

# Empirical Study About ODA Effects on Job Creation

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## Abstract

**Purpose** – This study empirically investigates the effects of Official Development Assistance (ODA) on the economic activities of private actors in recipient countries. As a proxy for the economic activities of private actors, we utilize the job creation activities of foreign subsidiaries in recipient countries. The foreign subsidiaries provide a foundation for economic development by creating paying jobs. That is, if ODA has been successfully transferred to foreign subsidiaries, then these foreign subsidiaries should help economic growth and help create a boom in the local market by providing jobs. These jobs eventually lead to the achievement of the primary aims of foreign aid, including poverty reduction. Thus, this study empirically examines the relationship between ODA and the number of jobs created by foreign subsidiaries in recipient countries.

**Design/methodology** – This is the first study to examine the effects of the ODA on the job creation of foreign subsidiaries because it has been hard to obtain internal information related to the employment status of foreign subsidiaries. Fortunately, we have a unique panel dataset provided by the Export-Import Bank of Korea (KEXIM) for 2006 to 2013. In terms of the empirical specification, we use the generalized least squares (GLS) method. The panel GLS estimator allows us to have an efficient estimation that overcomes the limitations of the panel data. It employs assumptions about the heteroscedasticity between the panels and makes an autocorrelation of the error term within each panel.

**Findings** – We find that ODA influences job creation in foreign subsidiaries. In particular, we found that ODA creates more jobs in sales than in managerial or production positions. This study also shows that the effect of the ODA on the foreign subsidiaries' job creation activities depend on the purpose of the ODA. By examining ODA effects on the foreign subsidiaries' economic activities (e.g., job creation), this study fills a gap in the current literature.

**Originality/value** – Existing studies that focus on the ODA effect have either a macroeconomic point or a microeconomic point of view. However, both approaches do not explain how well foreign aid has influenced private economic actors of recipient countries. In essence, previous researchers found it difficult to obtain the necessary data for internal employment status from foreign subsidiaries. However, thanks to the Korea Export-Import Bank, this study shows that ODA indeed influences the job creation activities of foreign subsidiaries even after controlling for other factors such as FDI, GDP growth rate, employment rate, household expenditure, mother firms' share, etc. By doing so, we can examine how ODA influences the job creation of foreign subsidiaries, which might help economic development and reduce the amount of poverty in recipient countries.

**Keywords:** Effectiveness of the Foreign Assistance, Foreign Aid, Foreign Subsidiaries, Job Creation, ODA Effects, Official Development Assistance, Private Sector

**JEL Classifications:** D12, F14, O53

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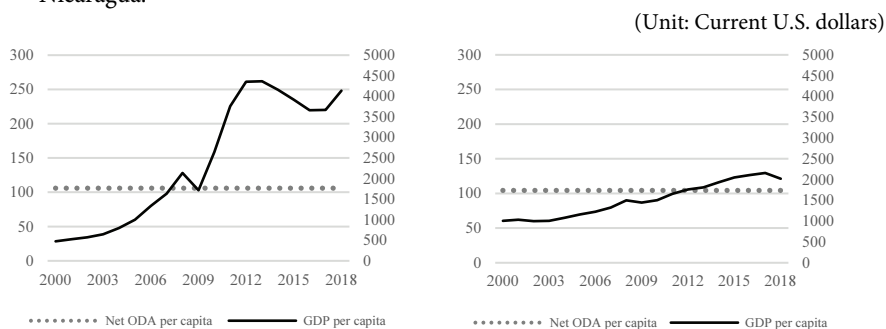
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## 1. Introduction

In September 2015, an international agreement on sustainable development goals (SDGs) was implemented. The SDGs propose objectives for economic, social, and environmental aid. Moreover, they place an emphasis on poverty reduction in developing countries as a main global objective of the aid. Foreign aid is a financial resource transferred from donor countries to developing countries and is known to help solve the problem of poverty while stimulating economic development (DFID, 2008; Herfkens & Bains, 2015). According to the World Bank, the total amount of foreign aid that developing countries received in 2018 was around \$1,538 billion, which is about three times higher than the total amount of aid in 2000 (\$468 billion).

The amount of foreign aid has sharply increased, leading to a more thorough understanding of how foreign aid helps developing countries. However, some recipient countries still struggle with poverty while other recipient countries have improved, even if they received similar amounts of foreign assistance. For example, the average net ODA per capita for Mongolia and Nicaragua were both around \$105 billion from 2000 to 2018. However, when comparing their economic growth indicators (e.g., GDP growth), they show very different trends in economic growth. Mongolia's per capita GDP has increased sharply, from \$474 in 2000 to \$4,314 in 2018. On the contrary, Nicaragua has seen much lower rates of growth, with its GDP per capita growing from \$1,007 to \$2,020 during the same years. What could cause such differences? Could the growth rate of the GDP tell us anything about the effectiveness of foreign aid on recipient countries? According to the UNCTAD's *Trade and Development Report 2008*, ODA grants need to consider the sustained poverty reduction depending on job creation. Given these statements, this study might contribute to the ultimate goal of ODA (e.g., poverty reduction) as we empirically show that ODA has a positive impact on the number of jobs created at foreign subsidiaries after controlling for other foreign support (FDI), employment rate, household expenditure, GDP growth rate, wage level of recipient countries, etc. We believe that such foreign aid could stimulate economic development via job creation from private sectors (e.g., foreign subsidiaries here) and eventually reduce poverty in recipient countries.

