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# MACROECONOMIC FACTORS OF ECONOMIC GROWTH IN LOW DEVELOPING COUNTRIES FOR EXAMPLE ZAMBIA

**Аннотация:** В настоящее время широко обсуждается вопрос о влиянии факторов экономического роста в странах с низким уровнем развития на политику повышения экономического благосостояния. Исследование показало, что в той мере, в какой государственные расходы и рента на природные ресурсы оказывают благоприятное влияние на рост ВВП на душу населения, прямые частные инвестиции влияют на экономический рост заметно больше, чем государственные. Напротив, увеличение трудовых ресурсов и инфляция сдерживают экономический рост в этих странах. В данной статье исследуется динамика экономического развития Замбии, которая исторически сталкивалась с

различными проблемами, включая зависимость от экспорта меди, серьезные экономические колебания и низкий уровень качества человеческого капитала. Авторами подчеркивается важность диверсификации за пределами медной промышленности, а также инициативы, способствующие развитию сельского хозяйства, туризма, культурного развития и возобновляемых источников энергии, становятся потенциальными путями устойчивого роста.

В статье также затрагивается роль технологий и инноваций в продвижении Замбии к экономике, основанной на знаниях, способствуя повышению конкурентоспособности на мировой арене. Правительству следует сосредоточиться на совершенствовании инфраструктуры, прежде всего в сфере образования и здравоохранения, которые играют ключевую роль в наращивании человеческого капитала и экспортного потенциала страны.

**Abstract:** Currently, the issue of the influence of economic growth factors in low-development countries on the policy of improving economic well-being is widely discussed. The study showed that to the extent that government spending and rents on natural resources have a beneficial effect on GDP growth per capita, private direct investment affects economic growth significantly more than public investment. On the contrary, the increase in labor resources and inflation are holding back economic growth in these countries. This article examines the dynamics of Zambia's economic development, which has historically faced various problems, including dependence on copper exports, severe economic fluctuations and a low level of human capital quality.

The authors emphasize the importance of diversification beyond the copper industry, as well as initiatives that promote agriculture, tourism, cultural development and renewable energy sources become potential paths for sustainable growth. The article also reviews the role of technology and innovation in moving Zambia towards a knowledge-based economy, contributing to increased competitiveness on the global stage. The Government should focus on improving infrastructure, especially in the fields of education and health, which play a key role in building up the country's human capital and export potential.

**Ключевые слова:** экономический рост, Замбия, макроэкономический фактор и страна с низким уровнем развития.

**Keywords:** economic growth, Zambia, macroeconomic factor and a country with a low level of development.

## INTRODUCTION

Economic difficulties occurring in many developing countries especially in low developing country like Zambia is widening current account and balance of payments deficits, increasing consumer price index (CPI), increasing international debt burdens, and declining the growth rates which have sharply led to the reduction of living standards of people in Zambia. On the other hand, neoclassical economist Robert Solow established labor, capital, and technology as the key factors influencing economic growth [1]. Keynesians further developed the theory by introducing government expenditure as a critical driver to economic growth [2].

In the case of the Zambian modern economy, the economic strategy growth model was switched from command-oriented to profit-led in 1991, anticipating greater social and economic development. The shift in economic growth orientation, as well as the state' and policymakers' enthusiasm for igniting economic growth, resulted not only in high debt accumulation, but also in the removal of price controls, privatization of state-owned enterprises, and illusory economic growth.

Although the economy exhibited some signs of improvement in 2011, to the point where Zambia achieved middle-income classification, the increase was not sustained [3]. Therefore, understanding variables that influences developing countries economic growth is critical for designing suitable economic policies for any government or institution. This paper contains four parts, which includes:

- Part one– Introduction of the article;
- Part two of the article presents literature review highlighting some critical traits of developing countries, focusing much on low developing countries;
- In part three we outline the major factors affecting development growth in these countries.
- Finally, the fourth part is the concluding section and policy recommendations.

The data used is this paper was collected from the official site of World Bank, Statista and others.

