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DOMESTIC DEMAND AND EXPORT PERFORMANCE IN CONGO: INVESTIGATING FROM THE POINT OF VIEW OF CAPACITY CONSTRAINTS

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Abstract

There exist two frameworks of assessing the relationship between domestic demand and exports. In the one hand, the export market share Model and in the other hand the capacity constraints Model. On this basis, this relationship has been extensively explored in the recent literature. Nevertheless, the weakness of this one is that this literature focus on Gabonese economy in CEMAC and uses mainly just the Export Market share Model. Then the aim of this paper is to overcome this issue by extending the assessment of this relationship to other African countries. Then for this purpose we investigate the relationship in Congo, an another one CEMAC member's country, using Capacity constraints Model. This have yet been done into the literature it's why we supplement our results with a comparison between the OLS results and fully modified least square (FMOLS) results meanwhile each other corresponds to a Single Equation Approach. According to the obtained results the Capacity constraints Model performs well in explaining the relationship between domestic demand and Exports in Congo. In facts, the theoretical foundation of this relationship is confirmed with our results concerning the substitutability effect between domestic demand and Exports dynamics with a comparable negative elasticity of around 51% between the two Methods employed (OLS and FMOLS).

Keywords: Exports, Domestic Demand, Export Market share, Capacity constraints, FMOLS, CEMAC

INTRODUCTION

Background

The Congolese economy is a case study of resource curse country given its high dependence on Revenues coming from Oil (see Appendix). Concerning the relationship between domestic demand and Exports dynamics an additional issue that was raised in the previous literature is the hypothesis that a high product concentration of exports will reduce this trade-off between sales to domestic and foreign markets. Esteves and Prades (2016) suggest that domestic demand developments are more relevant to explain exports in countries with a lower product concentration index (that is, more diversified exports). This point was touched upon in Gnimassoun (2015) – a paper focusing on adjustments paths in sub-Saharan countries – when mentioning that the channel proposed in Esteves and Rua (2013) is unlikely to occur in countries that are primarily exporters of commodities, as the domestic consumption of those products is generally insignificant. This analysis advocates the use of Capacity constraints Model[1] in investigating the inverse relationship between Domestic Demand and Exports dynamics for resource dependent economy in general since this Model proposes an alternative explanation to the Domestic Demand given by the output gap so that the former analysis of Esteves and Prades (2016) that Domestic Demand developments are more relevant to explain exports in countries with more diversified exports don't hold in this Model. Then the relevance of the current study.

In a Recent study, Kuikeu (2025b) investigates the relationship between domestic demand and Export performance in a panel data framework for the six CEMAC[2] members' countries using the Capacity constraints Model where the alternative explanation is giving to the domestic demand with the output gap. He founds that over the traditional export determinants, the output gap appears to significantly influence Exports dynamics on the short-run with a negative unitary elasticity that means from the point of view of capacity constraints that the country cares effectively on the capacity of existing production to satisfy exports confirming thus the robustness

[1] Generally, it is argued that increases in export demand cannot be satisfied in the short-run when capacity utilisation is high and when production is sold mainly on the domestic market. Conversely, during a domestic recession, firms will be able to shift more resources to export activities. In these periods, firms strive to compensate for the decline in domestic sales through increased efforts to export in order to stay in or enter the export market. That is the role of capacity constraints in this substitution effect between exports and domestic sales (Belke et al, 2014, p.4).

[2] CEMAC is the monetary union of the six central African countries (Cameroon, Central African Republic, Chad, Congo Republic, Equatorial Guinea and Gabon) which have in common the sharing of the CFA franc as a common currency, issued by BEAC (Bank of Central African States) and pegged by a fixed parity to the French franc, at the rate of 1 French franc per 100 CFA franc since the devaluation of 1994 or since 1st January 2002, with the advent of the euro, at the rate of 1 euro for 655.957 CFA francs, or 1 euro for 6.55957 French francs.

of specification used to explain this substitution effect between exports and domestic sales from the point of view of capacity constraints as the literature on usual economic text book tells us.

General Objectives

Nevertheless, this kind of result lack consistency since panel data modelling are homogenous estimate that could be biased if the heterogenous part of the estimate is not taking into account. It's why panel data Modelling with the *fixed effects estimator* authorizes the constant term to vary across group (Islam, 1998, 1995). Then in general, based on the data availability to overcome this kind of issue the literature lies on times series analysis. Considering the African countries, the main disadvantage of using times series analysis for investigating the relationship between domestic demand and export performance is that this have been dome just for the Gabonese economy using the standard cointegrating techniques (Kuikeu, 2025a; Kuikeu, 2026a) than the latest one as the ARDL Modelling (Kukeu, 2026b; Kuikeu, 2026d). Then the aim of this paper is to fill this gap by extending times series analysis Congo Republic using Capacity constraints Model.

