

Production Efficiency in the South African Banking Sector: A Stochastic Analysis

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ABSTRACT Econometric estimates of the level of efficiency at bank branches are likely to provide detailed insight into the overall level of efficiency in banking. Therefore this paper uses Bayesian stochastic frontier analysis to assess the production efficiency of 61 bank branches in the nine provinces of the Republic of South Africa. We find that every branch is operating at increasing returns to scale and that the level of production efficiency of bank branches is lower than it could be. We also find that at current levels of output, on average, bank branches can reduce their costs by about 17 per cent if they improve the level of efficiency. In addition, we find that Gauteng Province has the lowest average level of returns to scale, while the Free State Province has the highest average level of the nine provinces. In addition, via estimates of the posterior mean for shares and price elasticities, we find that the price of capital is the largest predicted proportion of costs. These findings suggest that bank branches could also obtain cost reductions by increasing the level of output. Regulatory policy reforms and competitive incentives to enable banks to meet this objective should be encouraged.