

THE TECHNICAL INEFFICIENCY EFFECTS OF TURKISH BANKS AFTER FINANCIAL LIBERALIZATION

Nazmi DEMIR✉, Syed F. MAHMUD, Senol BABUSCU

First published: 06 March 2007

<https://doi.org/10.1111/j.1746-1049.2005.tb00951.x>



PDF

Abstract

The banking sector in Turkey has grown significantly over the last two decades of financial liberalization. One of the aims of the financial liberalization was to improve efficiency through restructuring programs including the privatization of state banks and the encouragement of mergers. In this paper we identify key factors determining the technical efficiency differentials among Turkish commercial banks in the pre- and post-liberalization periods, using the technical inefficiency effects model. We found that loan quality, size, ownership of the banks, and profitability have a positive and significant impact on the technical efficiencies of banks. The results warrant implementation of effective regulatory measures to improve the quality of the earning assets of commercial banks. Furthermore, steps by the government to encourage acquisitions or mergers for private banks and the privatization of state-owned banks seem to be consistent in improving the overall efficiency of commercial banking in Turkey.

REFERENCES

Altunbas, Y., and S. P. Chakravarty. 2001. "Frontier Cost Functions and Bank Efficiency. *Economic Letters* 72, no. 2: 233-40.

[Web of Science®](#)

[Google Scholar](#)

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)

Manage Preferences

Accept All

Reject Non-Essential

auditing and risk management]. Paper presented at the panel organized by the Institute of Internal Auditing, May 2000, Istanbul.

[Google Scholar](#) 

Battese, George E., and Sumiter S. Broca. 1997. "Functional Forms of Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects: A Comparative Study for Wheat Farmers in Pakistan." *Journal of Productivity Analysis* 8, no. 4: 395–414.

[Web of Science®](#)  | [Google Scholar](#) 

Battese, George E., and T. J. Coelli. 1995. "A Model for Technical Inefficiency Effects in a Stochastic Frontier Production Function for Panel Data." *Empirical Economics* 20, no. 2: 325–32.

[Google Scholar](#) 

Berger, Allen N.; P. L. Brouckey; W. W. Cooper; and J. T. Pastor. 1997. "New Approaches for Analyzing and Evaluating the Performance of Financial Institutions." *European Journal of Operational Research* 98, no. 2: 170–74.

[Web of Science®](#)  | [Google Scholar](#) 


Berger, Allen N.; and Robert DeYoung 2001. "The Effects of Geographic Expansion on Bank Efficiency." *Journal of Financial Services Research* 19, nos. 2–3: 163–84.

[Google Scholar](#) 

Chaffai, Mohamed E.; Michel Dietsch; and Ana Lozano-Vivas 2001. "Technological and Environmental Differences in the European Banking Industries." *Journal of Financial Services Research* 19, nos. 2–3: 147–62.

[Google Scholar](#) 

Cingi, S., and S. A. Tarim. 2000. " *Türk banka sisteminde performns olcumu: DEA—Malmquist TFP endeksi uygulaması*" [Measuring the performance of the Turkish banking system: DEA—application of the Malmquist total factor productivity index]. Türkiye Bankalar Birliği araştırma tebliğleri serisi [Banks Association of Turkey research series] no. 2001–01. Istanbul : Banks Association of Turkey.

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#) 

Manage Preferences

Accept All

Reject Non-Essential

Denizer, Cevdet A.; Mustafa Dinc; and Murat Tarimcilar 2000. "The Impact of Financial Liberalization on the Efficiency of the Turkish Banking System: A Two-Stage DEA Application." Working Paper Series no. 2000-02. Ankara : Banks Association of Turkey.

[Google Scholar](#) 

Dervis, K. 2001. Statement of Minister of State in charge of economic affairs, at press conference held on March 19, Ankara.

[Google Scholar](#) 

English, M.; S. Grosskopf; K. Hayes; and S. Yaisawarng. 1993. "Output Allocative and Technical Efficiency of Banks." *Journal of Banking and Finance* 17, nos. 2-3: 349-66.

[Web of Science®](#)  [Google Scholar](#) 

Huang, Cliff J., and Jin Tan Liu. 1994. "Estimation of a Non-neutral Stochastic Frontier Production Function." *Journal of Productivity Analysis* 5, no. 2: 171-80.

[Google Scholar](#) 

Humphrey, David B. 1992. "Flow versus Stock Indicators of Banking Output: Effects on Productivity and Scale Economy Measurement." *Journal of Financial Services Research* 6, no. 2: 115-35.

[Google Scholar](#) 

Kaparakis, Emmanuel I.; Stephen M. Miller; and Athanasios G. Noulas. 1994. "Short-Run Cost Inefficiency of Commercial Banks: A Flexible Stochastic Frontier Approach." *Journal of Money, Credit, and Banking* 26, no. 4: 875-93.

[Web of Science®](#)  [Google Scholar](#) 

Kraft, Evan, and Dogan Tirtiroglu 1998. "Bank Efficiency in Croatia: A Stochastic Frontier Analysis." *Journal of Comparative Economics* 26, no. 2: 282-300.

[Web of Science®](#)  [Google Scholar](#) 

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)

Manage Preferences

Accept All

Reject Non-Essential

Özkan, Günay 1997. "Measuring Cost Efficiency for Turkish Commercial Banks: The Stochastic Cost Frontier Approach. *Review of Social, Economic and Administrative Studies* 11, nos. 1-2: 189-210.

[Google Scholar](#) 

Taylor, William M.; Russell G. Thompson; Robert M. Thrall; and P. S. Dharmapala 1998. "DEA/AR Efficiency and Profitability of Mexican Banks: A Total Income Model. *European Journal of Operational Research* 98, no. 2: 346-64.

[Web of Science®](#)  | [Google Scholar](#) 

Yeldan, Erinc. 2001. *Kuresellesme surecinde Türkiye ekonomisi, bolusum, birikim ve buyume* [The Turkish economy, allocation, accumulation, and growth during globalization]. Istanbul : Iletisim Yayinlari.

[Google Scholar](#) 

Zaim, Osman. 1995. "The Effect of Financial Liberalization on the Efficiency of Turkish Commercial Banks. *Applied Financial Economics* 5, no. 4: 257-64.

[Google Scholar](#) 

Citing Literature

[Download PDF](#)


ABOUT WILEY ONLINE LIBRARY

[Privacy Policy](#)

[Terms of Use](#)

[About Cookies](#)

[Manage Cookies](#)

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#) 

[Manage Preferences](#)

[Accept All](#)

[Reject Non-Essential](#)

OPPORTUNITIES

Subscription Agents
Advertisers & Corporate Partners

CONNECT WITH WILEY

The Wiley Network
Wiley Press Room

Copyright © 1999-2026 John Wiley & Sons, Inc or related companies. All rights reserved, including rights for text and data mining and training of artificial intelligence technologies or similar technologies.

WILEY

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)



Manage Preferences

Accept All

Reject Non-Essential