

## X-Efficiency and Productivity Change in Australian Banking

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### Abstract

This paper investigates X-efficiency and productivity change in Australian banking between 1995 and 1999 using Data Envelopment Analysis (DEA) and Malmquist productivity indexes. It differs from earlier studies by examining efficiency by bank type, and finds that regional banks are less efficient than other bank types. The study concludes that diseconomies of scale set in very early and hence are not a sufficient basis on which to allow mergers between large banks to proceed. Total factor productivity in the banking sector was found to have increased by an average annual 7.6 per cent between 1995 and 1999. All of the productivity increase was due to technological advance shifting out the frontier. The banking sector's performance was less efficient relative to the frontier in 1999 than it had been in 1995.

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