



HỌC VIỆN NÔNG NGHIỆP VIỆT NAM
VIETNAM NATIONAL UNIVERSITY OF AGRICULTURE

**Paper Presented at the ADB-Asian Think Tank Development Forum
Pacific Island Economies: Aiming for Sustainable Economic Development
in the Midst of Growing Uncertainties**

The Nexus between Foreign Direct Investment, Trade Openness, and Economic Growth in Fiji

Anh Tru Nguyen
Vietnam National University of Agriculture

26 - 28 September 2023

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INTRODUCTION

- The Fijian economy presented a remarkable growth between 2010 and 2018 (income per capita: FJ\$13,000; unemployment: 4.5%)
- However, its economy, jobs, public finance, and socio-economic conditions was strongly influenced by the Covid-19 pandemic and natural disasters.
- Therefore, economic growth of Fiji decreased by 17.2% in 2020 and 4.1% in 2021 (Ministry of Economy, 2022).
- In Fiji, FDI, especially in the tourism sector presented an impressive growth since 1980s, but shortage of manufacturing-related investment occurs because of political instability, the small domestic economy, and the disruption of the world economy (Makun, 2018).
- Trade deficit of Fiji accounted for 32% in 2020 and 17.5% in 2021, respectively due to differences between export growth (5.2%) and import growth (11.7%).

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- The growth of import value implies the increase of commodity prices and inflation. The export growth was determined by mineral water and crude materials (Ministry of Economy, 2021).
- FDI and trade have been seen as the essential drivers for accelerating economic growth in PICs.
- Previous studies investigated the nexus between FDI, trade openness, and economic growth in PICs (Gani, 1999; Maiti & Prasad, 2012; Feeny et al., 2014; Makun, 2018; and Makun, 2021).
- However, none of previous studies examined the association between FDI, trade openness, and economic growth of Fiji.
- Therefore, the aim of this study is to explore the relationship between FDI, trade openness, and economic growth of Fiji between 1981 and 2020 using the Vector Error Correction Model (VECM). Further, the fundamental contribution of this article is to recommend appropriate policies to boost economic growth and achieve sustainable development for Fiji.

METHODOLOGY

- **Data & Sources**

- Data was gathered from the World Development Indicators (WDI) to explore the association between FDI, trade openness, and economic growth of Fiji from 1981 to 2020
- A total of 40 observations was used for the study.

- **Vector Error Correction Model (VECM)**

- The model for this study was constructed according to work of Yusoff & Nuh (2015).

$$GDP_t = f(FDI_t, TR_t) \quad (1)$$

- Where: GDP_t denotes GDP per capita (constant 2015US\$); FDI_t means net inflows foreign direct investment (current US\$); and TR_t denotes trade openness (% of GDP)

$$\ln GDP_t = \beta_0 + \beta_1 \ln FDI_t + \beta_2 \ln TR_t + \varepsilon_t \quad (2)$$

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- There are three steps to run the VECM as follows:
 - ✓ First, the stability of the series or their order of integration in all variables will be checked
 - ✓ Next, the Johansen co-integration test was used to investigate a long run relationship among all covariates
 - ✓ Finally, the VECM was estimated both in the short and long run (Azlina & Mustapha, 2012).

An overview on GDP per capita, FDI, and trade openness in Fiji

Table 1. GDP per capita, FDI, and trade openness of Fiji between 1981 and 2020

Variable	Mean	SD	Min	Max
GDP per capita	4070.96	714.24	3039.47	5708.99
FDI net inflows	1.44e+08	1.97e+08	-1.47e+08	6.79e+08
Trade openness	111.44	15.48	71.74	135.9

Source: Author's calculation, 2023

Note: SD denotes standard deviation

The nexus between FDI, trade openness, and economic growth in Fiji

Table 2. The unit root test

Variables		ADF Test		PP Test		Conclusion
		Level	1 st difference	Level	1 st difference	
LnGDP per capita	Constant	-0.80	-3.85***	-0.75	-5.34***	I(1)
	Constant & trend	-3.24*	-3.30*	-3.99***	-4.98***	I(1)
LnFDI	Constant	-1.81	-7.38***	-2.84*	-11.08***	I(1)
	Constant & trend	-2.30	-7.39***	-3.30*	-11.13***	I(1)
LnTrade openness	Constant	-1.34	-3.55***	-1.29	-5.05***	I(1)
	Constant & trend	-0.77	-3.94***	-0.58	-5.24***	I(1)