Contribution to Research

On the idea that the Capacity constraints Models provides an alternative explanation to the domestic demand given by the output gap, this Model then establishes the interaction between macroeconomic policies and foreign trade. Where, contrary to the so-called endogenous growth theories that provide elements for understanding the effects of foreign trade on macroeconomic policies with Rivera-Batiz and Romer (1991) as the pioneering model since they reveal that openness is an opportunity to master technology, the focus is on the effect of macroeconomic policies on foreign trade. An another ground is that since African countries share the ambitious vision to becoming emerging countries or middle-income economies by a horizon that could not exceed half of the 2030s and that for this purpose they have made the Modernisation of the economy, via so-called "structuring" projects, the main instrument of their action, in the idea long stressed, in particular, by the initiators of NOPADA (better known, under its Anglo-Saxon name, as NEPAD[3]), that the improvement of infrastructure constitutes a powerful catalyst for

[3] New Partnership for African Development.

development[4], it's reliable to investigate the effects of these macroeconomic policies[5] on countries Exports dynamics that is easily done with the Capacity constrints Model since they have an alternative explanation to the Domestic Demand given with the output gap.

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General hypothesis

Our main hypothesis is the following: as the use of times series analysis allows to account for the heterogenous part of the estimate then in investigating the relationship between domestic demand and Exports performance using Capacity constraints Models, it will provide reliable results than panel data as in Kuikeu (2025b).

METHOD

There exist two frameworks of assessing exports dynamics. In the one hand, the export market share Model (Esteves and Rua, 2013; Bobeica et al, 2015; Esteves and Prades, 2016) and in the other hand the capacity constraints Model of Belke et al (2014, 2013). In the first case the exports dynamics result from the export market share (the difference between the exports of goods and services X and the foreign demand D). In the capacity constraints models the exports dynamics come from the "production potential" defined as the difference between the home economy's exports and the domestic production Y (Kuikeu, 2025b, p. 45). In each case, the determinants of exports dynamics are in the one hand the RER for the Old Export channel and in the other hand the Domestic Demand DD for the New Export channel. Nevertheless, the capacity constraints Models of Belke et al (2014, 2013) presents an alternative explanation to the Domestic Demand given by the output gap $YGAP$ which is more relevant because in the one hand this allows to not use the foreing demand variable a serie who is at the same time costly to compute and scare, secondly because the output gap is more available. Assuming the Old Export channel is mainly a long run effect while the New Export channel is mainly a short run effect, express them in an Error Correction Model (ECM) we have for annual data and respectively for export market share Model and capacity constraints Model (Kuikeu, 2025b) the following Equation (1) and (2):

$$\Delta X_{it} - \Delta D_{it} = \alpha_i + \beta(\Delta X_{it-1} - \Delta D_{it-1}) + \sum_{k=0}^{1} \varphi_k \Delta REER_{it-k} + \sum_{l=0}^{1} \omega_l \Delta DD_{it-l} + +\theta(X_{t-1} - D_{t-1}) + \lambda REER_{t-1} + \varphi t \quad (1)$$

[4] For example in Congo, we can cite : the Sounda hydropower project, "Digital Congo Vision 2025", the digitalization of public services (e-government).

[5] The macroeconomic measures are those actions to put the economy on a high growth trajectory of North countries, already put forward by Keynes with an emphasis on stimulating local demand from an accommodating fiscal and monetary policy,

Where, Δ is the first difference operator. The Model considers all the variables except the trend measured in log allowing for a maximum of one lag. The interpretation of the time trend is not straightforward as it can capture the long-run effects of the so-called non-price competitiveness factors.

$$\Delta X_{it} - \Delta Y_{it} = \alpha_i + \beta(\Delta X_{it-1} - \Delta Y_{it-1}) + \sum_{k=0}^{1} \varphi_k \Delta REER_{it-k} + \sum_{l=0}^{1} \omega_l YGAP_{it-l} + \theta(X_{t-1} - Y_{t-1}) + \lambda REER_{t-1} + \varphi t \quad (2)$$

Where, Δ is the first difference operator. The model considers all the variables except the trend and the output gap measured in log allowing for a maximum of one lag. The interpretation of the time trend is not straightforward as it can capture the long-run effects of the so-called non-price competitiveness factors.

It is important to assess whether the substitution effect between domestic sales and exports is an effect which appears only during economic downturns or during growth periods. In order to investigate this, we introduce non linearity by testing for the existence of an Asymmetric relationship between in the one hand exports and domestic demand for the Export Market share Model in the other hand exports and output gap for the Capacity constraints Model. This is done by splitting domestic demand and output gap in two different variables, as this have been done into the literature for the domestic demand (Esteves and Rua, 2013; Bobeica et al., 2015; Esteves and Prades, 2016) depending of its change being positive ($\Delta DD+$ for the Domestic Demand and *YGAP+* for the output gap) or negative ($\Delta DD-$ and *YGAP−*). Then the estimate equation becomes:

$$\Delta X_t - \Delta D_t = \alpha + \beta(\Delta X_{t-1} - \Delta D_{t-1}) + \sum_{k=0}^{1} \varphi_k \Delta REER_{t-k} + \sum_{s=0}^{1} \omega_s \Delta DD_{t-s}^{+} + \sum_{p=0}^{1} \omega_p \Delta DD_{t-p}^{-} + \lambda REER_{t-1} + \theta(X_{t-1} - D_{t-1}) \quad (3)$$

$$\Delta X_{it} - \Delta Y_{it} = \alpha_i + \beta(\Delta X_{it-1} - \Delta Y_{it-1}) + \sum_{k=0}^{1} \varphi_k \Delta REER_{it-k} + \sum_{s=0}^{1} \omega_s YGAP_{it-s}^{+} + \sum_{p=0}^{1} \omega_p YGAP_{it-p}^{-} + \lambda REER_{t-1} + \theta(X_{t-1} - Y_{t-1}) + \varphi t \quad (4)$$

