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Causality Relationship between Bank Credit and Economic Growth: Evidence from a Time Series Analysis on a Vector Error Correction Model in Cameroon

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Abstract

The study examines the causal relationship between bank credit and economic growth in Cameroon by considering the domestic credit to the private sector by banks (DCPSB) and bank deposit (BD) as proxies for bank credit development and gross domestic product per capita (GDPPC) for economic growth. Time series data from 1969-2013 were fitted into the regression equation using various econometric techniques such as stationarity test Augmented Dickey Fuller (ADF) and Johansen Multivariate Co-Integration Test. Vector Error Correction Model (VECM) was used to analyze the relationship between bank credit and economic growth. VECM outcomes show that there is a unidirectional causal relationship flowing from DCPSB and BD to GDPPC. This result is consistent with a number of earlier studies reviewed in the literature that find causality running from bank credit to gross domestic product, implying that monetary policies in favor of banking credit will definitely boost the economic development of Cameroon.

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Keywords: *Bank Credit, Economic Growth, Causality, Vector Error Correction Model.*

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1. **Introduction**

The positive relationship between financial development and economic growth has been confirmed by many scholars all over the world. The real issue that remains at the center of the debate is the direction of the causality relationship between financial development and economic growth. Two directions of causality named supply-leading and demand-following hypothesis, have been described and demonstrated (Patrick,1966). We have a unidirectional causality relationship between both financial and economic development, in one side there is the supply-leading hypothesis postulating that countries with well-developed financial system will grow faster, implying that financial development causes economic development (Hicks, 1969; Miller,1998), on the other side we have the demand-following hypothesis stating it is economic growth that prepares a solid ground for financial development (Gurley and Shaw, 1967; Goldsmith, 1969). Nevertheless, we have another group of scholars who demonstrated an existing bidirectional causality relationship between finance and economic growth (Demetriades and Hussein, 1996).

To be specific to bank, early economists such as Schumpeter in 1911 presented banks' role to ease technological innovation through their intermediary role (King and Levine, 1993). For him, efficient allocation of savings through identification and funding of entrepreneurs with the best chances of successfully implementing innovative products and production processes are tools to achieve this objective. Several scholars have supported the above postulation about the significance of banks to the growth of the economy (King and Levine, 1993; McKinnon, 1973; Shaw, 1973; Fry,1988). While assessing the relationship, using macroeconomic and sector level data such as the size of financial intermediary, or of external finance related to GPD, it was found that financial development has a significant positive impact on economic growth (Levine, 2005; De Serres, Kobayakawa, Slok and Vartia, 2006).
Recently, Abdulsalam, Salina and Mohammed (2015) revealed in their research that bank private credit and domestic private credit contribute significantly to economic growth in the Economic Community of West African States (ECOWAS), both directly and through their influence on human capital accumulation. These results imply that providing access to credit to both enterprises and individuals, through appropriate financial policies, will encourage economic growth in the ECOWAS region.

To analyze the causality relationship between bank credit and economic growth in Cameroon, this study adopts a multivariate model proposed by Tang in his study of bank lending and economic growth in Malaysia (Bayoumi and Melander, 2008). The model will help us to determine the direction of causality between real output and the bank credit. To achieve this purpose we will analyze the long and short run direction of causality using the Vector Error Correction Model (VECM).

2. **Literature Review**

The existence of a relationship between finance and growth seems incontestable as many researchers have worked on the issue and positively confirmed it. What is debatable is the direction of causality between finance and growth. When causal relationship runs from financial development to growth, it is termed supply-leading because it is believed that the activities of the financial institutions increase the supply of financial services which creates economic growth (McKinnon, 1973). Similarly, when the growth within the economy results in increase in the demand for financial services and this subsequently motivates financial development, then it is termed demand-following hypothesis (Gurley and Shaw, 1967). There are other scholars who believe that causality runs in both directions (Demetriades and Hussein, 1996).

2.1. Supply – Leading Hypothesis

The advocates of this theory believe that the banking activities serve as a useful tool to increase the productivity of a country. They hold that countries with better developed banking system tend to grow faster (Bayoumi and Melander, 2008). Going through the literature in more detail, the influential study conducted by King and Levine on seventy-seven countries made up of developed and developing economies using cross-country growth regression, the results showed that finance not only follows growth; finance seems important to lead economic growth. This further support the statement that financial services stimulate economic growth (King and Levine, 1993).