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## **A Note on the Research Contributions of Mohammed Nureldin Hussain**

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### **How Aid Tying Can Impose Additional Cost on Aid Recipients: Evidence on Ghana**

*Barfour Osei*

**Abstract:** This study investigates the prices of tied foreign aid imports by estimating the price differentials between tied aid imports and non-aid imports from bilateral sources to Ghana. The study finds a significant mark up on the prices of tied aid imports relative to non-aid imports, which translates into substantial cost to Ghana. Several reasons, both in Ghana and in the donor countries, could be found for the estimated price differentials. Ghana needs to take steps to improve its investment climate, as a way of reducing investment risk, which in turn will enhance the confidence of export financiers to reduce the incentive to mark up prices of tied commodities. On the part of donor countries, there may be need to examine the market for the supply of aided commodities towards the liberalization of such markets. It is suggested that although the higher costs on tied imports may be a necessary price Ghana had to pay to obtain aid, the associated cost provides a case for the cancellation of the bilateral aid debt to Ghana.

**Résumé:** Cette étude analyse les prix des importations liées à l'aide étrangère en estimant le différentiel de prix entre les importations liées à l'aide et les importations non-liées à des sources bilatérales, au Ghana. L'étude relève une marge significative sur les prix des importations liées à l'aide par rapport aux importations indépendantes, ce qui se traduit par un coût supplémentaire pour le Ghana. Plusieurs raisons, aussi bien au Ghana qu'à l'étranger, peuvent expliquer les différentiels de prix estimés. Le Ghana doit prendre des mesures pour améliorer son climat des investissements, de façon à réduire le risque des affaires, augmenter la confiance des exportateurs et inciter les financiers à réduire leur marge sur les prix des biens liés à l'aide. Il serait également intéressant que les pays donateurs examinent la possibilité de libéraliser le marché du côté de l'offre d'exportations liées à l'aide. Bien que les surcoûts des importations liées à l'aide soit le prix à payer pour que le Ghana obtienne une aide extérieure, nous suggérons que ces coûts supplémentaires donnent lieu à l'annulation de la dette bilatérale du Ghana.

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## The Poverty–Environment Nexus in Africa

*Charles Leyeka Lufumpa*

**Abstract:** This paper provides a short review of the poverty-environment nexus in Africa, which has emerged as a major development challenge for the continent. It looks specifically at issues related to deforestation and land degradation, low agricultural productivity, water scarcity, threats to Africa's biodiversity, and the impact of civil conflicts. It summarizes some of the main policy implications that arise based on the time inconsistency problem between short-term survival strategies and longer-term environmental concerns. The policy recommendations include sector-specific interventions as well as cross-cutting policy changes addressing gender imbalances and insufficient institutional reforms.

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## The Role of Capital Flight and Remittances in Current Account Sustainability in Sub-Saharan Africa

*Mohammed Salisu*

**Abstract:** The literature on capital flight and remittances is copious, as a plethora of studies in recent years have focused greater attention on the determinants and impact of capital flight and remittances in the development process. These issues are particularly pertinent to Africa in view of its relatively high incidence of capital flight in the presence of foreign exchange constraints, limited foreign capital inflows, external indebtedness and high dependence on overseas development assistance. The principal aim of this paper is to estimate the extent and magnitude of capital flights from Africa and remittance inflows to Africa, and to assess their role in current account sustainability.

The paper employs standard methodological approaches to estimating capital flight and remittances for selected African countries and analyses their relationships with current account balance and key economic indicators. The findings from the statistical exercises in the paper yielded a number of important results:

- The magnitude of capital flight from Africa has increased considerably in recent years, with widespread fluctuations and volatility.
- The volume of remittances into Africa has increased dramatically but steadily.
- There is a negative association between balances on current account and capital flight, implying that capital flights tend to worsen current account difficulties.
- There is a positive relationship between remittances and current account, suggesting that remittances could play an important role in mitigating current account problems.
- The link between remittances and economic growth is positive, albeit insignificantly in the statistical sense, suggesting some evidence of the crucial role of remittances in the economic growth and development process.

