

ODA and Provincial Economic Growth in Vietnam

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Abstract

The focal point of this paper is focused on assessing the causal relationship between ODA and economic growth in the localities of Vietnam. This research uses panel data of ODA and GDP from 63 provinces of Vietnam by using Granger Causality test. The results showed that ODA has a causal effect on economic growth (GDP) and vice versa, economic growth decides to attract ODA in provinces in Vietnam. This result complements studies on the causal relationship between ODA and economic growth using new empirical evidence through case studies in the provinces of Vietnam.

Keywords: ODA, economic growth, Vietnam, provincial

1. Introduction

ODA has a great impact in the early stages of the development process in the developing countries, where the scale low domestic savings than investment demand. In particular, developing countries need to invest heavily in infrastructure for socio-economic development. But it requires a large amount of capital, a long recovery period, so only ODA will be able to meet these needs. ODA is an appropriate fund which contributes to increased investment by the government and becomes a relay external resources for the implementation of investment and development of socio-economic.

Through more than 20 years receiving ODA from the donor community internationally, ODA for Vietnam has continued to grow. ODA committed in the period 1993-2015 of Vietnam is 89.5 billion USD, signed ODA is 74.789 billion USD and disbursed is 52.884 billion USD, equivalent to disbursement with 70.71% of total signed ODA (Ministry of Planning and Investment, 2015). In particular, ODA allocates 92.2% for programs and local projects, while 7.8% is to be lending capital. When studying the relationship between ODA and Vietnam's economic growth at the provincial level, there is a difference from the national economic growth. Because the issues related to overall national policy on ODA is controlled but the understanding and ability to apply the policies is different in each locality. In addition, a large-scale locality will have more counterpart funds and more ability to repay ODA loans, thus receiving more ODA. Many empirical studies show that ODA plays an important role in economic growth in countries, especially in developing countries such as Vietnam. However, the debate on the impact of ODA on economic growth or economic growth as a basis for attracting ODA remains inconsistent. The question is whether there is a relationship between ODA and economic growth in the localities of Vietnam or not, and how they interact? Therefore, this paper focuses to find the answer for the above problem.

2. Literature Review

The relationship between capital and economic growth is quite clear in the theory of growth, whether any growth theory has confirmed the role of capital. Classical economists such as Smith, Marshall & Ricardo emphasized that capital is an important factor in determining growth and development. ODA is also a component of capital in the economy and it can contribute to national economic growth. However, due to the efficiency of ODA by different localities and countries, ODA has different impacts on different economies. Schumpeter (1954) argued that ODA only leads to growth when combined with the transfer of entrepreneurial spirit and new skills, thereby enhancing the absorption capacity of the domestic economy to receive ODA. When ODA recipient countries have poor governance, corruption, and the use of cheap and inefficient ODA, for example in African and Latin American countries, ODA can cause debt burdens and impede growth. On the other hand, Ndambendia & Njoupouognigni, (2010) studied 36 developing countries including the Sub-Saharan Africa countries over the period 1980-2007, the study confirmed the role of ODA in positively impacting the economic growth. However, the effect of ODA on growth in SSA is low.

Selaya and Sunesen (2012) conducted empirical research on FDI, ODA and economic growth in 99 countries using ODA in 1970-2001 to assess the impact of ODA use on economic growth

of countries. The results showed that there was a positive impact of ODA on economic growth at the national level. This finding was also found in similar studies in different national populations (Ndambendia & Njoupouognigni, 2010; Jones, 2013).

Besides, according to research Fayissa & Gill (2015) studied empirically the impact of governance institutions, ODA on the economic growth by using data from 37 countries in Asia and coastal areas for the 1996-2013 period. The research results indicate that countries that have better ODA governance are more likely to use ODA and more positive impact on economic growth. For countries with poor governance, ODA will have little or no negative impact on economic growth. As such, governance institution is the driving force for the economic growth. The higher the institutionalization, the more effective the attraction and utilization of ODA and FDI, which leads to higher growth and eradicating poverty in developing countries.

