate figures are accessible, BIM e-solutions, a shipping company based in Luxembourg, disclosed that around 10,000 cars from Europe reach the port of Cotonou each month. Also, the Nigerian government imposed a tax of 70% on foreign rice since 2013 and to enforce this policy, importation is allowed only through the seaports with the goal to raise revenue while encouraging the local production of rice. However, this objective is constantly thwarted by smugglers who prefer to benefit from the cheapness of importing rice to Nigeria's neighbors.

Furthermore, Ships and Ports, a Nigerian maritime site, noted in 2014 that Benin's reduced rice import tariffs (35% to 7%) and Cameroon's tariff elimination (previously 10%) triggered surging imports from Thailand, the world's second-largest rice producer. Despite Benin's 11.5 million population, the influx

of rice imports from Thailand proves a significant rice movement into Nigeria, compensating for local production shortages among the large population.

However, the effect of smuggling extends beyond cars and rice, with additional deficiencies exacerbating the issue. Nigeria's Interior Minister, Abba Moro, highlighted shortcomings in border protection. Over 1,499 unauthorized entry points and eighty-four legal routes expose extensive border porosity, enabling illegal arms trafficking. Notably, around twenty-five illegal passages in Adamawa State facilitate terrorists and smugglers, contributing to Nigeria holding over 70% of West Africa's 8 million illicit weapons. The Libyan uprising's origins further link to this illicit arms influx, warranting exploration.

The Libyan uprising's impact on Nigeria began with weapons leaving Libya because Gaddafi's state armory was either opened or was looted by rebels and mercenaries, with most weapons unrecovered. Terrorist groups such as the AQIM acquired advanced weaponry through unscrupulous means and indirect purchases, transporting it to the Sahel. AQIM shared these weapons with groups like Ansar Dine, Boko Haram, and MUJAO. Hence, the proliferation of weapons in the Sahara-Sahel strengthened Boko Haram. Porous borders in Borno and Yobe allowed arms smuggling via camels, donkeys, and trucks. Collaboration with cross-border merchants and poor scrutiny enabled the entry of weapons and enabled Boko Haram to perpetrate continual massacres.

Moreover, the ECOWAS free movement agreement was exploited for arms trafficking. Combined with inadequate monitoring, endemic corruption, and security agent involvement, cross-border arms trade proliferated. Weapon trafficking occurred in Cameroon's north, and inflow from crisis-prone countries like Central African Republic and Sudan was discovered. Likewise, the Sahel and Gulf of Guinea posed significant security threats for Nigeria.

In summary, traps consist of but not limited to natural resource dependency and conflict, as Collier (2007) outlines. While Mexico primarily faces natural resource traps and Nigeria experiences multiple challenges including poor neighbors and arms proliferation, the USA may occasionally encounter traps related to sovereignty.

Brain Drain Through the Migration of Skilled Individuals

A significant factor hindering development is the emigration of highly skilled individuals from both countries, depleting the workforce needed for growth and social progress. In Mexico, the CONAPO estimates a ratio of 1 skilled Mexican in the US for every 19 in Mexico, while over 4,559 Mexicans studied abroad in 2012 for advanced degrees, with nearly 28% studying in the US, aggravating Mexico's average schooling years of 7.2 due to limited research infrastructure (Todaro & Smith, 2015).

Nigeria faces a similar issue, with around 2,000 doctors leaving annually for better conditions abroad. The disparity in earnings between countries is drastic, and Nigeria's healthcare system struggles with low doctor-patient ratios (Vogel, 2017).

Finally, bad governance has also been identified as a trap and a destructive force that can permeate every aspect of the economy and has been the cause of setbacks in both countries through corruption and bad policy making. Levels of investment, healthcare systems, geographical endowments and natural resources, the quality of government institutions, and the selection of public policies all play significant roles in promoting economic growth (Perkins, Radelet, & Lindauer, 2013:63).

Literature Review

The neoclassical theory, developed by Solow and Swan (1956), emphasizes growth through savings and investment, relying on technological progress for sustained growth and to eliminate diminishing returns.

The Neo-liberal Washington Consensus, rooted in neoclassical principles, seeks to reduce government intervention, and promote free trade for economic growth. Supported by economists and international capital markets, it advocates free markets, macroeconomic stability, and free trade. Neoliberalism's impact is evident in cases like the Mexico-USA trade agreements, resulting in debt, reduced wages, increased inequality, and limited domestic industry growth. Privatization led to monopolization, unemployment, and informal jobs, sparking protests and socio-economic setbacks in certain areas (Vargas Hernández, 2007:86). In Nigeria, the implementation of IMF policies which are neoliberalism principles led to the implementation of Structural Adjustment Program. The program encouraged foreign direct investment which crippled local businesses, reduced government spending on welfare, deregulation, privatization of government corporations and depreciation of the naira currency. These policies led to unrests, inflation, and unemployment in Nigeria.

Keynesian theory by John Maynard Keynes opposes classical theory, emphasizing demand changes due to consumption, saving, and investment propensities. It supports government spending to boost growth, using fiscal policy. Harrod-Domar model by Harrod and Domar explains GDP based on net savings and capital-output ratio, addressing warranted, natural, and actual growth rates. Endogenous growth models focus on technological progress and innovation. Romer's model highlights knowledge's increasing marginal productivity, while product differentiation aids global demand. Development hinges on productivity enhancement through cost reduction, economies of scale, and diversification (Vázquez-Barquero & Rodríguez-Cohard, 2018:889).

Empirical Review

Amartya Sen proved the capability approach to development by analyzing 1980-1982 data, revealing differences in life expectancy and child mortality between countries like Brazil and Mexico compared to Sri Lanka and China, which Sen attributed to food, healthcare, and education policies while Perkins et al. (2013) emphasized the impact of policy variables on growth disparities in East Asia, Sub-Saharan Africa, and Latin America, with trade openness and initial income levels being key factors. Latin America's slower growth was attributed to other variables.

Foreign Direct Investment (FDI) is considered as a growth catalyst by some studies due to comparative advantages, technological progress, and human capital development (Balasubramanyam, Sapsford, & Salisu, 1996: 103). Although positive and negative FDI effects on growth have been observed in different contexts in Nigeria in some other studies (Ugochukwu et al., 2013:31; Oyegoke & Aras, 2021:37; Awe, 2013:129). The impact of interest rates impact has been explored, for instance, Akinwale (2018) found a negative link between Nigeria's GDP growth and bank lending rates, while Levy Orlik (2012: 92) suggested that accessible credit (low interest on lending) can promote growth in Mexico. The impact of external debt on growth is studied, with Akanbi et al. (2022:448) revealing the negative effects of external debt services on resources in Nigeria. (Sanchez-Juarez & Garcia-Almada, 2016:12) suggest that public debt growth can outpace public investment, potentially leading to unsustainable levels.

Conditional cash transfer programs in Nigeria (Projectng, 2020) and Mexico (various studies) have shown positive effects on welfare, including reduced poverty, improved education, health, and increased microenterprise activity.

Methodology

The methodology to be employed in the study begins by creating two categories of analysis for the growth and development separately. The categories consist of model specification, regression analysis on STATA, structural change detection on SPSS by using R essential extension to estimate the effect of the independent variables in each country on the dependent variable of each country separately and the results will be compared to reflect the effectiveness of policies that are being used in each country in the study.

Sources of Data

Data for Nigeria were obtained from National Bureau of Statistics, poverty rate by states 1980, 1985, 1994, 1996, 1997, 2004, 2009 and 2010, casualty/fatality rate due to conflict and violent events 2010 – 2017, average household income 1997 – 1999, minimum wage 1970 – 2018, and from united nations children’s emergency fund (UNICEF) are life expectancy 1970-2018, child under 5 mortality rate 1970 – 2018, unemployment rate 1991-2018, and adult mortality rate-male and female 1970-2018 from World Bank.

From United Nations Statistics Division the data obtained were household consumption expenditure 1970 – 2018 and from World Bank; foreign direct investment, net inflows (bop, current US\$) 1970 -2018, external debt 1970 – 2018, interest rate (monthly) -savings rate, lending rates, time deposit rates 1970 – 2018, government expenditure 1970 – 2018, details on spending on health, education and welfare 1980 – 2018, gross national income 1970 – 2018. Food Supply: Calories, Protein and Fat Per Capita Per Day 1970-2018 from United Nations and Food and Agriculture Organization (FAO) for both countries.