II. Literature Review

2.1. Labor Force

An unexpected labor market reform to quantify the consequences of pro-cyclical adjustments in long-term unemployment assistance (UA). In July 2012, Spain increased the minimum age for receiving unlimited-duration UA from 52 to 55. Domènech-Arumí G. and Vannutelli S. conducted research titled “Bringing Them in or Pushing Them Out”. The authors used a difference-in-differences design to document those shorter benefits caused by:

(i) shorter non-employment duration, especially among younger workers;

(ii) higher labour force exits and other programme take-up, particularly among older workers;

(iii) and lower wages upon re-employment. The change resulted in minor government savings. their findings emphasise the need of understanding the interaction with labour market variables when creating long-term benefit plans that effect people in the country [4].

This approach can be further studied in the context of the Zambian economy in case of significant changes that would be better to apply by the government. The study presented by Mohammed Issa Shahateet on the relationship between child labor, unemployment, and labor force participation, particularly with empirical data from Jordan, is an interesting exploration into a critical socio-economic issue [5]. However, its applicability to the Zambian economic situation should be approached with caution, considering the unique dynamics and circumstances of each country's economy.

The assertion that child labor generates unemployment while having little impact on labor force participation is intriguing [6]. In the context of Zambia, it would be essential to evaluate the specific conditions that contribute to these findings. The Zambian economic landscape may differ significantly from that of Jordan, influenced by factors such as education, industry composition, and overall economic structure.

Furthermore, the use of the Johansen cointegration test adds a level of statistical rigor to the studies in this aspect [7]. However, the validity of its application to the Zambian context needs verification, as the economic conditions, policies, and social dynamics in Jordan may not be directly transferable to Zambia.

Considering the socio-cultural, educational, and legislative differences between most of the cases reviewed in Zambia [8]. Analyzing the impact of economic development, it leads to a more understanding, enables targeted policies of interventions, facilitate cross-country collaboration, avoids overgeneralization, and promotes culturally sensitive solutions. This ultimately contributes

to a more successful and sustainable approach to tackling copper exports which is expected to increase to more than 3.59% by 2040 [9]. In addition to a severe economic fluctuation and a low level of human capital quality problems in our case study.

2.2. Public Expenditure

According to the Keynesian theory of economic growth 1, government expenditure positively influences economic growth. Public expenditure spurs domestic consumption, exports, and employment through the multiplier effect, thus generating more national income.

Isaac Mbiti, Karthik Muralidharan, and others reviewed findings from a large-scale randomised trial across 350 schools in Tanzania that investigated the impact of funding schools in their paper titled: "Tanzanian experimental research on inputs, incentives, and complementarities in schooling" led to the following conclusions: (i) unconditional funding, (ii) teacher performance-based incentives, or (iii) a combination of the two. After two years, their discovered that (i) granting school subsidies has no effect on student test scores, (ii) there is some evidence of beneficial impacts from teacher incentives, and (iii) both programmes have large positive effects. Most importantly, they discover substantial evidence of complementarities between the programmes [10].

Another study conducted by Pierre Bachas, Lucie Gadenne, and Anders Jensen, titled by: "Informality, Consumption Taxes, and Redistribution", suggested an argumental question related to our findings, as follows: Can consumption taxes redistribute income in poor countries? The analysis revealed that, contrary to popular belief, taxing consumption is progressive if informal consumption is taken into consideration [11]. Using household spending surveys from 32 countries, proxy for informal consumption by the kind of shop where purchases are made. This shows that the budget percentage spent in informal retailers drops sharply with income, implying that wealthier people pay a significantly higher share of their income in taxes. The findings suggest that the prevalent policy of exempting food from taxation is difficult to defend on equitable grounds in low-income nations.

In their study, Joseph B. Ajefu and Joseph O. Ogebe investigated the effects of international remittances on the expenditure patterns of left-behind households in Sub-Saharan Africa (SSA). They instrumented international remittances by using the economic situations in migrants' home nations. Their data suggest that receiving foreign remittances leads to increased spending on food, durable goods, education, and health. Using the IV-quantile regression, and so, they observed that the impacts of foreign remittances on household expenditure on food, durables, education, and health grow throughout the various expenditure quantiles [12].

2.3. Natural Resources

According to Secretary-General of the OECD, Natural resources can generate and sustain growth, thereby reducing poverty and supporting the achievement of the Millennium Development Goals.

