Research Article

Comparative impact of Covid-19 and common diseases on poverty in Cameroon and sustainable response strategies

Charles Michel CHOMSSEM DEFO
Statistician Economist Engineer; Ministry of Economy, Planning and Regional Development; Yaounde – Cameroon; Email : ccharlesmichel@gmail.com

Abstract

In the context of a developing country like Cameroon characterized by the scarcity of financial resources and the appearance of Covid-19, this article shows that this pandemic was not more important than the pre-existing health problems to the point of giving it more importance in funding compared to strengthening the health system. The theoretical elasticity model of the poverty rate to growth is used to estimate the impact of Covid-19 and the incidence of impoverishing health expenditure is used for the impact of common diseases. It is estimated through direct health payments that common diseases push about 340,865 people into extreme poverty annually. The Covid-19, through the loss of growth generated between 4.8 and 6.6 points according to the optimistic or pessimistic scenarios, would impoverish between 224,193 and 398,565 people: impact on the number of poor ranging from 0.7 to 1.2 times that of all common diseases, i.e., equivalent on average, but sensitive to the speed of spread of the virus and the duration of the crisis while the impact of common diseases is structural and linked to the poorly performing health system. The solutions proposed are endogenous and linked to the impact mechanisms.

Keywords: Covid-19, common disease, poverty, funding.
JEL codes: D31, I14, I18, I32.

Résumé

Dans le contexte d'un pays en développement comme le Cameroun caractérisé par la raréfaction des ressources financières et l'apparition du Covid-19, cet article montre que cette pandémie n'était pas plus importante que les problèmes de santé préexistants au point de lui accorder plus d'importance dans le financement par rapport au renforcement du système de santé. Le modèle d'élasticité théorique du taux de pauvreté à la croissance est utilisé pour estimer l'impact du Covid-19 et l'incidence de l'appauvrissement des dépenses de santé est utilisée pour celui des maladies courantes. À travers les paiements directs de santé, les maladies courantes poussent environ 340 865 personnes dans l'extrême pauvreté chaque année. Le Covid-19, par la perte de croissance générée entre 4,8 et 6,6 points selon les scénarios optimistes ou pessimistes, appauvrirait entre 224 193 et 398 565 personnes : impact sur le nombre de pauvres allant de 0,7 à 1,2 fois celui de l'ensemble des maladies courantes, c'est-à-dire équivalent en moyenne, mais sensible à la vitesse de propagation du virus et à la durée de la crise alors que l'impact des maladies courantes est structurel et lié au système de santé peu performant. Les solutions proposées sont endogènes et liées aux mécanismes d'impact.

Mots clés : Covid-19, maladie courante, pauvreté, financement.
Codes JEL : D31, I14, I18, I32.

Received: 01/10/2022
Accepted: 24/11/2022
DOI: https://dx.doi.org/10.4314/jcas.v18i3.5

1. Problem statement

One of the major challenges in the implementation of social policies in most African countries and particularly the Sub-Saharan Africa (SSA) is the famous funding, given that for several decades, most African countries have not focused on foreign exchange generation. Indeed, the latter initiated industrial development by import substitution after political independence in the 1960s until the end of the 1970s, but it appeared that this model was not sustainable and the weak competitiveness of the companies in increased global competition has been a serious impediment to industrial development (Steel and Evans, 1986; Bikoué, 2010). In the early 1980s, the balance of payments crisis resulting from the cumulative effects of the oil crisis, falling commodity prices and the growing import needs of domestic industries led African countries to the Structural Adjustment Program (SAP). These programs did not yield the expected results and there was a reduction in the trend of growth, a decline in industrial development and an increase in debt (Thandika Mkandawire and Soludo, 1999). The debt burden having become an obstacle to development from the end of the 1990s until the beginning of the 2000s, Africa entered an era of poverty reduction strategies (Dahou, 2003; ECA, 2006). Since the end of this period until today, after macroeconomic and institutional reforms and debt reduction, Africa has experienced a recovery in growth, but paradoxically with an upsurge in unemployment, poverty, and inequality (AfDB, 2016).

