JEL Classification: Q21; M21

Ganama Moustapha Gueme,
University Tun Hussein Onn Malaysia
Maimunah Binti Ali,
University Tun Hussein Onn Malaysia
Khalil Kaya,
University Tun Hussein Onn Malaysia
Khadar Ahmed Dirie
School of Islamic Business Studies, Universiti Utara Malaysia

FACTORS AFFECTING ECONOMIC GROWTH IN CHAD: A REVIEW PAPER

Received 16 January 2020; accepted 20 January 2020; published 23 January 2020

Abstract. *The objective of this paper is to review the factors affecting economic growth of Chad. Economic growth is defined as the increase in the overall percentage output in an economy designated as a region, a nation, or a municipality. For example, economic growth is closely related to income distribution, the structure of an industry, as well as the demographic aspects of the economy. According to the United Nations, more than half of the world's economies have experienced accelerated economic growth between 2017 and 2018. And the rate of growths in several countries have increased closer to their potential. More often, economists have used both theory and empirical research to explain the cause of economic growth. Among the factors affecting the economic growth of Chad, the present study review gives a clear idea based on economic growth, clearly show a gap from previous reports and literature that the country need the most. Thus these challenges give a clear insight that Chad has made regional integration contribution of its growth strategy. Additionally, the paper highlighted recent trends of economic growth of CEMAC countries in line with the main theories and determinants of economic growth. In short, despite the lack of a unifying theory, the study highlighted the existence of several partial theories discussing the role of various factors determining economic performance and growth.*

Keywords: *factors, affecting, economic growth, regional integration.*

Reference to this paper should be made as follows: Gueme, G. M.; Ali, M.B.; Kaya, K.; Dirie, K.A. (2020). Factors affecting economic growth in chad: a review paper. Economics and Finance, Vol. 8; Issue 1, 40-51.

Introduction

The issue of economic growth has long been globally discussed among scholars and policy makers. Yet, more than half of the world population are confronted to continuing high level of subsistence activities (as well as no access to social protection). This problem has further pushed the target level of decent jobs creation to be achieved. For example, the United Nations (2019) stressed that low income growth can jeopardize sustainable development goals due to low infrastructure and inadequate health improvement. On the other hand, unemployment rates in many developed economies have declined to historical lows. As such, developed economies have faced expansion of steady state of 2.2 % during both years, and the overall global economic growth appears to be robust projected to reach a steady state of 3% in both 2019 and 2020. Among the developing economies, East

and South Asia regions steadily remain relatively strong and have significant growth line of between 5.8 and 5.6 % in 2018. In the meantime, economic growth in Africa needs to increase to double digit levels in order to reach the poverty reduction target level as one of the UN objective of millennium development (Bangura, 2019).

Chad has played a tremendous role through the contribution to development of regional integration infrastructure such as electricity interconnection, including the preservation of the Lake Chad Basin, a fibre optic backbone project, as well as the interconnection between Algeria-Niger-Nigeria-Chad trans Saharan road (African Development Bank Group, 2019). Shortage of recent studies and researches related to the topic are still under research infancy stage (e.g. the African Development Bank & African Development Fund, 2015; Danquah & Ouattara, 2014).

Literature review

Economic growth

The Library of Economics and Liberty (2019) defines economic growth as an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. Shaerer (1961) argued in his book of "the concept of economic growth" that for measurement purposes, economic growth of a nation can be defined as a sustained increase in its population and product per capita. Similarly, according to Paul Baron, economic growth is defined as an increase over time in per capita output of material goods where growth of gross national output or per capita output is an indicator of economic growth (Saxena & Bansal, 2019). It firstly leads to an (i) increase in national product towards growth in money value of goods and services, which is not sufficient for a nation's economy as it simply increases the price of goods and service. Here, growth is considered in physical term where therefore, the production of different goods and services must increase in an economy.