- External debt and capital flight are positively intertwined, providing support to the so-called 'round-tripping' or 'back-to-back' hypothesis

The policy implications of these findings are that in spite of the good progress made by many African countries towards economic and political reforms, more innovative policy thinking and reform deepening must be initiated to create a conducive environment for private sector participation in general and foreign capital (including capital flight reversal) in particular. Similarly, there is a need for incentivising and mainstreaming remittances into national development strategies with the view to promoting the growth-enhancing effects of remittances. A wide range of policy options and forward thinking analyses were advanced in the paper.

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## **The Impact of Trade Liberalization on Revenue Mobilization and Stability in Sudan**

*Kabbashi Medani Suliman*

**Abstract:** This paper attempts to examine key aspects of the Sudanese tax system, paying particular attention to the impact of the recent trade liberalization on government revenues. An eclectic method of analysis is utilized. The results show that the Sudanese tax system as a whole is not buoyant or elastic; the same applies for its major handles. The liberalization reform did not appear to have enhanced revenue productivity and stability in the country. This result indicates the presence of substantial slacks in tax collection and tax evasion. The analysis also shows that tax evasion is the main problem facing tax administration; on average, it stands at about 53 per cent of actual tax yield and 33 per cent of the potential tax yield inclusive of the underground economy's gross domestic product (GDP). Assessment of the determinants of trade revenue suggests that the yield of trade tax has improved due to liberalization; however, the marginal benefit of tax evasion is still considerable. The findings imply that a committed tax reform is crucial for augmenting tax revenue yield as well as for fiscal consolidation and macroeconomic stability.

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## **Rural Poverty in Nigeria: Profile, Determinants and Exit Paths**

*John C. Anyanwu*

**Abstract:** This paper studied the profile of rural poverty in Nigeria, what accounts for it, and what specific measures can be taken to reduce it, using the 1996 National Consumer Survey data set. The results show that by 1996, the proportion of the rural population living under the poverty line stood at 71.7 percent, up from 46 percent in 1992. The depth of poverty in rural Nigeria was 33 compared with 18.9 percent severity during the same year. A logistic regression model was estimated based on the data, with the probability of a household

being poor as the dependent variable and a set of personal, demographic, economic and locational variables as explanatory variables. From the multivariate analysis the variables that are positively and significantly correlated with the probability of being poor in rural Nigeria are: household size, primary education level and below, rural occupations in the clerical, production and 'other' activities. The variables that are negatively and significantly correlated with the probability of being poor are: quadratic of household size, and residence in the central, south-east and south-south zones of rural Nigeria. Besides, strong evidence was found in this study to support the hypothesis of the feminization of rural poverty. This led to further estimation of the determinants of gendered poverty in rural Nigeria. The estimations show that male-headed households mirror the overall rural poverty results, while for female-headed households, the size of the household, education level of primary school and below, and residence in the central zone of Nigeria (unlike their male counterparts) are positively and significantly correlated with the probability of poverty. In addition, for female headed households, the higher the age of the household head the lesser the probability of being poor, though less proportionately. Based on these results, a number of policy interventions necessary to reduce poverty in rural Nigeria are suggested.

