

World Agricultural Commodities Prices Dynamics and Volatilities Impacts on Commodities Importation and Food Security in West African Economic and Monetary Union Countries

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Abstract : Since the decade 2000, the use of foodstuffs such as corn, wheat, and soybeans in biofuel production has been growing sharply in the United States, Canada, and Europe. Thus, prices for these agricultural products are rising in the world market. These cereals are the most important source of calorific energy for West African Economic and Monetary Union (WAEMU) countries members' population. These countries are highly dependent on imports of most of these products. Thereby, rising prices can have an important impact on import levels and consequently on food security in these countries. This study aims to analyze the interrelationship between the prices of these commodities and their volatilities, and their effects on imports of these agricultural products by each WAEMU 'country member. The Autoregressive Distributed Lag (ARDL) model, the GARCH Multivariate model, and the Granger Causality Test are used in this investigation. The results show that import levels are highly and significantly sensitive to price changes as well as their volatility. In the short term as well as in the long term, there is a significant relationship between the prices of these products. There is a positive relationship in general between price volatility. And these volatilities have negative effects on the level of imports. The market characteristics affect food security in these countries, especially access to food for vulnerable and low-income populations. The policies makers must adopt viable strategies to increase agricultural production and limit their dependence on imports.

Keywords : price volatility, import of agricultural products, food safety, WAEMU

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