Data for Mexico; interest rate from the Federal Reserve Economic Data (Data: <https://fred.louisfed.org>). Data on external debt, gross national income, foreign direct investment, were obtained from world bank data. Government expenditure is a combination of government spending on health, education, and welfare. The sources of the data from 1970-1976 on government spending on health were obtained from IMSS, ISSSIE, SSA, IMSS COPLAMAR, DDF, Población Abierto are the Dirección General de Planeación y Presupuesto, SSA, Cuenta de la Hacienda Pública Federal, Salud Pública de México, (pg. 822), Apuntes Sobre el Financiamiento de la Salud en México. From 1988- 1992, the data on expenditure on health though SSA, IMSS, ISSSTE were obtained from INEGI, Estadísticas Históricas de México Tomo I.

Data for expenditure on health from 1993-2017 was obtained from Secretaria de Salud, FASSA, IMSS, PROSPERA, SEDENA, SEMAR, ISSSTE, PEMEX obtained from the government website, gasto en salud por fuente de financiamiento, Secretaría de Salud. Dirección General de Información en Salud. Sistema de Cuentas en Salud a Nivel Federal y Estatal (SICUENTAS), México 2017, Proyecciones de la Población de México 1990-2030, Censo 2010, CONAPO, INEGI. Sistema de Cuentas Nacionales de México, México, 2017, Banco de México, and for 2017, data were obtained from Asociación Mexicana de Instituciones de Seguros (AMIS). Expenditure on education data 1977-1988 were obtained from UNESCO Statistical Yearbook; government expenditure on social sectors in Latin America and the Caribbean Statistical Data. The data from 1989-2018 were calculated using GDP data obtained from World Bank Data. The data from 1993, 1996, 1997 were obtained from Adaptado de OCE (2001), El Sosténimiento de la Educación en México, data from 2018 and the World Bank data. Expenditure on welfare (subsidies and transfers) from Banco de Mexico website.

Model Specification

For the growth category, a multiple regression model is specified where GNI is the dependent variable and the other macroeconomic variables in the equation are the independent variables.

$$GNI = f(INTR, FDI, EXD, LGS, LINC)$$

(1)

$$GNI = \alpha + \beta_1 INTR + \beta_2 FDI + \beta_3 EXD + \beta_4 LGS + \beta_5 LINC + \mu$$

(2)

In equation (2), α is the intercept of the equation which represents the value GNI will have if all other variables are zero (0), μ is the error term which is the residual variable and it denotes the part of the relationship that the model does not fully explain, and β is the coefficients of the explanatory variables (independent variables) and its values for each of the variable represents the amount of change (fraction or degree) that will occur if there is a 1 unit increase in the explanatory variable (here you need to include

some references to similar works). The dependent variable GNI represents gross national income, and the independent variable interest rate is represented by INTR, foreign direct investment by FDI, External debt by EXD, level of government spending by LGS, and level of income by LINC.

Results for Mexico

Table 2.1 and Table 2.2 are the results of the regression analysis for Mexico, the first table shows the robust standard error and the second one shows the standard error. External debt has a positive effect showing that 0.002 increase occurs in GNI with every unit increase in the variable, income has a negative effect of -0.173, government expenditure has a positive effect of 0.478, interest rate has a negative effect of -0.014, and FDI has a positive effect of 0.354.

Table 1.1 Regression Analysis of the Variables with Robust Standard Error for Mexico

LNGNI	Coefficient	Robust std. err.	T	P> t	[95% conf. interval]	
LNEXD	0,002664	0,061584	0,04	0,966	-0,12171	0,127036
LNINC	-0,17377	0,118298	-1,47	0,149	-0,41268	0,065139
LNGOVTEXP	0,477575	0,090463	5,28	0	0,294882	0,660269
LNINTRATE	-0,01417	0,010993	-1,29	0,205	-0,03637	0,008027
LNFDI	0,354552	0,048813	7,26	0	0,255971	0,453132
_cons	4,234038	0,250648	16,89	0	3,727844	4,740232

Table 1.2 Regression Analysis with Standard Error and Analysis of Variance (ANOVA) for Mexico

Source	SS	Df	MS
Model	44.9655809	5	8.99311618
Residual	0.745929082	41	0.018193392
Total	45.71151	46	0.993728478

Number of obs	47
F(5, 41)	494.3
Prob > F	0.0000
R-squared	0.9837
Adj R-squared	0.9817
Root MSE	0.13488

LNGNI	Coefficient	Std. err.	T	P> t	[95% conf. interval]	
LNEXD	0,002664	0,067551	0,04	0,969	-0,13376	0,139086
LNINC	-0,17377	0,14101	-1,23	0,225	-0,45854	0,111008
LNGOVTEXP	0,477575	0,091042	5,25	0	0,293713	0,661438
LNINTRATE	-0,01417	0,012189	-1,16	0,252	-0,03879	0,010443
LNFDI	0,354552	0,045476	7,8	0	0,262711	0,446393
_cons	4,234038	0,295241	14,34	0	3,637787	4,830289

Table 1.3 Breusch–Godfrey LM Test for Autocorrelation (Mexico Data)

lags(p)	chi2	df	Prob > chi2
1	0.725	1	0.3944

H0: no serial correlation

Results for Nigeria

Table 2.4 and Table 2.5 are the results of the regression analysis, the first table shows the robust standard error and the second one shows the standard error. External debt has a positive effect showing that 0.670 increase occurs in GNI with every unit increase in the variable, income has a positive effect of 0.560, government expenditure has a positive effect of 0.134, interest rate has a negative effect of -0.022, and FDI has a positive effect of 0.582.

Table 1.4 Regression Analysis of the Variables with Robust Standard Error for Nigeria

Number of obs	49
F(5, 41)	61.57
Prob > F	0.0000
R-squared	0.8774
Adj R-squared	0.8632
Root MSE	0.40633

LNGNI	Coefficient	Robust std err.	T	P> t	[95% conf. interval]	
LNGOVTEXP	0.1349212	0.0801473	1.68	0,100	-0.0267111	0.2965536
LNINRATE	-0.0228031	0.0185615	-1.23	0,226	-0.0602359	0.0146297
LNEXDTDEBT	.6708354	0.1401051	4.79	0.000	0.3882864	0.9533844
LNFDI	.5827598	0.0655331	8.89	0,000	0.4505996	0.7149199
LNINCOME	0.5604822	0.1239767	4.52	0.000	0.3104593	0.810505
_cons	0.5502662	0.6540049	0.84	0.405	-0.7686604	1.869193

Table 1.5 Regression Analysis of the Variables with Standard Error for Nigeria

LNGNI	Coefficient	Std. err.	T	P> t	[95% conf. interval]	
LNGOVTEXP	0.1349212	0.810518	1.66	0.103	-0.0285353	0.2983778
LNINRATE	-0.0228031	0.0155192	-1.47	0.149	-0.0541005	0.0084943
LNEXDTDEBT	0.6708354	0.1383604	4.85	0.000	0.391805	0.9498658
LNFDI	.5827598	0.0659101	8.84	0.000	0.4498395	0.7156801
LNINCOME	0.56048 22	0.106748	5.25	0.000	0.3452043	0.77576
_cons	0.5502662	0.5429183	1.01	0.316	-0.5446328	1.645165

Table 1.6 Breusch–Godfrey LM test for autocorrelation

lags(p)	chi2	df	Prob > chi2
1	1.028	1	0.3107

H₀: no serial correlation

Interpretation of Results

The regression analysis reveals significant findings for both Mexico and Nigeria. In Mexico, the models are robust, with p-values indicating strong predictability of independent variables on Gross National Income (GNI). R-squared values for Mexico and Nigeria indicate that 98% and 86% of GNI variation is explained respectively, with Root Mean Square Error (RMSE) showing low prediction error.

External debt's impact on GNI differs between the two countries. In Mexico, a 1% increase in external debt leads to a 0.2% increase in GNI with low significance ($p = 0.969$), while in Nigeria, a 1% increase in external debt leads to a 6.7% increase in GNI with high significance ($p = 0.000$). Foreign Direct Investment (FDI) has a strong positive effect on GNI in both countries. In Mexico, a 1% increase in FDI leads to a 35.4% increase in GNI ($p = 0.00$), while in Nigeria, the increase is 58% ($p = 0.00$). Income's effect on growth differs; in Mexico, a 1% increase in income results in a -17% GNI decrease ($p = 0.225$), possibly due to reliance on low-cost labor, whereas in Nigeria, it leads to a 56% increase ($p = 0.00$). Government expenditure on health, education, and welfare positively impacts growth in both countries. In Mexico, a 1% increase in such expenditure leads to a 48% GNI increase ($p = 0.00$), while in Nigeria, the increase is 13% ($p = 0.10$). Interest rates negatively affect growth in both countries. In Mexico, a 1% increase in interest rate leads to a -0.14% GNI decrease ($p = 0.205$), and in Nigeria, the decrease is -0.22% ($p = 0.149$).