Secondly, (ii) an increase in per capita output whereby under the growth process, not only the total volume of production increases, but simultaneously total population will also increase. Thus, capital output will also increase over time to maintain the same growth rate. It often helps to solve the problem of physical output of goods and services per capita in any economy. As a result, economic growth can be attained from either the increase in the total output, population by ensuring that the capital formation therefore lead to increase in entrepreneurship (Novickytė, Rabikauskaitė & Pedroja, 2016; Fotune, 2018; Feldstein, 2020). Even though product per capita is not simply an approach towards an increase in aggregate output as the criterion of growth, but necessitate total output to increase with no change in the population size. Kuznets argued that the definition of economic growth must therefore reflect common experience. For Kuznets, common experience reflects the sustained increase in per capita product combined with secular stagnation or decline in population. Therefore the operating definition of economic growth must involve the evaluation of the economic activities in a country in terms of its contributions to the glow of welfare generating want-satisfactions (Acemoglu, 2008).

Indicators of Economic Growth

The most common used measure for the economic growth of a country is the change in *gross domestic product (GDP).* The production of these goods and services generates households' primary incomes, and another method of measuring GDP is therefore the sum of the incomes generated (GrasjÃ & Arvemo, 2011). Beside, a wide range of empirical studies investigated the causal factors of economic growth using different conceptual and methodological point of views. These studies have also placed attention on different set of explanatory parameters by offering a number of various insights to the sources and factors affecting economic growth (e.g. Ndambiri, Ritho & Ng'ang'a, 2012; Hassan, Sanchez & Yu, 2011; Bullard, 2017; Susic, Stojanovic-Trivanovic & Susic, 2019). For example, *human capital* is an important indicator of economic growth. As human capital refers to the skills and know-how of the workers through education and training. Hence, majority of studies and literatures have employed proxies related to education such as school enrolment rates, tests of mathematics and scientific skills among others to determine the measure of the quality of human capital. Therefore, empirical evidence from previous studies suggest that educated population is the key determinant of economic growth (McCracken et al., 2017).

Results

Research and Development (R&D) is another important indicator of economic growth because it plays a major role in the economic progress by promoting increase in productivity and growth in an economy (Hall, 2009). For instance, R&D contribute to the promotion of to the continuous use of technology towards the introduction of new and superior products and processes leading to innovation. A robust economy would instigate a different trading strategy compared to a weak economy (Marone, 2012).

Meanwhile, among the other indicators, a number of *strong employment* in terms of workforce and job creation lead to the proliferation in GDP. This can occur through an increase in consumer expenditure as well as the increase in the product produced. As such, the level of disposable income (purchasing power parity) can determine consumers demand for goods and services. This also implies that *unemployment rate* is a very significant indicator of economic growth as it clearly shows how strong an economy is (Marone, 2012). For example, when the rate of unemployment is high, and or when there are redundancies, people may have less money to spend on goods and services which can imply a weak growth. Also, less demand for products and services also means that more companies will struggle and fewer investment leading to a decline in GDP.

Furthermore, *a desired and stable level of inflation* indicates strong growth (Abou-Zaid et al., 2016). Usually the desired level of 2% or 3% inflation is consistent with the economy. For instance, Shahid & Mahbuba (2013) emphasized that when inflation is too high, household expenditure become less as their purchasing power will reduce due to the increase in cost of living. As a result, GDP growth will hinder as consumers do not have the ability spend (Melina & Portillo, 2019). While a lower

inflation can also explain lower economic growth (Asongu & Odhiambo, 2019). For instance, when unemployment or low consumer confidence drive low demand leading to a suppression in prices to rise.

Increasing interest rates are significant indicator of economic growth. When interest rate is high, it implies that the economy is recovering. Meanwhile, when interest rate is kept lower to stimulate the economy, borrowing become easier for consumers (Blanchard, 2019). Thus, lower rate of interest means household expenditure increases and it also encourage businesses to borrow more money and invest in their businesses (García-Schmidt & Woodford, 2019). However, the economy tends to hinder when the rate of interest is higher as it become costly for households and businesses to borrow for consumption and for investment on the other hand (Keynes, 2018).

Among the other indicators, *wage growth* is necessary for economic growth as it contribute to consumer demand. Nevertheless, this expenditure power is directly related to household income (Keynes, 2018), but demand alone cannot increase if consumer do not possess sufficient disposable income expenditure. For instance, both Pigou and Keynes explain that when productivity increases, wages growth can increase as well without increasing the real cost of labour for firms. Meaning that a stronger economy is followed by more investment and production after productivity increases with wage growth (Pigou, 2017). Meanwhile an economy is facing lack of demand for goods and services due to lower wage rate growth, the country is hindering economic growth.