The most frequently cited work in the relationship between resources and economic growth is by Sachs and Warner, who discovered a negative relationship between the share of primary exports in GDP and economic growth in all of their studies [13]. Although their cross-country regressions show a negative association between natural resources and the growth of the economy, the mechanism by which the resource curse operates remains unknown in the absence of an attempt to test for cross-unit dependence. This finding supported the unfavorable link between natural resources and per capita income development in mineral-driven countries. Finally, in emerging countries, an abundance of natural resources linked to Dutch disease.

[1] Sarwat Jahan, Ahmed Saber Mahmud, and Chris Papageorgiou. What Is Keynesian Economics? [Electronic resource]. URL: https://www.imf.org/external/pubs/ft/fandd/2014/09/basics.htm#:~:text=Keynesians%20believe%20that%2C%20because%20prices,constant%2C%20then%20output%20will%20increase. (Access date: 27.01.2024).

2.4. Inflation

Many academicians have expressed an interest in inflation and economic growth in developing countries. Some economists say that some inflation is important for economic growth. Whereas others, as seen on the Olivier C, believe it is negative, where as it has been also assured in the study of “The relationship between inflation and economic growth: experiences of some inflation targeting countries” [14]. The paper "Inflation expectations as a policy tool?" by Yuriy G. Saten K. and Mathieu P. evaluates the potential for central banks to use inflation expectations as a policy tool for stabilisation. The authors evaluated a recent study on how agents' expectations develop and influence their economic actions. As a result, while empirical data suggests both consumers' and enterprises' inflation expectations influence their behaviour, the underlying processes remain unknown, particularly for firms [15].

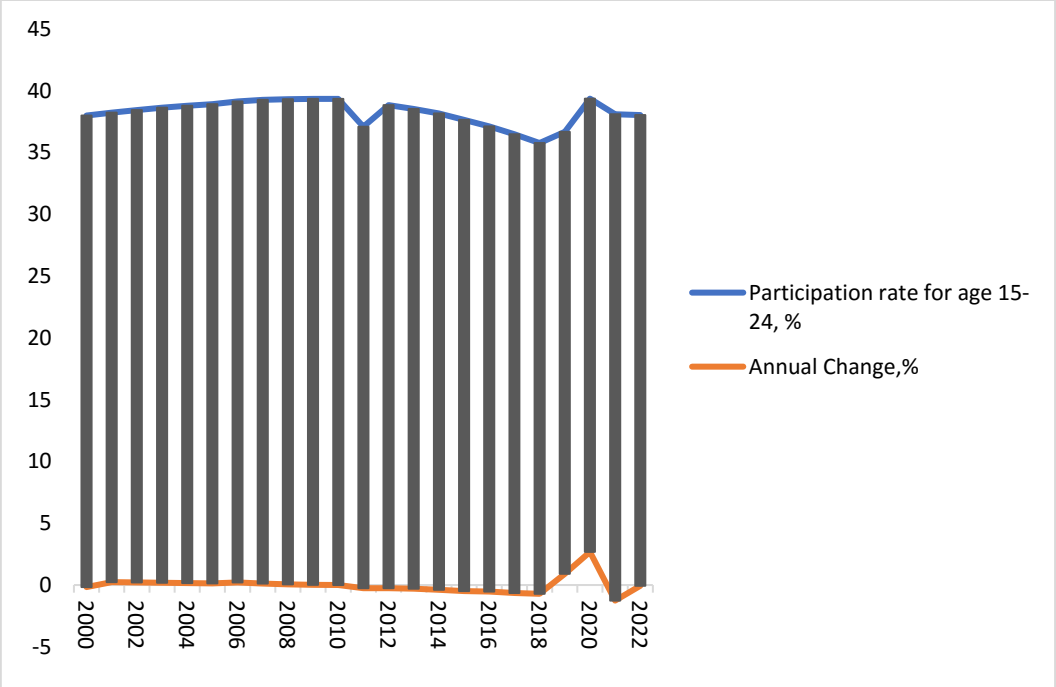
Given the different studies on factors influencing the growth of the economy in low developing countries, it is worthwhile to estimate the factors currently affecting developing countries, particularly in low-income countries where less study has been undertaken for better policy formation.