**Résumé:** Cette étude analyse le profil de pauvreté rurale au Nigeria, ses causes et les mesures particulières qui peuvent être prises pour la réduire; tout ceci sur la base des informations du sondage « Consommateur National » de 1996. Les résultats montrent qu'en 1996, le pourcentage de la population vivant en dessous du seuil de pauvreté représentait 71,7%, soit une hausse par rapport au chiffre de 46% de 1992. L'acuité de la pauvreté au Nigeria était 33% dont 18,9% étaient estimés « sévère » durant la même année. Un modèle de régression logistique fut établi par rapport aux données, avec comme variable dépendante la probabilité qu'un ménage soit pauvre, ainsi qu'un lot de variables explicatives composées de variables privées, démographiques, économiques et d'emplacement. A partir d'une analyse multi-variable, les variables positivement et significativement corrélées avec la probabilité d'être pauvre dans une zone rurale du Nigeria, sont: la taille du ménage, le niveau d'éducation primaire ou élémentaire, les tâches rurales dans le travail, la production et les « autres activités ». Les variables, négativement et significativement corrélées avec la probabilité d'être pauvre, sont: la valeur quadratique de la taille du ménage, la résidence dans les zones du centre, sud-est et sud-sud du Nigeria rural. Par ailleurs, nous avons trouvé une justification solide dans cette étude pour appuyer l'hypothèse de féminisation de la pauvreté. Ceci nous a amené à faire d'autres estimations pour définir les déterminants de la pauvreté selon le genre dans le Nigeria rurale. Nos estimations montrent que les ménages gérés par les hommes reflètent les résultats de la pauvreté dans sa globalité, tandis que pour les ménages gérés par des femmes, la taille du ménage, le niveau d'éducation primaire et élémentaire, la résidence dans la zone centrale (contrairement aux hommes) sont positivement et significativement corrélés avec la probabilité de pauvreté. En sus de cela, pour les ménages gérés par des femmes, plus le chef

de ménage est âgé, moins il a de chances d'être pauvre, bien que moins proportionnellement. Sur la base de ces résultats, nous avons suggéré un nombre de politiques d'interventions nécessaires pour réduire la pauvreté au Nigeria.

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## **External Shocks and the HIPC Initiative: Impacts on Growth and Poverty in Africa**

*M. Nureldin Hussain and Bernhard G. Gunter*

**Abstract:** The paper uses a simple macroeconomic model to estimate the impact of debt relief and terms of trade shocks on growth and poverty in African countries. For the 18 heavily indebted poor countries (HIPCs) that reached the enhanced HIPC decision point by end-December 2000, the basic quantitative findings are that HIPC debt relief has boosted economic growth in these countries by an average of 2.9 percent per annum and that the computed result of this increase in growth is a reduction in poverty by an average of 2.2 percent per annum. However, the paper shows that recent deteriorations in the terms of trade have counter-balanced these positive effects by lowering growth by an average of 2.0 percent per annum and by increasing poverty by an average of 1.3 percent per annum. Clearly, much of the positive impact emanating from the HIPC Initiative has been eroded due to recent deteriorations in the terms of trade. The paper also estimates the net effect on growth and poverty of the recently agreed 100 percent multilateral debt relief. This is predicted to boost economic growth by an average of 5 percent per annum and reduce poverty by about 5.3 percent per annum for the group of all African HIPCs. The paper concludes that 100 percent debt relief is crucial for Africa, but that more aid and policies need to be focused on a long-term development strategy that fosters the necessary structural transformation.

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## **The Hussain–Thirlwall Model: Extensions and Implications for Development Economics**

*Audrey Verdier-Chouchane*

**Abstract:** In the context of developing countries, Thirlwall and Hussain (1982) proposed to include capital flows and the terms of trade in a post-Keynesian growth model based on foreign exchange constraint. Thereafter, the model has been improved to take into account the effect of debt servicing but its modification and adaptability are very broad and allow analysing multiple issues related to development economics. The model was also applied and tested in the majority of developing countries and the results generally supported the thesis according to which economic growth is led by exports because they are a source of foreign currencies and allow financing imports necessary to economic development. The objective of this article is to highlight the magnitude of the

debates and the theoretical and empirical literature which followed the publication of the model and to underline its relevance in the analysis of development issues. In the case of sub Saharan Africa, Dr M. Nureldin Hussain worked out important development strategies (promotion of exports, effective utilization of foreign assistance, reduction of poverty) that are important to remember.