Considering these results and policy implications, specific recommendations for each variable are outlined, factoring in parameters such as debt/GNI ratio, PPP, unemployment, and poverty levels, as discussed in the results and conclusions section.

Analysis of Policies on Health

The data on life expectancy, adult mortality rate, child mortality rate under 5 in Mexico were obtained from World Bank for 1970-2018, and they were used to obtain values for Health Improvement Index by obtaining the standardized values using $Z = (x - \mu)/\alpha$, where Z is the standardized value, x is the actual value, μ is the mean of the values, α is the standard deviation of the population. The next step was the normalization of the standardized values to create a range between 0 and 1 using the formular $z = (X - X_{min})/(X_{max} - X_{min})$, where z is the normalized value, X is the already standardized value of the data, X_{min} is the lowest value and X_{max} is the lowest value of X .

The years that have an index closest to 1 are 2000-2006 and are marked to be identified in the graph below. The health improvement index in 2000 is 0.943 and in 2005 the index is 1.000, the value fell slightly in 2006 to 0.999.

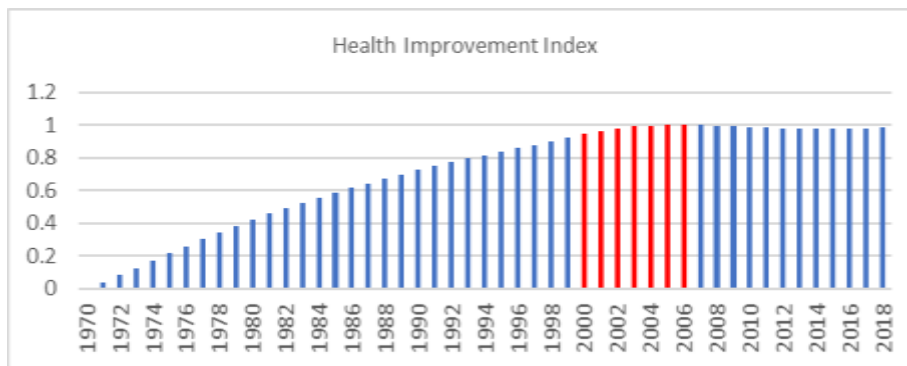


Fig 2.1 Health Improvement Index for Mexico

In the case of Nigeria, from 1998-2010, the health improvement index was at 1.00 continuously. From 1986-1997, the index remained between 0.95-0.98, from 2013-2018 the index stayed between 0.983-0.987.

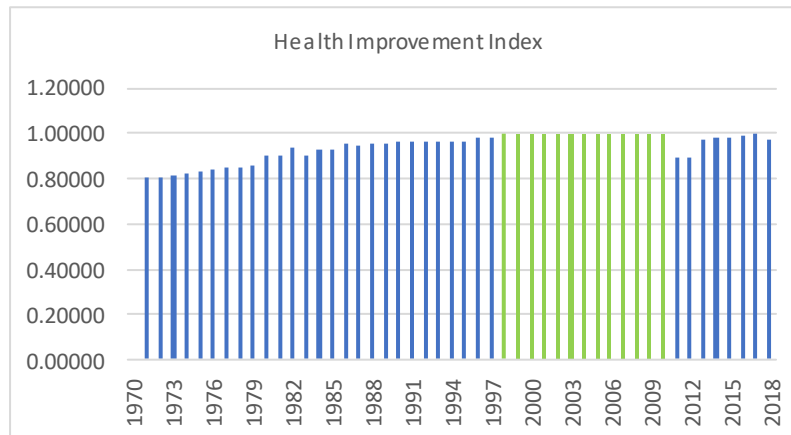


Fig 2.2 Health Improvement Index for Nigeria

On a general level, the average life expectancy in Nigeria in the 48 years is 50.233 while that of Mexico is 70.85 years old.

Analysis on Food & Nutrition

The food and nutrition index were calculated by combining the values of Food supply (kcal per capita per day), Food supply (Protein g per capita per day), and Food supply (Fat g per capita per day); which were obtained from World Data. The standardized values were obtained using the standard deviation and mean, then the normalized values were divided by the number of variables (3). The food and nutrition index ranges between 0 and 1.

In Mexico, the index was high from 1983-1985 reaching above 0.8 in those three years, the lowest was in 1970. The index stayed high and steady between 2009-2013 at 0.7- 0.8 index.

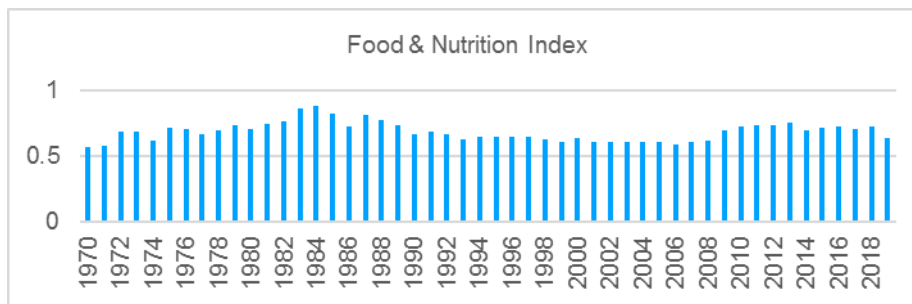


Fig. 2.3 Food and Nutrition Index for Mexico

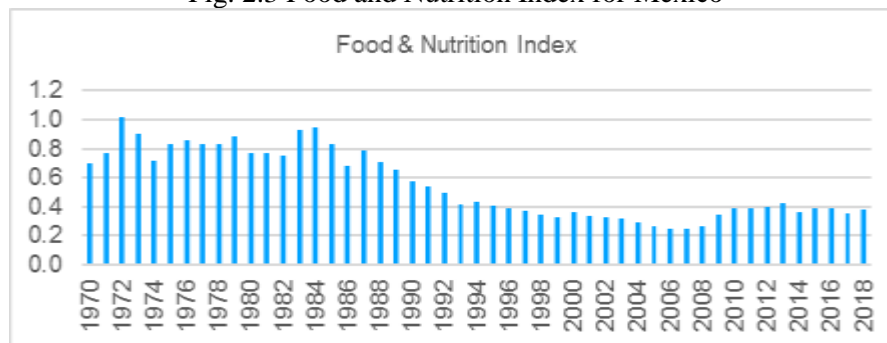


Fig. 2.4 Food and Nutrition for Nigeria

In Nigeria, the index was high at an index of 1 in 1972, in 1975 to 1979, the indices were 0.9 and the years in between were slightly above 0.8 except in 1974. After 1987, the indices remained low throughout till 2018. To compare the nutrition level of both countries, the average level of food supply in the 48 years for Mexico was 3115.05 kcal per capita per day, protein supply was 85.29 Protein g per capita per day, fat supply was 86.20 Fat g per capita per day. For Nigeria; 2288.81 kcal per capita per day, 52.22 Protein g per capita per day, and 54.82 Fat g per capita per day. Mexico ranks higher in all the indicators.

Analysis of Policies on Education

By estimating the effect of government spending on education and the workforce based on level of education from year to year between 1970 to 2018 on the levels of income in those years in Mexico.

$$INC = f(EXP, HC) \quad (3)$$

$$GNI/CAP_t = \alpha + \beta_1 EXP + \beta_2 HC + \mu_t \quad (4)$$

GNI =Gross national income per capita

EXP=level of government spending on education

HC= Human Capital which was represented by primary, secondary and tertiary enrolments.

Distributed lag Model

$$Y_t = \alpha + \beta_1 X_{t-1} + \beta_2 X_{t-2} + \beta_3 X_{t-3} + \dots + \beta_K X_{t-K} + \mu_t \quad (5)$$

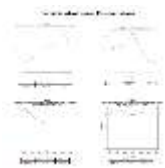
Where Y is GNI and X is school enrolment from 7 years back and X represents the variables

$$GNI/CAP_t = \alpha + \beta_7 EXP_{t-7} + \beta_7 PRY_{t-7} + \beta_8 SEC_{t-7} + \beta_9 TRY_{t-7} + \mu_t \quad (6)$$

There is an assumption that all the enrolled students from 7 years back, graduated and became the pool of labor in each case of education level.