Analyses of Labor force as a factor affecting Economic growth in Zambia:

The labor force consists of people aged 15 and up who provide labor for the mass-production of products and services throughout a specific time period. It covers persons who are currently employed, unemployed but looking for work, and first-time job seekers. However, not every individual who works is included. Unpaid laborers, family personnel, and students are frequently overlooked, and those who are part of the armed forces are not counted in some nations. Figure 1 shows the variation of the labor force size in Zambia throughout the course of the year as seasonal employees join and leave.

Figure 1.

The rate of the labor force participation in Zambia from 2000-2022.




Source:ILO.URL:https://www.ilo.org/employment/Whatwedo/Projects/strengthen2/WCMS_880019/lang--en/index. Htm (accessed on 26.12.2023).

Zambia's employed population was estimated at three million in 2020, which makes the ratio of population in employment to 30.2% of the total population employed, about a third worked in firms and/or institutions in the formal sector, representing an absolute total of one million. Agriculture, forestry, and fishing had the highest percentage share of employment in the informal economy by industry in 2020, accounting for 33.1%, followed by wholesale and retail trade; repair of motor vehicles and motorcycles accounted for 23.8%, while water supply, sewerage, waste management, and remediation activities had the lowest percentage at less than 1.0 per cent. The employed population in the informal and household sectors were 45.4 per cent and 20.7 per cent respectively. Notably, 26.2 per cent of employed persons in 2020 had social security cover at their jobs (i.e. formally employed). The estimated number of informally employed persons was 73.7 per cent [16].

The unemployment rate was estimated at 13.8 per cent in 2020 of this number, the male unemployment rate was 11.9 per cent and that of females was higher at 16.4 per cent. Youth unemployment was 19.9 per cent, where 17.6 per cent was for male youth and 22.7 per cent for female youth [17]. Further, 33.5 per cent were in rural areas and 66.4 per cent in urban areas. The combined rate of unemployment and potential labor force was 37.3 per cent, where 44.1 per cent was for females and 31.8 per cent for males [18].

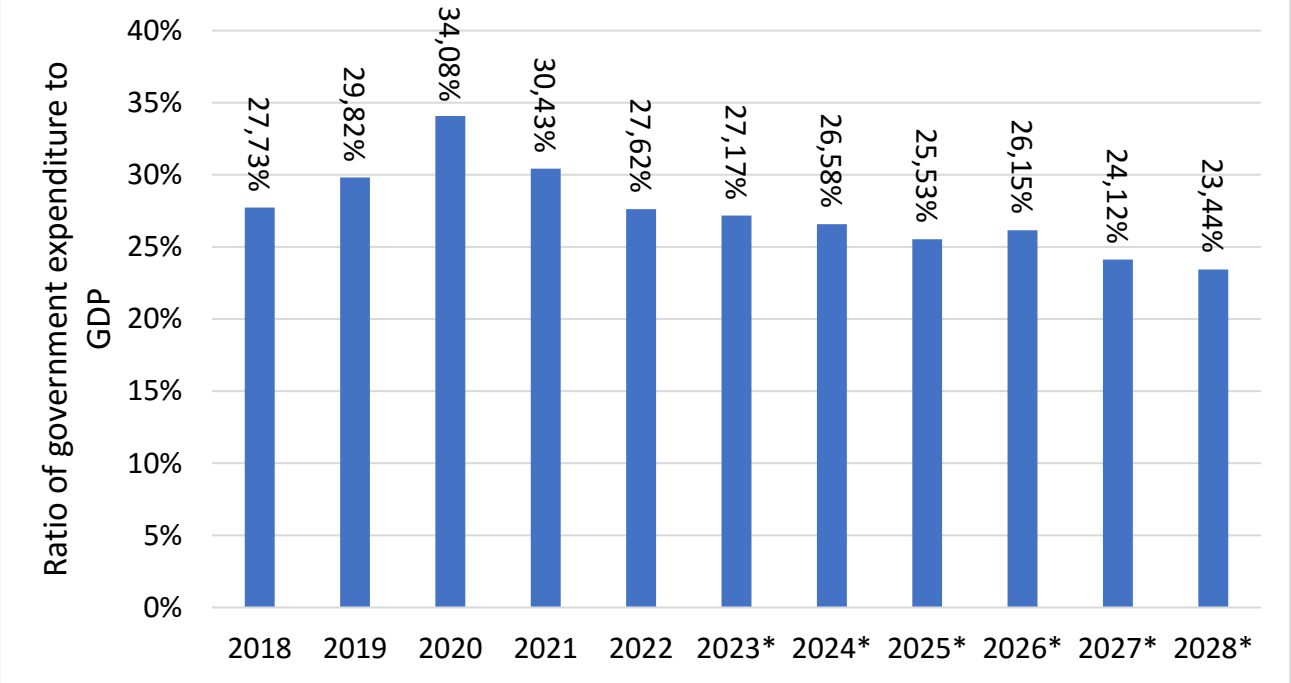
Overall, the priority sectors for investment, growth and job creation articulated in the seven National Development project (7NDP) have been maintained in the 8NDP. However, the draft 8NDP differs in structure from the 7NDP, which included specific targets under various developmental outcomes. Nonetheless, the overall development framework remains the same.

