

Energy intensity and banking performance nexus in Sub-Sahara Africa

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Abstract

Most countries in Sub-Sahara Africa are on the path of becoming emerging economies with huge economic prospects and investment opportunities. Notwithstanding, energy insecurity and fragmented banking sector are the predominant features in the region. This implies that energy intensity is high in the region and the banking sector is under developed. An indication that more energy is required to produce a unit of output in the sub-region. Given the close link between energy consumption and climate change, the current energy use pattern in Sub-Sahara Africa has important implications on the region's environment. In recent times there has been studies linking financial development to energy consumption via economic growth, however, little is known about the relationship between energy intensity and banking performance. Using a two-step system generalised method of moment (GMM) technique and a panel data for 44 Sub-Sahara Africa countries from 1998 to 2011, we explore the effect of banking performance on energy intensity. Unlike earlier studies, this paper uses unique banking data on banking performance based on the financial fragility dataset by Andrianova et al. (2015). Whereas return on asset, asset quality, bank capitalization and managerial efficiency are used as indicators of bank performance, the Z-score is used to measure the fragility of the financial system. Other important controls considered in the analysis include crude oil prices, GDP per capita, FDI, trade openness, industry value added, urbanization and institutional quality. We observed an increase in return on asset, bank capitalization and an improved asset quality promotes energy efficiency or reduces energy intensity. Moreover, a financially sound economy reduces energy intensity. Surprisingly, inefficiency in the banking industry reduces energy intensity. Both short-run and long-run elasticities are also calculated to aim energy policy.