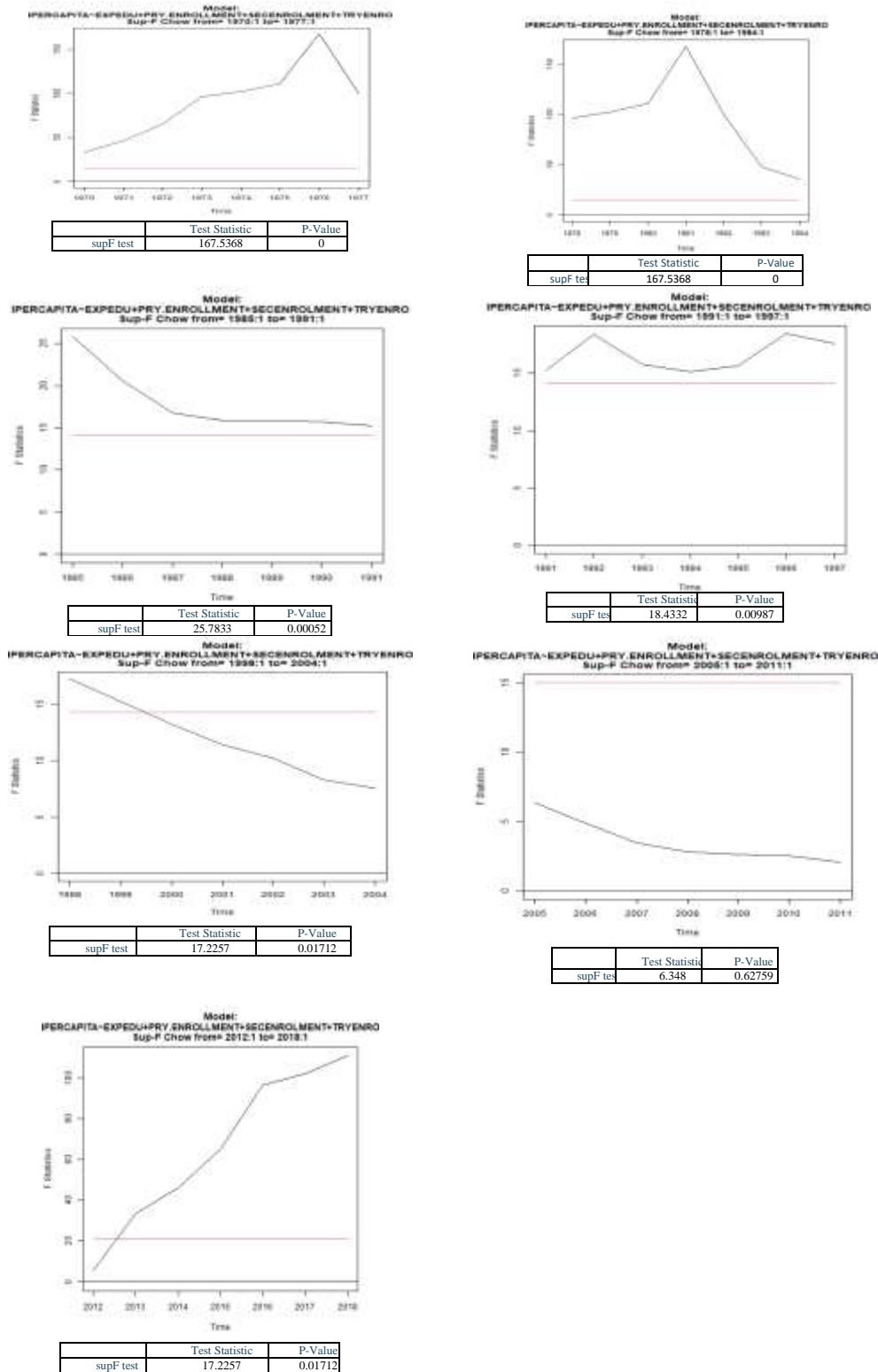
To ensure the absence of heteroscedasticity, the Breusch-Pagan test was run on the data in SPSS. A structural change detection analysis of the data in the model showed the results in fig. 31.1 and fig. 31.2, for Mexico and Nigeria respectively, the periods that fall above the red line depict that there was structural change in those periods. Therefore, the regression analysis will be carried out for those years to see the performance or outcome of the policies in those periods.

Note that, for 1970-1977, we will not analyze the policies for the years in the period because they are graduates that enrolled in the 60s which is out of the scope of this study except for 1977.



Click the figure to see full image

Fig. 3.5 Structural Change Detection – Mexico



According to the result for Mexico, structural change was detected in 1977-1984, 1985-1991, 1992-1999, 2013-2018. First, the general result of the enrolment at all levels from 1970-2018 is shown on Table A3.6. This result shows that a general level in Mexico, only secondary school education has positive return

to schooling in terms of earnings at 47% increase when enrolment is increased by 1 unit. The next analyses are to observe the outcome of the policies in the years structural change was detected.

Table 1.10 Regression Result 1970-2018



[Click the image to see full table](#)

Table 1.11. Regression Result 1992-1999



[Click the image to see full table](#)

The regression result shows that only secondary education has a negative impact using the standardized coefficient, a decrease of -1.6 in GNI per capita occurred for every unit increase in secondary enrolment.

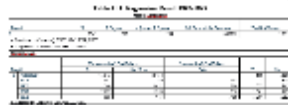
Table 1.10 Regression Result 1985-1991



[Click the image to see the full table](#)

Result for 1985 to 1991, shows that only tertiary education did not yield positive returns to schooling, a negative value of -45.7% in GNI per capita for a unit increase in tertiary school enrolment.

Table 1.11 Regression Result 1992-1999



[Click the image to see the full image](#)

The regression result for 1992-1999 shows that only tertiary education had a negative effect on GNI per capita at -9.5% for every unit increase in tertiary enrolment.

Table 1.12 Regression Result 2013-2018



[Click the image to see the full figure](#)

In the result for 2013-2018, only secondary education had a positive impact on secondary education at 0.52 increase in GNI per capita for every unit increase in secondary enrolment (the standardized coefficient).

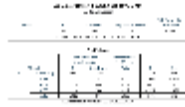


[Click the image to see full figure](#)

Fig. 3.6 structural change detection – nigeria

Fig. 3.6 shows that structural change was detected in 1984-1990, 1994-1997, 1998-2004, 2012-2018. Therefore, regression analyses were carried out to identify the level of education that had a positive impact on GNI per capita for each time interval.

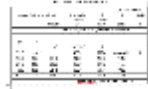
Table 1.13 Regression Result for 1970-2018



[Click the image to see full table](#)

For all the 48 years, tertiary education has a negative effect on GNI per capita at -2.2% decrease for each unit increase in enrolment. The R^2 value of 58% shows that the model does not explain 42% of the variation in GNI per capita.

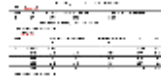
Table 1.14 Regression Result 1984-1990



[Click the image to see full table](#)

The only level of education that has a positive impact on GNI per capita in the period 1984-1990 is the tertiary level of education with enrolment having 3.8% increment impact on GNI per capita.

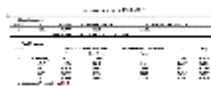
Table 1.15 Regression Analysis for 1991-1997



[Click the image to see full table](#)

The result of the regression analysis for 1991-1997 shows that all levels of education had a positive impact on GNI per capita.

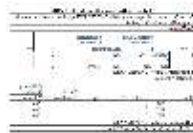
Table 1.16 Regression Result 1998-2003



[Click the image to see the full table](#)

Enrollment at all levels of education had positive impact on GNI per capita from 1998-2003 but not significantly, primary education caused an increase of 1.6%, the impact of tertiary education is only 0.5% increase while secondary education had 0.0% showing that this level caused no change in the dependent variable.

Table 1.17 Regression Result for 2017-2018



[Click the image to see the full table](#)

The analysis has result for only tertiary education and shows that it had a negative impact on GNI per capita at -51.8% decrease for every unit increase in tertiary enrolment.

Analysis of Policies on Employment & Income

To analyze the impact of the policies on employment and labor, the policies were converted into dummy variables depending on the existence of each of the variables in a certain year and vice versa. Only two of the variables were not converted to dummy variables, the variables and their categories are listed in the table below.