Analyzing public expenditure of Zambia

Monitoring the specific circumstances of each year, analyzing the causes of deviations, and maintaining compliance with international standards are critical for thorough economic research and policymaking.

Figure 2.

Shows Zambia: Ratio of government expenditure to gross domestic product (GDP) from 2018 to 2028




Source: Statista: https://www.statista.com/statistics/457711/ratio-of-government-expenditure-to-gross-domestic-product-gdp-in-zambia/

Zambia's government expenditure-to-GDP ratio is expected to fall by 3.7 % between 2023 and 2028 due to a mix of economic, fiscal, and strategic considerations as shown in figure 2 above. The predicted economic development over this time is a crucial driver, contributing to GDP increase while reducing government spending as a proportion of the overall economy. Furthermore, fiscal policy measures aimed at limiting expenditures and improving spending efficiency contribute to the declining trend [19].

Strategic government spending, potentially focused on high-impact industries and effective resource distribution, helps to the overall decrease. Changes in the net acquisition of nonfinancial assets, a component of general government expenditure, have an impact on the ratio, emphasizing the need of competent nonfinancial asset management in overall fiscal strategy.

Global economic factors, especially swings in commodity prices have influence both GDP and government spending. Efforts to diversify the economy beyond conventional industries has contributed to the observed pattern. A diverse economy is frequently more resilient and less dependent on government spending in specific areas. The anticipated government expenditure to GDP ratio of 23.44 percent in 2028 reflects the sum of these components, displaying a deliberate approach to fiscal management and economic development.

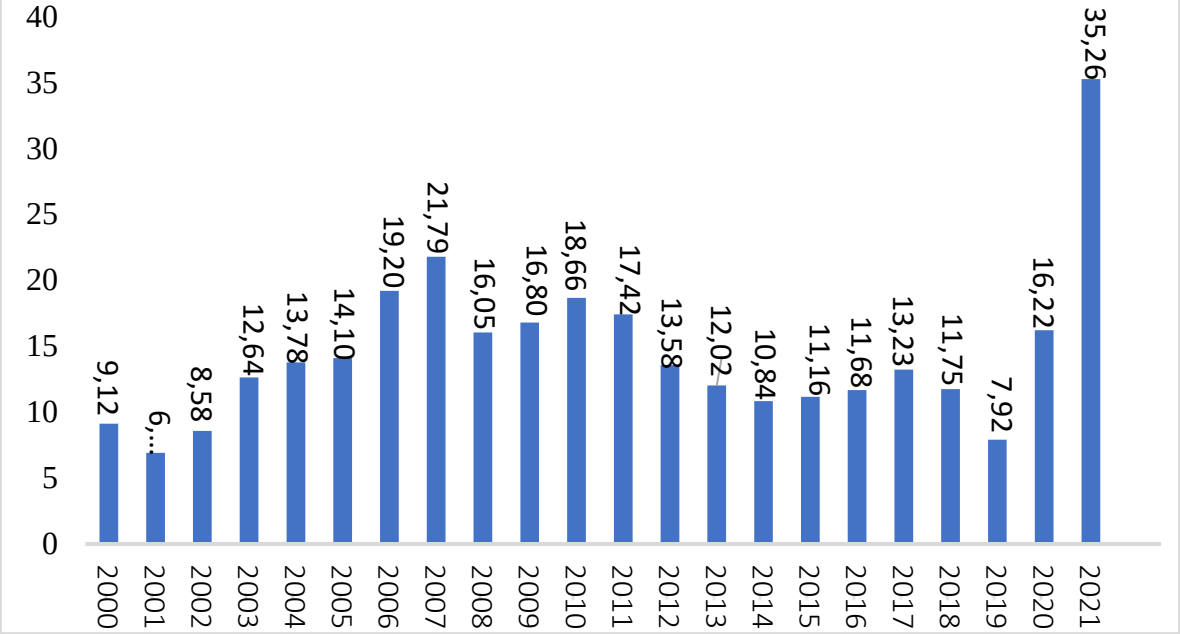
Analyzing Zambia’s Total Natural Resources Rents (percent of GDP)