In addition, ODA also contributes to creating jobs, improve the quality of human resources (Killick, 1991; Crosswell, 1998; Tarp, 2006; Fayissa & Gill, 2015). Because the ODA characteristic is attached to the programs and projects of the receiving country so it creates a large volume of employment. At the same time, ODA projects often have good organization and discipline, professionalism, the know-how of modern technologies. It will contribute to improving the skills, workmanship as well as the sense of discipline of employees thereby improving the quality of human resources.

The Millennium Development Goals (MDGs) were agreed at the United General Assembly in September 2000 and became a common goal of humanity. Therefore, the poor and developing countries when implementing the MDGs have the support of the international community. Today, multilateral donors have focused on issues for implementation of the MDGs in poor countries and developing countries. These countries are not able to mobilize on their own the necessary resources to build basic infrastructure and services (health, education, etc.), so they cannot break the cycle of poverty. ODA organizations are targeting the MDGs as ODA targets, and the donors pay more attention to the effectiveness of ODA by calculating the impact of ODA and harmonizing procedures to achieve MDGs. Thus, there are many empirical studies have confirmed the role of ODA to reduce poverty (Collier and Dollar, 2002; Collier, 2006)

ODA not only affects the economy at the national level but it also affects the economy of each locality. Peratsakis et al. (2012) and Rajlakshmi (2013) indicated that the impact of ODA on local growth in Malawi was inconsistent. ODA in the South had a greater impact on economic growth than in the North. Thus, the World Bank allocated more ODA projects for the South than in the North.

Dreher and Lohmann (2015) evaluated the effectiveness of World Bank aid for 130 countries during 2000-2011. This study assessed the impact of ODA on the economic growth of 130 countries at the national, regional and local levels. The study pointed out that there was no correlation between ODA and national economic growth, but there was a correlation between ODA and growth at the regional level, as well as the correlation between ODA and growth at the provincial level. In particular, the impact of ODA on provincial growth is stronger than the impact of ODA on regional growth.

In addition, there are many other empirical studies assess the impact of ODA on local economic growth. Lau et al. (1993) studied the regional economic growth of Brazilian states. The authors formulated the analysis and forecast models for the growth of the Brazilian states in the period 1970-1980, based on the production function with real GDP, capital, labor, and technical advances. Research results indicated that technological progress was the most important contributing factor to the growth of Brazilian states, followed by labor element and the capital factor which contributed at least. Coulombe and Tremblay (2001) conducted an empirical analysis of regional growth in Canada based on Barro (1993) and Islam (1995) growth models. This study used panel data between cross-sectional (provinces) and time series from 1951-1996. The results showed that human capital explained 50% growth of per capita income in the provinces of Canada, while the remaining 50% are other factors such as capital and other variables in the model. Moreover, Dreher and Lohmann (2015) use the extended Cobb-Douglas production function to study local and regional economic growth in 130 countries. The study used regional data and 54,167 provinces to assess the impact of ODA on the economic growth of 130 countries during 2000-2011. The study indicated that there was no correlation between ODA and national economic growth. In particular, the impact of ODA on provincial growth was stronger than the impact of ODA on regional growth, but the impact of ODA on economic growth was different level at the national and regional levels and provincial level.

3. Methodology

In this study, the Granger Causality test was used to examine the causal relationship between ODA and economic growth. In experimental studies, testing the causal relationship between ODA and economic growth requires a unit root and cointegration test. The testing of the causal relationships is conducted through three steps which including Step 1: Panel Root tests; Step 2: Panel cointegration tests and estimation; Step 3: Granger Causality tests.