Cameroon, particularly with its weak competitiveness on the international level and the structural deficit of its trade balance since 2009 (MINÉPAT, 2019) is no match for the European Union (EU) which benefits in their Economic Partnership Agreement (EPA), a gradual liberalization of its products on the national market since August 4, 2016 (European Commission, 2017), in addition to the emergence of products from China. The country certainly benefits from unprecedented free access to the EU market for certain primary products from 1 January 2008 (European Commission, 2017), but since mid-2014 has been subject to a deep economic and financial crisis caused by the fall in the prices of raw materials, in particular oil, the main export product. In addition, the persistence of cross-border insecurity has generated massive displacements of refugees and led to the decline of economic activities in the eastern region with internal conflicts in the Central African Republic since 2013 (ACAPS, 2014), Far North with the Islamist sect Boko Haram since 2012 (Guibbaud, 2014), North-West and South-West with the Anglophone crisis since 2016 (Petrigh, 2019).

However, the implementation of Universal Health Coverage (UHC) initiated since 2015 by the Cameroonian State to reduce direct household payments caused by common diseases is not yet effective to date when the Covid-19 pandemic occurs, weakens economic activity and exposes the structural inefficiency of the health system.

The management of this crisis has since been at the heart of development policies, and the choices of interventions to be carried out as a priority (particularly in the field of health) are becoming increasingly complex for political decision-makers. On this subject, there is a problem of concentration of available resources towards the management of Covid-19 in Cameroon. Is it therefore effective to fight against Covid-19 in isolation by concentrating on it while neglecting the structural flaws of the health system? Noting that for sustainable and inclusive development, the new gloomy post-Covid-19 context requires new effective/innovative policies and mechanisms not only to respond to the pandemic, but also to strengthen the health system to increase human capital healthy and productive, capable of

supporting the resumption of long-term stable economic growth.

Thus, the purpose of this article is to show that the Covid-19, a large-scale health crisis, has a significant impact on poverty, but the enormous pre-existing health problems cannot be overlooked. Specifically, it will be a question on the one hand of measuring and comparing the impact of Covid-19 and that of common diseases on poverty, and on the other hand of proposing effective and structural solutions based on the impact mechanisms identified. The purpose is to achieve the fact that Covid-19 is a particular disease that amplifies the impoverishment already observed with diseases that have been raging for too long, which requires much more effort and pragmatism from the State to correct and reverse this strong trend in a situation of scarcity of financial resources.

2. Approach, definitions, assumptions

The data for the study are mainly taken from the 2020 macroeconomic framework and the fourth Cameroonian Household Survey (ECAM4) carried out in 2014 by the National Institute of Statistics (NIS). This large-scale household budget-consumption survey is the most recent. The sample size is 10,303 households and the sample is stratified to provide a fairly adequate representation of the population. The database is available in two files, the main file for household characteristics and the secondary file for retrospective expenditures. The processing and merging of these two files without influencing the sampling makes it possible to obtain a single and complete database of information with a sample size of 9,045 households (4,202,267 households after extrapolation). Considering the plausible hypothesis that the health of any individual is financed by the income of the household in which he belongs, the unit of analysis is the household and the results on individuals (or the population) are deduced from it. The main variables are total consumption expenditure, health expenditure, food expenditure, the number of adult equivalents, the food poverty line and the standard of living (poor or not poor). STATA software version 14.1 is used for database processing and data analysis.

Poverty or deterioration of household well-being is assessed on the one hand with Covid-19 and on the other with common diseases. Well-being is approached by the microeconomic concept of utility defined as the degree of satisfaction achieved by an individual with respect to the goods and services he consumes. Consumption is adopted as an indicator of well-being, which makes it possible to define poverty or extreme poverty by an income threshold enabling the basic essential needs of food to be satisfied (in the case of extreme poverty), health, education, housing, clothing, etc. There is no question in this research of saying which group (Covid-19 or common diseases) kills the most people (obviously Covid-19 has little influence on mortality compared to these common diseases in Cameroon), but up to what threshold each group degrades household well-being. The complexity is not being able to estimate these two impacts with the same technique. Indeed, common diseases degrade the well-being of households through the level of expenditure allocated to care, which can be catastrophic and lead to poverty or worsen the situation of the poor. Thus, the decision to incur an expense for treatment can only substitute for everyday consumer goods (food and drink, clothing, housing, etc.) and consequently reduce the well-being of the patient or his household, which increases poverty. Covid-19, on the other hand, is officially covered by the State and the household expenditure allocated to its treatment is nil. However, this pandemic has had a negative effect on economic growth through disruptions in production and in supply chains, the limitation