**Fig. 1.** Comparison of economic growth compared to net ODA per capita for Mongolia and Nicaragua.



**Note:** The solid line is the gross domestic product (GDP) per capita for Mongolia and Nicaragua from 2000 to 2018. The dotted line is the average amount of official development assistance (ODA) per capita for both countries, around \$105 from 2000 to 2018.

**Source:** The authors' calculations use World Bank data.

Previous studies on foreign aid effectiveness can generally be divided into two approaches – a macroeconomic viewpoint and microeconomic viewpoint. First, macroeconomic research has mainly examined the impact of foreign aid on the economic growth of the recipient countries (Burnside & Dollar, 2000; Ekanayake & Chatrna, 2010; Karras, 2006; Minoiu & Reddy, 2010; Nwaogu & Ryan, 2015). Such studies focused on the GDP growth rate to ascertain if and how foreign aid enhances economic growth in the recipient countries. Second, microeconomic studies have examined the effectiveness of particular individual foreign assistance programs (Banerjee & Duflo, 2009; Tarp & Director, 2009). Using an experimental methodology, researchers examined the effects of foreign aid (e.g., the individual ODA projects) on individual recipients. However, both approaches have limitations. The macroeconomic studies often use GDP as the only measure for overall national economic growth. In contrast, microeconomic studies only tell us about the effects of specific aid programs on individuals who are attached to these aid projects, not the overall impact of the aid on private entities (Tarp & Director, 2009).

Given these research gaps, this study aims to find out the effects of foreign aid<sup>1</sup> on the business activities of private actors in recipient countries. Private actors are known to not only mobilize developmental resources but also provide a foundation for developing a country by improving lives thru job creation. For this reason, the private actor has emerged as an essential factor for measuring the effectiveness of foreign aid (OECD, 2016). In particular, previous studies have shown how private actors create more jobs in the local market and help economic development to reduce poverty in recipient countries (DFID, 2008; ILO, 2017; Jones, Page, Shimeles & Tarp, 2015; Page & Söderbom, 2015). UNCTAD also argued that “it is important to look at how jobs are created, what types of jobs are created, which could have a big impact on inclusive growth and sustainable development”. However, no research has been done to examine how ODA directly influences the job creation of private actors and what types of jobs has been created via ODA. Thus, we use foreign subsidiaries<sup>2</sup> in recipient countries as a proxy for the private actors and utilize the types of jobs and the number of jobs created by the foreign subsidiaries as a proxy for their economic activities. Our work thus sheds light on the effects of the ODA on the economic activity of private actors in recipient countries. If the ODA has directly influenced foreign subsidiaries (a private actor), then they can help economic development and create a boom in the local market through the creation of jobs, which should eventually lead to the achievement of the primary objectives of foreign assistance (i.e., poverty reduction) (DFID, 2008; ILO, 2017; Jones, Page, Shimeles, & Tarp, 2015; Page & Söderbom, 2015).

This is the first study to examine how ODA creates various types of jobs (e.g., executive members, managers, salespeople, and operation workers) at foreign subsidiaries after controlling for other possible economic factors (e.g., FDI, GDP, employment rate, expenditure, the share from a mother firm). We also notice that it has been hard to obtain internal information related to the employment status of foreign subsidiaries. Thanks to the Korea Export-Import Bank (KEXIM), we can utilize the longitudinal data for all of foreign subsidiaries whose parent companies are based in South Korea. Thus, unlike previous studies, we use a new dependent variable – the number of jobs created by foreign subsidiaries as a proxy of private actors’ business activities.

<sup>1</sup> This study interchangeably uses two terms, foreign aid and Official Development Assistance (ODA)

<sup>2</sup> Please take a look at the data section to see why we focus on foreign subsidiaries whose parent companies are based in South Korea, not entire local firms in the recipient countries.

Through our empirical analysis, which uses panel data for 45 developing countries from 2006 to 2013, we find that ODA has a direct impact on the job creation of foreign subsidiaries even after controlling for FDI, GDP growth rate, employment rate, household expenditure, mother firm's share, etc. This study also offers detailed insights into ODA effects on the foreign subsidiaries by looking at: (1) the type of jobs created and (2) the purpose of the ODA. First, we find that ODA effects generate more jobs in sales than in managerial or production positions at the foreign subsidiaries. This indicates that when developing countries receive ODA, foreign subsidiaries invest in more market-seeking jobs, not resource-seeking jobs, to boost entry into the local market. This implies that foreign subsidiaries play an essential role in reducing the rates of poverty, which is the fundamental purpose of the aid, by creating more jobs. Second, this study shows that the effects of ODA in terms of the foreign subsidiaries' job creation activities depend on the purpose of the assistance that is given: ODA for service and ODA for governance. By examining ODA effects on the foreign subsidiaries' job creation (as a new dependent variable), this study fills a significant gap in the current literature, and it also suggests implications for the public sector in recipient countries. We believe that jobs from foreign subsidiaries help economic growth and sustain development.

