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On Inclusive Growth: An Economic Growth Time-Frequency Analysis of the Democratic Republic of Congo from 1975-2016

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Abstract: This paper focuses on fluctuations in the inclusiveness of economic growth (in terms of its participatory aspect) in the Democratic Republic of Congo at different time scales. We investigate the extent to which variations in economic growth are explained by variations in the unemployment rate, the agricultural sector, and the mining sector, using an econometric model known as Auto-Regressive Distributed Lag model which will give us both short and long-term impulse responses in order to identify the dynamics of our variables (endogenous and exogenous). In the same vein, we show that the development of a structural economic policy is imperative to overcome the problem of the non-resilience of the Congolese economy, in particular through the promotion of growth-catalyzing sectors in order to generate more wealth to be equitably redistributed to each segment of the Congolese population as well as to the pro-poor sectors. Moreover, knowing that the Congolese economy has been confronted with multiple shocks (supply and demand) to the point of damaging its sustainability, the information contained in the fluctuations of economic growth informs us about the state of inclusive growth in its entirety relative to the interference of the Congolese state. Thus, the cyclical movements of economic growth are extracted using a multi-resolution analysis (or wavelet decomposition) that spreads a time series at different levels of resolution.

Keywords: Inclusive Growth, Time Series, Multiresolution, Wavelet, Structural Economic Policy, Auto-Regressive Distributed Lag Autoregression, Non-resilience

1. Introduction

Despite the divergences that characterize the economic debates around the issue, [11] nevertheless agrees on two approaches to inclusive growth: the first emphasizes participation in the wealth creation process and the second, pinpoint the distribution of the dividends of this wealth. In the first case, the inclusiveness of growth is based on its capacity to involve the greatest possible number of citizens in the productive effort. In this framework, growth is pro-labor in the sense that it requires a high intensity of labor to be inclusive. In the second case, inclusiveness is based on the need for an equitable distribution of the benefits of growth among the population.

Moreover, [19] the question of the inclusiveness of economic growth is at the heart of many debates on development and poverty. Rising unemployment, especially among youth, underscores the need for a better understanding of the policies needed to improve the employment situation of different social groups, especially those with the weakest links to the labor market, such as women and youth. Second, at a time when many countries are facing considerable budgetary constraints, governments face the dual challenge of sustaining the provision of social services and preparing for demographic aging and other trends that will place increasing pressure on national budgets in the years ahead.

In addition to the aforementioned statements, it is important to depict that the Democratic Republic of Congo, a country with multiple resources both on the ground and underground, possessing two-thirds of Africa's tropical forests, and with significant hydroelectric potential that can supply all of Central Africa with electrical energy, to name but a few, is not on the bangs of this strong contrast. Indeed, its population does not benefit equally from all the national wealth. The economic growth observed since 2001, when major economic and social recovery programs were put in place, has not had positive repercussions in favor of the entire population and in all its categories. Moreover, the economy of the DRC is based mainly on the activities of the extractive sector, which are dependent on world prices and the dynamism of the global economy, making it vulnerable to multiple shocks both exogenous and endogenous or fluctuations at the international level to the extent that the country has experienced a drop in copper prices in 2015 [17], which has inexorably led to a decline in revenue, spending and foreign exchange reserves while inflation galloped exponentially, approaching 41. 5% in 2017 [18], all coupled with a monetary depreciation (the Congolese Franc), which has greatly impacted the purchasing power of consumers.

Moreover, volatility is a primary cause of the curse of natural resources. Indeed, rapid changes in commodity prices lead to uncertainties in the level of revenues and public spending. This can undermine economic performance and social welfare by hampering the state's ability to systematically deliver such public services as health and education.

However, in the Democratic Republic of Congo, inflation has been controlled to a rate of 0.8% in 2015 and the exchange rate has stabilized, except towards the end of 2015 and 2016 when inflation regenerated. At the end of ten years of implementation of the economic recovery programs initiated under the Reinforced Interim Program, results have been achieved in the stability of the macroeconomic framework. [21] The economic environment has improved with a relatively large flow of foreign direct investment and the restoration of private sector confidence in the government. As a result of these reforms, growth was on target and in 2014 reached a record 9.0% after averaging 7.7% annually from 2010 to 2013.