**Résumé:** Dans le contexte des pays en voie de développement, Thirlwall et Hussain (1982) ont proposé d'inclure les flux de capitaux et les termes de l'échange dans un modèle Post-Keynésien de croissance basé sur la contrainte en devises étrangères. Par la suite, le modèle a été amélioré pour prendre en compte l'effet du service de la dette mais ses possibilités d'adaptation et de modification sont très larges et permettent d'analyser de multiples questions en relation avec l'économie du développement. Le modèle a également été appliqué et testé dans la plupart des pays en voie de développement et les résultats ont généralement appuyé la thèse selon laquelle la croissance économique est tirée par les exportations car elles sont sources de devises étrangères et permettent de financer les importations nécessaires au développement économique. L'objectif de cet article est de mettre en lumière l'étendue des débats et de la littérature théorique et empirique qui a suivi la publication du modèle et de souligner sa pertinence dans l'analyse des problèmes de développement. Dans le cas de l'Afrique sub-saharienne, Dr M. Nureldin Hussain a élaboré d'importantes stratégies de développement (promotion des exportations, utilisation effective de l'aide étrangère, réduction de la pauvreté) qu'il semble important de rappeler.

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## **Returns to Education in South Africa: Evidence from the Machibisa Township**

*David Fryer and Désiré Vencatachellum*

**Abstract:** For a long time, there was a consensus that returns to primary education are high across all developing countries (Psacharopoulos and Patrinos, 2002). However, recent evidence is starting to point to the contrary in much of sub-Saharan Africa. We contribute to this literature by using the institutional characteristics of South Africa and start by developing a theoretical model to derive conditions under which black workers in the private sector earn no returns to education. Using a sample of black females in the late apartheid Kwa Zulu, so as to control for labor market specific effects, we find that more than a fifth of labor market participants are self-employed. We find no returns to primary education and positive returns for the first two years of secondary education. Further education allows females to find employment in the government sector where they earn a wage premium. Only secondary education is a predictor of earnings status, and new migrants are most likely to be unemployed. Our analysis therefore contributes to challenging the consensus on high returns to primary education in developing countries.



**Résumé:** Il y a eu pendant longtemps un consensus que les rendements privés à l'éducation étaient élevés dans les pays en développement (Psacharopoulos and Patrinos, 2002). Cependant, il y a des indications que ce ne serait pas le cas dans de nombreux pays d'Afrique subsaharienne. Nous contribuons à cette littérature en nous appuyant sur les caractéristiques institutionnelles de l'Afrique du Sud. Nous commençons par développer un modèle théorique pour obtenir des conditions pour que ceux qui sont dans le secteur privé ne bénéficient pas de rendements à l'éducation. Ensuite, en utilisant un échantillon de femmes noires résidant dans la province du Kwa Zulu à la fin de la période de l'apartheid, nous trouvons que 20 pour cent d'entre elles travaillent à leur propre compte. Celles qui ont uniquement fait l'école primaire ne sont pas mieux rémunérées que celles qui n'ont jamais été scolarisées. Par contre, les rendements à l'éducation sont positifs pour celles qui ont fréquenté l'école secondaire. De même, celles qui ont uniquement une éducation au niveau du primaire n'ont pas de meilleures chances de se trouver un emploi que celles qui ne sont jamais allées à l'école. Finalement, les nouvelles migrantes sont celles qui ont la probabilité la plus élevée d'être au chômage. Notre analyse contribue ainsi à remettre en question le consensus sur les rendements élevés à l'éducation primaire dans les pays en développement.

The policy of mission education to train young black girls in domestic skills, such as sewing and cooking, had a further impact. It is against this backdrop that women's dominance in sewing, catering, and small commercial businesses focussed on these items must be understood (Friedman and Hambridge, 1991, p. 170).

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## **Beyond HIPC: What are the Prospects for Debt Sustainability?**

*Andrew Mwaba*

**Abstract:** The pronouncement by the G-8 Summit at Gleneagles in July 2005 on debt cancellation under the HIPC Initiative, affirmed by the G-8 Ministers of Finance in Washington in September, should signal the beginning of debt relief for the world's heavily indebted poor countries (HIPC), mostly African. It is expected that debt cancellation should return the beneficiary countries to debt sustainability and afford their governments the fiscal space to invest in basic infrastructure and social services. Countries could significantly enhance their prospects for maintaining debt sustainability mainly by adopting debt management strategies that de-emphasize excessive borrowing, checking the expansion of unproductive public sector activities and the associated fiscal deficits, financial restructuring to reduce the bias against autonomous capital flows, and taking deliberate actions to expand exports.