Our results provide important insights for policymakers. We show that ODA to the service sector yields the best outcomes in terms of job creation in local markets. Our results offer political guidance for the budget allocation of foreign aid. We argue that while the assistance given for the development of governance is essential, investing more in the service sector induces more favorable outcomes in terms of job creation, and this constitutes a better means for achieving a primary ODA objective (e.g., poverty reduction).

This paper is structured as follows. The next section presents previous research on the effectiveness of foreign assistance. In Section 3, we explain the sources for the data and our empirical models. The results are shown in Section 4. Finally, Section 5 sums up and discusses the implications and limitations of this study.

## 2. Literature Review

This study is related to two streams of research on foreign aid. First, on stream of previous literature took a macroeconomic viewpoint that mainly examined the impact of foreign aid on the overall economic growth of recipient countries. In particular, the majority of previous studies focused on the effect of the aid on the economic growth of the recipient countries in terms of macroeconomic variables, such as the growth rate of GDP as their dependent variable (Burnside & Dollar, 2000; Ekanayake & Chatrna, 2010; Karras, 2006; Minoiu & Reddy, 2010; Nwaogu & Ryan, 2015; Rajan & Subramanian, 2008). For instance, Burnside and Dollar (2000) show that foreign aid has a positive impact on the economic growth of recipient countries. While they at first thought that foreign aid had no significant effects in general, it begins to have an impact when the assistance is well distributed to recipient countries with good policies. That is, the effect of foreign aid on the economic growth of the recipient countries can vary depending on the policy conditions of the recipient countries.

In contrast, Karras (2006) argued that foreign aid has a positive effect on economic growth, regardless of the recipient country's political conditions. Also, Ekanayake and Chatrna (2010) showed that the effects of foreign aid are different depending on the recipient country's region and income levels, not its political conditions. Previous studies with a macroeconomic view have extensively examined whether foreign aid drives economic growth, but the results have

been mixed.

However, macroeconomic indicators (e.g., the GDP of recipient countries) cannot sufficiently explain the foreign aid effect. Thus, it is necessary to examine how poverty can be alleviated through private sectors' economic activities (e.g., the creation of jobs). Regarding this issue, Mahembe and Odhiambo (2019) argued that the ultimate goal of foreign aid should be poverty reduction. They also suggested that foreign aid should be given in a manner that improves economic growth and lowers the levels of poverty in recipient countries. They showed that foreign assistance alleviates poverty when the aid reaches individual economic actors. Also, Mosley (1986) has argued that previous studies overlooked the impact of foreign aid on both the public and private sectors. In sum, macroeconomic variables can only explain the overall effect of foreign aid on the aggregate performance of recipient countries, but can offer rather few insights otherwise. For example, those using macroeconomic variables cannot explain how well the foreign aid carries over to individual economic actors in the recipient countries. Therefore, this study empirically examines the effects of ODA on private actors in terms of foreign subsidiaries' job creation.

Second, this study is also related to the literature in microeconomics. This research has used a more granular examination of the effectiveness of foreign aid with experimental techniques (Banerjee & Duflo, 2009; Tarp & Director, 2009). The experimental approach allows researchers to explore the aid's effect by investigating on a project-by-project basis those who received an aid-financed intervention and those who did not (Banerjee & Duflo, 2009). In reality, even though aid disbursement flows are delivered publicly, aid-related interventions inevitably involve economic actors (Roland-Holst & Tarp, 2002). Also, because the primary purpose of foreign aid is to support the wellbeing of individual economic actors, we must examine its impact at the microeconomic level. For instance, a study conducted in Kenya found that providing deworming treatments to children is more effective in increasing their level of attendance at school than traditional educational inputs such as textbook supplies or the teacher-student ratio (Banerjee & Duflo, 2009).

Previous microeconomic research has shown that aid has an impact on the individual economic actors of a recipient country. By separating the different effects of the specific aid components from the entire aid project, it is possible to show policymakers how to make better judgments that increase the effectiveness of the aid for individuals (Banerjee & Duflo, 2009). However, this experimental approach does have a limitation as it cannot explain the significance of the aid more generally (Tarp & Director, 2009). This means that the effectiveness of the particular aid project cannot be generalized to entire private entities, which could lead some to overstate specific projects' levels of impact (Banerjee & Duflo, 2009). Therefore, to examine the effectiveness of foreign aid, this study investigates the ODA's impact on job creation from foreign subsidiaries which are a type of private entity. Since a job is closely related to individual instances of poverty in developing countries, this study will shed light on the real effects of foreign aid on individual economic development in recipient countries.

### 3. Data and Methodology

#### 3.1. Data Sources

This study utilizes a unique panel dataset provided by the Export-Import Bank of Korea

(KEXIM) from 2006 to 2013. The dataset includes internal business information such as financial statements, sales income statements, and employment status. This information provides us with the means to directly measure the employment status of foreign subsidiaries. To examine the effects of ODA, we used the foreign subsidiaries' employment status by looking at the various jobs created per country and used it to build country-level panel data.