Dummy variables: 1= existing during the year
0= not existing during the year

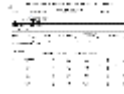
The dependent variable is Unemployment rate and the other variables are independent variables. The regression model is as shown in the equation, (the same model and variables will be used for another analysis where the independent variable will be poverty rate).

$$Y_i = \beta_1 + \beta_2 D_{2i} + \beta_3 D_{3i} + \beta_4 D_{4i} + \beta_5 D_{5i} + \beta_{xi} D_{xi} + \beta_{xi} X_{xi} + \mu_i \quad (7)$$

Table 1.18a Abbreviation of Policies in Mexico

ABB.	Variable	Type
BI	Benefit Increase	Dummy Variable
PSI	Price Stability & Increased spending	Dummy Variable
PW	Percentage of Workers Nationality	Dummy Variable
VAT	Value Added Tax	Dummy Variable
PE	Pactos Economicos	Dummy Variable
CAT	Corporate Asset Tax	Dummy Variable
EWCOG	Equalized Working Condition Outsourcing Companies & Annual Minimum wage	Dummy Variable
IL	Import Liberalization	Dummy Variable
NAFTALF	NAFTA: Labor Flexibility	Dummy Variable
PAAUSEE	Action program to Reinforce the Unity Agreement to overcome the Economic Emergency	Dummy Variable
CMW	Confederation of Mexican Workers (New Labor Culture)	Dummy Variable
FER	Fixed exchange rate	Dummy Variable
NP	New Peso	Dummy Variable
BMW	Bi-annual Minimum Wage	Dummy Variable
NUE	No Union Enforcement	Dummy Variable
WMW	Weekly Minimum Wage	Dummy Variable
Fund	\$10 Million Fund	Dummy Variable
RL	Reformed Law	Dummy Variable
UF	Unemployment Fund	Dummy Variable
EFBS	Easy Formalities for Business Startup	Dummy Variable
PETA	Temporary employment program	Dummy Variable
PEE	Emergent Employment Program (PEE)	Dummy Variable
ILO	International Labor Standard	Dummy Variable
TICPG	Taxes on Personal Income, Profit, and Capital Gains	Normal Variable
UMEMP	Unemployment Rate	Normal Variable

Table 1.18b Result of Regression Analysis on Employment & Income Policies in Mexico



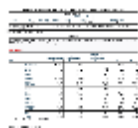
Click the image to see the full table

The variables that have a reducing effect on unemployment are Percentage of Workers Nationality at -63.1%, Value Asset Tax at -10.5%, Pactos Economicos at -69.5%, Action program to Reinforce the Unity Agreement to overcome Economic Emergency (PAAUSEE) at -0.479 (using standardized result), Confederation of Mexican Workers (New Labor Culture) (CMW) at -1.024, Unemployment fund -16.4%, International Labor Organization Standard -0.130, Taxes on Personal Income, Profit, and Capital Gains at -8.1%.

Table 1.19a Abbreviations of Policies in Nigeria

ABB	Variables	Type
BI	Benefit Increase	Dummy Variable
RCFCE	Restricting Fee Charging Employment Agency	Dummy Variable
NDP	National Development Plan	Dummy Variable
TR	Trade Union Act	Dummy Variable
SAR	Strike Action Rule	Dummy Variable
UC	Udoji Commission	Dummy Variable
VAT	Value Added Tax	Dummy Variable
ERFC	Economic Recovery Fund Collection (15 months)	Dummy Variable
MWA	Minimum Wage Act	Dummy Variable
MWAM	Minimum Wage Amendment	Dummy Variable
MWA2	Minimum Wage Act 2000	Dummy Variable
NDE	National Directorate of Employment	Dummy Variable
PTP	Pioneer Tax Program	Dummy Variable
FTZ	Free Trade Zones	Dummy Variable
BOI	BOI Review	Dummy Variable
DCW	Decent Country Work	Dummy Variable
SURE-P	Subsidy Reinvestment & Empowerment Program	Dummy Variable
NEDP	National Enterprise Development Program	Dummy Variable
CITR	Corporate Income Tax Rate	Dummy Variable
TCIT	Total Company Income Tax	Dummy Variable
UNEMP	Unemployment	Normal Variable

Table 1.19b Result of Analysis on Employment & Income Policies in Nigeria



Click the image to see full table

The variables that have a reducing effect on unemployment are National Development Plan (NDP) at -96.7%, Value Asset Tax at -0.47, Economic Recovery Fund Collection (15 months) (ERFC) at -0.158,

National Directorate of Employment (NDE) at -0.0.70 (using standardized result) and Free Trade Zones at -11.8%, Company Income Tax Rate (CITR) at -9.8, and Total Company Income Tax (TCIT).

Analysis of Policies on Violence

The number of homicides in the graphs are in 100,000 units and the years in which the levels are lower will be used to determine the policies that reduced the level of violence.

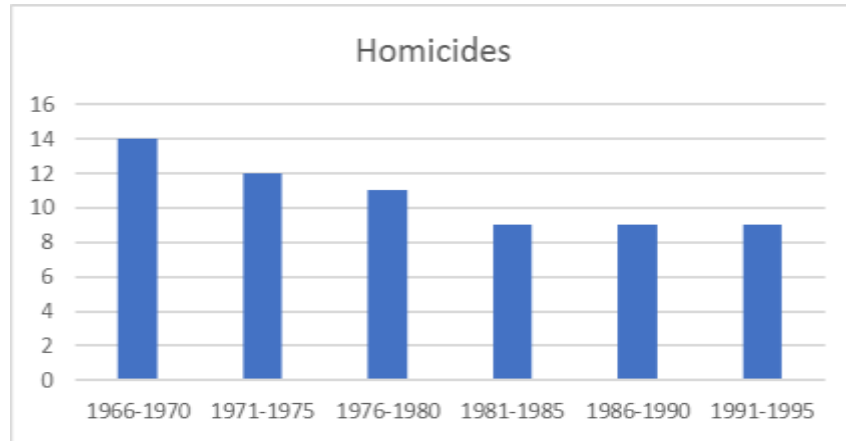


Fig. 3.17 Number of Homicides in Mexico

The rate of homicide reduced slightly between year 1981-1985 and remained constant until 1995. In the graph below, intentional homicides reduced significantly in 2000-2007.

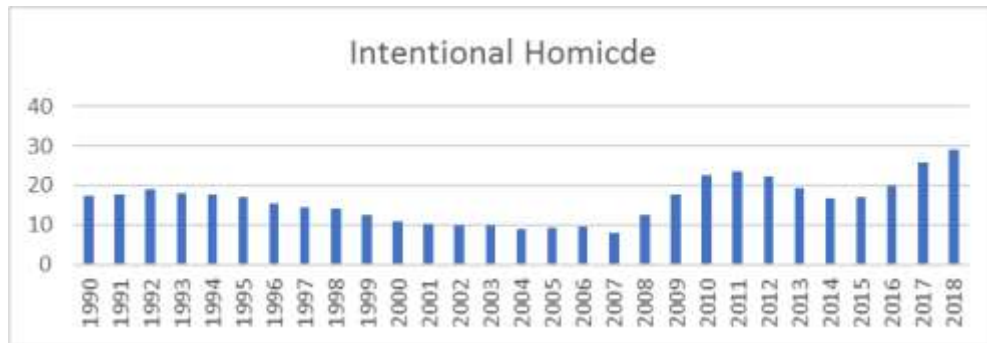


Fig. 3.18 Number of Intentional Homicides in Mexico

In Nigeria, the lowest rate of massacre was above 1150 in 2015-2018 (only 3 years range), closest to that rate is the number of massacres in the year 1975-1979 at above 2000 and the year 1990-1994 at above 2500.



Fig. 3.19 Number of Massacres in Nigeria

Results & Conclusions: Policy Recommendations and Constraints

Recommendable Policies on External Debt

In Mexico, regression analysis reveals that external debt had a minor and statistically insignificant impact on economic growth. This suggests that external debt did not significantly reduce Gross National Income (GNI), although the significance test yielded a low result. Conversely, in Nigeria, the analysis demonstrates a significant positive effect on growth.

To address the challenge of high debt/revenue ratios, a study of the debt/GNI ratio trends identified specific policy years with lower ratios. In Mexico, policies such as loan rescheduling in 1984, debt-for-equity bonds in 1987 (despite causing inflation), the Brady Plan in 1990, US Bonds exchange for debts in 1990, retreat of banks from commercial credit in 1997, and entry of foreign banks into the market played pivotal roles. Non-devaluation in 2000 and the implementation of procyclical macroeconomic policies and structural reforms also contributed. In 2001, the Mexican Government shifted to domestic creditors such that public debt became guaranteed by the public sector and private sector debt; that are used to finance PIDIREGAS projects. The debts are later transferred to the government after the projects are completed. support for the development of the domestic financial system. Additionally, strategies focused on external debt involved expanding the investor base, developing euro and yen yield curves, and prioritizing the management of liability operations to mitigate interest and exchange rate risks. Meanwhile, in Nigeria, effective debt management policies from 2000 to 2004 included establishing the debt management office, securing debt relief deals, and exiting the Paris Club to halt new loan contraction.

Mexico's debt issues stemmed largely from political and economic crises, shocks, and the peso devaluation decision in 1994. Despite higher growth and exports, the Debt/GNI ratio was lower in only 20 years. In contrast, Nigeria faced debt accumulation due to corruption, waste, and poor loan record-keeping, resulting in excessive payments.