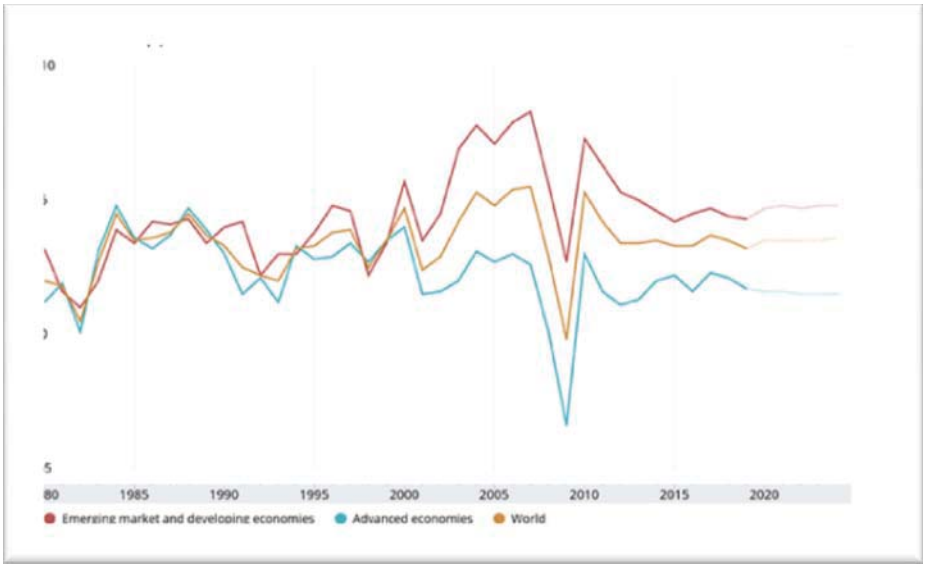

Figure 1. Real GDP growth (Annual % change)

Source: Adapted from Ndambiri, Ritho & Ng'ang'a (2012)

At the same time, according to the Global Economy.com (2018), *higher industrial production* is a good indication of a strong economy. As manufacturing production data provide important indicator about a nation's economic output. For instance, an increase in industrial output indicates economic growth due to the

increase in goods and services. *Consumer demand is among the variables which drives a strong GDP growth.*

Among the emerging markets and developing economies, advanced economies, and the overall world real GDP between the year 1980 projected to 2020, Figure 1 shows that these nations have achieved sustained and robust GDP growth. Ethiopia, Turkmenistan, Mongolia, Uzbekistan, China, India, Laos, Rwanda are among close to 200 routinely surveyed by the IMF (Ventura & Pham, 2019). For instance, Rwanda, with its extensive economic development and poverty reduction programs, shows that an efficient and democratic political institutions have improved the country's growth.

Factors Affecting Economic Growth

For centuries, economists have been questioning about what really determine economic growth in order to predict the future economic expansion (Platteau, 2015). More simply, economic growth consists of an increase in the inflation-adjusted market value of the goods and services produced by an economy over time, which is most cases a year (Van, 2016). Hence, there are various factors affecting economic growth in every nation.

Population growth

Malthus, an economist of the late 18th centuries predicted the expanding population growth together with limited resources and declining productivity resulted in only a subsistence income (Millington & Cleland, 2017). According to the World Population Review (2019), the average population growth of Chad is 3% per year and is expected to continue to growth further despite the country faces unstable economic growth, which slow down the country's economy (World Population Review, 2019). Hence, in order to maintain balance with the rising population and to regain sustainable recovery from the recession, some 600 million new jobs need to be created globally by 2030. For instance, the 8th sustainable development goal aims for higher economic productivity and at least 7 percent annual GDP growth in the least developed countries (Millington & Cleland, 2017).

