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## **Financial Development and Economic Growth in Sub-Saharan African Countries: Evidence from Time Series Analysis**

*Teame Ghirmay*

**Abstract:** This paper seeks to empirically explore the causal link between the level of financial development and economic growth in 13 sub-Saharan African countries. The empirical investigation is carried out in a vector autoregression (VAR) framework based on the theory of cointegration and error-correction representation of cointegrated variables. The results of the cointegration analysis provide evidence of the existence of a long-run relationship between financial development and economic growth in almost all (12 out of 13) of the countries. With respect to the direction of long-term causality, the results show that financial development plays a causal role on economic growth, again in eight of the countries. At the same time, evidence of bidirectional causal relationships is found in six countries. The findings imply that African countries can accelerate their economic growth by improving their financial systems.

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## **Wage Returns to Schooling in Nigeria**

*Adebayo B. Aromolaran*

**Abstract:** In the last two decades, primary and secondary school enrollment rates have declined in Nigeria while enrollment rates in post-secondary school have increased. This paper estimates from the General Household Survey for Nigeria the private returns to schooling associated with levels of educational attainment for wage and self-employed workers. The estimates for both men and women are small at primary and secondary levels, 2–4 percent, but are substantial at post-secondary education level, 10–15 percent. These schooling return estimates may account for the recent trends in enrollments. Thus, increasing public investment to encourage increased attendance in basic education is not justifiable on grounds of private efficiency, unless investments to increase school quality have higher private returns. With high private returns to post-secondary schooling, students at this level should pay tuition, to recoup more of the public costs of schooling, which may be redistributed to poor families through scholarships.

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## **The Discount Rate for Public Sector Conservation Projects in South Africa**

*Mario du Preez*

**Abstract:** South Africa, in an attempt to reduce unemployment and alleviate poverty, has implemented a number of public sector conservation projects: the

largest one being the Working for Water Programme (WfWP). Sound economic decision-making regarding the economic feasibility of these public sector conservation projects require that they be subjected to economic assessment in the form of cost-benefit analysis. One aspect of cost-benefit analysis, which is often neglected, is the choice of the social discount rate. This paper addresses the issue of what the social discount rate for public sector conservation projects should be and provides an example of how to derive a social discount rate for a public sector conservation project, namely the WfWP.

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## **A Review of Institutional Alternatives to Collateralized Lending**

*M. G. Maiangwa, S. A. Rahman, R. A. Omolehin and D. O. A. Phillip*

**Abstract:** Rural producers' access to formal finance has often been limited by their inability to provide collaterals, particularly in the form of registered or certified land titles and tenancy contracts or assets which are auctionable as well as by laws that make foreclosure difficult. This paper reviews some of the alternative institutional arrangements (possibilities) for reducing and overcoming collateral requirements such as third party guarantees, ownership of tradeable assets, credit guarantee schemes, group lending, credit-savings linkages, incremental and loan repayment-dependent lending, portfolio diversification and an efficient legal system for contract enforcement. It also specifies the land policy and tenure reforms that are desirable, especially in the direction of formal land titling or legally specified rights to the use and ownership of lands, the consolidation of land holdings and the provision of proper cadastres for land and assuring that titles are secure.

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## **Volatilité du prix international et distribution spatiale du prix du cacao en Côte d'Ivoire**

*Stefano Mainardi*

**Abstract:** Instability in primary commodity prices is often assessed with descriptive statistics and estimation methods under the assumption of nearly normal distribution. However, asymmetries in the duration and amplitude of the cycles as well as in the intensity of the impact of shocks on commodity price volatility have been noticed. This bears implications for the analysis of producer support strategies. After reviewing some explanations of these irregularities, particularly those concerning the price and the main producer country of cocoa, properties of alternative GARCH models are compared, and a new specification is proposed. Five GARCH specifications are then applied to high frequency data of the cocoa price, relative to a 15-year period. A moderate level of persistence is observed in the conditional mean of weekly observations. As for the conditional variance, specification tests and forecasting capacity measures give preference

to models with a Student-t distribution, with daily data being also characterized by rightward-skewness and relatively higher, even if time-varying, volatility persistence. Finally, estimates of two of these models are used to analyse space time relationships among price disparity across different trading centres, inter-regional producer price dispersion in Côte d'Ivoire, and unforeseen volatility.

**Résumé:** L'instabilité des prix des produits primaires est souvent évaluée sur la base de statistiques descriptives et méthodes d'estimation qui présument une distribution presque normale. Toutefois, on remarque des asymétries dans la durée et l'ampleur des cycles, ainsi que dans l'intensité de l'impact des choc sur la volatilité de ces prix. Ceci a des implications pour l'analyse des stratégies de soutien aux producteurs. Après avoir considéré des explications de ces irrégularités, surtout pour le prix et pour le principal pays producteur du cacao, on compare ici les propriétés des modèles GARCH alternatifs, et on formule une nouvelle spécification. Cinq variantes GARCH sont appliquées ensuite à des données à haute fréquence du prix du cacao, couvrantes une période de quinze années. Un niveau modéré de persistance est observé dans la moyenne conditionnelle des observations hebdomadaires. Pour la variance conditionnelle, tests de spécification et mesures de capacité prévisionnelle suggèrent une sélection de modèles avec distribution Student-t, et, dans le cas des données journalières, ils identifient une asymétrie inclinée à droite et une persistance plus accentuée, même si changeante, de volatilité. On utilise enfin les estimations de deux de ces modèles pour analyser les relations spatio-temporelles entre disparité des prix de différents centres commerciaux, dispersion interrégionale des prix aux producteurs en Côte d'Ivoire et volatilité imprévue.

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## **The Determinants of Cereal Grain Imports: Sub-Saharan Africa, 1970–1997**

*Vivienne Saverimuttu and Henry Rempel*

**Abstract:** During the 1970s cereal imports in sub-Saharan Africa increased at an annual rate in excess of 20 percent. As a result, it was assumed Africa had two choices: reduce the rate of population growth or become increasingly dependent on food imports and aid. In this paper we investigate the relative importance of food shortfalls versus policy choices that resulted in a taste change away from roots and tubers and coarse grains to imported wheat and rice. Of the 41 countries studied, 17 are still net exporters of food commodities, cereal imports serve to supplement inadequate production of food, but these imports, generally, are not driven by severe nutritional needs within any one country. Rather, the observed cereal imports are primarily wheat and rice flowing into the countries with adequate levels of nutrition available.