Again, this study uses a number of jobs created by foreign subsidiaries as a proxy for the private actors' economic activity. The reasons for this include the following: (1) if the ODA is effectively delivered to private actors, this should increase their economic activity and lead to help in developing the local market and job creation; and (2) most local firms are less empowered to contribute to job creation because the size of local firms in recipient countries are often much smaller than the foreign subsidiaries. Indeed, all recipient countries are developing countries, and they show an insufficient level of performance in running local firms. Thus, most local firms turn to foreign subsidiaries to develop their local economies (e.g., through job creation).

## 3.2. Variables

### 3.2.1. Dependent Variables

We used information on the number of local employees to capture the ODA's effects on job creation by the foreign subsidiaries. First, as our dependent variable, we averaged the number of employees for the foreign subsidiaries by each country to create **Total Local Employee<sub>it</sub>**. This should capture the effect of the ODA on job creation in the recipient country  $i$  for year  $t$ . We also defined additional employment variables to account for the differences among the types of jobs created. According to the Export-Import Bank of Korea, the employment structure of foreign subsidiaries is comprised of executives or managers, salespeople, and those working in production positions<sup>3</sup>. We classified employees into three categories—managerial, sales, and production—to capture the effects for each of these categories. Table 1 shows the total number of local employees by continents from 2006 to 2013. We can observe that Asia and Latin America created a greater number of jobs than other continents. Table 2 also reports job creation per job types by continent. Sales and operation employees were created at a greater number compared to managerial (Executive and managers) level employees at foreign subsidiaries.

**Table 1.** The total number of local employees of Korean subsidiaries by continents

	2006	2007	2008	2009	2010	2011	2012	2013
(1) Asia	10,257	8,344	7,620	7,618	8,795	9,515	8,714	9,318
(2) Africa	636	1,418	2,165	2,084	467	509	1,119	1,529
(3) Europe	486	266	243	200	234	199	191	237
(4) Latin America	6,243	4,727	5,948	5,685	6,252	4,146	5,651	6,723
(5) Oceania	202	217	7	137	282	282	286	279
(6) Middle East	0	0	12	105	142	104	236	199

<sup>3</sup> The Export-Import Bank of Korea annually investigates the number of local and Korean employees at foreign subsidiaries whose parent companies are based in South Korea. Thus, every foreign subsidiary should honestly report the number of employees by sector and by nationality (e.g., local employee or Korean).

**Table 2.** The number of local employees with three types of job categories by continents

	2006	2007	2008	2009	2010	2011	2012	2013
(1) Asia	10,257	8,344	7,620	7,618	8,795	9,515	8,714	9,318
Ex & Managers	872	560	675	692	579	886	899	1,064
Sales	2,124	1,133	1,386	898	1,470	314	842	794
Operation	7,261	6,651	5,559	6,028	6,746	8,315	6,973	7,460
(2) Africa	636	1,418	2,165	2,084	467	509	1,119	1,529
Ex & Managers	140	194	196	251	115	148	229	201
Sales	107	173	83	84	94	137	489	111
Operation	389	1,051	1,886	1,749	258	224	401	1,217
(3) Europe	486	266	243	200	234	199	191	237
Ex & Managers	85	45	28	25	38	36	40	46
Sales	1	8	11	7	7	6	7	6
Operation	400	213	204	168	189	157	144	185
(4) Latin America	6,243	4,727	5,948	5,685	6,252	4,146	5,651	6,723
Ex & Managers	488	397	422	211	402	340	266	792
Sales	219	176	173	100	276	187	159	204
Operation	5,536	4,154	5,353	5,374	5,574	4,619	5,226	5,727
(5) Oceania	202	217	7	137	282	282	286	279
Ex & Managers	20	14	4	4	5	8	5	9
Sales	0	0	0	0	0	0	0	0
Operation	182	203	3	133	277	274	281	270
(6) Middle East	0	0	12	105	142	104	236	199
Ex & Managers	0	0	5	34	73	59	76	80
Sales	0	0	7	59	35	11	91	90
Operation	0	0	0	12	34	34	69	29
	17,824	14,972	15,995	15,829	16,172	15,755	16,197	18,285

### 3.2.2. Independent Variables

We used the *Total ODA<sub>it</sub>* variable for the primary independent variable, which represents the total amount of ODA delivered to recipient country *i* in year *t*. This allows us to examine the overall effects of the ODA on job creation at foreign subsidiaries. Also, we separated the total ODA variable into two to differentiate the different purposes of the ODA. Table 3 shows statistics for ODA amount by continent. In addition, previous studies have looked at foreign aid effects according to different purposes (Clemens, Radelet, & Bhavnani, 2004; Kimura & Todo, 2010, Selaya & Sunesen, 2012). Thus, we use the three-digit ODA purpose codes from the OECD DAC, and they represent sectors (e.g., government or private industry) that the aid was intended to promote (OECD, 2018a; OECD, 2018b). First, *Service ODA<sub>it</sub>* represents the ODA amount designated for facilitating economic activities in the private sector. Second, *Governance ODA<sub>it</sub>* is the ODA amount designated for the government of the recipient country. By examining these two types of ODAs, we can discuss which is most useful for creating jobs in the foreign subsidiaries. Figure 2 represents the details for two types of ODA. Also, Table 3 shows that Asia received 24,370 million USD in 2013. Asian countries received a greater portion of total ODA amounts than other continents.