The objective of this study is to indicate whether ODA has an impact on the economic growth of localities in Vietnam or not and vice versa. To analyze the causal relationship between ODA and economic growth of localities in Vietnam, the authors used the Granger causality test (Granger, 1969). The Granger causality test for the causal relationship between ODA and the economic growth of localities is based on the VAR model which is as follows:

$$y_{it} = \alpha_{1,t} + \sum_{k=1}^{ly_i} \phi_{1,i,k} y_{i,t-k} + \sum_{k=1}^{lx_i} \beta_{1,i,k} x_{i,t-k} + \varepsilon_{1,i,t}$$

$$x_{it} = \alpha_{2,t} + \sum_{k=1}^{ly_i} \phi_{2,i,k} y_{i,t-k} + \sum_{k=1}^{lx_i} \beta_{2,i,k} x_{i,t-k} + \varepsilon_{2,i,t}$$

Where:

y : Denote GDP of province

x : Denote ODA of province

i, t : province, and year respectively ($i=1, \dots, N$; t to the time period $t=1, \dots, T$)

l : the lag length

ε_1 and ε_2 : the error term

$\phi_1, \phi_2, \beta_1, \beta_2$: the long run coefficient

In this research, the data was collected from General Statistics Office of Vietnam, for the 63 provinces of Vietnam from the 2005 - 2015. Research data includes gross domestic product of province (GDP) and ODA of province at constant prices in 2010.

4. Empirical Results

As a first step, the authors use Levin-Lin-Chu (2002) test to test stationarity in the panel data for the automatic lag selection. By using Levin-Lin-Chu test, spuriousness or misinterpretation of regression results are avoided (Granger, 1969). The Levin-Lin-Chu test in Table 1 indicated that both ODA and GDP of 63 provinces in Vietnam in the period 2005-2015 are non-stationary at levels but become stationary at first difference, I (1).

Table 1. Levin-Lin-Chu test

Variables	Levin-Lin-Chu test			
	Levels		1st level	
	Statistic	P-value	Statistic	P-value
GDP	5.41482	1.0000	-1.70161	0.0444
ODA	-6.14270	0.0000	-14.6636	0.0000

Source: Own caculation by Eview 8.

In the next step, the author used Kao (1999) cointegration test a cointegration relationship between GDP and ODA. The result in table 2 shows that GDP and ODA are co-integration for the whole panel in the long run and we can reject the null hypothesis. This is an evidence of a long run relationship between GDP and ODA of 63 provinces in Vietnam. Therefor we can use the data for Granger Causality test.

Table 2. Result of panel cointegration test

Kao Residual Cointegration Test		
ADF	t-Statistic	Prob.
(Augmented Dickey-Fuller Test Equation)	-3.441006	0.0003

Comment: The null hypothesis is no cointegration. The Automatic lag length selection based on SIC with a max lag of 2.

Source: Own edition and calculations (EVIEW).

Table 3. Granger causality test

Granger causality	Lags	Causality test		Test
		ODA ---> GDP	GDP ---> ODA	
ODA ---> GDP	1	143.024 (0.0000) *	86.2354 (0.0000) *	VAR model

Comment: by VAR model, the authors present the F-tests of zero restrictions, in parentheses the p-value; * 5% significance level;

Source: Own edition and calculations (EVIEW).

From the table 3 above, we can observe that ODA has a causal effect on economic growth (GDP) and vice versa economic growth decides to attract ODA in provinces in Vietnam. This result complements studies on the causal relationship between ODA and economic growth using new empirical evidence through case studies in the provinces of Vietnam.

The results also show that economic growth has a causal effect on ODA. This result is fairly basic characteristic in Vietnam because Vietnam is one of the few countries use ODA for good development goals, especially in sustainable poverty reduction. Vietnam has made good use of funding, boosted the growth of localities and the economy, which has encouraged the donor community to continue providing ODA to Vietnam. Moreover, economic growth creates resources for reciprocal capital in ODA projects. This is particularly evident from ODA projects implemented in the provincial level in Vietnam in the recent past.

5. Conclusions

The empirical results show that any efforts to attract more ODA from the localities have an impact on economic growth. In contrast, economic growth of localities will help to consolidate the confidence of ODA donors. In the coming time, Vietnam should continue to improve the institutional environment, transparency and increased accountability for the receipt and use of ODA of the government and local government. The government should carefully select ODA projects in the direction of enhancing the spillover effect of ODA projects with socio-economic development. The effective use of ODA will promote local economic growth, which helps in improving the position and potential of localities for donors. ODA is not the main source of local budgets but it will be effective when there are institutional reforms, financial management of local governments.

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