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## **Poverty Implications of Agricultural Land Degradation in Ghana: An Economy-wide, Multimarket Model Assessment**

Xinshen Diao and Daniel B. Sarpong

*Abstract.* An economy-wide, multimarket model is applied for Ghana and is used to assess the aggregate economic cost of agricultural soil erosion. To fill a gap in the literature regarding economic cost analysis of soil erosion, this paper also analyzes the poverty implications of land degradation. The model predicts that land degradation reduces agricultural income in Ghana by a total of US\$4.2 billion over the period 2006–2015 and the national poverty rate will increase in 2015 by 5.4 percentage points. Moreover, soil loss causes a slowing of poverty reduction over time in the three northern regions, which currently have the highest poverty rates in the country. Sustainable land management (SLM) is the key to reducing agricultural soil loss. The present findings indicate that through the adoption of conventional SLM practices, the declining trend in land productivity can be reversed, and that use of a combination of conventional and modern SLM practices would generate an aggregate economic benefit of US\$6.4 billion over the period 2006–2015. SLM practices would therefore substantially reduce poverty in Ghana, particularly in the three northern regions.

## **Consequences of Avian Flu for Growth and Poverty: A CGE Analysis for Kenya**

James Thurlow

*Abstract.* Like many African countries, Kenya is vulnerable to avian flu given its position along migratory bird routes and proximity to other high risk countries. This raises concern about the effect of an outbreak on rural livelihoods. We use a dynamic computable general equilibrium model of Kenya to simulate outbreaks of different severities, durations and geographic spreads. Results indicate that even a severe outbreak does not greatly reduce economic growth. It does, however, have larger implications for poverty, since poultry is an income source for many poor farmers and a major food item in poor consumers' baskets. Reducing an outbreak's duration and spatial transmission substantially reduces economic losses, although losses still occur when poultry demand falls, even without a confirmed outbreak. Continued monitoring of poultry production and trade is therefore needed, even if an outbreak has not yet occurred. Efforts to enhance government capacity to respond rapidly to infections and improve farmers' and consumers' awareness of avian flu are also needed.

## **Geographic Distance and Credit Market Access in Niger**

Jose Pedrosa and Quy-Toan Do

*Abstract.* Distances involved in accessing basic services can constitute a major barrier to development. This paper analyzes the relationship between the distance separating households from microfinance institutions' offices in Niger, and the low levels of development and performance of the microfinance sector in the country. To cope with the effects of geographical distance, microfinance institutions adapt their policies through more restrictive loan conditions, higher interest rates and more intensive screening. This then leads us to discuss the tension between access and sustainability in the context of financial services for the poor.

## **Health, Education and Emergence from the Development Trap**

Jean-Claude Berthélemy

*Abstract:* This paper studies the emergence of developing countries from a development trap. It shows that countries whose dynamics exhibits several growth peaks can be considered as cases of equilibrium jump. Applying this criterion to a sample of 65 countries that were initially very poor in 1950, it identifies 13 such countries, called 'emerging economies'. Comparing emerging and non-emerging economies in the 1950s and early 1960s, it shows that economic take-offs starting in the 1960s can be related to health and education in the early 1950s, while other possible factors, such as savings, openness and democracy are not significant.

## **Réactions du Marché d'Actions aux Chocs sur les Taux d'Intérêt de Court Terme, le Cas d'un Marché Emergent: la Bourse Régionale des Valeurs Mobilières (BRVM)**