of commercial and financial transactions between countries, etc. Consequently, it has led to the loss or reduction of jobs and the drop in income, and therefore naturally to the increase in poverty. Thus, the impacts of these two disease groups have different transmission mechanisms but are comparable in their degree of depletion and their evolution. Poverty here is extreme poverty defined by the food poverty line and the welfare indicator is consumption per adult equivalent.

The impact of common diseases on household well-being is measured by the proportion of households pushed below the food poverty line because of their expenses incurred by direct payment for services and health care[1]: this is the difference between incidences of poverty before and after payment. Common diseases are communicable or non-communicable diseases that are commonly found in Cameroon (malaria, tuberculosis, HIV/AIDS, diarrhoea, respiratory diseases, malnutrition, etc.). The fundamental question is whether after being afflicted with a disease and being cured, the patient or his household becomes poor, or still manages to satisfy his basic needs (i.e. stays above of the poverty line). The "poverty gap" variable is used to assess the extent to which direct payments linked to common diseases contribute to increasing the poverty of households that are already poor (located below the poverty line) and forced to incur health expenditure.

The estimation variables below are defined before and after payment for health services by indicating the powers "p" and "q" respectively.

Before payment for health, let tCE_i^p and $tCEa_i^p$ respectively be the total consumption expenditure and total consumption expenditure per adult equivalent of individual i, $\mathbb{1}$ is the indicator function, HE_i the health expenditure for an individual i and z the food poverty line. Then, the occurrence of poverty is defined by the formula [1]: $\boldsymbol{f_i^p = \mathbb{1}(tCEa_i^p < z)}$ **[1]**

The weighted frequency of poverty is given by the formula [2], with w_i the weight of household i and N the number of households:

$$\boldsymbol{F^p = \frac{1}{N}\sum_{i=1}^{N} w_i f_i^p} \quad \textbf{[2]}$$

Let g_i^p be the normalized poverty gap of poor household i, then it is defined by the formula [3]:

$$\boldsymbol{g_i^p = \frac{(tCEa_i^p - z)\,\mathbb{1}(tCEa_i^p < z)}{z}} \quad \textbf{[3]}$$

Thus, the weighted average of the normalized poverty gap of the poor is given by formula [4], with w_i the weight of household i and L the number of poor households:

$$\boldsymbol{G^p = \frac{1}{L}\sum_{i=1}^{L} w_i g_i^p} \quad \textbf{[4]}$$

After payment for health, let $tCEHEa_i^q$ be the total consumption expenditure net of health expenditure per adult equivalent, defined by formula [5], with $Adulteq$ the number of adult equivalents:

$$\boldsymbol{tCEHE_i^q = \frac{(tCE_i^p - HE_i)}{Adulteq}} \quad \textbf{[5]}$$

The occurrence of post-payment poverty is defined by the formula [6]:

$$\boldsymbol{f_i^q = \mathbb{1}(tCEa_i^p \geq z \text{ and } tCEHE_i^q < z)} \quad \textbf{[6]}$$

The normalized poverty gap of poor household i is then given by the formula [7]:

$$\boldsymbol{g_i^q = \frac{(tCEHE_i^q - z)\,\mathbb{1}(tCEHE_i^q < z)}{z}} \quad \textbf{[7}$$

The weighted frequency of poverty F^q and the weighted average of the normalized poverty gap of the poor G^q after payment are deduced from it as in formulas [2] and [4] before payment.

[1] Health expenditures impoverish when, after making these payments, a non-poor household falls below the poverty line (Xu, 2005) or a poor household located below the poverty line moves further away.

