Debt sustainability and economic growth of developing country:case of ECOWAS country

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INTRODUCTION

some facts:

- ECOWAS countries, like all other countries, have recourse to public debt to finance the budget deficit; to finance development projects and therefore to enable investment and growth. Recourse to borrowing assumes that the State hopes to achieve surpluses in the future that will enable it to meet the service costs generated by its debt.
- For ECOWAS countries classified as developing countries, the debt burden has continued to grow in recent years, despite IMF relief in 2010
- Despite concerns about the level of debt in the ECOWAS zone, Benin, one of the member countries, is making a name for itself with these rather reassuring statistics in spite of the latest crisis of covid-19 and especially in spite of the trend in the economic zone

INTRODUCTION

some facts:

- Fitch Ratings agency has maintained its B+ rating with a stable outlook for Benin. According to the institution, the debt has reached 49.7% of GDP in 2021, but several positive factors such as an expected growth of 6.3% in the medium term will stabilize it.

  In view of this divergence in trends between the economic performance of Benin and ECOWAS, we found it interesting to study these different trends over a certain period. We are therefore interested in the sustainability of the debt of ECOWAS and in particular Benin between 2000-2020 and its impact on growth. What is the impact of debt on growth in these countries? Is this impact significant?

OBJECTIVES and HYPOTHESIS

The main objective of this study is to study the dynamics of debt in ECOWAS countries and verify its impact on economic growth. Specifically, it is about :

- Verify debt sustainability in the ECOWAS zone and look at that of Benin
- Analyze the correlation and/or causality relationship between debt and economic growth in the ECOWAS zone and also in Benin In view of these objectives, the hypotheses formulated are as follows:

  Hypothesis 1: ECOWAS debt and Benin's debt are sustainable

  Hypothesis 2: Debt has a positive effect on economic growth

LITERATURE REVIEW

- From a literature review we saw that, there two approach to test the sustainability . the algebric methods and the econometrics methods.
- The algebric sustainability methods of public debt is defined using certain mathematical tools. These tools have allowed some authors (Blanchard 1990, Bohn 1998, Fisher and Easterly 1990, Frederiksen 2001) to explain the dynamics of public debt by studying the interdependence between the primary balance and the evolution of public debt. We will then, through an algebraic analysis, define this concept.
- The econometric methods consist to do stationarity test on debt/PIB ratio. Hamilton and Flavien (1986) argue, for example, that a time series of government debt that is stationary at level, i.e. integrated of order zero (I (0)), is a sufficient condition to guarantee the sustainability of government debt. Similarly, a public deficit series, stationary in first difference, verifies the government's intertemporal budget constraint (Quintos, 1988).

In this study we also looked at the relationship between public debt and economic growth. We asked ourselves whether a large public debt contributes to economic growth or, on the contrary, hinders it. in the literature we found:

- In 2009, Ferreira conducted Granger causality tests for 20 OECD countries over the period 1988-2001, showing that rising debt ratios have negative effects on growth. The effect is statistically significant and works both ways: high public debt reduces economic growth and low growth increases debt.
- K. O. Ojo (1989) in his article "Debt capacity model of sub Saharan African" proceeded with an econometric approach which shows that the ratio of outstanding debt to GDP of 30 African countries during the period 1976-1984 is determined by: the variation of exports, the ratio of imports to GDP, the population and the rate of growth of GDP. From these results, it appears that the ratio of outstanding debt to GDP has a negative relationship with the variation of exports and the growth rate of GDP.

Data:

This study is conducted on thirteen (13) ECOWAS member countries. The data used in this study, their nature and components come from the World Bank database. However, given the unavailability of data by country and by variable, we were obliged to limit ourselves to the period from 2000 to 2020 in order to benefit from a complete database of all variables. We use panel data to take advantage of the dual dimension (temporal and spatial) of the available information.

Empirical Specification:

Sustainability analysis:

The analysis of sustainability will be done with reference to the elements of analysis found in the literature. Thus we will carry out stationarity tests on the data at our disposal in order to judge the status of the debt as sustainable or not.