**Fig. 2.** The uses of the two ODA and their classifications

Classification	Description and Purpose	Type covered
Service ODA	Aid to social services and individual economic sectors that facilitate economic activity	<ul style="list-style-type: none"> <li>• Education</li> <li>• Health</li> <li>• Water and Sanitation</li> <li>• Other Social Infra and Services</li> <li>• Transport and Storage</li> <li>• Communication</li> <li>• Energy Generation</li> <li>• Distribution and Efficiency</li> <li>• Banking and Financial Services</li> <li>• Business and Other Services</li> <li>• Tourism</li> </ul>
Governance ODA	Aid that goes to the government sector and is related to the political, administrative, and judicial dimensions of governance	<ul style="list-style-type: none"> <li>• Population Policies</li> <li>• Programs and Reproductive Health</li> <li>• Government and Civil Society</li> <li>• Trade Policy and Regulations and Trade-related Adjustment</li> </ul>

**Source:** The authors' classification of the purpose codes presented by the OECD CRS (OECD, 2018a; OECD, 2018b).

**Table 3.** The total amount of ODA by continents (USD in Millions)

	2006	2007	2008	2009	2010	2011	2012	2013
(1) Asia	13,796	13,563	16,546	17,666	17,020	15,527	14,537	24,370
(2) Africa	16,458	6,846	9,886	7,827	7,184	5,504	5,489	6,585
(3) Europe	516	263	696	517	774	593	323	554
(4) Latin America	4,610	3,562	4,620	4,948	7,476	4,964	6,026	4,288
(5) Oceania	765	580	459	1,042	1,057	838	785	884
(6) Middle East	0	0	88	974	1,056	1,090	2,154	2,730
	36,145	24,815	32,295	32,973	34,568	28,517	29,314	39,411

### 3.2.3. Control Variables

We included variables to control for the heterogeneity of the different recipient countries. First, we used **Total FDI<sub>it</sub>** which stands for the total amount of foreign direct investment (FDI) received by a recipient country *i* in year *t*. It is necessary to control for the FDI effect because it might have a possible effect on the business activities of local markets. Since this study focuses on the foreign subsidiaries of South Korea-based companies, we used the data on the outward FDI of South Korea as collected from KEXIM. However, we acknowledge that FDI has a different purpose from ODA or other types of foreign aid. FDI can be defined as where firms or investors from another country make an investment to control ownership in a private firm in a recipient country. That indicates that FDI could only create jobs in local firms which are targeted by foreign investors. Thus, we believe that FDI might have little effect on the job creation of foreign subsidiaries which are not targeted by foreign investors. Even though the FDI effect is small, we try to control for the possible effect from FDI. We also added the **Local Sale<sub>it-1</sub>** variable to control for the possibility that foreign subsidiaries might expand local businesses without any foreign aid. If foreign subsidiaries have more local sales,



then they might use the sale amount to expand their local business activities. Accordingly, to control for such a possibility, we included a lag for local sale amounts of foreign subsidiaries.

Also, we included the *Consumer Price Index*<sub>it</sub> and *GDP Growth Rate*<sub>it</sub> to control for the influence of macroeconomic factors. Furthermore, it is necessary to control for the impact of the foreign subsidiaries' parent companies. We included *Average Parent Share*<sub>it</sub> to stand for the share ratio of the parent companies as averaged for each recipient country. We also included *Average Parent Investment*<sub>it</sub>, which is the average amount of the parent company's investment in each subsidiary per country. Additionally, we controlled for the size of the parent company using *Parent Major Ratio*<sub>it</sub>. Finally, we added control variables at a national level such as **wage level, employment rate, and household expenditure** for recipient country *i* in year *t*. Table 4 provides the definitions of variables. Moreover, the descriptive statistics of variables and the correlations among the key independent variables are presented in Table 5 and Table 6.

**Table 4.** Description of Variables

Variables	Description
<i>Total Local Employee</i> <sub>it</sub>	Average number of the total of local employees of local affiliates for recipient country <i>i</i> at year <i>t</i>
<i>Local Ex&amp;Ma Employee</i> <sub>it</sub>	Average number of local executives and managers of local affiliates for recipient country <i>i</i> at year <i>t</i>
<i>Local Sales Employee</i> <sub>it</sub>	Average number of local sales employees of local affiliates for recipient country <i>i</i> at year <i>t</i>
<i>Local Operation Employee</i> <sub>it</sub>	Average number of local operation employees of local affiliates for recipient country <i>i</i> at year <i>t</i>
<i>Total ODA</i> <sub>it</sub>	Total amount of ODA for the recipient country <i>i</i> at year <i>t</i>
<i>Service ODA</i> <sub>it</sub>	Amount of ODA given to the service sector for recipient country <i>i</i> at year <i>t</i>
<i>Governance ODA</i> <sub>it</sub>	Amount of ODA given to the governance sector for recipient country <i>i</i> at year <i>t</i>
<i>Total FDI</i> <sub>it</sub>	Total amount of foreign direct investment (FDI) for recipient country <i>i</i> at year <i>t</i>
<i>Consumer Price Index</i> <sub>it</sub>	Consumer Price Index for recipient country <i>i</i> at year <i>t</i>
<i>GDP</i> <sub>it</sub>	Growth rate of GDP for recipient country <i>i</i> at year <i>t</i>
<i>Wage</i> <sub>it</sub>	National hourly minimum wage of recipient country <i>i</i> at year <i>t</i>
<i>Employment rate</i> <sub>it</sub>	National employment rate of recipient country <i>i</i> at year <i>t</i>
<i>Expenditure</i> <sub>it</sub>	National household expenditure of recipient country <i>i</i> at year <i>t</i>
<i>Average Parent Share</i> <sub>it</sub>	Average ratio of the parent company for local affiliates for recipient country <i>i</i> at year <i>t</i>
<i>Average Parent Investment</i> <sub>it</sub>	Average amount of the parent company investments in local affiliates for recipient country <i>i</i> at year <i>t</i>
<i>Parent Major Ratio</i> <sub>it</sub>	Ratio of the local affiliates that have large-sized parent companies for recipient country <i>i</i> at year <i>t</i>