Estimation Method: The Single Equation Approach

There are several techniques to estimate the system-based model, i.e Model that requires to account at the same time for the short run and the long run dynamics, as the Models of Exports dynamics. Among them the latest econometric models well established i.e ARDL, NARDL, or QARDL. Nevertheless, despite this LDC faces numerous challenges as the issue of small sample so that the several available methods in this case as the approaches to estimating the cointegrating parameters are severely bounded. In fact, while the Engle-Granger (1987) method

is extremely simple to implement, the estimates of the cointegrating vector are biased in small samples suggesting that superior estimates can be obtained by accounting for the short run dynamics (Banerjee et al., 1993). While Monte Carlo evidence suggests that the natural alternative (the Johansen (1988) procedure) deteriorates dramatically in small samples. Then since Baffes, Elbadawi and O'Connel (1999) one alternative to overcome this issue of small sample bias in systems-based estimation as ECM is the Single Equation Approach (Kuikeu, 2026a, p. 5).

Data Set

The macroeconomic data set covers 1974 to 2021 in annual frequency thus 48 observations measured in real terms. The time frame is bounded by the availability of real exchange rates series where the data is available between 1973-2021. It was able to use the data coming from the World Bank but in this case, this would be done at the cost of missing two countries namely Chad and Congo.

Table 1. List of Variables

Variables	Definition	Units	Abbreviation	Source
The exportations of goods and services	The value of all goods and other markets services provided to the rest of the world.	$ US constant of 2015	X	World Bank, WDI
The real effective exchange rate	The price/cost competitiveness indicator of the home economy compare to the foreign partner.	Base 100=2010	$REER$	Cepii, EQCHANGE[6]
The real gross domestic product	The home production for CEMAC countries	$ US constant of 2015	Y	World Bank, WDI
The GDP gap as percent of potential GDP	The output gap computed using the Hodrick-Prescott[7] filter with the smoothing parameter set to 100	% of potential output	$YGAP$	World Bank, WDI

[6] Couharde et al. (2018).
[7] Hodrick and Prescott (1997).

RESULTS

In the first time we present the unit root tests (3.1) and in the second we proceed to the estimation of equation (2) using in the one hand the standard OLS estimation and on the other hand a cointegrating technique giving with the FMOLS[8] (the fully modified least squares) which corrects the OLS estimator for endogeneity and serial correlation would yield super-consistent estimates for the cointegrating parameters (3.2). As a first step, we present an Overall view of the Capacity constraints Model in Congo plotting together the production potential ($\Delta X_t - \Delta Y_t$), the Real Exchange Rate ($REER$) and the output gap ($YGAP$) series.