New Recommendations

It is, however, recommended that Nigeria should adopt policies such as the exchange of US bonds, hence it is important for Nigeria to invest more in buying bonds in richer economies such as USA and China. The PIDIREGAS domestic loans and PRONAFIDE projects are highly recommended as well.

Recommendable policies on Foreign Direct Investment

In Mexico, a 1% FDI increase leads to a significant 35.4% GNI rise ($p < 0.01$), while in Nigeria, a 1% FDI boost results in a significant 58% GNI increase ($p < 0.01$), rejecting the null hypothesis. Despite concerns about foreign companies impacting local businesses, this data indicates income growth, not purchasing power. Mexico's recommended policies on FDI stem from PPP growth periods, especially 1981-1988, encompassing the Foreign Investment Law, import tariffs, and currency measures. However, PPP growth remained below a 10-point increase through 2018.

In Nigeria, policy suggestions based on HHCE include incentivizing local firms, facilitating tech transfer, and supporting local producers. Notable policies from 1990, like foreign capital access, Naira devaluation, export promotion, and privatization, align with FDI growth in 1999 under President Obasanjo's NEEDS strategy for private sector-led growth.

Constraints

The implementation of these policies might become an ad hoc, case-by-case approach, and might also be stifled by government bureaucracy. Political instability can impede recommendable policies such as the highest reign of tyranny in 1993 in Nigeria when FDI remain continually low in 1995 till 1998 even though foreign investors were allowed to set up a business with 100% ownership starting from 1995. Consequently, gross national income fell the same year to the lowest at US\$25.41 billion (Current US).

Recommendable Policies on Government Expenditure

In Mexico, 1% increase in level of government expenditure on health, education and welfare will cause an increase of 48% in GNI, significance of test is at 0.00 which shows the effect of LGS on GNI is highly significant. In Nigeria, 1% increase in LGS will cause 13% increase in GNI and but it is not highly significant at 0.10. Therefore, the null hypothesis will be rejected for both countries.

In the case of Mexico, the benefit of increase in government expenditure on education, welfare and health is evident in the case of poverty levels between 1996 and 2012 in Mexico. Between 1996 and 2006 devoted most of the government spending to welfare with a resultant drop in basic-needs and extreme poverty. The third National Development Plan in Nigeria (1975-1980) implemented policies to enhance the economy by increasing per-capita income, reducing unemployment, and diversifying industries. It involved the establishment of cement, pulp and paper, automobile, oil refinery, and metal plants across the country. Transportation infrastructure like expressways and airports were also developed. Government expenditure on social welfare and development projects during this period positively impacted poverty levels, leading to a decrease in poor consumption.

New Recommendations

The government policies regarding welfare in Mexico should not be reduced or abolished, rather, the various welfare programs, especially the Progresa should be adopted in Nigeria while continual infrastructure renewal and maintenance should be maintained. In the aspect of government expenditure, there is no policy recommendable to Mexico from Nigeria.

The constraint to this recommendation is corruption and political clientelism, therefore, Mexico should fully incorporate Progresa into the national constitution to fully legalize it and ensure it is not subject to any political regime or administration. Also, corruption can only be hindered through systematic designs, hence, an online platform should be created and made public where the amount of funds released for various welfare project will be clearly displayed, the details of contractors to execute the projects, the

receipts and waybills should be uploaded and names of the beneficiaries, pictures and videos as evidence should be uploaded as well.

Recommendable Policies on Income

In Mexico, the variables that have a reducing effect on unemployment are Percentage of Workers Nationality at -63.1%, Value Asset Tax at -10.5%, Pactos Económicos at -69.5%, Action program to Reinforce the Unity Agreement to overcome Economic Emergency (PAAUSEE) at -0.479 (using standardized result), Confederation of Mexican Workers (New Labor Culture) (CMW) at -1.024, Unemployment fund at -16.4%, International Labor Organization Standard -0.130, Taxes on Personal Income, Profit, and Capital Gains at -8.1%.

In 1974, Mexico enforced a 90% requirement for Mexican workers in all companies or establishments, extending to technicians and professionals. Limited exceptions allowed for the temporary employment of foreign workers up to 10%. Mexico introduced the Value-Added Tax (VAT) in 1976, centralized its collection federally, and established wage growth ceilings under the Pactos Económicos in 1987. In May 1992, the National Agreement for Increasing Productivity and Quality (ANEPC) consolidated various labor-related programs initiated in the late 1980s, addressing labor issues and productivity.

In response to the 1994 crisis, Mexico initiated the PAAUSEE program, which included a 27% wage increase, resulting in a 25% reduction in real wages. The program aimed to control inflation and maintain employment. Unemployment funds supported job-search assistance and training programs during 2008-2010. In 1996, the Confederation of Mexican Workers (CTM) and COPRAMEX signed the New Labor Culture pact, prioritizing technology adoption, remuneration, workplace conditions, conflict management, training, health, safety, and environmental rights.

In 2018, Mexico implemented ILO Convention 98, enhancing HR management and working conditions. Statutory benefits and severances became mandatory for outsourced workers, with limits on their composition in a company's workforce and key roles. Weekly working hours were capped at 48, with overtime at 200% of the normal rate after nine hours.

In the early 1980s, Nigeria pursued neoliberal economic policies, emphasizing export growth and business-friendly measures while suppressing wages, leading to changes in the labor market and wage levels. In Nigeria, key policies included the Second National Development Plan (1970-74) and the Third National Development Plan (1975-1980), focused on income, employment, and economic diversification. Infrastructure development, including roads, airports, and seaports, was a major component.

In 1989, Nigeria introduced changes to the "Pay as you Earn" act, introducing a 15% withholding tax on savings exceeding N50,000 and expanding rental income tax to include vessels and aircraft. In 1990, individual tax allowances, reduced minimum taxation, tax exemptions for low earners, and company income tax were introduced. The National Rolling Plans (1990) aimed for long-term economic development. Strategies included reducing inflation, maintaining a market-determined exchange rate, and privatizing public enterprises to encourage savings, productivity, and job creation. Value-Added Tax (VAT) was introduced in 1994, along with changes to personal income tax and withholding tax rates. Tax liability reductions were implemented for low and high-income groups, and the tax system was covered by the Taxes and Levies Decree No. 21 of 1998.

Constraints

The National Rolling Plan eventually failed because Nigeria shifted focus from agriculture sector (which drove job creation) to petroleum as a source of revenue. However, the revenue from petroleum

dwindled, as a result, the plans in the rolling plan project could not be properly funded. Other factors such as corruption, and issues in the roll over plan were never addressed.

Recommendable policies on Interest rate

The successful policies on interest rate that were identified in this research were identified under President Fox and Calderon's administrations; specifically, Banco de Mexico's inflation-targeting scheme that announced target interest rates eight times annually.

New Recommendations on Interest Rate

In Mexico, high interest rates to control inflation can discourage local businesses and lower profit margins due to income restrictions that attract foreign investment. Also, the reliance on imported capital goods increases production costs and hurts local businesses, limiting employment and innovation. The inflation targeting scheme should be maintained in Mexico and is also recommended to Nigeria for adoption.

Recommendable Policies on Health

In Mexico, the health index closest to 1 was observed from 2000 to 2006. The Crusade for Health Quality began in 2001, and a health reform initiative aimed at improving access and quality ran from 2001 to 2007. Seguro Popular, introduced in 2004, expanded health insurance coverage and increased access to services, moving towards universal coverage by 2010. Various other programs and laws, like Health Insurance for a New Generation and tobacco control legislation, were implemented during this period.

In Nigeria, the health index remained consistently high at 1 from 1998 to 2010, and it ranged between 0.95 and 0.98 from 1986 to 1997. From 2013 to 2018, the index remained relatively high, fluctuating between 0.983 and 0.987. During this time, Nigeria initiated the Integrated Disease Surveillance and Response (IDSR) strategy from 1999 to 2007. Comprehensive health sector reform began in 2004, with some challenges in government health expenditure. Antiretroviral therapy was introduced in 2005, and the National Health Insurance Scheme (NHIS) was launched in the same year, though enrollment remained limited. The Nigerian Midwives Service Scheme (NMSS) was initiated in 2009 to reduce maternal and infant mortality rates in rural areas, focusing on training and deployment of midwives.

New Recommendations

The health programs in Mexico and Nigeria should not be centralized because regions tend to have peculiar needs, challenges, and demographic characteristics that are better managed by zonal boards. Both countries need to increase the number of health practitioners by providing incentive to study medicine such as opening more areas of specialization for study. Lastly remuneration of doctors and other medical personnel should be reviewed upward to attract younger generation into the workforce in medicine.