Modelisation:

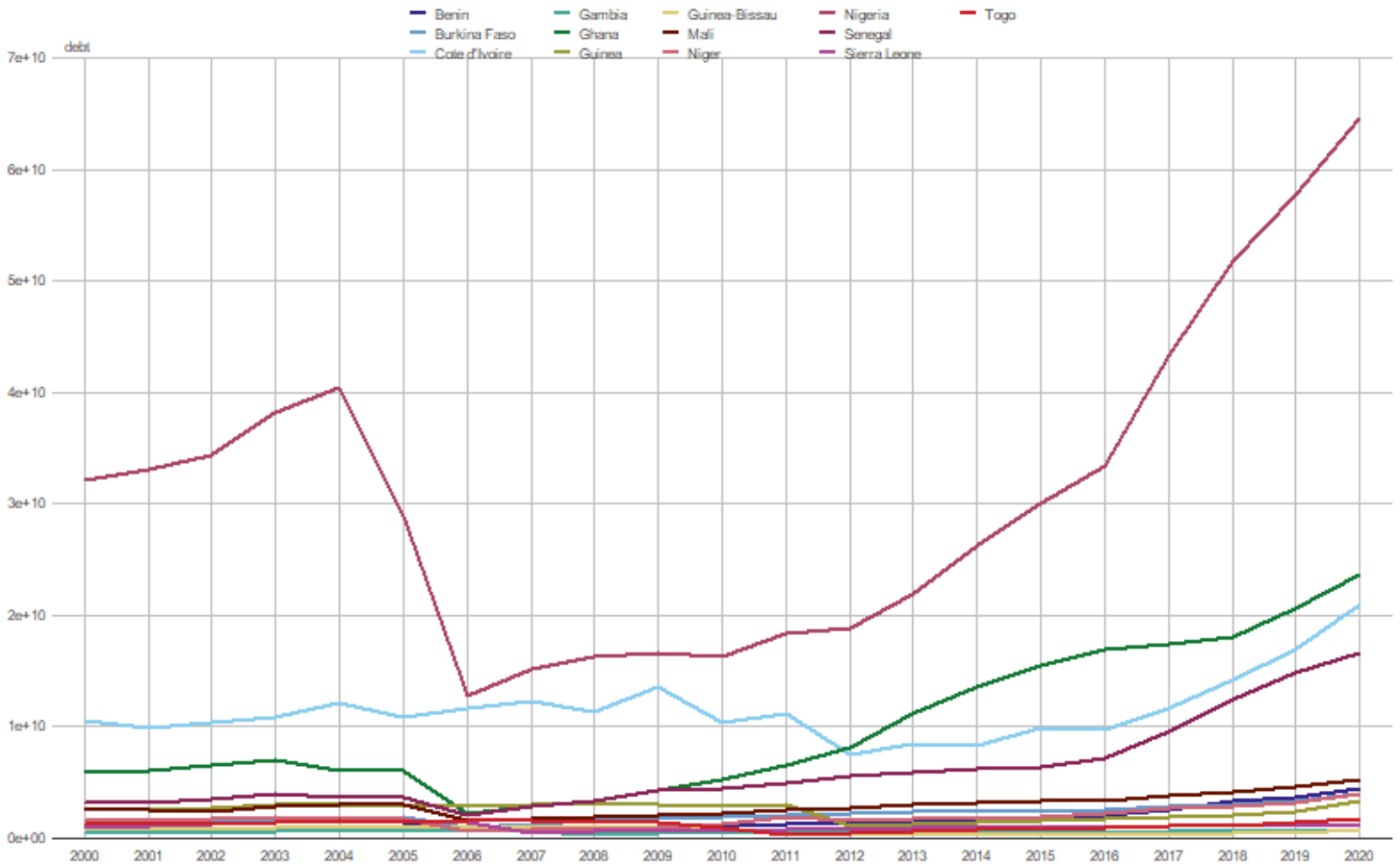
The determining causes of economic growth in the long term, according to the economic literature, are given by the growth of the economically active population, the growth of technology and the growth of physical capital (investment). In this work we use the external debt as an explanatory variable of interest and various other variables in control that directly or indirectly affect growth. The model we use to estimate the effects of debt on growth is a linear model. This model expresses economic growth as a function of the explanatory variables. It is written as

$$GDPgrowth = \alpha_0 + Log(debt) + \alpha_1 GDPperCapita + \alpha_2 DepNational + \alpha_3 IDEPe$$

$$+\alpha_4 Publicaid + \alpha_5 OpenInd + \alpha_6 Debt + \alpha_7 Debt * Country (1)$$