Finally, the impact is given by the difference in poverty rates F for the non-poor and by the difference in the standardized poverty gaps G for the poor in formula [8] below. The last indicator G is also measured for the non-poor in order to judge the hypothesis that the impact would be higher among the poor.

$$\begin{cases} F = F^q - F^p \\ G = G^q - G^p \end{cases} \quad [8]$$

The estimate of the impact of the loss of growth due to Covid-19 on poverty is based on the theoretical elasticity of the poverty rate to growth. The approach used is inspired by that promoted by the IMF (Épaulard, 2003). The data allow us to conclude that the consumption per adult equivalent is distributed according to a log-normal distribution. The distribution function F of this law is given by the formula [9]:

$$F(x) = \frac{1}{\sqrt{2\pi\sigma^2}} \int_{-\infty}^{ln(x)} e^{\frac{(t-ln(c)+\frac{\sigma^2}{2})^2}{2\sigma^2}} dt = \Phi\left(\frac{ln\left(\frac{x}{c}\right)}{\sigma} + \frac{\sigma}{2}\right) \quad [9]$$

F is the cumulative percentage of households whose consumption is less than or equal to consumption level x, F the distribution function of the reduced centered normal distribution, s the dispersion of consumption, c the average consumption and ln the logarithm function.

For a poverty line H, the poverty rate h is given by the formula [10]:

$$h = F(H) \quad [10]$$

Thus, for a given dispersion s, the initial instant t-s and the final instant t, the variation in the poverty rate (in percentage points) when average consumption decreases (due to the drop in growth due to Covid-19) is given by the formula [11]:

$$\Delta h = \Phi\left(\frac{ln\left(\frac{H_t}{C_t}\right)}{\sigma} + \frac{\sigma}{2}\right) - \Phi\left(\frac{ln\left(\frac{H_{t-s}}{C_{t-s}}\right)}{\sigma} + \frac{\sigma}{2}\right) \quad [11]$$

When consumption follows a log-normal law, there is a relationship between the Gini index and the dispersion parameter s given by the formula [12]:

$$\sigma = \sqrt{2}\Phi^{-1}\left(\frac{Gini + 1}{2}\right) \quad [12]$$

The extreme poverty line, initial H_{t-s} (in 2020 without Covid-19) and final H_t (in 2020 with Covid-19), is mainly dependent on the food inflation recorded during these respective periods (assuming that eating habits do not change in this period). Indeed, according to the general principle applied by the NIS (NIS, 2015), the basket of basic food products (with a calorific intake of 2900 KCalories) used to calculate the food poverty line consists of a set of goods representative of the national territory which are valued at the current price. The basket of food goods retained in 2014 for the ECAM4 is taken here as a reference and the projection equation is given by the formula [13] below, with H_t the food poverty line at the current price on date t, H^*_{2014} the real food poverty line in 2014 and d_i the deflator that adjusts the real line to inflation (food) to obtain the threshold at the current price. d_{2020} without Covid-19 is different from d_{2020} with Covid-19 because there is slight inflation attributable to Covid-19 according to NIS estimates.

$$H_t = H^*_{2014} \times \prod_{i=2015}^{t} d_i, t = 2015 \; to \; 2020 \quad [13]$$

The relationship to estimate the initial average consumption C_{t-s} (in 2020 without Covid-19) and the final average consumption C_t (in 2020 with Covid-19) is the formula [14] below, with the consumption current average at year t, the real average consumption at date , the real GDP growth rate, the population growth rate and the deflator.

$$C_t = C^*_{t-1} \times (1 + \alpha_t - \beta_t) \times d_t, t = 2015 \; to \; 2020 \quad [14]$$

Indeed, starting from the income optical GDP (compensation of employees + gross operating surplus + taxes net of subsidies received), the average income (average consumption) is assumed to grow at the rate of GDP per capita and the formula follows. The deflator makes it possible to adjust the real average consumption

to (global) inflation to obtain the current average consumption.

From the national macroeconomic framework, the forecast for Cameroon's 2020 real GDP growth rate without Covid-19 is 4.0% and the estimates with Covid-19 show a decline towards -2.6%, that is i.e., a loss of 6.6 pts. According to the Bank of Central African States (BEAC), the pandemic could lead to a loss of around 6.0 points of growth compared to initial forecasts (Ngomba, 2020). According to the macroeconomic outlook of the African Development Bank (AfDB), this growth would decline by 4.8 pts in the base scenario which assumes that the pandemic would slow down in July and by 6.1 pts in the pessimistic scenario if it continues until in December (ADB, 2020).