Recommendable Policies on Food and Agriculture

Based on the statistical analysis in this research, the food and nutrition index for Mexico was high in 1980-1982, and 1983-1985, reaching above 0.8 in the latter three years, while the lowest was in 1970. The index stayed high and steady between 2009-2013 at 0.7-0.8 index. Therefore, the selected recommendable policies were taken from 1980 to 1982 when Mexico implemented the Sistema Alimentario Mexicano (SAM) program to support small farmers and increase staple crop production. However, the program was discontinued due to various reasons. Mexico also launched programs such as Incentivo Complementario al Ingreso Objetivo, CADENA, and Contract Farming & Rural Supply Program to support small farmers. The government removed tariffs on food imports, launched a pilot program for cash transfers

and savings accounts, and implemented school feeding programs. Mexico's Strategic Project for protected agriculture aimed to boost growth.

In 2013, Mexico launched the National Crusade Against Hunger (Sin Hambre) to combat extreme poverty and food insecurity. SAGARPA implemented agricultural support programs, including subsidies for investments in equipment and infrastructure, income enhancement, and risk management. To improve public health, Mexico introduced taxes on sugary drinks and junk food in 2013 and implemented regulations on food advertising and labeling. Sin Hambre was reformed and renamed PROAGRO Productivo in 2014 to improve its effectiveness. Mexico also adopted a program to promote consumption and distribution of aquaculture products. In 2016, SEDESOL supplied 4,937 soup kitchens, providing 592,440 people with two healthy meals daily. From 2013 to 2018 (FAO, 2016:5), agricultural support programs were implemented under the 2013-2018 National Development Plan.

In Nigeria, during the mid-1970s, drought and an oil boom in Nigeria caused stagnant crop production, increased food prices, and a shift toward imported foods. The government implemented policies, including the "back to earth mobilization program," to address rising prices and imports.

Additionally, various policies were implemented between 1972 and 1983 to boost agricultural production, including the establishment of Operation Feed the Nation, River Basin-Development Authorities (RBDAs), and the Green Revolution Program (GRP). The RBDAs aimed to increase agricultural production through large-scale irrigation facilities, and Operation Feed the Nation included measures such as subsidized fertilizer distribution and establishment of agricultural estates. The GRP aimed to increase food and raw material production, as well as enhance production and processing of export crops for the expansion foreign exchange earnings.

New Recommendations on Food and Agriculture

As the younger population continue to abandon farming in several regions, both Mexico and Nigeria should shift focus to latest technological development in farming and facilitate the application in both countries. Some of the latest technologies are bee vectoring techniques, automated farming, precision agriculture, vertical farming (hydroponics and aeroponics), livestock farming technology, minichromosomal technology among many others to attain high productivity. A recommendable policy from the US entails paying farmers per ton of harvest for export and storage to ensure the sector is perceived as profitable and to avoid loss of harvest especially in Nigeria.

Recommendable Policies on Education

In the case of Mexico, the structural change was detected between 1977-1984 and in the regression result for those years, only secondary education has a negative impact using the standardized coefficient, a decrease of -1.6 in GNI per capita occurred for every unit increase in secondary enrolment. Therefore, the policies on primary and tertiary level of education between 1977-1984 are selected as successful. However, many other possible factors can be responsible but within the scope of this study, the policies are hereby presented.

In Mexico, significant education developments occurred in the late 1970s and early 1980s, including the establishment of educational services for remote areas and the first pedagogical university. Free preschool education for all began, and teacher training required bachillerato to improve quality. The National Literacy Program and Pronalf targeted literacy, while INEA provided adult education. Investment in education increased in 1982, but the 1983 debt crisis led to reduced spending, especially in primary and secondary education.

Between 1985 and 1991, a regression analysis revealed that only tertiary education had negative returns on GNI per capita. The government aimed to reduce student-to-teacher ratios and increased education expenditure from 2.3% to 3% of GDP by 1992.

From 1992 to 1999, a similar analysis found negative effects on GNI per capita only for tertiary education. Decentralization of basic education was implemented in 1992, with the General Law of Education enacted in 1993, enforcing nine years of compulsory education. Special education was integrated into regular education. Additionally, in 1994, the National Center for the Evaluation of Higher Education (CENEVAL) was established to assess graduates' knowledge. The structural change and following regression analysis result for 2013-2018 shows that only secondary education had a positive impact on secondary education at 0.52 increase in GNI per capita for every unit increase in secondary enrolment (using the standardized coefficient). During these periods, the CNTE led a school strike in Mexico, leading to changes in the General Education Act and the Law for the National Institute for Educational Evaluation through the Constitution, laws, and public administration.

The government introduced the Education Sector Program (PSE) 2013-2018, which established objectives to improve education quality, coverage, and equity, and promote art, culture, and technology education. The government also introduced the Dual TVET training system, which combines company-based training with part-time vocational school. The “Program for Inclusion and Educational Equity” has a mandate to support disadvantaged schools and students, and the government offered scholarships through the National Scholarship Program. The National Certificates of Education Infrastructure for Schools program aims to improve school infrastructure.

In Nigeria, Structural change was detected in 1991-1997 and result of the regression analysis shows that only tertiary education had a negative impact on GNI per capita at -32.8% decrease for every unit increase in tertiary enrolment.

Policies pertaining to Nigeria in the above-mentioned years encompassed various aspects. In the mid-1980s, Nigeria focused on education for gifted children, expanded the National Board for Technical Education, and introduced adult literacy programs. Changes to the school calendar and disputes between ASUU and the Labor Congress caused dissatisfaction. In 1988, ASUU was banned from union activities, and the NPEC and an education fund were created. However, education budgets decreased, and the NMC aimed to boost mathematics research. In 1989, Nigeria established the STF and NCNE. Funding per student decreased, and student-teacher ratios remained high. ASUU's ban was lifted, and the university count reached 31. The Nigeria French Language Village began in 1991, NMEC oversaw adult education, but funding for tertiary education stayed the same. A 1992 survey revealed material shortages affecting education quality. Nonetheless, the Nigerian Arabic Language Village was established.

In Nigeria, the National Minimum Standards and Establishments of Institution Amendments in was established in 1993 and a decree to allow non-governmental entities to found tertiary institution. Furthermore, under the Education Tax Decree 1993, Nigerian companies 100 staff size and more are required to contribute 2% of their pre-tax earnings to the Education Tax Fund for the funding of education at all levels for the restoration, rehabilitation, and consolidation of education in Nigeria.

In 1993, the Teachers Registration Council of Nigeria was created with a mandate to determine the standards of knowledge and skill requirement to be registered as teachers or related functions. Free primary education was provided, the National Primary Education Commission (NPEC) and funding of primary education were re-established to manage primary education via the national Primary Education Fund and further empowerment to recommend creation of private polytechnics and mono-technics in Nigeria.

Funds allocated by NPEC to the local governments through the SPEBs are used to finance teachers' salaries, allowances, and operating costs of the state primary education board. Secondary education, on the

other hand, is provided free of tuition fees, although parents may still be responsible for various levies to cover the institutions' operational expenses. Federal government took over ownership and financing of secondary schools and technical colleges and funded higher education along with state governments. All private institutions in the country charge tuition and boarding fees and therefore receive no public funds (World Data, 2006). Also, the Tertiary Education Trust Fund (the former Education Trust Fund (ETF)) was established under the Intervention Agency.

In Nigeria, by 1995, the National Policy on Education aimed for a student-to-teacher ratio of 1:40 but achieved 37:1 (Olaniyan & Obadara, 2008: 415). Nonetheless, the ratio reduced to 22.78 from 41 in 1996 at primary education level.

In 1991, the National Commission for Mass Education (NMEC) was established, but tertiary education allocations remained stagnant. Decree No. 9 in 1993 allowed private entities to provide tertiary education. The Education Tax Decree of 1993 mandated companies to contribute 2% of pre-tax earnings to the Education Tax Fund. The Teachers Registration Council of Nigeria Act, 1993, and Decree No. 96 of 1993 aimed to improve education standards.

In 1998, Nigeria raised teaching qualifications to the National Certificate of Education (NCE), expanded education for nomadic groups, and established universities of technology. Admission requirements were revised to emphasize science-based programs (60%) and humanities, 40%. Diversified funding sources, including the Education Tax Fund, were introduced, along with the National Policy on Science and Technology.

In 1999, Universal Basic Education provided free and compulsory 9-year formal education. By 2002, the National Open University (NOUN) became fully operational, and ICT was integrated into the school system. French language instruction was introduced, and primary education remained free. Mandatory subjects were established in 2003.

Regarding the analysis for 2017-2018, only tertiary education showed a negative effect on GNI per capita, although the findings were inconclusive for primary and secondary education.