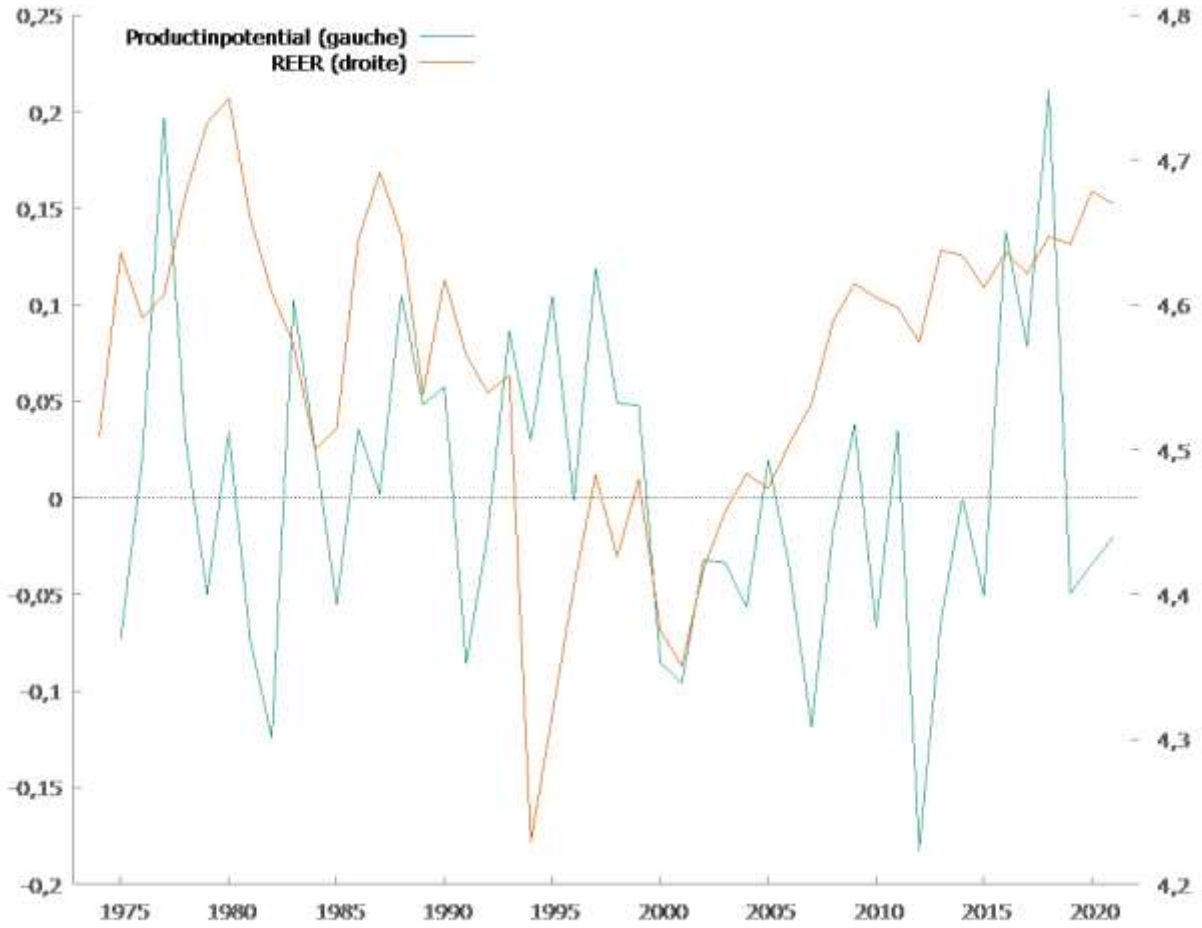

Figure 1: production potential and Real Exchange Rate in Congo Republic

[8] Hansen and Phillips (1990), Phillips and Hansen (1990).

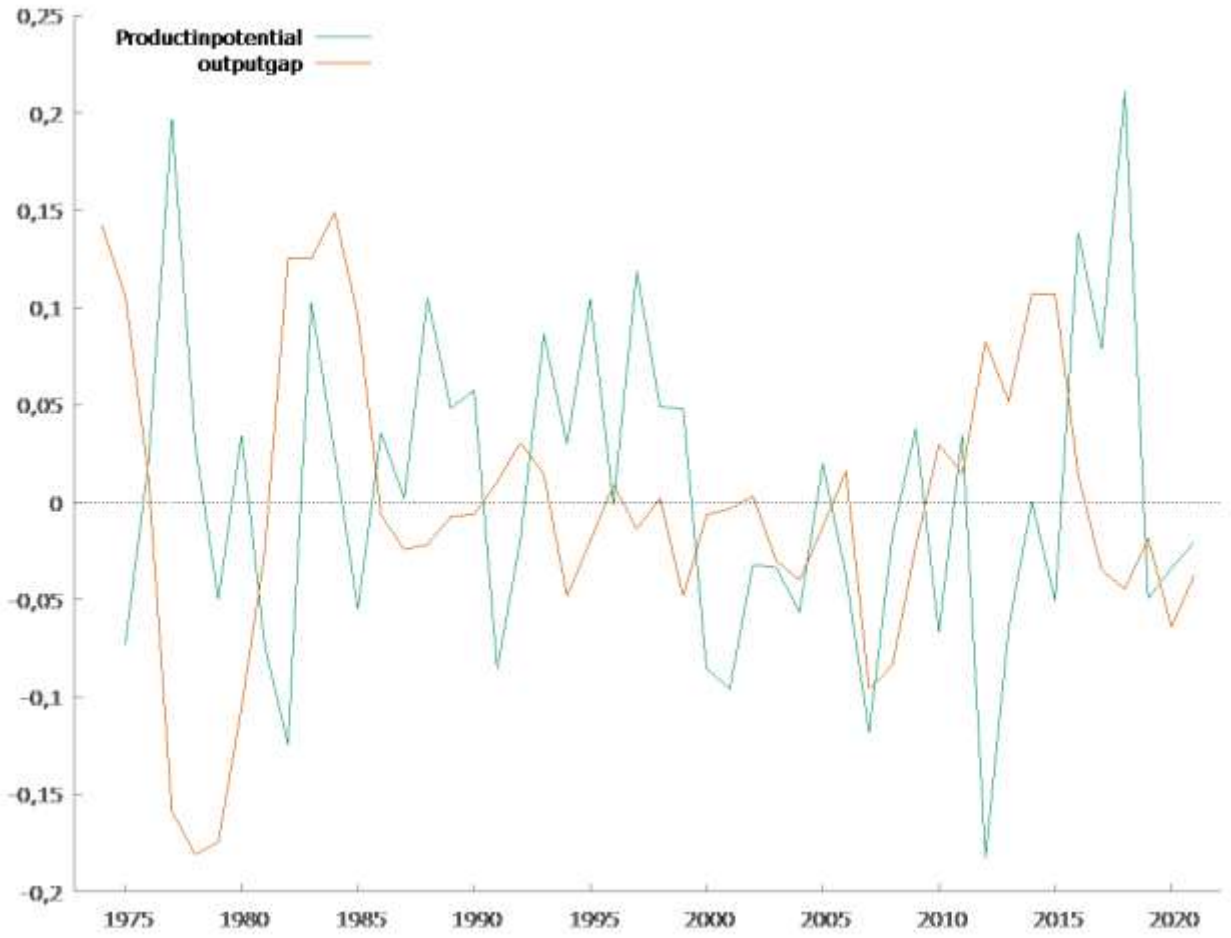

Figure 2: Production potential and output gap in Congo Republic

As it appears in each plot there is a inverse relationship between the production potential and the key international trade determinants coming from the Capacity constraints Models conforming thus the theoretical foundations of the Model and revealing that the Capacity constraints Model fits well the data in Congo Republic.