These different estimates, dependent on the scale and duration of the crisis, are then contained within an interval of 4.8 (optimistic scenario) to 6.6 points (pessimistic scenario), considered in this article. This frames the forecast growth rate with Covid-19 between -0.8 and -2.6%.

3. Results

Impact of common diseases on poverty

The (extreme) poverty rate in 2014 was 19.0% (3,759,958 people) and household expenditure associated with common diseases in that same year increased it to 20.8% (see Table 1), i.e., an increase in the poverty rate of 1.8% in 2014 or 340,865 non-poor people who become poor because of the expenses incurred by their households for healthcare. Under the assumption of a constant[1] impact of expenditure related to common diseases on the poverty rate, in the absence of available data on household health expenditure in 2020, the impoverishment would be around 1.4% of 2020 population.

Moreover, the variation in the normalized poverty gap is +3.9% among the poor and -5.2% among the non-poor, i.e., the two types of individuals are affected by common diseases. The differences in sign on the variation of the normalized poverty gap between the poor and the non-poor simply result from the fact that in the process of impoverishment, the poor move away from the poverty line while the non-poor approach it. The absolute value reflects the intensity of the impact, which is greater among the non-poor. Thus, common diseases impoverish both types of individuals, but 1.3 times more the non-poor than the poor. It therefore seems that the low consumption of modern health services by the poor versus the very high consumption of the non-poor is an explanation. This corroborates with the problem of the poor geographical and financial access of the poorest to modern health services.

- ***Impact of Covid-19 on poverty***

The loss of growth between 4.8 points for the optimistic scenario and 6.6 points for the pessimistic scenario would lead to constant inequalities an increase in the poverty rate from 0.9 to 1.6% of the population in 2020, i.e., an impact between 224,193 and 398,565 people (see Table 2). The optimistic scenario is one where the pandemic would slow down during the year (from the seventh month) and the pessimistic scenario designates a continuous and very significant evolution of the pandemic over the whole year.

The literature shows that strong variations in growth are almost always accompanied by inequalities. Between rich and poor, one group is probably more affected during this Covid-19 health crisis, but an estimate of the variation in inequalities due to this crisis is not possible with the estimation approach used in this research for its simplicity.

[2] An increase in the poverty rate of 1.9% was observed in 2007, i.e a negligible variation of 5.3% of the impact in 7 years (2007-2014). CHOMSSEM DEFO C. M., Juin 2022, *Performance du système de santé camerounais dans la protection financière des ménages*, Journal of the Cameroon Academy of Sciences, Vol.18, No.1.

Table 1: Estimated impact of common diseases on poverty

Impact Variables	Before Health Spending	After Heath Spending	Impact of Common Diseases
Poverty rate (extreme)	19.0 %	20.8 %	Increase in the poverty rate by 1.8%; i.e., 340,865 poor
Average standardized poverty gap among the poor	0.2833	0.2944	Relative difference of +3.9%; i.e., a deterioration in the poverty gap of 3.9% for the poor
Average standardized poverty gap among the non-poor	3.4630	3.2831	Relative difference of -5.2%; i.e., a deterioration in the poverty gap of 5.2% for the non-poor

Data sources: ECAM4 (2014).

Table 2: Estimated impact of Covid-19 on poverty

Impact Variables		2020 Without Covid-19	2020 With Covid-19	Impact of Covid-19
Poverty rate (extreme)	Loss of 4.8 growth points	18.8 %	19.7 %	Increase in the poverty rate by 0.6%; i.e., 224,193 poor
	Loss of 6.6 growth points	18.8 %	20.4 %	Increase in the poverty rate by 1.6%; i.e., 398,565 poor
Average standardized poverty gap among the poor		x	x	x
Average standardized poverty gap among the non-poor		x	x	x

Data sources: Growth forecasts (2020) and ECAM4 (2014).

