

Achieving a sustainable cost efficient business model in banking: The case of European banks

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Although the business model (BM) is the most fundamental task of the bank's management to ensure sustained operation and profitability of a bank, it has become a subject of supervisor's scrutiny due to the recent financial crisis when failing banks were rescued with public funds and supervisors were criticized around the world. Because one of the reasons for the financial crisis was that some banks had (and still have) unsustainable BMs, sustainable BMs are on the top of the ECB's agenda.

Given its relevance, it is important to understand implication BM characteristics have for bank performance in general and for cost efficiency in particular, since optimizing operating efficiency has become a necessity for a bank if it is to survive, and ideally thrive. This is one of the top priorities for a bank, especially during times when revenue-generating opportunities are sub-optimal.

This paper uses the Herfindahl index to measure how concentrate the bank is in different item of the asset, funding or income portfolio. We analyze efficiency of bank BM along three business dimensions—assets, funding and income—for the European Banking Industry. We apply recently developed 4 component heteroskedastic cost model to investigate effects of three business dimensions to time-varying bank cost inefficiency controlling for bank effects and persistent cost inefficiency. In the proposed model we assume bank-specific effects and persistent cost inefficiency distributions iid across banks but time-varying cost inefficiency and noise terms are made heteroscedastic in terms of assets, funding and income diversification for each bank. Note that we are interpreting heteroscedasticity of the noise term as risk thereby meaning whether different forms of diversifications are risk enhancing or risk reducing.

More formally, our model is

$$\log c_{it} = h(y_{it}, w_{it}; \theta) + v_{0i} + u_{0i} + v_{it} + u_{it}$$

where $u_{0i} \geq 0$ and $u_{it} \geq 0$ represent persistent and time-varying inefficiency, respectively, while v_{0i} captures latent bank heterogeneity and v_{it} is the classical random noise. We assume variances of both u_{it} and v_{it} to be functions of assets, funding and income diversification. That is, we treat assets, funding and income diversification as determinants of time-varying inefficiency and production risk.

Our major qualitative conclusion is that changing the business model in a short term brings smaller positive effects, which can be thought of as a micromanagement. Changing the business model over the longer time horizon is detrimental to the long-term efficiency of a bank. The optimal strategy should therefore lie somewhere in the middle.

Changes to a business model is an important instrument bank can employ to improve current situation in a cost cutting sense. This instrument has though be used with care.