**Table 5.** Descriptive statistics of the variables

Variables	Observations	Mean	SD	Min.	Max.
<i>Total Local Employee<sub>it</sub></i>	330	397.048	535.890	0	10,257
<i>Local Ex&amp;Ma Employee<sub>it</sub></i>	330	35.626	48.658	0	452.200
<i>Local Sales Employee<sub>it</sub></i>	330	36.605	129.800	0	1,107.333
<i>Local Operation Employee<sub>it</sub></i>	330	324.817	502.115	0	2,549.333
<i>Service ODA<sub>it</sub></i>	330	386.982*	543.180*	2.245*	3,951.571*
<i>Governance ODA<sub>it</sub></i>	330	122.457*	154.191*	0.200*	765.391*
<i>Total FDI<sub>it</sub></i>	330	130,001*	259,489*	0	1,564,118*
<i>Consumer Price Index<sub>it</sub></i>	303	99.917	18.885	53.436	218.037
<i>GDP Rate<sub>it</sub></i>	318	5.210	6.586	-10.1	104.484
<i>Average Parent Share<sub>it</sub></i>	305	0.78.7	0.306	0	1
<i>Average Parent Investment<sub>it</sub></i>	330	469,109	2,911,244	0	0.0358*
<i>Parent Major Ratio<sub>it</sub></i>	323	0.752	0.250	0.063	1
<i>Local Sales<sub>it</sub></i>	330	23,865,267	82,200,000	0	715,500,000
<i>Hourly Minimum Wage<sub>it</sub></i>	315	1.59	1.271	0.03	5.21
<i>Employment Rate<sub>it</sub></i>	323	63.71	63.80	25.74	93.8
<i>Household Expenditure<sub>it</sub></i>	243	139**	199**	146**	872**

**Notes:** \* million in USD, \*\* billion in USD

### 3.3. Model and Estimation

To estimate the effects of the ODA on job creation by foreign subsidiaries, we created the following equation:

$$\begin{aligned}
 & \text{Total Number of Job}_{it} \\
 & = B_0 + B_1 \text{Total ODA}_{it-1} \\
 & + B_2 \text{Total FDI}_{it-1} + B_3 \text{Local Sales}_{it-1} + B_4 \text{Consumer Price Index}_{it} \\
 & + B_5 \text{GDP}_{it} + B_6 \text{Wage Level}_{it} + B_7 \text{Employment Rate}_{it} \\
 & \quad + B_8 \text{Household Expenditure}_{it} \\
 & + B_9 \text{Average Parent Share}_{it} + B_{10} \text{Average Parent Investment}_{it} \\
 & + B_{11} \text{Parent Major Ratio}_{it} + \mu_i + \rho_t + \varepsilon_{it}
 \end{aligned} \tag{1}$$

For the research model (1),  $i$  denotes the recipient country, and  $t$  indicates the year. The impact of ODA on the total number of jobs is measured by a set of country-level dependent variables that capture the variation in the employment status of the foreign subsidiaries for each country. To calculate the impact of ODA on job creation in terms of employee positions (e.g., managerial, sales, and operations), we replaced our dependent variable, the total number of job<sub>it</sub> with the number of jobs in each of the following: managerial positions, sales positions, and operation positions, respectively.

Furthermore, our primary independent variable represents the total ODA amount for each recipient country  $i$ . We then separated the total ODA into two key independent variables, service ODA and governance ODA, to measure how these two ODAs influence the job creation of foreign subsidiaries in each recipient country. Thus, our separated models are as follows in equation (2):