Technology

According to Malthus, the agrarian slow growth era seemed quiet impossible for the land to provide for everyone with abundant plenitude to satisfy household needs and wants. Hence, in order to explain why over long periods economic growth appears to be accelerating, as well as why some countries growth faster than others, the endogenous growth literature arose of the desire to explain these scenarios. As a result, with the technological progress over the last centuries, the issue of the traditional land alternative for abundance is no longer a non-resolvable phenomenon. As new products appear to generate other products, technology seems to be advancing at every increasing rates (Gould & Ruffin, 1993). The neoclassical growth was introduced by Ramsey and Solow in 1956 (Jones, 2016). Assuming exogenous technological change, constant returns to scale, substitutability between capital and labour, and diminishing marginal productivity of capital (Kónya, 2018). There are

three main important claims in the neoclassical growth models. Firstly, increase in the investment and saving ratio (capital-to- labour ratio) is the key source of economic growth. They assume that economies will eventually reach a state where no new increase in capital-to-labour ratio (investment and savings ratio) is the key source of economic growth (Elryah & Qian, 2015). Secondly, economies will eventually reach a certain level where no new increase in capital will create economic growth (steady state), unless there are technological improvements enabling production with fewer resources (Freeman, 2013). Thirdly, the neoclassical model also emphasizes that for the same amount available, the less advanced economies would grow faster than the more advanced ones until steady state is reached, and thus such economic convergence is to be achieved (Inglehart, 1997; Ishiaka, 2015).

Innovation and research and development (R&D)

Innovation and research and development (R&D) activities can play a major role in economic progress in increasing productivity and growth. This role has been stressed by various endogenous growth models with the strong relation between R&D and economic growth being empirically affirmed by many studies (Gujrati, 2015; Elryah & Qian, 2015). The endogenous growth theory pioneered by Romer and Lucas, indicate that the introduction of new accumulation factors, such as knowledge and innovation, will induce self-sustained economic growth, leading to contradictory growth patterns (Romer, 1990). The crucial property of these models is constant as the causal effect of increasing returns to capital is induced by the endogenous character of production technology.

Human capital

A large number of studies such as Boianovsky & Hoover (2009); Alataş et al. (2016); Papakonstantinou (2017); McCracken et al. (2017); Ali, Egbetokun & Memon (2018); have found evidence suggesting that educated population is a key determinant of economic growth. In developing countries, the focus of human capital as one of the key drivers of economic growth has led to undue attention on school attainment (Ahcène & Paksoy, 2018). For instance, this result has shifted attention to issues of the quality of school education which implies that developing countries have been less successful in closing the gaps as compared to developed countries. Despite the significant progress made towards the years, developing countries still failed to improve the quality of school education which have made difficult for these countries to improve their long run economic performance. Meanwhile, scholars have often questioned the findings regardless of the importance of human capital as a substantial determinant of economic growth (Piketty, 2015). For example, Nickolas (2018) found a strong correlation between human capital and economic growth since investment tend to boost productivity. For example, the process of educating a workforce is regarded as a type of investment. But instead of capital investment such as equipment, the investment is in human capital (education). He suggested that human capital affects economic growth and can thus help to develop an economy towards expanding knowledge and skills of its people.

Economic policies

In recent decades, economic policies and macroeconomic conditions have also attracted much attention as determinants of economic growth. Besides, economic policies can affect several aspects of an economy through investment in human capital, infrastructure, as well as the improvement of political and legal institutions. This is because these economic policies and macroeconomic conditions can set a framework where economic growth takes place. For example, stable macroeconomic environment can favourite growth through the reduction of uncertainty. Whereby on the other hand, macroeconomic instability may have a negative impact on growth through productivity and investment. Several macroeconomic factors with impact on growth were recently identified in the literature concerning inflation, fiscal policy, budget deficits and tax burdens (Spiegel, 2007; Gujrati, 2015; OECD Economic Outlook, 2018).

International trade

A country open to international trade may also experience faster technological progress and increased economic growth because the cost of developing new technology falls as more high-tech goods are available (Johnson, 1958). Besides, trade is an important element increasing growth since it allows the availability of greater variety of products and technology (Chanthunya & Murinde, 2019). Among the factors affecting the economic growth in Africa, a study investigated by Anyanwu (2014) on the determinants of economic growth in the north and Sub Saharan Africa using an Africa-only sample with five non-overlapping averages of three years cross sectional data between 1996 and 2010. The study also collected data for China from 1980 to 2010. The results suggested that domestic investment, net official development aid (ODA) inflow, education, government effectiveness, urban population, and metal prices all have positive and significant effect on the economic growth of Africa.

