

対内直接投資が ASEAN の経済成長に及ぼす影響

—パネルデータ分析を用いた実証分析—

閻 旭 冲

(大阪市立大学経済学研究科後期博士課程)

【要約】

本研究ではコブ・ダグラス生産関数に基づき、1995～2020 年の ASEAN7ヶ国の統計データを使用してパネルデータ分析を行い、同 7ヶ国向けの直接投資が ASEAN の経済成長に及ぼす影響を考察した。個体と時間の固定効果モデルの推定結果によれば、対内直接投資、労働者数と教育支出の符号はプラスであることが示されている。ASEAN7ヶ国向けの直接投資は 1 単位上昇するにつれて、同 7ヶ国の経済が 0.0687% 成長する。対内直接投資は ASEAN7ヶ国の国内貯蓄不足と外貨不足の 2 つのギャップを埋め、国内投資を補完する効果がある。また、対内直接投資は ASEAN7ヶ国の雇用需要を増加させ、雇用創出効果をもたらす。さらに、ロバストネステストの推定結果から見ると、対内直接投資の係数は異なるものの、すべてが正で有意であることが示されている。これにより、個体と時間の固定効果モデルの推定結果によると、対内直接投資が

ASEAN7ヶ国の経済発展に対してポジティブな影響を与えるとの結論は頑健性を持ち、信頼性のある結果であることを示している。

キーワード : ASEANの経済成長、対内直接投資、コブ・ダグラス生産関数、パネルデータ分析

外來直接投資對於東協經濟成長之影響

—運用縱橫資料分析的實證研究—

閻旭冲

(大阪市立大學經濟學研究科後期博士課程)

【摘要】

本研究利用東協七國自 1995 年迄 2020 年的縱橫資料，運用柯布 - 道格拉斯生產函數，進行縱橫資料分析，探討外來直接投資（IFDI）對這些國家經濟成長的影響。根據固定效應模型的估計結果，外來直接投資、勞動力和教育支出的係數均為正且具有統計顯著性。具體而言，東協七國的 IFDI 每增加一個單位，其經濟將成長 0.0687%。東協七國的 IFDI 可以填補國內儲蓄和外匯不足的缺口，產生補償國內投資的作用。而且，IFDI 可以透過刺激東協七國內部的就業需求來創造就業機會。此外，IFDI 的增加使勞工能夠透過勞動力培訓和技術同化以促進技術轉移。透過技術外溢效應，東協七國可以推動技術進步，實現經濟成長。此外，穩健性檢定的估計結果顯示，雖然 IFDI 的係數不同，但它們始終為正且顯著。這些結果證實了固定效應模型研究結果的穩健性，顯示 IFDI 對東協七國的經濟發展有正面影響。

關鍵字：東協經濟成長、外來直接投資、柯布 - 道格拉斯生產函數、縱橫資料分析

The Impact of Inward Foreign Direct Investment on ASEAN Economic Growth: An Empirical Study Using Panel Data Analysis

Xuchong Yan

Ph.D Student, Graduate School of Economics, Osaka City University

【Abstract】

Utilizing panel data from 1995 to 2020 for the ASEAN-7 countries and applying the Cobb-Douglas production function, we conducted a panel data analysis to investigate the impact of inward foreign direct investment (IFDI) on the economic growth of these nations. According to the estimation results of the fixed effects model, the coefficients for Inward Foreign Direct Investment, Labor Force, and Education Expenditure were found to be positive and statistically significant. Specifically, for each unit increase in IFDI to the ASEAN-7 countries, their economies experienced a growth rate of 0.0687 percent. IFDI in the ASEAN-7 countries can fill the gaps in domestic savings and foreign exchange deficiencies, compensating for domestic investment. Moreover, IFDI can generate employment opportunities by stimulating employment demand within the ASEAN-7 countries. Additionally, the advancement of IFDI enables workers to facilitate technology transfer through labor training and technology assimilation. Through technological spillover effects, the ASEAN-7 countries can promote technological progress and achieve economic growth. Additionally, in the robustness analysis, while the coefficients of IFDI differ, they are consistently positive and significant. These results confirm the robustness of the fixed effects model's findings, suggesting that IFDI has a positive impact on the economic development of the ASEAN-7 countries.