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## **Reviving Foreign Direct Investments in Southern Africa: Constraints and Policies**

*Kupukile Mlambo*

**Abstract:** The objective of this paper is to examine the factors that determine the inflow of foreign direct investment (FDI) to SADC member states, which is critical for introducing widespread technological change, complementing domestic investment, improving the agility and competitiveness of firms, and providing access to skills and global markets. Since the end of apartheid in 1994, FDI flows to SADC have improved significantly increasing from an annual average of only \$660 million in 1985–95 to about \$5.9 billion in 2000–04. A number of countries in the region have taken additional steps to reform their policy stance in order to boost prospects for increased FDI inflows, while South Africa has now become an important growth pole for attracting foreign investment to the region. However, despite the economic and institutional reforms, especially by some of the low-income countries in the region, the flow of FDI to SADC member states remains low and concentrated in few countries and sectors. The paper identifies a number of factors constraining FDI inflows, including the small size of the regional economy, persistent macroeconomic uncertainty in some important economies, high administrative barriers, inadequate physical infrastructure, weak financial systems, and growing perception of corruption. The paper argues that SADC member states need to strengthen efforts to enhance policy frameworks, both individually and collectively, in order to make the region attractive for foreign investors. More progress is required on improving the efficiency of institutions, macroeconomic policy co-ordination and harmonization, opening up to trade, strengthening energy, transport and telecommunications infrastructure, putting more resources in developing local skills, reducing bureaucratic red tape and curbing corruption. Importantly, SADC member states should avoid heated competition or "bidding wars" for FDI, where countries seek to outbid each other in offering fiscal and financial subsidies to attract foreign investors. Competition for FDI between neighbouring countries is not only wasteful and costly, but may also weaken regional co-operation and integration. Co-operation at a SADC level may therefore help avoid costly bidding wars.

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## **Technical Efficiency Measures and Its Determinants for Olive Producing Farms in Tunisia: A Stochastic Frontier Analysis**

*Lassaad Lachaal, Boubaker Karray, Boubaker Dhehibi and Ali Chebil*

**Abstract:** This paper investigates farm level technical efficiency of production and its determinants in a sample of 178 olive producing farms in Tunisia using a stochastic frontier production function approach applied to cross-section data. Results indicate that technical efficiency of production in the sample of olive producing farms investigated ranges from a minimum of 58.5 per cent to a

maximum of 95.5 per cent with an average technical efficiency estimate of 82 per cent. This suggests that olive producers may increase their production by as much as 18 per cent through more efficient use of production inputs. Further, the estimated coefficients in the technical inefficiency model indicate the positive effect on technical efficiency of the share of productive trees, the share of skilled labour and agricultural training. However, a negative relationship between technical efficiency and fruit trees is found.

**Résumé:** Ce travail examine l'efficacité technique de production et ses déterminants au niveau d'un échantillon de 178 exploitations oléicoles dans la région de Sfax (Tunisie) en utilisant un modèle d'estimation simultanée de la frontière stochastique de production et des effets de l'inefficacité technique. Les résultats empiriques montrent que l'efficacité technique moyenne des exploitations oléicoles dans la région de l'étude est de 82%. Elle varie entre un minimum de 58.5% et un maximum de 95.5%. Ceci suggère qu'une utilisation plus efficace des facteurs de production permettrait une augmentation de la production d'olives de l'ordre de 18%. Par ailleurs, l'examen des déterminants de l'efficacité technique de production révèle que cette dernière est positivement affectée par la proportion de plantations productives, la proportion de la main d'œuvre qualifiée et la formation agricole. Cependant, elle est négativement associée avec la pratique de l'amandier en intercalaire.