According to the World Bank this is due to the fact that developing countries such as those in the CEMAC sub region are progressively adapting to the decrease in commodity prices. For example, a country like Chad moves from -3.5% in 2016 to -0.3% in 2017, with forecasts predicting 4.7% and 6.3% in 2019 (Fouthe & Ndedi, 2017). On the other hand, the author also highlighted that among the empirical papers of growth in developed countries, factors such as education and technology improvements have a positive relationship with economic growth which is not the case for developing and under developing countries like Sub Saharan African countries which import more goods than exporting them. As a result, in slow economic growth in the region (Wahiba & Weriemmi, 2014). Similarly, the relationship between income inequality and economic growth in Tunisia have grabbed the attention of scholar such as Wahiba & Weriemmi (2014). The empirical study employed data collected from the period of 1984 to 2011 where the results shown that variables such as economic growth, and openness exchange constitute the major factors of inequalities. Inequalities were found to negatively affect economic growth due to the failure of income redistribution policies; while human capital and

financial development appear to contribute to alleviate the major factors of inequalities by promoting growth in the country (Wahiba & Weriemmi, 2014).

Income per capita and output per worker

As the term growth refers to the quantitative aspect of economic progress of a country, there are also very large differences in income per capita and output per worker across countries nowadays. For example, countries at the top of the world income distribution are more than thirty times rich as those at the bottom. For instance, in 2000, GDP (or income) per capita in the United Sates was over $33000. In the contrary, income per capita is much lower in a number of other (developing and under developing) countries. For instance in Mexico GDP per capita was less than $4000, followed by China with less than $2500 in India; while Nigeria has only about $700, and far much lower in some other sub-Saharan African countries such as Chad, Ethiopia, and Mali (Acemoglu, 2008).

Economic growth in Chad

Ever since Chad has joined the list of oil producing countries in 2003, the economy has been heavily dependent on oil. Most importantly the greatest challenges include shortage of skilled labour forces as one of the major obstacles to investment. As a result, the government continues with plans to diversify the economy as 75% of the working population rely in agriculture, which constitutes the primary sector of employment of Chad (The Heritage Foundation, 2019).The economy of Chad grew at 1.5% year on year in 2018 and to 3.8% in 2017, as the output of the country rebounded for primary activities illustrated in Figure 2.

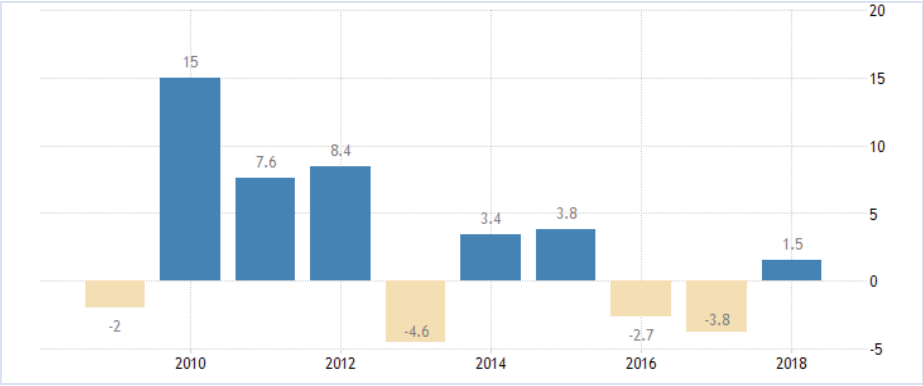

Figure 2. GDP Growth of Chad (2010-2018)

Source: Adapted from Trading Economics (2019)

On the contrary, declines were seen in both secondary (-1.5% versus 7 %) and the tertiary (1.9% versus -4.9 percent) sectors. While the annual GDP growth rate in Chad averaged to 3.07% in 1961, and -21.44% in 1979 representing the lowest record of the country; and an all-time higher record of 34.30% in 2004. Overall, the growth rate of Chad averaged 3.07% from 1961 until 2018. The fiscal balance was an estimated surplus of 0.1% of GDP, up from a deficit of 0.8% in 2017, as a result of

increased revenue (mainly from oil), budget support and control of total expenditure, particularly salaries (down 6%) (International Monetary Fund, 2014).