Keywords: ASEAN Economic Growth, Inward Foreign Direct Investment (IFDI), Cobb-Douglas Production Function, Panel Data Analysis

＜参考文献＞

- 石田正美、2016「東アジアと ASEAN における人口構成とマクロ経済」植村仁一編『東アジアの計量モデル分析』：11-30。
- Ishida, Masami. 2016. “Ajia to ASEAN ni okeru jinko kosei to makuro keizai” [The Demographic Structure and Macroeconomy of East Asia and ASEAN]. Jinichi Uemura, ed., *Higashi ajia no keiryo moderu bunseki* [The Meteorological Model Analysis of East Asia], pp.11-30.
- 王玉珊、鷲尾紀吉、2011「教育と経済発展の相互関係」『中央学院大学商経論叢』26(1)：41-46。
- Yushan, Wang, and Kiyoshi Washio. 2011. “Kyoiku to keizai hatten no sogo kankei” [The Interplay of Education and Economic Development]. *The Chuo-Gakuin University Review of Economics & Commerce*, 26(1): 41-46.
- 開発金融研究所、2002「直接投資が投資受入国の開発に及ぼす効果」『開発金融研究所報』13: 4-33。
- JBIC Institute. 2002. “Chokusetsu toshi ga toshi ukeire koku no kaihatsu ni oyobosu koka” [Impacts of Foreign Direct Investment on the Development of Host Countries]. *Journal of JBIC Institute*, 13: 4-33.
- 北村かよ子、2002「東アジアの経済発展と NIES の役割—対内直接投資を中心にして—」北村かよ子編『アジア NIES の対内直接投資』：3-26。
- Kitamura, Kayoko. 2002. “Higashi ajia no keizai hatten to NIES no yakuwari: tainai chokusetsu toshi wo chushin ni” [Economic Development in East Asia and the role of NIES: Focusing on Inward Direct Investment]. Kayoko Kitamura, ed., *Ajia NIES no tainai chokusetsu toshi* [Inward Direct Investment of Asia NIES], pp.3-26.
- ケインズ、ジョン・メイナード（間宮陽介訳）、2008『雇用、利子および貨幣の一般理論』（上）（下）、岩波文庫。
- Keynes, John Maynard, trans. by Yosuke Mamiya. 2008. *Koyo, risi oyobi kahei no ippan riron* [The General Theory of Employment, Interest, and Money]. Iwanami bunko.
- 高橋良子、大山剛、2000「近年の対内直接投資増加の背景」『日本銀行調査月報』8: 205-224。
- Takahashi, Ryoko, and Tsuyoshi Oyama. 2000. “Kinnen no tainai chokusetsu toshi zoka no haisei” [The Context Behind the Recent Years Surge in Inward Direct Investment]. *Bank of Japan Survey Monthly Report*, 8: 205-224.
- 手島茂樹、2008「発展途上国からの直接投資—発展途上国を基盤とした多国籍企業—」『季刊 国際貿易と投資』72: 19-29。
- Teshima, Shigeki. 2008. “Hatten tojokoku kara no chokusetsu toshi: hatten tojokoku wo kiban toshita takokuseki kigyo” [Foreign Direct Investment from Developing Countries: Multinational Companies Based in Developing Economies]. *International trade and investment (Quarterly)*, 72: 19-29.

- 藤田麻衣、2002 「シンガポールの対外投資—電子産業における対アジア投資を中心
に—」 北村かよ子編『アジア NIES の対内直接投資』： 113-160.
- Fujita, Mai. 2002. "Shingaporu no taigai toshi: denshi sangyo ni okeru tai ajia toshi wo
chushin ni" [Singapore's Overseas Investments: A Focus on the Electronics Industry
in Asia]. Kayoko Kitamura, ed., *Ajia NIES no tainai chokusetsu toshi [Inward Direct
Investment of Asia NIES]*, pp.113-160.
- 肖衛國、1999 「跨國公司海外投資對東道國的經濟效益分析」『財經問題研究』9: 8-13.
Xiao, Wei-guo, 1999. "Kuaguo gongsi haiwai touzi dui dongdaoguo de jingji xiaoyi fenxi"
[Analysis of the Economic Advantages of Multinational Corporations' Overseas Investments
for Host Countries]. *Research on Financial and Economic Issues*, 9: 8-13.
- 景光正、李平、2016 「IFDI 是否提升了中國的出口產品質量」『國際貿易問題』8: 131
-142.
- Jing, Guang-zheng, and Ping Li. 2016. "IFDI shifou tisheng le zhongguo de chukou chanpin
zhiliang" [Has Inward Foreign Direct Investment (IFDI) contributed to the enhancement of
the quality of China's export products?]. *Journal of International Trade*, 8: 131 -142.
- Ausloos, M., Ali Eskandary, Parmjit Kaur, and Gurjeet Dhesi. 2019. "Evidence for Gross
Domestic Product growth time delay dependence over Foreign Direct Investment. A time-
lag dependent correlation study." *Physica A: Statistical Mechanics and Its Applications*,
527: 1-22.
- Bermejo Carbonell, Jorge, and Richard A. Werner. 2018. "Does foreign direct investment
generate economic growth? A new empirical approach applied to Spain." *Economic
geography*, 94(4): 425-456.
- Beugelsdijk, Sjoerd, Roger Smeets, and Remco Zwinkels. 2008. "The impact of horizontal and
vertical FDI on host's country economic growth." *International business review*, 17(4): 452-
472.
- Carkovic, Maria, and Ross Levine. 2005. "Does foreign direct investment accelerate economic
growth." *Does foreign direct investment promote development*, 195: 1-16.
- Chenery, Hollis B. and Alan M. Strout, 1967. "Foreign Assistance and Economic Development."
John H. Adler, and Paul W. Kuznets. *Capital Movements and Economic Development*, pp.
268-292. Palgrave Macmillan.
- De Gregorio, José. 1992. "Economic growth in Latin America." *Journal of development
economics*, 39(1): 59-84.
- Forte, Rosa, and Rui Moura. 2013. "The effects of foreign direct investment on the host countr's
economic growth: theory and empirical evidence." *The Singapore Economic Review*, 58(3):
1-28.
- Dudzevičiūtė, Gitana, Agnė Šimelytė, and Aušra Liu vaitienė. 2018. "Government expenditure
and economic growth in the European Union countries." *International Journal of Social
Economics*, 45(2): 372-386.
- Gunby, Philip, Yinghua Jin, and W. Robert Reed. 2017. "Did FDI really cause Chinese economic