Unit root tests

These are computed mainly for the set of variables X, Y, $REER$ and $YGAP$. We consider all the variables measured in log. We use the well-known unit root tests – *Dickey-Fuller* (*DF*), *Augmented Dickey-Fuller* (*ADF*), *KPSS* (Kwiatkowski et al., 1992). Contrary to the former, the *KPSS* test have the alternative of unit root against the null of stationarity either around a constant term or a time trend. In each case, the null of stationarity is validated when the tabulated values not exceed the critical ones.

Table 2. Unit Root tests

Series		ADF	KPSS	
		Null hypothesis is unit root	Null hypothesis is stationarity	
			Constant	Trend
X	(1)	-0.06*	1.14***	0.28***
	(2)		0.45**	0.04
$REER$	(1)	-0.21	0.24	0.24***
	(2)	-1.08***	0.08	0.07
Y	(1)	-0.04	1.16***	0.10
	(2)	-0.48***	0.20	0.06
$YGAP$		-0.31***	0.03	0.03

Notes: *** (**, *) null hypothesis is rejected at the 1% (5%, 10%) significance level.
(1)=Level, (2)=First Difference.

An obvious result is that these are I(1) processes.

The Capacity constraints Model

We now proceed with the estimation of the Capacity constraints Model respectively with the standard OLS and the FMOLS. In each case, we test the assumption that the parameter estimate of the output gap is equal to one as in Kuikeu (2025b). We begin with the Symmetric Relation (equation (2) and then after the Asymmetric Relation (equation (4)).

Symmetric relation

We begin with the standard OLS regression. The results are presented in the following Table 3.

Table 3. OLS Regression of the Capacity constraints Model for Congo Republic

$\Delta X_t - \Delta Y_t$	(2)
	OLS
Error Correction Term	
$X_{t-1} - Y_{t-1}$	−0.30***
	(0.07)
Long Run parameters	
$REER_{t-1}$	−0.37***
	(0.08)

$Constant$	1.52***
	(0.36)
Short Run parameters	
$\Delta REER$	−0.19*
	(0.11)
$YGAP$	−0.51***
	(0.16)
Statistics	
Nobs	47
Sample	1975-2021
DW	1.58
Adjusted R^2	0.20
b[	F (1, 42) = 91.6095
$YGAP] = 1$	**(0.00)**

Notes: *** (**, *) null hypothesis is rejected at the 1% (5%, 10%) significance level. *Nobs* is available observations, (.) standard deviation. **(.)** the significance level.

The coefficients are clearly significant and their sign is as expected from the theory. The existence of a correction mechanism towards the long run equilibrium is confirmed by the statistically significant and negative error correction term suggesting thus that the endogeneity of “production potential” is well established and this term is sizeable revealing that the evidence of cointegration is at most strong. The real effective exchange rate appears with a negative sign in the long-run, that is, an appreciation hurts exports performance. Concerning the short-run dynamics, the real effective exchange rates series appear to impact “production potential” with a negative sign. Over the traditional export determinants, output gap appears to significantly influence “production potential” on the short-run with a negative elasticity around 51%. While in a recent study in panel data framework, Kuikeu (2026c, 2026 e) reveal that when the evidence of cointegraton is strong there is no hope to observe the New Export channel in the short run. Finally tested with the F test the assumption that the parameter of the output gap is equal to 1 is safely rejected at the conventional level nevertheless without altering the preceding analysis.

We now proceed to the recovering of parameters with the FMOLS estimates. This will be done in two steps : in the first step, the estimation of the long run parameters and in the second step the recovering of the ECM Model on the basis of the long run parameters obtained in the first step.

First step: The Long run parameters

This is embedded in the following Table 4.

Table 4. FMOLS estimate of the Long run parameters of the Capacity constraints Model for Congo Republic

	$Xt-Yt$
$REERt$	−1.74***
	(0.40)
$Constant$	7.38***
	(1.82)

Notes: *** (**, *) null hypothesis is rejected at the 1% (5%, 10%) significance level.

Nobs is available observations, (.) standard deviation. **(.)** the significance level.

Second step : The ECM

Considering that the error correction term (ect) is now given by $ect=X_t - Y_t+1.74*REER_t - 7.38$ we have the following regression of the ECM parameters.