The economic growth in Chad (Table 1) is evaluated from the overall gross domestic product of the country. For instance, in 1961, the growth rate of GDP was -3.80% which slightly improved in 2018 to 1.5%. For instance, Upreti (2015); Nwala (2018) conducted research to identify the factors affecting economic growth within CEMAC countries using high volume of exports, abundant natural resources, longer life expectancy, and higher investment rates as variables shown positive impacts on the growth of per capita GDP for developing countries.

Table 1

Chad GDP at Annual Growth Rate (Between 1961-2018)

Chad GDP	Last	Previous	Highest	Lowest	Unit
GDP Annual Growth Rate	1.50	-3.80	34.30	-21.44	percent
GDP	11.30	9.98	13.92	0.31	USD Billion
GDP per capita	813.30	816.70	960.40	405.70	USD
GDP per capita PPP	1746.50	1753.80	2062.30	991.60	USD

Source: Bank Central of African States (2019)

As the scope of existing research is limited due to a lack of reliable data, the authors (Fouthe & Ndedi, 2017) suggested the need of further research in order to distinguish the causes of growth in developing countries. Similarly, Gilbert, Orfé & Kamajou (2020) conducted a study to assess the simultaneous impact of public and private investments on economic growth in the CEMAC region between 1984 and 2017. The results show that contrary to economic theory, private sector investments have positive and significant effects in the short term. However, the impact of public investments is negative and significant in the process of sustainable growth.

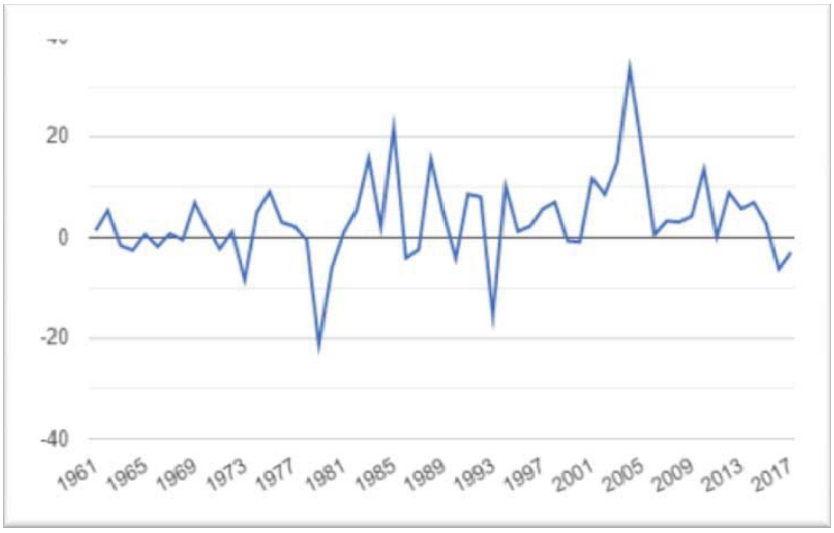

Figure 2. The rate of Change in real GDP of Chad

Source: Adapted from The Global Economy.com (2018)

Figure 3 illustrates the economic growth of Chad measured from the rate of change in real GDP from 1961 to 2017. The data collected from the World Bank indicate the average value of real GDP is 3.49% in 2017 and -21.44% in 1961 which show an improvement in the country's growth over the years. According to the Global System Mobile Association (GSMA), the mobile sector is a key contributor of the economic growth of Chad.

The contribution of the mobile sector to state tax revenues in Chad, including all tax and royalty payments, is more than four times its share of GDP. For example, in 2015, mobile services generated market revenues of USD 300 million (XAF 117 billion), which is 2.7% of Chad's GDP (GSMA, 2016).