However, this growth has been hampered by a number of significant contrasts, as most Congolese do not feel the positive effects in their daily lives. Unemployment remains high at around 40% of the Congolese population and civil servants' salaries have remained unchanged. In addition, poverty remains high in Kinshasa (41.6% in 2005) and more pronounced in the hinterland where the peasant population has little or no access to certain basic infrastructures. [15] The population is young, with half of the population under 20 years of age, and unemployment is high (15.0% in 2005).

For this reason, [9] argues that inclusive growth is economic growth that largely benefits otherwise disadvantaged groups of people. For example, growth that reduces disadvantages related to region, ethnicity or gender could be considered inclusive. He suggests that such inclusive growth could be called "disadvantage-reducing" growth. [1] seem to support this claim by considering growth to be inclusive if it increased the "social opportunity function" which was articulated in two factors:

1) The average opportunities available to the population;
2) The way opportunities were distributed among the population;

Finally, [6] also supports their claim by adding that growth was inclusive if rising gross domestic product (GDP) led to a significant reduction in poverty.

In light of the aforementioned assumptions, we note a real paradox between “what is and what should be”. In response to the facts elucidated, this article sets itself up as a positive strategy to mitigate the risk of asymmetric distribution of resources, by proposing a priori solutions, in the light of the economic facts stylized in the introduction. We show that a time-frequency decomposition of economic growth makes it possible to identify the different sources of fluctuations in the socio-economic situation of the Democratic Republic of Congo and that econometric modeling can provide crucial information on the development of a structural economic policy to mitigate the non-inclusiveness of economic growth.

2. Research Methods

2.1. Hypothesis – (Choice of Variables, Software and Justifications)

Throughout the paper, we will perform two types of analysis. The first will consist in performing a multi-resolution analysis versus the second which will consist in defining a predictive econometric model in order to obtain impulse responses following the linear combination of the selected variables. To do this, we will try to capture the impacts of the so-called exogenous variables (UPR, COB, COP & AGS) on the so-called endogenous variable (GDP).

The reasons that led us to choose these variables (for the econometric modeling) are based on the first postulate of inclusive growth, which emphasizes the contribution to economic growth (resource allocation function). In other words, to verify to what extent the growth catalyst sectors generate resources likely to boost GDP growth so that economic policies can focus on the second postulate of growth inclusiveness, namely, the distributional aspect of inclusive growth (income distribution function).

Moreover, we have opted for a time horizon ranging from 1975 to 2016 because this periodicity reviews the different periods that have marked the Congolese economy, namely [8]:

1) 1975-1989: Economic slump and debt crisis;
2) 1989-2001: Decline in growth, destruction of wealth and hyperinflation.
3) 2002-2016: Recovery of growth and inflation under control.

Thus, these three periods best represent the Congolese economic situation in the past, allowing us to record the various fluctuations in economic growth.

Table 1. *Choice of variables [22-23].*

Choice of variables		
Variables	**Designation**	**Associated analysis**
GDP	Economy Growth	ARDL model
GDP_Disaggregated	Economy Growth disaggregated	Multiresolution analysis
UPR	Unemployment Rate	ARDL model
COB	Cobalt Price	ARDL model
COP	Cooper Price	ARDL model
AGS	Farmig sector	ARDL model

We would also like to specify that the software we are going to use will focus mainly on:

1) Disaggregate the economic growth variable for the MRA (by R Studio);
2) Perform the multi-resolution analysis (by Matlab 2021Ra);
3) Estimate the ARDL Model (by E-Views 10);

2.2. Research Model

2.2.1. Wavelet Decomposition or Multi-Resolution Analysis (MRA)

Multi-resolution wavelet analysis is a signal processing tool that allows the decomposition of a signal at several frequencies (or scales or resolution).

In theory [12], let's say that a wavelet oscillates for a certain time like a wave, but is then localized thanks to a damping. The oscillation of a wavelet is measured by the number of zero moments.

The basic idea of the wavelet transform is to use a transient waveform as in the short-time Fourier transform (STFT) and to increase the temporal resolution by keeping the relative bandwidth constant as the frequency increases, i.e. by making the bandwidth proportional to the frequency.