Source: Author's calculation, 2023

*Note: *** and * denote statistical significance at 1% and 10%, respectively*

- The time series of all variables were not stationary at the level.
- The first difference was implemented to examine the stationary of these variables
- Results address that the absolute values of test statistics are greater than critical values at the 1% and 10%, respectively and therefore we can conclude that the time series of these variables do not contain unit roots

Table 3. Results of Trace statistic in the Johansen co-integration test

Maximum rank	LL	Eigenvalue	Trace statistic	5% critical value	1% critical value
0	-15.35		30.55 ^{*1}	29.68	35.65
1	-4.71	0.437	9.26 ^{*5}	15.41	20.04
2	-1.63	0.153	3.10	3.76	6.65
3	-0.07	0.080			

Source: Author's calculation, 2023

*Note: *¹ and *⁵ denote the number of co-integration (ranks) chosen to accept the null hypothesis at 1% and 5% critical values*

- Trace statistics are smaller than the 1% critical value ($30.55 < 35.65$) and the 5% critical value ($9.26 < 15.41$)
- There is one co-integration at the 5% critical values among variables

Estimation of the VECM in the short run

- GDP per capita and trade openness have significant and negative effects on FDI in Fiji
- These imply that economic growth and the increase of trade openness may discourage FDI inflows to Fiji in the short run

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Table 4. Estimation of the VECM in the long run

Variables	Coefficient	Std. Error	z	P-value
LnGDP per capita	1			
LnFDI	-0.015***	0.00	-3.17	0.002
LnTrade openness	0.609**	0.29	2.09	0.036
Constant	-10.83			

Source: Author's calculation, 2023

*Note: *** and ** denote statistical significance at 1% and 5%, respectively*

- FDI decelerates economic growth of Fiji in the long run
- By contrast, trade openness supports economic growth of Fiji in the long run
- Results reflect that trade openness should be encouraged since it accelerates economic growth in Fiji
- However, FDI inflows to Fiji should be carefully controlled because it reduces economic growth for the long term

DISCUSSION

- Both GDP per capita and trade openness have significant and negative influences on FDI of Fiji in the short run.
- We also found that FDI discourages GDP per capita, but trade openness may facilitate economic growth of Fiji in the long run.
- Our results are contrast to conclusions of Gani (1999), Feeny et al. (2014), and Makun (2018) who found that FDI promotes economic growth in Fiji.
- The Johansen co-integration test confirmed the long-term relationship among FDI, trade openness, and economic growth in Fiji and this consistent to argument of Makun (2018).

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- Our results can be explained by the following reasons:
 - First, in Fiji, although FDI plays an important role in mineral exploration, primary product processing, infrastructure development, manufacturing and service industries, but the majority of FDI concentrated on development of the tourism sector (Gani, 1999). Thus, FDI has a little contribution to economic growth in the region (Feeny et al., 2014).
 - Second, the Fiji economy grew with the low rate for the long run and therefore it was very difficult to attract FDI inflows.
 - Third, Fiji has been known as the imports-dependent country which greatly depends on imports of capital goods, plant, machinery, and consumables. Therefore, FDI inflows to Fiji should focus more on social and economic development, especially in reducing imports dependence rather than concentrating only on the tourism industry.
 - Lastly, although trade openness enhances economic growth of Fiji, but it has a weak influence on economic growth because only the trading and tourism sectors benefit from the development of trade openness, while the industrial and construction sectors have little growth, and the agriculture sector declines (Maiti & Prasad, 2012).

CONCLUSION AND POLICY IMPLICATIONS

- The aim of this article is to evaluate the relationship between FDI inflows, trade openness, and economic growth in Fiji between 1981 and 2020 using the VECM.
- It has been empirically found that both economic growth and trade openness decelerate FDI inflows to Fiji in the short run.
- In the long run, results stated that FDI has a significant and negative effect on economic growth, but trade openness supports economic growth of Fiji.
- The Johansen co-integration test confirmed the long run association among FDI, trade openness, and economic growth in Fiji.
- Policies were recommended to foster economic growth and achieve sustainable development for Fiji.
- First, FDI inflows to Fiji should be efficiently used for social and economic development, rather than only focusing on trading and tourism sectors.
- Second, trade openness should be promoted since it facilitates economic growth of Fiji in the long term.
- Finally, the nexus between FDI, trade openness, and economic growth should be re-examined to efficiently exploit both domestic and external resources for sustainable development in Fiji.

THANK YOU VERY MUCH!