Conclusion

The paper raised important factors affecting the growth of countries around the World and the growth of Chad in particular. The country's overall growth increased by 0.6 %, with improvements in labour freedom, fiscal health, and monetary freedom exceeding a decline in the freedom of the business sector and trade freedom. This implies that Chad is ranked 36th among 47 countries in the Sub Saharan African region, and its overall score is well below the regional and the world averages (World Population Review, 2019). Although the developing countries have made significant progress in closing the gap with developed countries in terms of school attainment, yet recent studies have raised the issues concerning the importance of cognitive skills for economic growth (Hanushek, 2013).The contribution of the mobile sector accounting for less than 3% of GDP, the sector generated 12% of the government's total tax revenue in 2015 (GSMA, 2016). Alongside, the country is experiencing greatest challenges driven by lack of industrialization strategy. The secondary sector of the country account a GDP of less than 15%. The deficit of infrastructure remains very pronounced with an index sector of only 7.23 out of 100 resulting in a rank of 51 out of 54 countries in 2018. This implies that the economic growth of Chad is still critical.

References

Acemoglu, D. (2008). Introduction to modern economic growth. Introduction to Modern Economic Growth. Retrieved from https://www.theigc.org/wp-content/uploads/2016/06/acemoglu-2007.pdf

African Development Bank, & African Development Fund. (2015). Country Strategy Paper 2015-2020 For Chad, 2.

African Development Bank Group. (2019). Africa Economic Outlook Africa Economic Outlook.

Ali, M., Egbetokun, A., & Memon, M. H. (2018). Human capital, social capabilities and economic growth. Economies, 6(1), 1–18. https://doi.org/10.3390/economies6010002

Bangura, Y. (2019). Convergence Is Not Equality. Development and Change, 50(2), 394–409. https://doi.org/10.1111/dech.12489

Bank Central of African States. (2019). Chad GDP Annual Growth Rate | 2019 | Data | Chart | Calendar | Forecast. Retrieved September 11, 2019, from https://tradingeconomics.com/chad/gdp-growth-annual

Boianovsky, M., & Hoover, K. D. (2009). The neoclassical growth model and twentieth-century economics. History of Political Economy, 41(SUPPL.1), 1–23. https://doi.org/10.1215/00182702-2009-013

Bullard, J. (2017). Current Growth , Inflation and Price Level Developments in the U . S ., 1–33.

Danquah, M., & Ouattara, B. (2014). Productivity Growth, Human Capital and Distance To Frontier in Sub-Saharan Africa. Journal of Economic Development, 39(4), 27–48. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=100942878&site=eds-live

Djapou Fouthe, C., & Ndedi, A. (2017). Analyzing Factors Affecting Economic Growth within CEMAC Countries. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2986075

Feldstein, M. (2020, January 7). The Economic Stimulus and Economic Growth. House Democratic Steering Committee.

Fotune. (2018). US Debt: Can America's Economy Keep Up With Federal Deficits? | Fortune. Retrieved April 20, 2018, from http://fortune.com/2018/02/16/us-debt-deficit-economic-growth/

Gould, D. M., & Ruffin, R. J. (1993). What Determines Economic Growth ? In Review Literature And Arts Of The Americas (pp. 25–40). Retrieved from https://www.dallasfed.org/~/media/documents/research/er/1993/er9302b.pdf

GrasjÃ, U., & Arvemo, T. (2011). Different measures of economic growth lead to different conclusions? ERSA Conference Papers. Retrieved from https://ideas.repec.org/p/wiw/wiwrsa/ersa10p1515.html

Gujrati, R. (2015). Microeconomic and Macroeconomic: Issues & Effects on Economic Growth. International Journal of Recent Scientific Research, 6(7), 5310–5317. Retrieved from http://recentscientific.com/sites/default/files/3012.pdf

Hall, B. H. (2009). Research and development Key : Research and development. In Oncology (Vol. 12, pp. 18–19). Retrieved from https://eml.berkeley.edu/~bhhall/papers/BHH06_IESS_R&D.pdf

Hanushek, E. A. (2013). Economic growth in developing countries: The role of human capital. Economics of Education Review, 37, 204–212. https://doi.org/10.1016/j.econedurev.2013.04.005

Hassan, M. K., Sanchez, B., & Yu, J. S. (2011). Financial development and economic growth: New evidence from panel data. Quarterly Review of Economics and Finance, 51(1), 88–104. https://doi.org/10.1016/j.qref.2010.09.001

International Monetary Fund. (2014). Government Finance Statistics Manual. Retrieved from www.elibrary.imf.org

Jones, C. I. (2016). The Facts of Economic Growth. In Handbook of Macroeconomics (Vol. 2, pp. 3–69). https://doi.org/10.1016/bs.hesmac.2016.03.002

