

The Nonlinear Effect of Financial Reforms on Labor Productivity in Selected Developing Countries: Markov Switching Techniques

Laleh Tabaghchi Akbari*
Mahmoud Babazadeh**
Ghasem Sameei***
Tahereh Akhundzadeh Yousefi****

Received Date: 20/07/2020 - Accepted Date: 19/09/2020
DOI: 10.22096/esp.2021.131313.1377

Abstract

Financial reforms, due to make a structural difference in quantity and quality of services provided in financial markets, is able to explain an important part of difference in growth and development between countries, and without any doubt, these changes effect on the labor productivity. In this study, had been paid to examine the nonlinear effect of financial reforms indicators (financial liberalization, financial development and financial integration) on labor productivity in 15 selected developing countries during the period of 2006-2017 with using of Markov Switching econometric technique. The results of examines show that the financial liberalization index (foreign direct investment) in both regimes has a negative effect on labor productivity. Financial development indicators (banking credits and the value of the trading stocks) also have a negative effect on labor productivity in first regime, but in second regime, we see a positive relationship. Finally, the Financial Integration Index (total of foreign portfolio investment and foreign direct investment on GDP) in both regimes has a positive effect labor productivity. Therefore, according to the results, it can be acknowledged a significant part of the labor productivity depends on financial reforms, so it seems necessary to provide more and more grounds for strengthening and expanding the indicators of the financial reform in above societies.

Keywords: Financial Reforms, Labor Productivity, Developing Countries, Markov Switching.

JEL Classification: D53, J24, C24.

* Ph.D. Candidate, Department of Economics, Urmia Branch, Islamic Azad University, Urmia, Iran.

Email: L.t.akbari@mail.iaurmia.ac

** Assistant Prof., Department of Economics, Urmia Branch, Islamic Azad University, Urmia, Iran.

Email: m.babazadeh@iaurmia.ac.ir

*** Assistant Prof., Department of Economics, Urmia Branch, Islamic Azad University, Urmia, Iran.

Email: g.sameei@iaurmia.ac.ir

**** Assistant Prof., Department of Economics, Urmia Branch, Islamic Azad University, Urmia, Iran.

Email: t.akhoondzadeh@iaurmia.ac.ir



Bibliography

- Attarzadeh, B. & S. M. Seyyed Hosseini (2012). "Government, Development and Financial Reforms in the Globalized Atmosphere", *Journal Strategic Studies of Public Policy*, Vol. 3, No. 6, pp. 115-148.
 - Garechurloy Aghdam, K. (2016). *The Effect of Financial Development on Partial Labor Productivity at Sections of Iranian Industry*, Master Thesis, Tabriz: University of Tabriz.
 - Ghasemi, A. R. & S. Nazari (2016). "The Role of Financial Deepening on Macroeconomic Shock", *Quarterly of Financial Economics*, Vol. 10, No. 35, pp. 27-44.
 - Kamali Dehkordi, P.; ghobeyshavi, A.; Abdollahi, F.; & D. Farhadi Sartangi (2018). "Evaluating the Impact of Shocks Due to Financial Development and Due to Health Expenditure on the Labor Productivity of Manufacturing Sector", *Journal of Industrial Economics Research*, Vol. 2, No. 4, pp. 67-82.
 - Mehrabani, F.; Abdollahi, F. & M. Basirat (2016). "Considering the Effects of Doing Business on Economic Growth for Iran, MENA and OECD Countries by GMM Method", *The Macro and Strategic Policies*, Vol. 4, No. 13, pp. 65-96.
 - Monjazeab, M. R. & R. Nosrati (2018). *Advanced econometrics Models Using Eviews and Stata*, Tehran: Mehraban Publication.
 - Motamedi, S. (2014). *The Degree of Financial Liberalization, Capital Formation, Productivity and Economic Growth in Developing Countries*, Master Thesis, Tehran: University of Tehran.
 - Nikpour, S.; Bahmani, M.; Jalaei, S. A. M. & M. Nejati (2019). "Investigating Financial Convergence of Iran and OPEC Member States (Application of Phillips-Sol Method)", *Quarterly of Financial Economics*, Vol. 13, No. 46, pp. 95-126.
 - Pedram, M. & F. Hafezian (2017). "The Study of the Role of the Financial Development in the Relationship between Exchange Rate and Productivity Growth: (Stock Market Development)", *Quarterly Journal of Fiscal and Economic Policies*. Vol. 4, No. 15, pp. 7-22.
 - Rahmani, T. & S. Motamedi (2018). "The Impact of Foreign Direct Investment on Capital Formation, Productivity and Economic Growth in Developing Countries", *Journal of Economic Growth and Development Research*, Vol. 8, No. 30, pp. 117-132.
 - Saghafi, P. (2015). *The Effect of Institutional Factors on Total Factor Productivity in Selected Developing Countries*, Master Thesis, Tabriz: Islamic Azad University.
 - Sayfollahi, N. & H. Hazeri (2017). "The Effect of Financial Development on Labor Productivity: Cointegration Application in Dynamic Panel Data", *Financial Monetary Economics*, Vol. 24, No. 14, pp. 252-271.
 - Shakeri, A. (2016). *Macroeconomic Theory and Policy*, Tehran: Rafe Publication.
 - Soury, A. (2016). *Econometrics with the Use of Eviews & Stata*, Tehran: Farhang Shenasi Publication.
 - Taghavi, M. M. (2015). *The Effect of Human Development Index on Total Factor Productivity in Iran*, Master Thesis, Tabriz: Islamic Azad University.
 - Tahmasebpour, S. (2015). *The Effect of Financial Integration on Economic Growth of Selected Developing Countries*, Master Thesis, Tabriz: Islamic Azad University.
 - Vefaghi, N. (2016). *The Effect of Financial Integration on Total Factor Productivity in Selected Developing Countries*, Master Thesis, Tabriz: Islamic Azad University.
- "Penn World Table" (2020), [http://www. Ggdc.net/pwt](http://www.Ggdc.net/pwt).
- "World Bank" (2020), Doing Business Report, <http://www.doingbusiness.org/reports>.
- "World Bank" (2020), World Development Indicators, <http://www.worldbank.org/data/onlinedatabases.html>.
- "World Bank" (2020). The Worldwide Governance Indicators (WGI) Project Reports, <http://info.worldbank.org/governance/wgi/>.