4. Discussion

This research goes beyond the socio-economic impact of Covid-19 by drawing attention to the structural degradation of household well-being by common diseases. According to the data used, in 2020 Covid-19 would have an impact of 0.7 (optimistic scenario) to 1.2 times (pessimistic scenario) that of common diseases on poverty. A simple average of 0.7 and 1.2 is roughly equal to 1, which means that on average between the two scenarios (medium scenario: interpretable as the scenario where the spread does not slow down during the year nor does it is changing very significantly) the impact of Covid-19 on poverty is equivalent to that of common diseases. Thus, to ensure a good impact comparison, it should be noted that the impact of Covid-19 on poverty may slow down with the speed of spread of the virus and the duration of the crisis, while the impact of common diseases on poverty is structural and linked to the (poorly performing) health system. The comparison thus depends on the angle of view. If the inequalities due to the crisis could also be measured as the case of common diseases with the normalized poverty gaps, then the comparison will be more interesting.

The comparison of the impact of Covid-19 in 2020 with the estimated impact in 2014 for all other diseases is interpreted on the assumption that the latter would not have changed significantly between 2014 and 2020, which is obviously debatable, since this is a problem related to the lack of up-to-date data on household consumption.

This research strives to make a useful contribution to the literature by dealing with the issue of strategic development choices in a crisis situation and limited financial resources. Upon review, the literature so far does not have such a study to further discuss analyses across different contexts and methodologies, but this research could serve as a reference for application and debate in peer countries with the aim of optimize the effectiveness and efficiency of public policies, particularly in the field of health. The main challenge is to ensure an optimal balance between the response to the health crisis and the improvement of the health system.

The role of development partners faced with this issue of balance is a strategy with useful and binding content. The World Health Organization (WHO) has a look mainly focused on supporting the financing and improving the use of modern health services (generally imported). The WHO certainly draws the attention to the risk of having long-term repercussions due to the crisis on the progress made in the field of health over the past decade, in addition to the lessons of the past where the Ebola virus disease outbreak showed that the vulnerability of women and children increased with the breakdown of protective mechanisms during the crisis (WHO, 2021a). But those solutions advocated for striking the balance, namely the identification of essential health services that must be maintained during the COVID-19 pandemic and the development of facility assessment tools that help Member States to monitor the maintenance of these services on a monthly basis (WHO, 2021b), are highly effective but with limited short-term effects and entailing endless dependence on external funding. However, it is up to the government to take its advantage of any partnership.

5. Conclusion and recommendations

The sustainable and inclusive development sought by all continents, particularly Africa, is strongly linked to the well-being of populations, which has just been degraded once again by a new health phenomenon, the Covid-19 pandemic. This article has set itself the specific objectives of measuring and comparing the impact of Covid-19 and common diseases on poverty, then to identify sustainable solutions according to the mechanisms of impact. Based on a national food poverty line of approximately 1.1 USD/day, common diseases push at least 340,865 people into extreme poverty in one year, or 1.4% of the 2020 population under the assumption of a constant impact. The scenarios of loss of growth between 4.8 and 6.6 points caused by Covid-19 could impoverish with constant inequalities between 224,193 and 398,565 people, i.e., an impact of 0.9 to 1.6% of the population of 2020. This impact is around 0.7 to 1.2 times that of common diseases.

The pandemic therefore multiplies an already existing evil with all common diseases, but the impact mechanisms differ and open the door to both global and specific solutions. Overall, the ultimate solution is to reduce the country's dependence on the outside to have full control over its development policies. This is valid for other African countries.

Specifically, to deal with the harmful effects of Covid-19, it is essential that the State facilitate the economic recovery of the private sector as soon as possible in the structural transformation of the more productive sectors. And for that, he could recommend to the central bank a reduction (even temporary) in interest rates to reduce the

[3] Bank of Central African States.

costs of bank loans and facilitate reinvestment in response to the drop in production and jobs due to Covid-19, reduce the tax burden on the formal sector which already seems to be stifled and broaden the tax base by diversifying the economy through the local processing of raw materials, fight against illicit financial flows and recover the related funds to finance priority sectors.

To mitigate the impact of common diseases and reduce inequalities, the State must strengthen the social protection system and accelerate the implementation of Universal Health Coverage by prioritizing local solutions that are less restrictive, less costly and with rapid results; which will encourage the adhesion of the informal sector which is the economic lung.