Benjamin Ndong

*Résumé:* La macroéconomie de façon générale et la politique du taux d'intérêt en particulier sont censées, du point de vue de la théorie, influencer les mouvements des cours sur le marché boursier. Cet article aborde cette problématique dans le cas du marché boursier ouest africain, en analysant les réactions du marché d'actions de la BRVM à des chocs sur le taux d'intérêt. C'est ainsi que les résultats de notre analyse, basée sur la modélisation VAR, montrent que le marché d'actions de la BRVM ne réagit pas instantanément aux chocs sur les taux d'intérêt de court terme. Cependant, les réactions décalées les plus importantes du marché boursier interviennent dans des délais très proches: au plus tôt à la 2<sup>ème</sup> période et au plus tard à la 6<sup>ème</sup> période suivant les modèles VAR utilisés. Les effets de long terme sur les rendements boursiers consécutifs aux chocs sur les taux d'intérêt de court terme varient aussi suivant les modèles, le type de taux d'intérêt et la fréquence d'observation des données. Par exemple, une hausse du taux de pension de 2% entraîne dans le long terme une baisse du rendement boursier (BRVM composite) de 1,5% (5<sup>ème</sup> modèle) ou de 2,3% (6<sup>ème</sup> modèle). Alors qu'une hausse de 13% du taux interbancaire a pour conséquence une augmentation du rendement boursier de 0,58% (7<sup>ème</sup> modèle) et de 0,72% (8<sup>ème</sup> modèle). L'effet de long terme sur le rendement boursier du choc sur le taux de pension est donc relativement plus important que celui consécutif au choc sur le taux interbancaire. Par contre, son effet retardé intervient plus tard que celui du taux interbancaire. La situation précédente du marché est cependant la déterminante principale de la variation des cours boursiers devant les autres variables. Par ailleurs, les résultats montrent que les cours boursiers et les taux d'intérêt de court terme ont une réaction similaire à des chocs sur le taux change et le taux d'inflation.

*Abstract:* Macroeconomics in general and interest rate policy in particular are believed, from a theoretical point of view, to act on stock market movements. This paper discusses this issue in the case of the West African stock market by studying the Regional Securities Exchange (la Bourse Régionale des Valeurs Mobilières (BRVM)) stock market reactions to interest rates innovations. Our results, based on VAR analysis,

show that the BRVM stock market does not react immediately to short-run interest rates' innovations. Nevertheless, backed reactions occur in imminent periods: at the earliest in the second period and at the latest in the sixth period according to VAR models used. Long-term effects of short-term interest rates' innovations on stock prices returns depend on models specified, on the kind of interest rate and on data frequency. Thus, the long-term effect of central bank rent rates' innovations is relatively more important than the one related to interbank rate's innovations. The previous situation of the market is, however, the main determinant of the change of stock prices. Our results show also that stock prices and short-run interest rates have a similar reaction to both exchange rate and inflation rate's innovations.

## **Exploring the Impact of Energy Sources on Production, Inequality and Poverty in Simultaneous Equations Models for South Africa**

Nicholas Ngepah

*Abstract.* This work adapts per capita income, energy demand (sub-group decomposed), inequality and poverty frameworks in a simultaneous equations setting to investigate the role of energy sources on per capita income, inequality and poverty in South Africa. It finds that energy sources (particularly electricity and diesel) are important in estimating production functions. Gasoline, kerosene and coal all exacerbate poverty, with the highest impacts on abject poverty. It is better to disaggregate energy sources in order to capture resource-specific details. Redistribution efforts that focus on reduction of between-group inequality can also moderate energy use since between-group inequality tends to increase the demand for most energy sources. Public efforts are yielding fruits in this direction and should be encouraged. Access to energy sources like electricity, diesel and gas are crucial for productivity enhancement, but for them to yield significant anti-poverty fruits, efforts must also target broadening capital access by the poor.

## **Business Environment and Growth Potential of Micro and Small Manufacturing Enterprises in Uganda**

Esther K. Ishengoma and Robert Kappel

*Abstract.* Since the 1990s, studies utilizing descriptive statistics have documented factors in the business environment, which hinder the performance of Ugandan micro and small enterprises (MSEs). Based on secondary data, this paper assesses the trend of critical factors since 1994 to 2010. The paper also utilizes the primary data from MSEs to examine the effects of these factors on the growth potential of MSEs, while controlling for the owner's and the firm's attributes. Results from the trend analysis reveal that the business environment has been deteriorating over time. Results from the regression analyses reveal that MSEs' growth potential is negatively associated with limited access to productive resources, high taxes and lack of market access.