In practice [4], this means, choosing a prototype mother wavelet, ψ(t), and generating a family of (affine) wavelets $\psi_{a,\tau}$ (t) as shown in equation (1.1) by expansions (a) and translations (τ) of ψ(t).

$$\psi_{a,\tau}(t) = \frac{1}{\sqrt{a}}\psi\left(\frac{t-\tau}{a}\right) \quad (1)$$

In addition, there are in practice, two types of wavelet transforms, namely:

A continuous wavelet transform (CWT);

A discrete wavelet transform (DWT);

Thus, since the variable we want to decompose is randomly continuous, we will opt for a CWT that is defined as follows:

$$\rho(a,\tau) = \int_{-\infty}^{\infty} x(t)\,\psi_{a,\tau}^{*}(t)dt \quad (2)$$

Knowing that the inverse of the wavelet transform is given by:

$$x(t) = \frac{1}{c}\iint_{-\infty}^{\infty} \rho(a,\tau)\,\psi_{a,\tau}(t)\,\frac{dad\tau}{a^2} \quad (3)$$

Where x(t) represents the signal to be decomposed and $\psi_{a,\tau}(t)$ the wavelet generating family

With

$$\int_{+\infty}^{\infty} \frac{|\widehat{\psi}(\omega)|^2}{\omega}\,d\omega = \int_{-\infty}^{\infty} \frac{|\widehat{\psi}(\omega)|^2}{\omega}d\omega = C_+ < +\infty \quad (4)$$

Where C represents the admissibility condition in the frequency domain for any function ψ; a condition which entails, in particular, that the wavelet has zero integral.

This minimal condition, is often reinforced by requiring that the wavelet has zero moments: the function ψ has *m + 1* zero moments if for any *k = 0,..., m.*

Let precise that $\hat{\psi}$ is the wavelet transform of ψ, the parent wavelet.

2.2.2. Autogressive Distributed Lag Model (ARDL) [7]

The ARDL is an econometric specification that explains the dependent variable Y_t by its own past (lagged) values up to lag p and by the present and lagged values of the independent variables X_t up to lag q. This model can be applied to non-stationary data as well as to data of mixed order of integration and is part of dynamic econometric models.

This model is presented in the form:

$$Y_t = f\left(X_t, Y_{t-p}, X_{t-q}\right) \quad (5)$$

Or else

$$y_t = \beta_0 + \beta_1 y_{t-1} + \cdots + \beta_k y_{t-p} + \alpha_0 x_t + \alpha_1 x_{t-1} + \alpha_2 x_{t-2} + \cdots + \alpha_q x_{t-q} + \varepsilon_t \quad (6)$$

Implicitly, this equation is expressed as follows:

$$y_t = \alpha + \beta(L)x_t + \varepsilon_t \quad (7)$$

where $\beta(L) = \beta_0 + \beta_1 L + \cdots + \beta_q L^q$ is the polynomial in shift operator.

2.2.3. Bounds Test of Cointegration

The series are not always integrated of the same order, in which case we can use the cointegration test [16], called "bounds test of cointegration", originally developed by Pesaran & Shin, 1998.

This use of Pesaran's cointegration test to verify the existence of one or more cointegrating relationships between variables in an ARDL model is equivalent to the use of the "ARDL approach to cointegrating".

The model associated to the cointegration test by the staggered lags is the following cointegrated ARDL specification (otherwise called error correction model, ECM):

$$\Delta y_t = \beta_0 + \sum \beta_i \Delta y_{t-i} + \sum \alpha_j y_{t-j} + \theta z_{t-1} + \varepsilon_t \quad (8)$$

Where θz_{t-1} is the error correction term resulting from the verified long-run equilibrium relationship and is a parameter indicating the speed of adjustment to the equilibrium level after a shock. The sign of must be negative and significant to ensure the convergence of the dynamics to the long-term equilibrium. The value of the coefficient, which represents the speed of convergence to the equilibrium process, generally varies between -1 and 0. -1 means perfect and instantaneous convergence while 0 means no convergence after a shock in the process.

3. Main Results & Discussion

3.1. Multi-Resolution Analysis Results

We have disaggregated the "economic growth" variable into monthly payments in order to better capture the fluctuations by degree of persistence and to localize in time and space the dilations and translations of the oscillatory movements in the frequency distribution (see Figure 1).