Total natural resource rents include oil rentals, natural gas rents, hard and soft coal rents, minerals rents, and forestry rents.

According to the World Bank's database of development indicators derived from officially recognized sources, total natural resource rents (% of GDP) of Zambia were reported at 35.26% in 2021 as shows in the figure 3 below. Zambia – Total rents for natural resources (as a percentage of GDP) – actual figures, historical data, forecasts, and estimates were obtained from the World Bank in October 2023 in which is detailed as follows 2:

Figure 3.

Shows Zambia’s total natural resources rents (percent of GDP) from 2000-2021.




Source: Data collected from the World Bank3. (Access date: 27.01.2024).

[2] W. B. Group, "Worldbank.org," [Text electronic]. Available: https://data.worldbank.org. [Accessed 15 10 2023].
[3] W.B. Group W. B. Group, "Worldbank.org," [Text electronic]. Available: https://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS Accessed 30.01.2024].

Zambia's major trade is copper and it offers its mineral at the cost set by the London Metal Exchange, it's clearly shown by figure 3 above that in 2021 the natural resource rents by GDP reached 35.26 percent. This shows an increase of about 26.14 percent compared to 2000 when the all situation was unstable, due to encounters changes depending on an assortment of components, such as speculative activity, demand and supply.

The Dutch illness theory is not energetically bolstered or denied by the case of Zambia. In differentiate to these financial speculations, all of the political causal instruments proposed by the asset revile hypotheses are show within the Zambian case to different degrees 4. Basically, the government utilized resource rents to carry out effective infrastructural ventures that help explain the relative financial development.

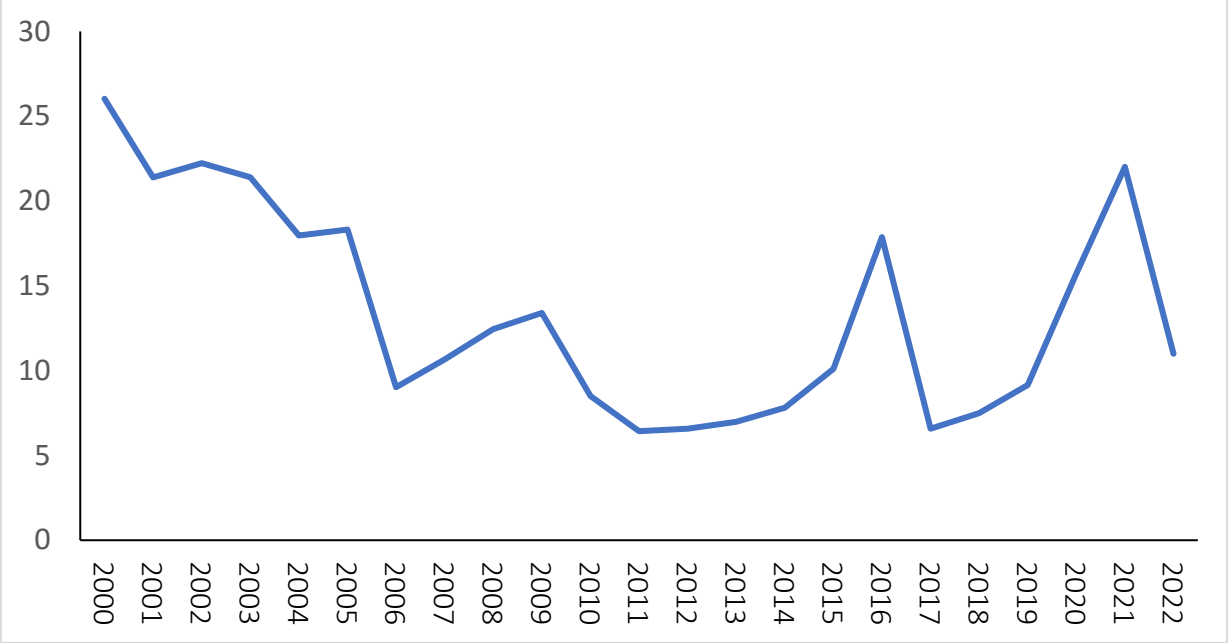
Inflation, consumer prices Index (annual inflation %)