Table 5. FMOLS estimates of the Capacity constraints Model for Congo Republic

$\Delta X_t - \Delta Y_t$	(2)
	OLS
Error Correction Term	
ect_{t-1}	−0.25***
	(0.05)
Short Run parameters	
$\Delta REER$	−0.22*
	(0.13)
$YGAP$	−0.49***
	(0.16)
Statistics	
Nobs	47
Sample	1975-2021
DW	1.61
Adjusted R^2	0.21
b[	F (1, 44) = 87.5048
$YGAP] = 1$	**(0.00)**

Notes: *** (**, *) null hypothesis is rejected at the 1% (5%, 10%) significance level.

Nobs is available observations, (.) standard deviation. **(.)** the significance level.

The results are qualitatively unchanged than in the preceding case. The existence of a correction mechanism towards the long run equilibrium is confirmed by the statistically significant and negative error correction term. Nevertheless, the evidence of cointegration is not strong than the preceding case with the standard OLS Regression. In the short-run dynamics, the real effective exchange rates series appear to impact “production potential” with a negative sign. Over the traditional export determinants, output gap appears to significantly influence “production potential” on the short-run with a negative elasticity around 49%. A comparable elasticity than the preceding case with the standard OLS Regression. As precedently tested with the F test the assumption that the parameter of the output gap is equal to 1 is safely rejected at the conventional level nevertheless without altering the preceding analysis.

Robustness analysis

As a Robustness check we have done the traditional tests the error term. All of these are presented in the following Table 6 respectively for the standard OLS Regression and Table 7 for the FMOLS.

Table 6. Robustness Tests on Residuals for the standard OLS Regression

	Statistics
Breusch-Godfrey test of Autocorrelation[9]	Ljung-Box Q' = 2.05
H_0: no autocorrelation	**(0.727)**
Breusch-Pagan test of Heteroscedasticity[10]	LM = 0.42
H_0: no heteroscedasticity	**(0.98)**
ARCH(2)	1.92
H_0: no ARCH effect	**(0.38)**
Normality test	Khi deux(2) = 1.07
H_0: Gaussian distribution of the residuals	**(0.58)**
CUSUM Test of parameters stability	t(41) = 0.70
H_0: stables parameters	**(0.49)**

Notes: *** (**, *) null hypothesis is rejected at the 1% (5%, 10%) significance level. **(.)** the significance level.

As this appears from the following Table 6 there are no misspecifications on the Model estimated with the standard OLS.

[9] Godfrey (1994).
[10] Breusch and Pagan (1979).

Table 7. Robustness Tests on Residuals for FMOLS Regression

	Statistics
Breusch-Godfrey test of Autocorrelation	Ljung-Box Q' = 1.77
H_0: no autocorrelation	**(0.78)**
Breusch-Pagan test of Heteroscedasticity	LM = 0.19
H_0: no heteroscedasticity	**(0.10)**
ARCH(2)	2.69
H_0: no ARCH effect	**(0.26)**
Normality test	Khi deux(2) = 1.08
H_0: Gaussian distribution of the residuals	**(0.58)**
CUSUM Test of parameters stability	t(43) = 0.18
H_0: stable parameters	**(0.85)**

Notes: *** (**, *) null hypothesis is rejected at the 1% (5%, 10%) significance level. **(.)** the significance level.

As precedently, there are no misspecifications on the Model estimated with the standard FMOLS

Asymmetric relation

We begin with the standard OLS regression. The results are presented in the following Table 8.

Table 8. OLS Regression of the Asymmetric relation for Congo Republic

$\Delta X_t - \Delta Y_t$	(4)
	OLS
Error Correction Term	
$X_{t-1} - Y_{t-1}$	−0.37***
	(0.08)
Long Run parameters	
$REER_{t-1}$	−0.35***
	(0.12)
$Constant$	1.40**
	(0.52)
Short Run parameters	
$YGAP^+$	−0.91***
	(0.27)

$\Delta X_{t-1} - \Delta Y_{t-1}$	0.24*
	(0.13)
Statistics	
Nobs	46
Sample	1976-2021
Adjusted R^2	0.31

Notes: *** (**, *) null hypothesis is rejected at the 1% (5%, 10%) significance level. *Nobs* is available observations, (.) standard deviation. **(.)** the significance level.

The results are qualitatively unchanged than in the symmetric case. However, concerning domestic demand variable, it appears that a positive changes in output gap presents a statistical significant negative effect on exports dynamics, conforming to a negative relationship between exports and domestic sales.

We now proceed to the recovering of parameters with the FMOLS estimates. It's true that the long run parameters remain the same contrary to the short run dynamics. Then as results we get the following Table 9.

Table 9. FMOLS estimates of the Asymmetric relation for Congo Republic

$\Delta X_t - \Delta Y_t$	(4)
	OLS
Error Correction Term	
ect_{t-1}	−0.24***
	(0.07)
Short Run parameters	
$YGAP^+$	−0.44*
	(0.24)
$\Delta X_{t-1} - \Delta Y_{t-1}$	0.24*
	(0.14)
Statistics	
Nobs	46
Sample	1976-2021
R^2 *Centered*	0.23

Notes: *** (**, *) null hypothesis is rejected at the 1% (5%, 10%) significance level. *Nobs* is available observations, (.) standard deviation. **(.)** the significance level.