References

Assessment Capacities Projet (2014), *Analyse des besoins de crise, République Centrafricaine : Conflit – déc. 2013 - fév. 2014*, Paris, ACAPS, 67p.

Banque Africaine de Développement (2016), *Rapport sur le développement en Afrique 2015 : Croissance, pauvreté et inégalités : lever les obstacles au développement durable*, Abidjan, BAD, 246p.

Banque Africaine de Développement (2020), Perspectives Économiques en Afrique 2020 : Dans le context de la COVID–19, Avenue Joseph Anoma, Abidjan, Groupe de la Banque, 114p.

Bikoué S. M. (2010), *Industrialisation par substitution des importations en Afrique et compétitivité internationale : une revue critique*, pp 103-120.

Commission Économique pour l'Afrique (2006), *Stratégies nationales de réduction de la pauvreté et de mise en œuvre des Objectifs du Millénaire pour le Développement : Document de réflexion*, Le Caire, CEA, 25p.

Commission Économique pour l'Afrique (2020), *Le COVID-19 en Afrique : Sauver des vies et l'économie, Nations Unies*, Addis-Abeba, CEA, 43p.

Dahou T. (2003), *Les cadres stratégiques de lutte contre la pauvreté en Afrique de l'Ouest : De la pauvreté au politique*, De Boeck Supérieur, n° 208, pp 57-70.

Épaulard A. (2003), *Croissance et réduction de la pauvreté dans les pays en développement et les pays en transition*, Reflets et perspectives de la vie économique, Tome XLII, pp 9-20.

European Commission (2017), *Fiche d'information sur l'Accord de Partenariat Économique : Union Européenne - Afrique Centrale (Cameroun)*, Bruxelles, European Commission, 3p.

Guibbaud P. (Juin 2014), *BOKO HARAM : Le Nord-Cameroun dans la tourmente ?* Groupe de Recherche et d'Information sur la Paix et la sécurité (GRIP), 5p.

Hérault N. (2009), *Les apports de la micro-simulation aux modèles d'équilibre général : application au cas de l'Afrique du Sud*, Économie & Prévision, n° 187, pp 123-35.

Institut National de la Statistique (2015), *Quatrième Enquête Camerounaise Auprès des Ménages (ECAM-4) : Tendances, profil et déterminants de la pauvreté au Cameroun entre 2001-2014*, Yaoundé, INS, 65p.

Ministère de l'Économie, de la Planification et de l'Aménagement du Territoire du Cameroun (2019), *Revue des Politiques Publiques menées entre 2010 et 2018*, *Travaux de planification de la deuxième phase de la vision 2035*, Yaoundé, MINEPAT, 260p.

Ngomba Bodi F.G. (2020), *Quels sont les effets des chocs liés à la pandémie COVID-19 au Cameroun ?* BEAC[1] Occasional Paper N°04/20, 7p.

Organisation Mondiale de la Santé (2021a), *Rapport sur la riposte stratégique à la COVID-19 dans la région africaine de l'OMS – Février-décembre 2020*, Brazzaville, Bureau régional de l'Organisation Mondiale de la Santé pour l'Afrique, 65p.

Organisation Mondiale de la Santé (2021b), *Continuité des services de santé essentiels : outil d'évaluation des établissements*, Génève, Bureau international OMS, 43p.
Organisation Mondiale de la Santé et Banque Mondiale (2017), *Rapport mondial de suivi 2017 : la couverture santé universelle*, 69p.

Petrigh C. (Octobre 2019), *Le conflit anglophone au Cameroun : Un dialogue sans partenaires*, Notes de l'Ifri, 36p.

Steel W. F. et Evans, J. W. (1986), *L'Industrialisation en Afrique au sud du Sahara : Stratégie et réalisations*, Document technique de la Banque mondiale No. 25F, Série Industrie et finances, Volume 6, 103p.

Thandika Mkandawire et Soludo C. C. (1999), *Notre continent, notre avenir : perspectives africaines sur l'ajustement structurel*, Dakar, Conseil pour le développement de la recherche en sciences sociales en Afrique (CODESRIA), 208p.

Xu K. (2005), *Distribution of health payments and catastrophic expenditures: Methodology*, Department of Health System Financing, World Health Organization Discussion Paper, number 2, 7p.