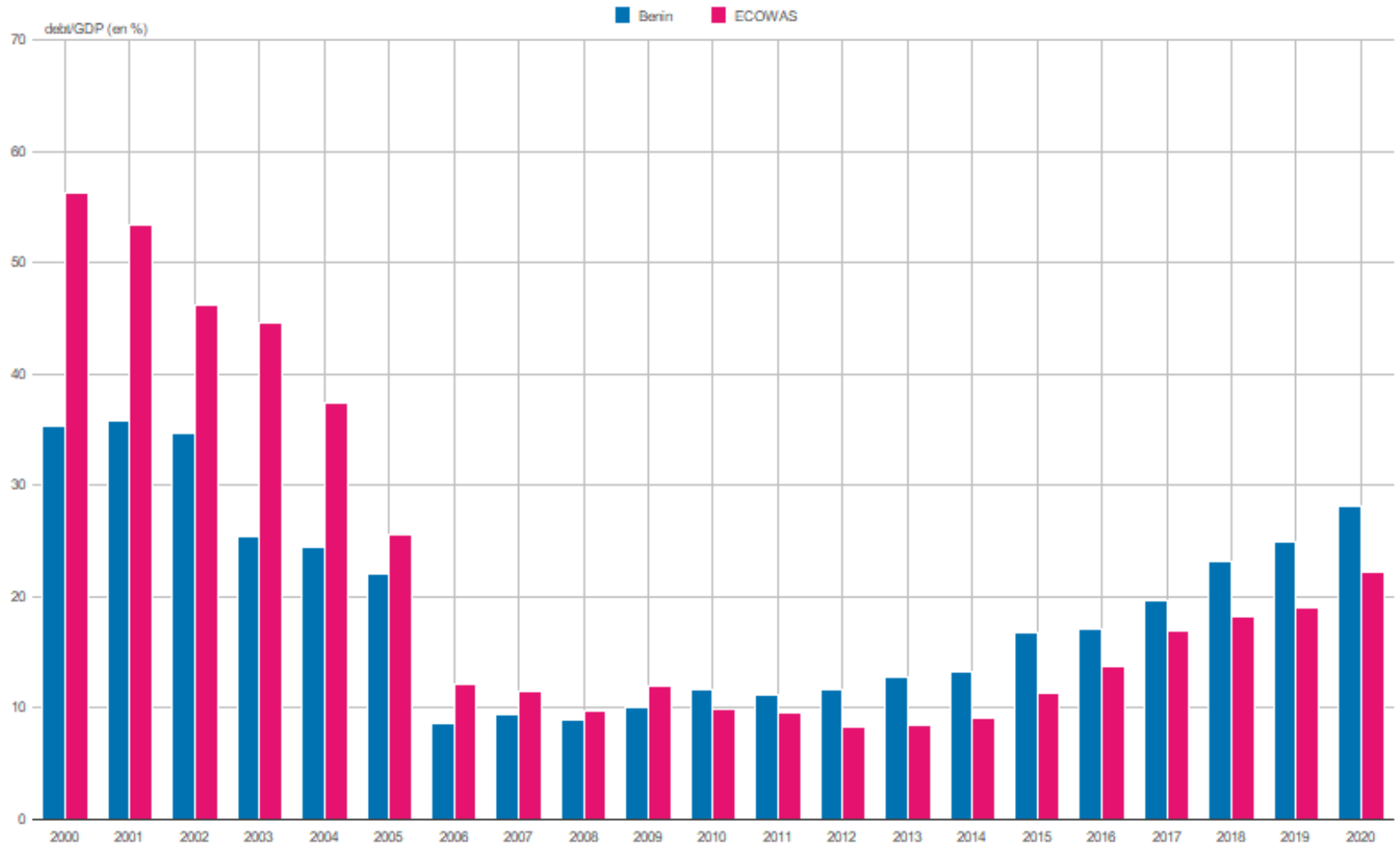
Empirical result:

Graphic 1: Evolution of Debt over ECOWAS country



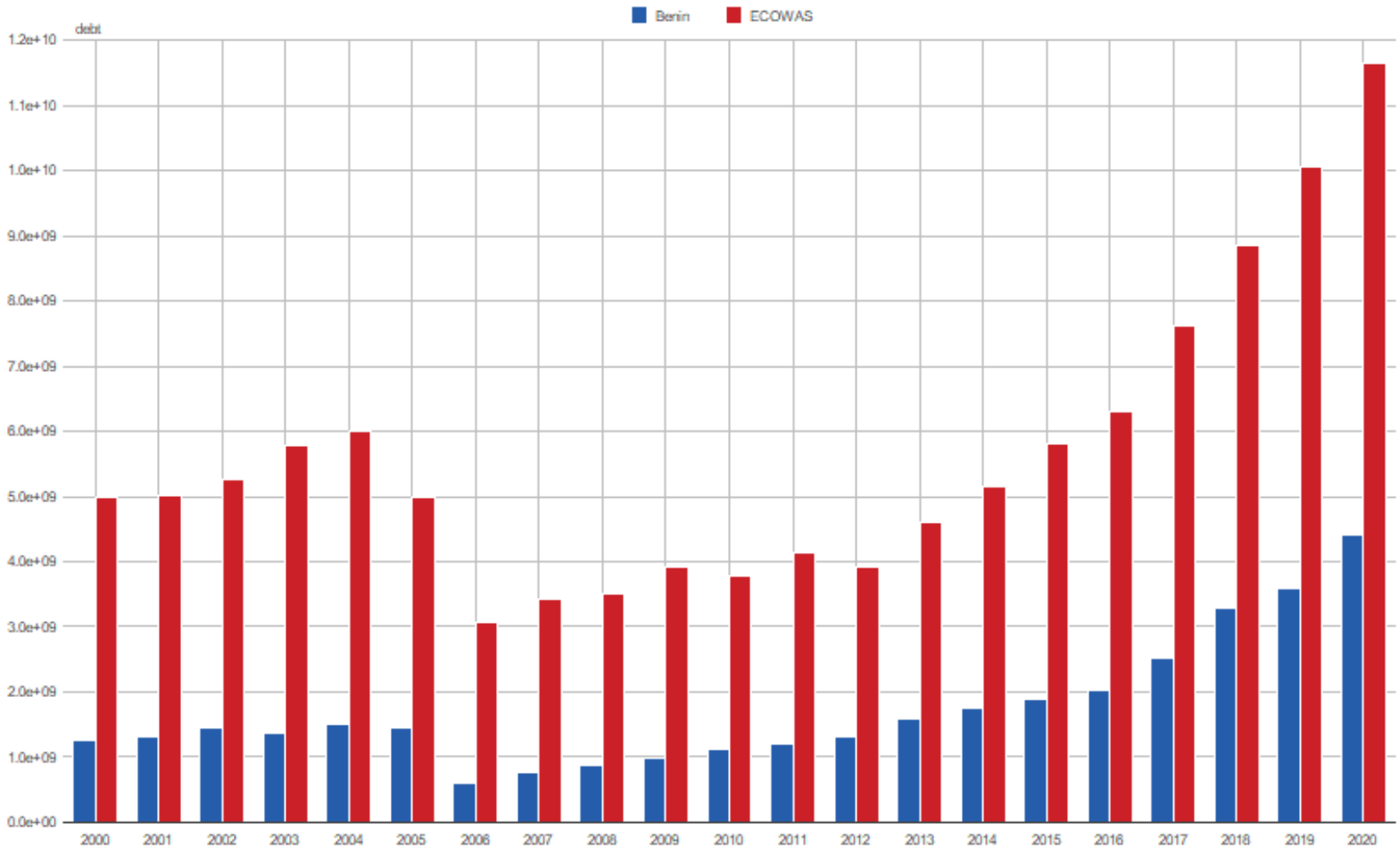
Empirical result:

Graphic 2: Evolution of Debt\PIB ratio over ECOWAS country



Empirical result:

Graphic 3: Evolution of debt over country



Empirical result:

The first result is the one from stationarity where we saw that the debt ratio and the deficit ratio are both stationary which meant that the debt is sustainable in Benin and in CEDEAO.

Table 1: Estimation result

The fixed effect model

Variable	Estimate	Std.error	Statistic	P.value
IDE_percent_gdp	0,22545224	0,08212578	2,74520654	0,00649718
GDP_per_capita	0,00014813	0,00079409	0,18654306	0,85217392
dep_national	-0,0207091	0,02652271	-0,7808061	0,43567341
log(debt)	-0,3681725	0,4243924	-0,8675285	0,38650486
log(public_aid)	1,08351565	0,36044653	3,00603715	0,00292312
OpenInd	0,03223445	0,02987993	1,07879947	0,28174242
Country1	-26,186305	38,2076793	-0,6853676	0,4937626
log(debt):Country1	1,25537569	1,80392983	0,6959116	0,48714651

THANKS FOR ATTENTION