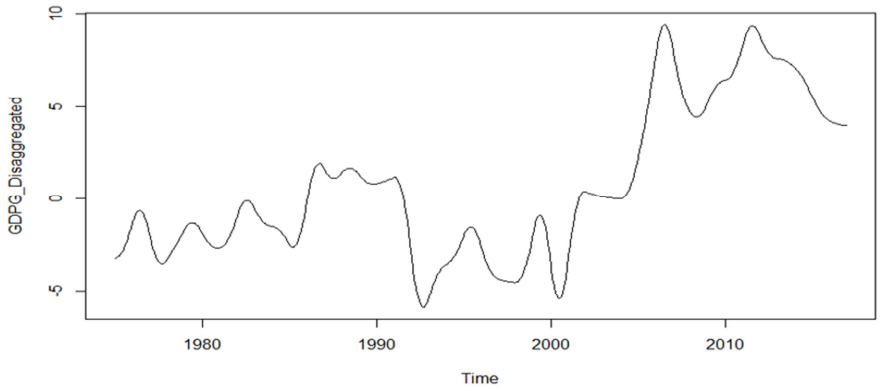

Figure 1. *Evolution of the economic growth disaggregated in monthly data.*

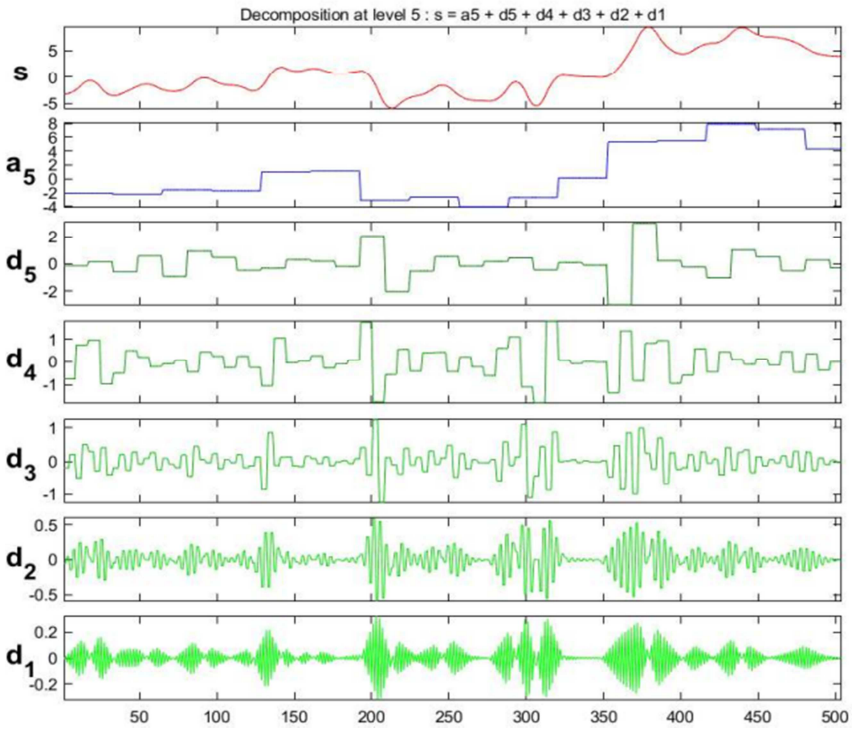

Figure 2. *Multi-resolution decomposition of disaggregated economic growth.*

Discussion

The wavelet decomposition of the disaggregated economic growth is presented in figure 3. We have used the Haar wavelet as well as five levels of resolution (d1, d2, d3, d4, d5), a trend (a5) and the original signal (s). Note that the sum of the decompositions and the trend allows us to find the original signal.

We notice in the first two decompositions (d1 and d2), starting from the 1st abscissa to the 400th abscissa, various oscillations of irregular shapes and non-translated whose dilation is evolving. Precisely we notice from the beginning, a slight persistence of the variability of the oscillation movement translating a beginning of the fluctuation cycle. In parallel to our figure 2, this could explain the reasons for the economic slump observed in 1975 and the debt crisis that continued until 1989, which was marked by the failure of the economy to recover via structural adjustment programs (SAPs).

From the 200th abscissa to the 310th abscissa, we observe a strong dilation of the oscillations translating a great variability of the persistence of fluctuations. This part of our decomposition allows us to explain or even attest to the causes of the decline in Congolese economic growth coupled with a destruction of wealth and a hyperinflation crisis. This allows

us to locate in time and space that this phenomenon of declining economic growth began in the 1990s and continued until 2003.

Starting from the 350th abscissa to the last one, we notice an evolutionary dilation of the oscillatory movement that decreases until the end of the period. This allows us to say that the measures put in place to recover economic growth from 2001 to 2016, including the Reinforced Interim Program and Economic Government Programs have been faced with multiple fluctuations until they fade at the end of the period.