**Table 6.** Correlation matrix of independent variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) Total Local Employee <sub>it</sub>	1.000															
(2) Local Ex&Ma Employee <sub>it</sub>	0.581	1.000														
(3) Local Sales Employee <sub>it</sub>	0.204	0.226	1.000													
(4) Local Operation Employee <sub>it</sub>	0.953	0.454	-0.089	1.000												
(5) Service ODA <sub>it</sub>	0.215	0.331	0.118	0.162	1.000											
(6) Governance ODA <sub>it</sub>	0.061	0.091	0.201	-0.002	0.240	1.000										
(7) Total FDI <sub>it</sub>	0.099	0.029	-0.072	0.123	0.329	0.005	1.000									
(8) Consumer Price Index <sub>it</sub>	0.038	0.157	-0.153	0.068	0.087	-0.077	0.065	1.000								
(9) GDP <sub>it</sub>	-0.032	0.145	-0.030	-0.041	0.384	0.138	0.400	0.106	1.000							
(10) Average Parent Share <sub>it</sub>	0.185	0.111	-0.058	0.203	0.140	-0.051	0.054	0.124	0.052	1.000						
(11) Average Parent Investment <sub>it</sub>	-0.001	0.023	0.011	-0.007	-0.025	-0.059	0.108	0.056	0.153	-0.017	1.000					
(12) Parent Major Ratio <sub>it</sub>	-0.048	0.041	-0.129	-0.019	0.053	0.171	-0.227	0.001	0.095	-0.081	0.027	1.000				
(13) Local Sales <sub>it-1</sub>	-0.161	0.020	0.061	-0.198	-0.066	0.133	-0.141	0.088	0.000	-0.064	0.119	0.326	1.000			
(14) Hourly Minimum Wage <sub>it</sub>	-0.431	-0.201	-0.126	-0.405	-0.286	-0.386	0.048	0.357	0.111	0.121	0.103	0.110	0.172	1.000		
(15) Employment Rate <sub>it</sub>	0.117	0.261	0.034	0.088	0.751	0.270	0.244	0.023	0.667	0.077	0.010	0.026	-0.091	-0.240	1.000	
(16) Household Expenditure Per Capita <sub>it</sub>	-0.041	0.145	-0.026	-0.052	0.380	0.184	0.310	0.054	0.959	0.058	0.115	0.067	0.035	0.091	0.662	1.000

$$\begin{aligned}
& \text{Number of Job at Managerial Position}_{it} \text{ (or at Sales or Production Position)} \\
& = B_0 + B_{11} \text{ServiceODA}_{it-1} + B_{12} \text{GogovernanceODA}_{it-1} \\
& + B_2 \text{Total FDI}_{it-1} + B_3 \text{LocalSales}_{it-1} + B_4 \text{Consumer Price Index}_{it} \\
& + B_5 \text{GDP}_{it} + B_6 \text{Wage Level}_{it} + B_7 \text{Employment Rate}_{it} \\
& \quad + B_8 \text{Household Expenditure}_{it} \\
& + B_9 \text{Average Parent Share}_{it} + B_{10} \text{Average Parent Investment}_{it} \\
& + B_{11} \text{Parent Major Ratio}_{it} + \mu_i + \rho_t + \varepsilon_{it} \tag{2}
\end{aligned}$$

Our model also includes various control variables, ranging from those representing subsidiary-level characteristics to those representing the recipient country's macroeconomic characteristics. Also, we include both a country fixed effect  $\mu_i$ , which controls for the common differences across countries, and a year fixed effect  $\rho_t$ , which controls for the common differences across each year. For the empirical specification, we use the generalized least squares (GLS) method. The panel GLS estimator allows us to drive an efficient estimation by overcoming the limitations of the panel data. This can be done with assumptions about the heteroscedasticity between the panels as well as the autocorrelation of the error term within each panel.

## 4. Empirical Results

### 4.1. Main Results

The purpose of this study is to identify the effects of ODA on the number of jobs created by foreign subsidiaries in recipient countries. The results in column (1), Table 7 show that the estimate for  $Total\ ODA_{it-1}$  is positive (0.238) and statistically significant (at  $p < 0.05$ ) for the total number of jobs created by the foreign subsidiaries in recipient countries. This indicates that a 1% increase in the total amount of ODA delivered in the previous year leads to a 0.23% increase in the total number of jobs in the recipient countries. That is, foreign subsidiaries add around 9 employees on average per 1% increase in the total amount of ODA delivered. Thus, we first show that the impact of ODA, which is traditionally perceived as a public resource, can be provided by private economic actors (here foreign subsidiaries) in the recipient country to facilitate business activities such as job creation.

To offer more details regarding the ODA effect on the job creation of foreign subsidiaries, we separately investigated ODA in terms of the three types of job positions mentioned above. First, columns (2), (3), and (4) in Table 7 represent the results when the independent variable is the total amount of the ODA. The coefficient of  $Total\ ODA_{it-1}$  is positive (0.229, 0.319, and 0.354, respectively) and is statistically significant for managerial, sales, and production jobs, respectively. This shows that an increase in the total amount of ODA delivered in the previous year leads to a more significant number of local employees for all of these jobs at the foreign subsidiaries.

The most interesting finding is that ODA creates more jobs in sales than in managerial or production positions. That is, ODA can help create "market-seeking" jobs for foreign subsidiaries that aim to penetrate local markets of the recipient countries, as opposed to "resource-seeking" jobs that exploit host countries' raw materials and take advantage of a cheap labor force. Thus, this supports our argument that ODA has an impact on the economic activities of foreign subsidiaries (a private actor), and thus the foreign subsidiaries can create jobs that should eventually help reduce the amount of poverty in the recipient countries.