The results are qualitatively unchanged than in the symmetric case. However, concerning domestic demand variable, it appears that a positive changes in output gap presents a statistical significant negative effect on exports dynamics, conforming to a negative relationship between exports and domestic sales.

Robustness analysis

Since this agenda (equation (4)) raises questions about the potential omitted variables and with the presence of the lag endonegous this might suggest the use of the instrumental variables. Nevertheless, it's the standard OLS that have been used. Then this choice might suggest the presence of Model misspecification. To ensure these we conduct then Robustness analysis as precedently respectively for the standard OLS regression and the FMOLS estimates.

Table 10. Robustness Tests on Residuals for the standard OLS Regression

	Statistics
Breusch-Godfrey test of Autocorrelation	Ljung-Box Q' = 0.35
H_0: no autocorrelation	**(0.98)**
Breusch-Pagan test of Heteroscedasticity	LM = 2.53
H_0: no heteroscedasticity	**(0.64)**
ARCH(2)	0.80
H_0: no ARCH effect	**(0.67)**
Normality test	Khi deux(2) = 2.31
H_0: Gaussian distribution of the residuals	**(0.31)**
CUSUM Test of parameters stability	t(40) = 0.31
H_0: stables parameters	**(0.75)**

Notes: *** (**, *) null hypothesis is rejected at the 1% (5%, 10%) significance level. **(.)** the significance level.

As this appears from the following Table 10 above there are no misspecifications on the Model estimated with the standard OLS despite the presence of the lag endogenous.

Table 11. Robustness Tests on Residuals for FMOLS Regression

	Statistics
Breusch-Godfrey test of Autocorrelation	Ljung-Box Q' = 0.17
H_0: no autocorrelation	**(0.99)**
Breusch-Pagan test of Heteroscedasticity	LM = 0.76
H_0: no heteroscedasticity	**(0.86)**

ARCH(2)	3.11
H_0: no ARCH effect	**(0.21)**
Normality test	Khi deux(2) = 1.26
H_0: Gaussian distribution of the residuals	**(0.53)**
CUSUM Test of parameters stability	t(42) = 1.16
H_0: stable parameters	**(0.25)**

Notes: *** (**, *) null hypothesis is rejected at the 1% (5%, 10%) significance level. **(.)** the significance level.

As precedently, there are no misspecifications on the Model estimated with the standard FMOLS despite the presence of the lag endogenous.

CONCLUSION

Key Findings

The aim of this paper was to fill a gap concerning the investigating of the relationship between domestic demand and Export performance for African countries. In fact, meanwhile there is a extensive literature on this relation for African countries this a nevertheless focused only on Gabonese economy. Then for this purpose we have extended the study of this one to Congolese economy using Capacity constraints Model considering the lack of data for the foreign demand variable of the Export Market share Model. According to the obtained result the Capacity constraints Model fits well the data for the Congolose economy since the theoretical foundations of this Model of Exports dynamics are well observed, an inverse relationship between the production potential and the Real Exchange Rate than the output gap, as well as in the symmetric than the asymmetric relationship.

General hypothesis

Then the answer to our main hypothesis is affirmative : The analysis of the inverse relationship between domestic demand and Exports dynamics using Capacity constraints Model in times series Modelling builds credible results as the case of Modelling with panel data framework, as in Kuikeu (2025b).

Limitations and scope

The main weakness with the current study is that the results are built on a Single Equation Approach that is a conventional or standard procedure. Then to further the results of this Study it’s required to use the latest econometric techniques as the ARDL, NARDL, or QARDL.

Recommendations

As this appears from the following Table 12, among the six CEMAC countries the Congolese economy is the one where the resource curse is extremely severe with the share of Oil that account for approximatively 59.3% of country's GDP. Then as the Asymmetric relationship reveals that it's with positive values of the output gap that the relationship between domestic demand and Exports performance is negative then this confirms the Robustness of our results in the sense that the country's economic dependance in Oil would be achieve with high economic growth since this will decrease Exports performance most concentrated in Oil. Then the relevance of the ambitious vision to becoming emerging countries or middle-income economies engaged by the country as many African countries because this implies to become a country with a two digits in economic growth statistics.

Table 12: Share (in %) of oil sector in CEMAC area, in 2014

	GDP	Exportations	Fiscal revenues
Cameroon	6.2	41.7	23.7
Congo	59.3	88	68.6
Gabon	37.9	83.9	49.5
Equatorial Guinea	40.8	96.7	86.5
Central African Republic	0	0	0
Tchad	25.1	81.9	49.3
CEMAC	**29.1**	**81.6**	**55.1**

Source: Alby (2007, p. 4)

REFERENCES

Alby S. (2007). Franc CFA: nouveau test de résistance, *Conjoncture*, BNP Paribas direction des études économiques, Avril 2007.

Baffes, J., Elbadawi, I. & O'Connel, S. (1999). Single equation estimation of the equilibrium real exchange rate, L. Hinkle, & P. Montiel (Eds), Exchange rate misalignment : concepts and measurement for developing countries, Washington DC: World Bank Research Publication.

Banerjee, A.J., Dolado, J.W.G. and Hendry, D.F. (1993). Cointegration, Error-Correction, and the Econometric Analysis of Non-Stationary Data. Oxford University Press.