3.2. Results of the ARDL Model Estimation

3.2.1. Econometric Specification

We will specify our ARDL model while setting the long-term and short-term dynamics to music as follows:

$$\Delta GDP_t = \gamma_{01} + \beta_{11} GDP_{t-i} + \beta_{21} UPR_{t-i} + \beta_{31} COP_{t-i} + \beta_{41} COB_{t-i} + \beta_{51} AGS_{t-i} + \sum_{i=0}^{p} \alpha_{1i}\, \Delta GDP_{t-1} + \sum_{i=0}^{q} \alpha_{2i}\, \Delta UPR_{t-1} + \sum_{i=0}^{q} \alpha_{3i}\, \Delta COP_{t-1} + \sum_{i=0}^{q} \alpha_{41}\, \Delta COB_{t-1} + \sum_{i=0}^{q} \alpha_{51}\, \Delta AGS_{t-1} + \varepsilon_t \quad (9)$$

With

Δ: the operator in first difference

β_{ii}: parameter of the long-term effect

α_{ii}: parameter of the short-term effect

γ_{01}: constant

ε_t: error term

Thus, following the test of Pesaran & al., depending on whether there is a long term relationship between our variables, we will specify one error correction models (ECM) which will return the short term effects by putting forward the error correction term or the supposedly significant cointegration coefficient. It will be specified as follows:

$$\Delta GDP_t = \beta_0 + \sum_{i=0}^{p} \alpha_{1i}\, \Delta GDP_{t-1} + \sum_{i=0}^{q} \alpha_{2i}\, \Delta UPR_{t-1} + \sum_{i=0}^{q} \alpha_{3i}\, \Delta COP_{t-1} + \sum_{i=0}^{q} \alpha_{41}\, \Delta COB_{t-1} + \sum_{i=0}^{q} \alpha_{51}\, \Delta AGS_{t-1} + \theta \varphi_{t-1} + \varepsilon_t \quad (10)$$

Where φ_{t-1}, is the error correction term.

3.2.2. Stationarity Study of the Variables

In any econometric analysis, the study of the stationarity of variables is of considerable importance. It allows us to rule out any innovations or shocks contained in the time series, in which case we would have biased results during the estimation phase. Mathematically speaking, we say that a time series is stationary if the roots of the characteristic polynomial are located outside the unit circle.

To do this, we opted for the augmented Dickey-Fuller unit root test to verify the stationarity of our variables. This unit root test compares the Dickey-Fuller statistic (t-statistic) to the Mackinnon critical values, particularly the one located at the 5% threshold.

Thus, if one of our variables has a unit root, by the difference filter, we will say that our variables are integrated stationary of order I and vice versa.

Knowing that the test of Pesaran et al. requires that the series be integrated of order I and 0, it was important to present the results.

Table 2. *Stationarity of variables.*

Stationarity			
Variables	**Designation**	**Nature**	**Integration Order**
GDP	Economic Growth	endogenous	I(1)
UPR	Unemployment Rate	exogenous	I(1)
COP	Cooper Price	exogenous	I(0)
COB	Cobalt Price	exogenous	I(1)
AGS	Farming Sector	exogenous	I(0)

3.2.3. ARDL Estimation

At the end of the estimation of our ARDL model we obtained an R2 of 87% with an adjusted R2 of 79% which means that our variables are positively correlated and our Fisher probability is lower than 5% which means that our model is globally good. Note that the ARDL model is estimated by the Ordinary Least Square method (OLS):

$$\hat{\theta} = (\sum_{t=1}^{T} z_t z_t')^{-1} \rightarrow \sum_{t=1}^{T} z_t y_t = (z'z)^{-1} z' y_t \quad (11)$$

Table 3. *ARDL Estimation.*

Analysis results			
R-squared	0.876858	Mean dependent var	1.190250
Adjusted R-squared	0.792897	S.D. dependent var	5.571648
S.E. of regression	2.535575	Akaike info criterion	4.994280
Sum squared resid	141.4411	Schwarz criterion	5.683790
Log likelihood	-78.89131	Hannan-Quinn criter.	5.239602
F-statistic	10.44369	Durbin-Watson stat	2.535290
Prob(F-statistic)	0.000001		

3.2.4. Pesaran et al. Co-integration Test

The test of co-integration at the bounds supposes an evaluation between the statistical value of Fisher and those of the critical values of the bounds (inferior and superior, i.e. I(0) and I(1)). To this effect, if the F-statistic is higher than the critical value of the bounds, we will say that there is a long-term relationship between our variables whatever the significance level and conversely.