The consumer price index measures inflation as the average percentage change in the cost to a typical consumer of purchasing a basket of goods and services that can be set or modified at predetermined intervals, such as yearly.

In Zambia annual inflation quickened for the third month to 12% in September 2023, the highest since March 2022, up from August's 10.8%, amid the ongoing depreciation of the kwacha. Food inflation accelerated 13.4% compared to 12.6% in August, mainly on account of prices of cereals and meat. Non-food prices also rose faster 10.1% compared to 8.5%, especially those of transportation 22.9% compared to13.3%, namely the purchase of vehicles and fuels & lubricants. On a Monthly basis, consumer prices rose by 0.7% in September, after a 0.8% increase in the prior month as shows the following figure:

Figure 4.

Shows Zambia's Inflation Rate from the period of 2000-2022.




Source: Data collected from Trading Economics5 (Access date: 27.01.2024).

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Inflation in Zambia, like in many countries, can be influenced by a variety of factors such as:

- Monetary Policy: The management of the money supply by the central bank can impact inflation. In case the money supply rapidly increased by the central bank, it can lead to demand-pull inflation as consumers and businesses have more money to spend.
- Exchange Rate Fluctuations: Zambia's economy is heavily dependent on imports. A depreciation of the Zambian kwacha can increase the cost of imported goods, leading to cost-push inflation.
- Rising Food Prices: Food prices, especially staple foods like maize, have a significant impact on inflation in Zambia. Factors such as droughts, poor agricultural productivity, and supply chain disruptions can lead to food price increases.
- Energy Costs: Fluctuations in energy prices, particularly the cost of fuel, can affect production costs and transportation expenses, contributing to inflation.
- External Shocks: External factors like changes in global commodity prices, especially copper (a major export for Zambia), can influence inflation in the country.
- Fiscal Policy: Government spending and taxation policies can affect inflation. If the government increases spending without adequate revenue sources, it can lead to inflationary pressures.
- Supply Chain Disruptions: Events like the COVID-19 pandemic can disrupt supply chains, leading to shortages and price increases for certain goods and services.
- Wage Increases: If wages rise significantly without corresponding increases in productivity, it can lead to demand-pull inflation as workers have more purchasing power.
- Inadequate Infrastructure: Infrastructure challenges, such as poor transportation and energy supply, can result in higher production costs and limit economic growth, potentially contributing to inflation.
- Global Economic Conditions: Global economic events, such as economic downturns or recessions in major trading partners, can affect Zambia's export demand and economic performance, influencing inflation [20].

To combat inflation, central banks often use a combination of monetary policy tools, such as adjusting interest rates and implementing open market operations. Additionally, government fiscal policies, including responsible budget management, can play a role in controlling inflation. It's important for policymakers to carefully analyze the specific causes of inflation in Zambia and tailor their responses accordingly to maintain price stability and economic growth.

Thus, the study shows that despite the limited resources and opportunities for economic development, Zambia has sufficient potential and can achieve significant success with a competent focus on priority areas, provided that the available resources are used effectively.

POLICY RECOMMENDATION

Fostering economic development in developing countries is a complex and multifaceted challenge that requires a combination of policies and strategies. Here are some policy recommendations to promote economic development in Zambia:

Education and Skills Development: Enhance education and vocational training systems to create a skilled workforce capable of contributing to economic growth and innovation in Zambia.