New Recommendations on Education

To improve education in Mexico, the government should increase investment in primary and secondary education while addressing the negative impact of tertiary education. To address the negative impact of tertiary education, the school curriculum at this level needs to be changed and should be centered more around innovation and managerial skills. In other words, Mexico should elevate technological studies. As already mentioned in this paper, there should be a networking between companies and universities for transfer of innovative skills and the rate of transfer should be ascertained or assessed through practical methods.

Recommendable Policies on Violence

In Mexico, homicide rates saw a slight reduction from 1981-1985 and remained steady until 1995. Initially, anti-drug policies focused on eradicating marijuana and opium crops in mountainous areas, with no large-scale military operations against drug trafficking organizations. Homicide rates remained high until 2000-2007 when they significantly dropped.

In 2000, the Secretariat of Public Safety was established, and the Federal Preventive Police were assigned to it. The government acknowledged links between high-ranking officials/politicians and drug dealers, appointing an opposition party member as attorney general. This led to reopening the 'Colosio' investigation and the arrest of some perpetrators, including a former deputy general.

Transparency measures were introduced, making crime handling procedures and statistics public. From 2001, the Federal Agency of Investigation employed modern methods for criminal investigations. Law enforcement faced challenges from drug cartels from 2002 to 2004/2005, resulting in substantial investment in drug policy. In January 2005, the National Security Law mandated judicial authorization for phone interceptions by CISEN. The government initiated a purge of municipal police and encouraged public tips to the army in the Tijuana case during Calderon's administration. Military involvement and cooperation with the United States under the Merida Initiative (Plan México) persisted until 2012, with heavy military operations continuing in 2007.

In Nigeria, during the year 1975-1979, the number of massacres recorded were around 60 but in 1985-1989, the recorded number was around 100. By 1995-1999, massacres shot up to 2000 and between 2005-2009, the number of massacres were around 1150. Regardless, these are the lowest recorded figures compared to the rest of the 48 years in this study. Let us see a fuller picture of the seemingly effective policies that were recorded in the years mentioned.

In the period 1975-1979, massacres were few since the civil war just ended and therefore, no policies were recorded that necessarily kept massacres low. By 1985-1989 religious conflicts had started on a very low scale and policemen were mandated to seize control. The recorded government actions within the period 1990-1994 show that starting in 1991, creating demarcations and creation of states to divide up regions to separate people of different languages and religions. Also, the OMPADEC program was created to alleviate poverty among the Ogoni people whose lands and water bodies were polluted by oil refineries.

The period 1995-1999 was a period of oppression by the military ruler in Nigeria, however, the Movement for the Survival of the Ogoni People (MOSOP), exerted pressure on both oil companies and the government to address environmental pollution, to provide appropriate compensation, and enforce regular payments of royalties are paid to the oil-producing regions. The tyrant military ruler inaugurated the National Reconciliation Committee (NARECO) and freed four political that were previously arrested.

In 2009, the Nigerian government offered an amnesty deal to Niger Delta militant groups through the Presidential Amnesty Program (PAP) which provided monthly stipends and job training to former militants. The leaders of the groups were also given lucrative contracts in the oil industry and other sectors. The amnesty came during a period of high crude oil prices and militant attacks had significantly impacted Nigeria's production capacity. Approximately 30,000 people enrolled in the PAP, but only 2,700 weapons were surrendered. In the same year, the leader of Boko Haram was killed in police custody, leading to an enduring campaign of violence by the Islamist movement. The leader of the Niger Delta militant group was freed after accepting the amnesty offer.

New Recommendations on Ending Violence

The factors fueling violence in Mexico as identified during this research are the lack of financial resources, a mental state that evoke in individuals the need to show off a final life outcome of accomplishment to inner and outer social circle and lastly, a fully evolved rebellion against a government that is perceived to be corrupt.

The recommendations for violence will therefore target immediate needs by borrowing the recommended policy related to transportation system under the title of government expenditure and combining it with housing policy.

Hence, the Mexican government need to improve the existing housing assistance system which simply creates a pool of donation from workers' salaries and provides credit then continues to withdraw from payments from workers, mostly meagre salaries. This system should be replaced by subsidized housing. Contractors should be assigned to construct two-storey buildings in industrial areas that are close

enough to workplaces with all the basic infrastructure at an agreed cost while the government pays subsidy on housing for every individual that is recorded in the database of the government. This should apply to existing buildings that are within a certain price range. The housing law should allow the purchase of apartments by splitting up apartments within a building for individual ownership while maintaining subsidies for house ownership as well. The housing subsidy should be made available to those who can prove they have both formal and informal jobs by presenting turnover evidence in their bank accounts after 3 – 5 years.

To address the “socio-mental” factor that fuels the problem, a re-orientation through TV propaganda, social activities, and school programs. The government of Mexico has to strike an agreement with the US government to restrict and discourage film productions that glamourize Narcotics. Imported luxurious items such as vehicles should be taxed heavily through the vehicle registration office of Mexico and should attract scrutiny such as sources of income declaration.

Lastly, Mexico must punish corruption in governance as hard as drug trafficking, offenders must be publicly reprimanded to engender trust in the hearts of citizens.

Constraint to the Selected Recommendable Policies

The creation of new states and demarcation of land can lead to new types of crises. As recorded in the case of the demarcation of the Tafawa Balewa local government area in Bauchi state led to ethno-religious conflicts due to the presence of various ethnic groups with different beliefs. Although the creation of new states was effective in reducing conflicts, it also brought about other issues. For example, in 1992, the Zangon-Kataf local government area in Southern-Kaduna witnessed a series of Christian-Muslim clashes that began as a land dispute and resulted in many deaths.

Corruption is a major constraint as recorded in the OMPADEC project that was created to alleviate poverty in Ogoni land where the indigenes formed movements against the environmental pollution of their land and water which are the sources of their livelihood, but corruption and poor project execution caused the program to fail. Lastly, “the Committee for Reconciliation and Search for Peace” in Zangon-Kataf community was formed in 1994 but failed to resolve critical issues, including the release of detainees. Lastly, massive housing projects could trigger inflation as seen in China’s housing bubble that led to expanses of land with abandoned high rising structures.

Final Concluding Remarks

In this research, according to the objectives, a detailed description of the differences in the economic conditions and standard of living between Mexico and Nigeria have been presented. The highlight of the problem statement is that both countries have similar historical backgrounds politically and economically, but Mexico has managed to grow observably better than Nigeria over the past 48 years, between 1970-2018. The study was divided into two categories; growth and development to capture the essence of Dr. Amartya Sen’s concept of development and Collier Paul’s writing on developing countries.

Following the research questions and problem statements, and to guide the distinguishing of policies that are effective in creating growth, the effects of FDI, interest rate, external debt, government expenditure (on health, education, and welfare) and income on GNI were run in a regression analysis for both the cases of Mexico and Nigeria. The results show that all the variables have a positive effect on GNI except income and interest rate in Mexico while only interest rate had a negative impact in Nigeria.

The recommendations made to ensure increased economic growth are the policies that support the result of the regression analysis. However, in the case of external debt, the policies that allowed obtaining

loans during the periods of low debt/GNI ratio were recommended. For recommendations on FDI, the recommended policies are those that support FDI during the periods of high purchasing power parity; for government expenditure, the policies recommended are those that involved government intensified investment on social welfare in Mexico and infrastructures in Nigeria. Only one policy stood out regarding interest rate policies, which was the inflation targeting policy that began during Vincente Fox's administration in year 2000. On income, the recommendation is to maintain a fixed level of minimum wage while ensuring that no devaluations are implemented.

In the development category, income is also featured in combination with employment and by using dummy values in a regression analysis based on a structural change detection analysis, the same analysis was run on GNI per capita and school enrolment for both countries under the section of education. The policies that indicate effective impact are policies that aim to create job opportunities for Mexican nationals through protectionism, compliance with labor standards, financial support to the unemployed and fiscal policies in both countries, and investment in infrastructure and the creation of manufacturing sites. The recommendations made revolved around three concepts: technology transfer, agglomeration, and improved transportation system in Mexico, while for Nigeria, investment in public infrastructure and resuscitating the manufacturing sector. On the issue of health, latest technologies for farming were recommended and a shift from rural small-scale farming. For education; increased investment in primary and secondary and promoting science, technological and managerial studies at tertiary level.

Finally, the recommended policies on violence are to ramp up subsidy programs and win back the trust of the people by fighting corruption openly, commensurately with the case of drug trafficking. In general, it is recommendable for the government of both countries not to act as a sole agent of development policy design, the process should be expanded to accommodate and involve consumers, companies, government, civil society, families, and schools.

A suggestion of a new line of research is to identify and study the economies that have applied some of the recommended policies, especially the strategies designed to achieve transfer of technology, to obtain empirical results over a span of at least 7-10 years.

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