Table 4. *Co-integration results.*

F-Bounds Test		**Null Hypothesis: No levels relationship**		
Test Statistic	**Value**	**Signif.**	**I(0)**	**I(1)**
			Asymptotic: n=1000	
F-statistic	3,85547	10%	2,2	3,09
k	4	5%	2,56	3,49
		2,50%	2,88	3,87
		1%	3,29	4,37

At the end of this co-integration test, we can attest that there is a long-term relationship between our variables, since the F-Statistic value is well above the bounds, respectively (10% and 5%).

3.2.5. Short-Term, Long-Term Dynamics & Validity Test

The table below gives us two pieces of information in particular:

1) The short-term responses of our explanatory variables;
2) Information on the significance of the coefficient of convergence to the long-term equilibrium or recall force;

3) The long-term responses of our explanatory variables;
4) The validity test;

Table 5. *Analysis Results.*

Variable	*Coefficient*	*Std.Error*	*tStatistic*	*Probability*
Short-term Dynamics				
D(COB)	-0,089296	0,075716	-1,179347	0,2509
D(COB(-1))	-0,281003	0,082614	-3,401403	0,0026
D(COP)	-0,000373	0,000605	-0,617246	0,5434
D(AGS)	0,308984	0,127435	2,424652	0,024
D(AGS(-1))	0,805411	0,226976	3,548435	0,0018
D(AGS(-2))	0,431571	0,202541	2,130781	0,0445
D(AGS(-3))	0,301879	0,136913	2,204903	0,0382
D(UPR)	-15,2114	3,204517	-4,746862	0,0001
D(UPR(-1))	7,387274	4,00832	1,842985	0,0788
D(UPR(-2))	4,253987	3,058506	1,390871	0,1782
CointEq(-1)*	-0,359264	0,067426	-5,328251	0
Long-term Dynamics				
COB	0,488381	0,412284	1,184573	0,2488
COP	0,003176	0,00129	2,46097	0,0222
AGS	-1,851399	1,051807	-1,760207	0,0923
UPR	-5,532996	3,361552	-1,645965	0,114
C	23,33727	18,84445	1,238416	0,2286

Validity test			
Test Type	***Test***	***Value***	***Probability***
Autocorrelation	Breusch-Godfrey	0,2358	0,0776
Heteroskedasticity	Breusch-Pagan-Godfrey	0,9913	0,9996
Normality	Jacque-Berra	4,9913	0,0824

Short-term Dynamics

We can thus observe that in the short term the unemployment rate has a significant impact on economic growth, such that an increase of 1 percentage point in the unemployment rate will cause a decrease in economic growth of -15 percentage points. Furthermore, we see that the agricultural sector is likely to have a significant impact on economic growth relative to its value. Finally, we observe that the mining sector has a non-significant impact, which could allow us to attest that it does not have an effective contribution on economic growth.

Moreover, when we look at the recall force, we see that it is significant but less than 50%, or 36%. This allows us to say that whatever exogenous shocks the DRC economy may receive; it has a 36% chance of resisting.

Long-term Dynamics

This table provides information on the long-run dynamics of our variables according to the related co-integration relationships. From this, we can clearly see that in the long run, only the price of copper has a significant impact on economic growth. This can be explained by the simple fact that the co-integration coefficient or recall force has a weak performance, i.e. a 36% chance of returning to equilibrium after an exogenous shock. Thus, even for the agricultural sector, which had a performance that could boost economic growth, the non-resilience of the economy to shocks has a relatively negative impact. In other words, the non-resilience of the Congolese economy to innovations paralyzes all the positive externalities that would be generated by growth-catalyzing sectors over the long term.

Validity test

The validity tests allow us to confirm that an econometric model will be unbiased after the estimation stage for the prediction of impulse responses. Thus, we can clearly confirm that the errors of our model are normally distributed and have an absence of autocorrelation and homoscedasticity of errors.

Indeed, this is confirmed by the probability of each test being higher than 5%.

Moreover, in the figure below we can clearly see that our model is stable, since the cumulative sum squared curve is located inside the corridors at the 5% threshold.

Hence we can say that there is stability of the model parameters.