Like in any other economy, Education and skills development play a crucial role in driving economic development by equipping individuals with the knowledge, abilities, and tools they need to contribute effectively to the workforce and broader the economy which leads to the formation of Human Capital. When individuals acquire knowledge and skills, they become productive workers and contribute to various sectors of the economy. A well-educated and skilled workforce is more productive, leading to higher output and efficiency in various industries. This, in turn, enhances a nation's overall productivity and economic performance.

Education fosters critical thinking and problem-solving skills. The Zambian government should invest in scientific research and development skills (R&D) by identifying areas that have the potential to contribute to the Nation's economy.

For example, coming up with social and culture projects in low developing areas and promoting them to the world. Geographically Zambia is located on a region where most scientists believe that human evolution began. One of the first significant human fossil found in Africa was discovered in Northern Rhodesia which is now called Kabwe, Zambia in 1921. The cranium was discovered in Broken Hill mine, a lead and zinc mine in Central part of Zambia by Tom Zwiglaar, a Swiss miner and a Zambian miner whose name was not recorded.

It was here that humanity emerged as a species and the conditions of this region of Africa are ideal for the human body, so it is possible to create recreation areas and sanatoriums for the treatment of people from all over the world. If Zambia does this first, it will gain a great competitive advantage by accumulating experience and training personnel. But to do this, we must first conduct scientific and marketing research, they will not require large expenditures from the state, but may later become the basis for rapid development and attracting investment.

1. *Human Capital Development:* Prioritize human capital development, including healthcare and education, as well as the retention of skilled professionals within the country.

In Zambia, human capital can significantly contribute to economic development in several ways if the government invest in education and skill development centers which will helps the country to build a knowledgeable and skilled workforce, this will foster innovation and productivity. This will enhance social, stability and political development, creating a conducive environment for economic growth, attracting investments, and ensuring long term stability. The initiative can address issues related to scarcity of resources distribution and reduce the problem of income inequality and promote social inclusion which will result in contributing to more equitable and inclusive economic growth.

The Government of Zambia should establish a university that will train specialists and conduct research in the following areas:

- National culture – teacher training, creation of textbooks and teaching aids, collections of myths, fairy tales and descriptions of the traditions of the tribes inhabiting Zambia;
- Healthcare- training and research of the unique natural zone of Zambia to create a network of sanatoriums and rest homes for visitors from all over the world;
- Create their own scientific school of anthropology and conduct research on the trace of ancient people in Zambia in collaboration with anthropologists from other countries, which will increase the scientific prestige of the country.
- Nature and tourism- training of personnel for nature reserves and infrastructure of tourist routes.

CONCLUSION

In general, the country is ready for changes and the development of existing potential, but cannot afford significant investments, so we need to start with steps that do not require large expenditures, but promise good results in the near future.

The population of Zambia is multi-tribal, these tribes have not yet turned into a single Nation, but the state leadership understands this need, since the country's motto is: One Zambia, One Nation.

A mono-National country allows you to quickly develop the domestic market and successfully fight corruption, since there is one language, one culture and one tradition in the whole country, people everywhere easily understand each other and are ready for business cooperation. For example, in Russia you can drive thousands of kilometers and everywhere you will meet people who are absolutely like those who live at the place of departure for the trip. The legislation is the same throughout the country and there is no need to adapt the laws to the tradition of individual tribes.

Zambia's peaceful coexistence among tribes offers a significant advantage. A united nation can be formed through a common culture, requiring consistent state policy implementation. Schools should study other tribes' culture and share fairy tales and myths. High literacy and cultural heritage enable quick knowledge mastery and a developed economy. For example, Japan was an isolated medieval country back in the middle of the XIX century, but in a few decades, it managed to turn into a developed capitalist power and avoid the fate of a colony, as happened with China, thanks to a mono-National population and high level of culture, since more than 50% of population could read and write. Japanese culture was far from European, but the purposefulness of the Japanese and the high level of intellectual development allow them to quickly master European science and production.

Improving aviation and road infrastructure, including airports, modern roads and air transport, facilitates can better connectivity domestically and internationally. This connectivity promotes trade, tourism, and business interactions, contributing to economic growth.

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