- Abdullahi, D. (2013). "Effects of Financial Liberalization on Financial Market Development and Economic Performance of the SSA Region: An Empirical Assessment", *Economic Modelling*, Vol. 30, No. 1, pp. 261-273.
- Adeusi, S. O. & O.A. Aluko (2015). "Relevance of Financial Sector Development on Real Sector Productivity: 21st Century Evidence from Nigerian Industrial Sector", *International Journal of Academic Research in Business and Social Sciences*, Vol. 5, No. 6, pp. 118-132.
- Batuo, M.; Mlambo, K., & S. Asongu (2018). "Linkages between Financial Development, Financial Instability, Financial Liberalisation and Economic Growth in Africa", *Research in International Business and Finance*, Vol. 3, No. 45, pp. 168-179.
- Bhattacharya, M.; Inekwe, J. N., & M. R. Valenzuela (2018). "Financial Integration in Africa: New Evidence Using Network Approach", *Economic Modelling*, Vol. 1, No. 72, pp. 379-390.
- Dritsaki, Ch. (2016). "Real Wages, Inflation, and Labor Productivity: Evidences from Bulgaria and Romania", *Journal of Economic & Financial Studies*, Vol. 4, No. 5, pp. 24-36.
- Föllmi, R.; Fuest, A.; Meulen, P. A. D.; Micheli, M.; Schmidt, T. & L. Zwick (2018). "Openness and Productivity of the Swiss Economy", *Swiss Journal of Economics and Statistics*, Vol. 1, No. 154, pp. 1-21.
- Francisco, J. B., & Yongseok, Sh. (2017). "Productivity Growth and Capital Flows: The Dynamics of Reforms", *American Economic Journal: Macroeconomics*, Vol. 9, No. 3, pp. 147-185.
- Jiang, Ch., & Zhang, P. (2017). "Threshold Effects of Capital Account Liberalization on Productivity: Bootstrap Method in Non-Dynamic Panels", *Wireless Personal Communications*, Vol. 4, No.102, pp. 713-723.
- Jude, E. (2010). "Financial Development and Growth: A Panel Smooth Regression Approach", *Journal of Economic Development*, Vol. 1, No. 35, pp. 15-33.
- Karimu, S. (2019). "Structural Transformation, Openness, and Productivity Growth in Sub-Saharan Africa", *WIDER Working Paper*, Vol. 1, No.109, pp. 1-8.
- Kouamé, W. A. K. & S. J. A Tapsoba (2019). "Structural Reforms and Firms' Productivity: Evidence from Developing Countries", *World Development*, Vol. 1, No.113, pp. 157-171.
- Neupane, E. (2013). "Efficiency and Productivity of Commercial Banks in Nepal: A Malmquist Index Approach", *Asian Journal of Finance & Accounting*, Vol. 5, No. 2, pp. 220-243.
- Ni, N., & Liu, Y. (2019). "Financial Liberalization and Income Inequality: A Meta-Analysis Based on Cross-Country Studies", *China Economic Review*, Vol. 3, No. 56, pp. 1-17.
- North, D. C. (2016). "Institutions and Economic Theory", *the American Economist*, Vol. 1, No. 61, pp. 72-76.
- Procházka, P., & K. Čermáková (2015). "Influence of Selected Institutional Factors on the Economic Growth: Case Open Markets", *Procedia Economics and Finance*, Vol. 1, No. 30, pp. 702-709.
- Samargandi, N. (2018). "Determinants of Labor Productivity in MENA Countries", *Emerging Markets Finance and Trade*, Vol. 5, No. 54, pp. 1063-1081.
- Sankoh, L. (2017). *Nonlinearity between Financial Development and Productivity Growth in Emerging Markets*, Master's Thesis, Baltimore: University of Maryland.
- Serdaroğlu, T. (2015). "Financial Openness and Total Factor Productivity in Turkey", *Procedia Economics and Finance*, Vol. 1, No. 30, pp. 848-862.
- Villalpando, B. (2015). "Bank Credit and Productivity: Evidence from Mexican Firms", *Working Paper*, Vol. 1, No. 6, pp. 1-27.

- Wang, B., & Q. Zhu (2018). "Stability Analysis of Semi-Markov Switched Stochastic Systems", *Automatica*, Vol. 1, No. 94, pp. 72-80.
- Yang, H.; Shi, F.; Wang, J. & Zh. Jing (2019). "Investigating the Relationship between Financial Liberalization and Capital Flow Waves: A Panel Data Analysis", *International Review of Economics & Finance*, Vol. 3, No. 59, pp. 120-136.
- Zghidi N., & Z. Abida (2014). "Financial Development, Trade Openness and Economic Growth in North African Countries", *the Romanian Economic Journal*, Vol. 17, No. 53, pp. 91-120.