Figure 3. *Stability parameters test.*

4. Conclusion

Article Overview

Ultimately, we can conclude that it will be difficult for the Democratic Republic of Congo to achieve inclusive growth depending on whether:

1) The productive contribution does not contribute effectively to generate sufficient resources for their equitable redistribution not only in the pro-poor sectors but also in each layer of the Congolese population;
2) The vulnerability of the DRC to economic shocks stigmatizes economic activity to the point of making it fluctuate in a state of stagnation;

However, we feel it is necessary to recall that the DRC is classified as a Least Developed Country (LDC), characterized by an extreme dependence on imports, which does not favor its accession to globalization. Its production remains in the primary state and does not undergo any transformation, knowing that there are hardly any industries related to it and to this day. Consequently, local products lose competitiveness, generate less foreign currency inflow and do not promote a balance on the macroeconomic level in the image of the IS-LM model.

Moreover, the results expected from the economic stimulus programs (notably the Reinforced Interim Program and Government Economic Program) have certainly boosted economic growth somewhat (a 9.6% spike in 2014), but the average Congolese does not feel the positive effects in terms of income equity, which does not give him the purchasing power necessary to acquire basic social goods and services. As a result, in the face of exchange rate fluctuations, the price level increases relative to the increase in the money supply while adjusting the level of wages, thus creating a phenomenon of "monetary illusion".

This is why [5] indicates that *maintaining macroeconomic stability is not only a matter of the policies to be implemented, but also and above all of the effectiveness of the institutional framework of these policies, their implementation and their monitoring. This requires a shared vision of the objectives to be achieved and the commitment of all political actors to achieve them, as well as the need for effective coordination of government action*.

Furthermore, human capital does not have a quality education, which only increases the unemployment rate, not promoting full employment.

Thus, the econometric analysis gives us ample information (including the estimation of the error-correction model) on how we might design a cyclical economic policy.

We were able to see more clearly that the mining sectors have a negative impact on economic growth, coupled with a rampant unemployment rate that inexorably disrupts the growth of potential economic growth. This is because an increase in mining exports, or mining boom, generates an increase in foreign exchange inflows, which can cause the exchange rate to rise and, in the long run, deteriorate the competitiveness of the manufacturing and/or agricultural sector. Such a phenomenon is called the "Dutch disease" [14]. A lack of economic diversification, particularly in the manufacturing sector, is a major cause of lower long-term growth rates [10].

It should also be noted that resource-rich nations tend to be poorly governed. One reason is that the rent from mining detracts from the government's efforts to build strong fiscal institutions and to use the revenues to promote the general welfare of its citizens [21]. In a way, the rent explains the low capacity for local resource mobilization (taxes in resource-rich countries). Moreover, several empirical studies indicate that natural resources have a negative impact on socio-economic performance only in nations with poor governance [2-3].

On the other hand, the agricultural sector could generate positive externalities if it underwent transformations through industrialization.

Economic Policy Suggestion

We therefore believe that the economic policy that could serve as a panacea for the revival of economic activity to its full potential, should focus on the allocation of resources in the growth catalyst sectors, particularly agriculture. This will have the effect not only of increasing the flow of money, a mass of foreign currency inflows, and competitiveness in the international market, but also of increasing the employment rate at the national level, a situation that could significantly reduce the unemployment rate. In addition, the governance of the DRC's mining sector should be improved through the establishment of rules and mechanisms that will make the government accountable to Congolese citizens, particularly with regard to transactions with international investors and the distribution of dividends generated by mining.

With this in mind, it will be a matter of redistributing the wealth generated to each stratum of the Congolese population so that the socio-economic balance is maintained and promotes inclusive growth.

It should also be noted that a fiscal policy is imperative to regulate the allocation of expected wealth, particularly in:

1) The budgetary departments;
2) The elaboration of the annual budget (to avoid any detour of funds for corruptive purposes);

Finally, we believe that this economic policy will allow the DRC's economy to become resilient in the face of exogenous and/or endogenous economically random shocks in view of the positive externalities linked to the potential macroeconomic stability that would result. Consequently, it will be possible for the Congolese state, with sufficient financial resources, to achieve large-scale objectives (rehabilitation of roads, infrastructure, etc.) in the long term.

Relative limits of our working paper.

We encountered some difficulties, notably the time horizon for the choice of our variables. Indeed, the data starting in 1975 were not available for the mining sector (copper and cobalt) and the agricultural sector, which started in the 1980s. We therefore had to extrapolate the data using the R software, which returned average values.

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