Luca Ventura, & B Pham. (2019). Countries with Highest GDP Growth 2019- Developing Asian and African countries lead with fastest GDP growth in the world. Retrieved from https://www.gfmag.com/global-data/economic-data/countries-highest-gdp-growth

Marone, H. (2012). Measuring Economic Progress and Well-Being: How to move beyond GDP. Oxfam America. https://doi.org/10.13140/RG.2.1.4103.2089

McCracken, M., McIvor, R., Treacy, R., & Wall, T. (2017). Human capital theory: assessing the evidence for the value and importance of people to organisational success. Cipd. Retrieved from https://www.cipd.co.uk/Images/human-capital-theory-assessing-the-evidence_tcm18-22292.pdf

Ndambiri, H. k, Ritho, C., & Ng'ang'a, S. I. (2012). Determnants of Economic Growth in Sub-Saharan Africa : A Panel Data Approach. In International Journal of Economics and Management Sciences (Vol. 2, pp. 18–24). Retrieved from https://www.omicsonline.org/open-access/determinants-of-economic-growth-in-subsaharan-africa-a-panel-data-approach-2162-6359-2-121.pdf

Nickolas, S. (2018). What is the relationship between human capital and economic growth? Retrieved September 14, 2019, from

https://www.investopedia.com/ask/answers/032415/what-relationship-between-human-capital-and-economic-growth.asp

Novickytė, L., Rabikauskaitė, V., & Pedroja, G. (2016). The Impact Of Monetary Variables On The Economic Growth And Sustainable Development: Case Of Selected Countries. Journal of Security and Sustainability Issues, 5(3), 489–499. https://doi.org/10.9770/jssi.2016.5.3(4)

OECD Economic Outlook. (2018). General assessment of the macroeconomic situation, Volume 201, 11–15. https://doi.org/10.1787/eco_outlook-v2018-2-2-en

Papakonstantinou, M. A. (2017). Understanding the Effects of Human Capital on Economic Growth.

Saxena, H., & Bansal, P. K. (2019). Relationship between Economic Factors and Economic Growth. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3319961

Shaerer, R. A. (1961). The Concept of Economic Growth. Kyklos. Retrieved from http://deepblue.lib.umich.edu/bitstream/handle/2027.42/75479/j.1467-6435.1961.tb00368.x.pdf;jsessionid=59244DEA2C765648DEB25642499D0D34?sequence=1

Shahid, M. F., & Mahbuba, E. (2013). Study on nature of inflation and its relationship with GDP growth rate: a Case Study on Bangladesh. IOSR Journal of Economics and Finance, 1(3), 40–49. https://doi.org/10.9790/5933-0134049

Spiegel, S. (2007). Macroeconomic and Growth Policies. New York. Retrieved from https://esa.un.org/techcoop/documents/PN_MacroGrowthPolicyNote.pdf

Susic, I., Stojanovic-Trivanovic, M., & Susic, M. (2019). Foreign direct investments and their impact on the economic development of Bosnia and Herzegovina. In Innovative Ideas in Science- IOP Publishing. https://doi.org/10.1088/1757-899X/200/1/012019

The Global Economy.com. (2018). Chad Economic growth - data, chart | TheGlobalEconomy.com. Retrieved September 10, 2019, from https://www.theglobaleconomy.com/Chad/Economic_growth/

The Heritage Foundation. (2019). 2019 Index of Economic Freedom. Chad Economy: Population, GDP, Inflation, Business, Trade, FDI, Corruption. Retrieved July 16, 2019, from https://www.heritage.org/index/country/chad

The Library of Economics and Liberty. (2019). Economic Growth - Econlib. Retrieved September 9, 2019, from https://www.econlib.org/library/Topics/College/economicgrowth.html

Trading Economics. (2019). Chad GDP Annual Growth Rate | 2019 | Data | Chart | Calendar | Forecast. Retrieved September 11, 2019, from https://tradingeconomics.com/chad/gdp-growth-annual

United Nations. (2019). World Economic Situation and Prospects 2019.

World Population Review. (2019). Chad Population 2019 (Demographics, Maps, Graphs). Retrieved July 16, 2019, from http://worldpopulationreview.com/countries/chad-population/