Belke, A., Oeking, A. & Setzer, R. (2013). Exports and Capacity Constraints : A Smooth Transition Regression Model for six Euro Area countries. Conference European Economics and Finance Society 2013, Berlin.

Belke, A., Oeking, A. & Setzer, R. (2014). Exports and Capacity Constraints : A Smooth Transition Regression Model for six Euro Area countries. European Central Bank Working Paper Series *1740*.

Berman, N., Berthou, A. & Héricourt, J. (2011). Export Dynamics and Sales at Home, CEPR Working Paper 8684.

Bobeica, E., Esteves, P. S., Rua, A. & Staehr, K. (2015). Exports and domestic demand pressures: a dynamic panel data model for the euro area countries, European Central Bank Working Paper Series 1777.

Breusch, T. S. & A. R. Pagan (1979). A simple test for heteroscedasticity and random coefficient variation, Econometrica, 47, 1287-1294.

Couharde, C., Delatte, A-L., Grekou, C., Mignon, V. & Morvillier, F. (2018). Eqchange: a world database on actual and equilibruim effective exchanges rates*, International Economics*, 156(December 2018), 206-230.

Engle, R. F. & Granger, C. W. (1987). Cointegration and error correction: Representation, estimating and testing. Econometrica, 55(2), 251-276.

Esteves, P. S. & Prades, E. (2016). On domestic demand and export performance in the euro area countries: does export concentration matter?, European Central Bank Working Paper Series 1909.

Esteves, P. S. & Rua, A. (2013). Is there a role for domestic demand pressure on export peformance ?, European Central Bank Working Paper Series 159*4*.

Godfrey, L.G. (1994). Testing for serial correlation by variable addition in dynamic models estimated by instrumental variables, The Review of Economics and Statistics, 76(3), 550-559.

Gnimassoun, B. (2015), The importance of the exchange rate regime in limiting current account imbalances in sub-Saharan African countries, Journal of International Money and Finance, 53.

Hansen, B.E. and Phillips, P.C.B. (1990). “Estimation and Inference in Models of Cointegration: A Simulation Study”, Advances in Econometrics, 8, 225-248, Jai Press, Inc.:London.

Hodrick, R. & Prescott, E. C. (1997). Postwar U.S. business cycles: an empirical investigation, Journal of Money Credit and Banking, 28(4), -16.

Islam, N. (1998). Small Sample Performance of Dynamic Panel Data Estimators: A Monte Carlo Study on the Basis of Growth Data, *Emory University Department of Economics Working Papers*, N° 98-11.

Islam, N. (1995). Growth empirics: A panel data approach, Quarterly Journal of Economics, 110(4), 1127-1170.

Johansen, S. (1988). Structural analysis of cointegration vectors, Journal of Economic Dynamic and Control, 12((2-3), 231-254.

Kuikeu, O. (2026a). Domestic Demand and Export Performance in Gabon: A Single Equation Approach, Journal of Economics, Management and Trade 32(1), 117-30. https://doi.org/10.9734/jemt/2026/v32i11389.

Kuikeu, O. (2026b). Assessing the Relationship between Domestic Demand and Export Performance in Gabon : An ARDL Modelling, Journal of Economics, Management and Trade 32(3), 49-58. https://doi.org/10.9734/jemt/2026/v32i31402.

Kuikeu, O. (2026c). Long Run Relationship in Export Equation: PMG and MG Estimates. *Econstor* 338230, ZBW-Leibniz Information Centre for Economics, Kiel, Hamburg.

Kuikeu, O. (2026d). Assessing the Asymmetric Relationship between Domestic Demand and Export Performance in Gabon: NARDL Modelling, Journal of Economics, Mangement and Trade 32(4), 141-151. https://doi.org/10.9734/jemt/2026/v32i41417.

Kuikeu, O. (2026e). Domestic Demand and Export Performance in CEMAC: ARDL vs Single Equation Approach, Journal of Economics, Finance and Management Studies 09(04), 1933-1940. https://doi.org/10.47191/jefms/v9-i4-23.

Kuikeu, O. (2025a). Domestic Demand and Export Performance in Gabon: The issue of cointegration. Journal of Economics and Development Studies, 13, 15-28. https://doi.org/10.15640/jeds.v13p2.

Kuikeu, O. (2025b). Domestic Demand and Export Performance in CEMAC: Investigating from the Point of View of Capacity Constraints, Journal of Economics and Development Studies, vol. 13, pp. 43-50. https://doi.org/10.15640/jeds.vol13p4.

Kwiatkowski, D., Phillips, P.C.B., Schmidt, P. & Shin, Y. (1992). Testing the null of stationarity against the alternative of a unit root. Journal of Econometrics, 54(1-3), 159-178.

Phillips, P.C.B. and Hansen, B. E. (1990). “Statistical Inference in Instrumental Variables Regression with I(1) Process”, Review of Economic Studies, 57, 99-125.

Rivera-Batiz, L. A. & Romer, P. M. (1991). Economic integration and endogenous growth, Quarterly Journal of Economic*s*, 10(2), 531-555.