- growth? A meta-analysis.” *World Development*, 90: 242-255.
- Hsu, Locknie. 2012. “Inward FDI in Singapore and its policy context.” *Inward and Outward FDI Country Profiles*, 5: 1-18.
- Lee, Huay Huay, and Hui Boon Tan. 2006. “Technology Transfer, FDI and Economic Growth in the ASEAN Region.” *Journal of the Asia Pacific Economy*, 11(4): 394-410.
- Kosztowniak, Aneta. 2014. “Analysis of the Cobb-Douglas Production Function as a tool to investigate the impact of FDI net inflows on gross domestic product value in Poland in the period 1994-2012.” *Oeconomia Copernicana*, 5(4): 169-190.
- Im, Kyung So, Mohammad Pesaran, and Yongcheol Shin. 2003. “Testing for unit roots in heterogeneous panels.” *Journal of econometrics*, 115(1): 53-74.
- Levin, Andrew, Chien-Fu Lin, and Chia-Shang James Chu. 2002. “Unit root tests in panel data: asymptotic and finite-sample properties.” *Journal of econometrics*, 108(1): 1-24.
- Moudatsou, Argiro, and Dimitrios Kyrkilis. 2011. “FDI and Economic Growth: Causality for the EU and ASEAN.” *Journal of Economic Integration*, 26(3): 554-577.
- Nistor, Paula. 2014. “FDI and economic growth, the case of Romania.” *Procedia Economics and Finance*, 15: 577-582.
- Pedroni, Peter. 2004. “Panel cointegration: asymptotic and finite sample properties of pooled time series tests with an application to the PPP hypothesis.” *Econometric theory*, 20(3): 597-625.
- Pegkas, Panagiotis. 2015. “The impact of FDI on economic growth in Eurozone countries.” *The Journal of Economic Asymmetries*, 12(2): 124-132.
- Pheang, Pheara, Jianxu Liu, Jirakom Sirisrisakulchai, Chukiat Chaiboonsri, and Songsak Sriboonchitta. 2017. “Foreign direct investment, exports and economic growth in ASEAN region: Empirical analysis from panel data.” Vladik Kreinovich, Songsak Sriboonchitta, Van-Nam Huynh. *Robustness in Econometrics*, pp. 691-705. Springer.
- Pradhan, Rudra Prakash. 2009. “The FDI-led-growth hypothesis in ASEAN-5 countries: Evidence from cointegrated panel analysis.” *International Journal of Business and Management*, 4(12): 153-164.
- Reisen, Helmut, and Marcelo Soto. 2001. “Which types of capital inflows foster developing-country growth?” *International finance*, 4(1): 1-14.
- Sasana, Hadi, and Salman Fathoni. 2019. “Determinant of foreign direct investment inflows in ASEAN Countries.” *JEJAK: Jurnal Ekonomi dan Kebijakan*, 12(2): 253-266.
- Sung, Deuk Hahn, and Heo Uk. 2008. “US and Japanese foreign direct investment in East Asia: A comparative analysis.” *Policy Studies Journal*, 36(3): 385-401.
- Tiwari, Aviral Kumar. 2011. “Foreign aid, FDI, economic freedom and economic growth in Asian countries.” *Global Economy Journal*, 11(3): 1-26.
- Tiwari, Aviral Kumar, and Mihai Mutascu. 2011. “Economic growth and FDI in Asia: A panel-data approach.” *Economic analysis and policy*, 41(2): 173-187.
- UNCTAD. <https://unctadstat.unctad.org/datacentre/dataviewer/US.FdiFlowsStock>.

Westerlund, Joakim. 2007. "Testing for error correction in panel data." *Oxford Bulletin of Economics and statistics*, 69(6): 709-748.

World Bank Open Data. <https://databank.worldbank.org/source/world-development-indicators>.