In addition, we found that the wage level of recipient countries has a negative impact on the job creation of foreign subsidiaries. This indicates that foreign subsidiaries are less likely to create jobs at the local market as the wage level increases. Also, we observed that foreign subsidiaries may need to create additional jobs in the local market as the employment rate increases.

**Table 7.** The Main Results with Control Variables

	(1)	(2)	(3)	(4)
	Total Emp	Ex& Ma Emp	Sale Emp	Operation Emp
<i>Total ODA<sub>it-1</sub></i>	0.238* (0.130)	0.229** (0.106)	0.319* (0.191)	0.354** (0.169)
<i>Total FDI<sub>it-1</sub></i>	0.043* (0.026)	-0.028 (0.028)	0.003 (0.036)	0.067 (0.046)
<i>Local Sales<sub>it-1</sub></i>	-0.000 (0.000)	0.050** (0.020)	0.071* (0.040)	-0.000 (0.000)
<i>Consumer Price Index<sub>it</sub></i>	-0.005 (0.010)	0.014 (0.010)	-0.005 (0.017)	-0.007 (0.015)
<i>GDP<sub>it</sub></i>	0.000 (0.000)	0.000 (0.000)	-0.001*** (0.000)	-0.000 (0.000)
<i>Wage Level<sub>it</sub></i>	-0.452*** (0.156)	-0.214 (0.238)	-0.034*** (0.012)	-1.192*** (0.253)
<i>Employment Rate<sub>it</sub></i>	0.457*** (0.109)	0.348*** (0.122)	0.983*** (0.170)	0.001* (0.000)
<i>Household Expenditure<sub>it</sub></i>	-0.001 (0.000)	0.001* (0.000)	0.001** (0.000)	0.001** (0.000)
<i>Average Parent Share<sub>it</sub></i>	0.016*** (0.006)	0.004 (0.006)	0.038*** (0.009)	0.007 (0.009)
<i>Average Parent Investment<sub>it</sub></i>	-0.082 (0.096)	0.185** (0.092)	0.410*** (0.096)	0.084 (0.145)
<i>Parent Major Ratio<sub>it</sub></i>	0.240 (0.353)	-0.530 (0.385)	-0.189 (0.645)	0.726 (0.509)
<i>Individual Fixed Effect</i>	Yes	Yes	Yes	Yes
<i>Time Fixed Effect</i>	Yes	Yes	Yes	Yes
<i>Constants</i>	-2.216 (2.238)	-9.010*** (2.394)	-25.587*** (3.234)	3.222 (2.951)
<i>Number of Observations</i>	192	141	139	192
<i>Wald <math>\chi^2</math></i>	92.011***	77.819***	259.961***	67.476***

Additionally, we separated the total amount of the ODA into two, for service and governance, using ODA purpose codes. Then, we examined how each ODA type influences the amount of employment in each position. The results are reported in columns (1), (2), (3)

and (4) in Table 8. The estimates for  $Service\ ODA_{it-1}$  are 0.163, 0.154, 0.248, and 0.196 for the total, managerial, sales, and production positions, respectively. However, the coefficients of  $Governance\ ODA_{it-1}$  are not statistically significant except for the number of sale employees. These results suggest that the service portion of the ODA, which aims to develop the service sectors of the recipient country, has a more significant effect on job creation than the governance sector's ODA across all types of job positions. Moreover, the ODA effect is most notable in creating sales positions regardless of the purposes of the ODA.

**Table 8.** The separate effects of the ODA on employment by job positions

	(1)	(2)	(3)	(4)
	Total Emp	Ex & Ma Emp	Sale Emp	Operation Emp
ServiceODA <sub>it-1</sub>	0.163 <sup>*</sup> (0.092)	0.154 <sup>*</sup> (0.072)	0.248 <sup>**</sup> (0.120)	0.196 <sup>*</sup> (0.113)
Governance ODA <sub>it-1</sub>	0.128 (0.083)	0.037 (0.062)	0.246 <sup>**</sup> (0.119)	0.096 (0.111)
Total FDI <sub>it-1</sub>	0.043 (0.027)	0.036 (0.028)	0.118 <sup>***</sup> (0.042)	0.064 (0.045)
Local Sale <sub>it-1</sub>	0.000 (0.000)	0.053 <sup>**</sup> (0.021)	0.155 <sup>***</sup> (0.039)	0.000 (0.000)
Consumer Price Index <sub>it</sub>	-0.006 (0.011)	0.014 (0.010)	0.009 (0.018)	-0.005 (0.015)
GPD Growth Rate <sub>it</sub>	0.000 (0.000)	0.000 (0.000)	-0.027 <sup>***</sup> (0.009)	-0.003 (0.014)
Wage Level <sub>it</sub>	-0.665 <sup>***</sup> (0.202)	-0.184 (0.246)	-0.656 <sup>*</sup> (0.389)	-1.210 <sup>***</sup> (0.279)
Employment Rate <sub>it</sub>	0.000 (0.000)	0.309 <sup>***</sup> (0.116)	0.001 <sup>**</sup> (0.000)	0.001 <sup>**</sup> (0.000)
Household Expenditure <sub>it</sub>	0.000 <sup>*</sup> (0.000)	0.000 <sup>*</sup> (0.000)	0.000 <sup>**</sup> (0.000)	0.000 <sup>***</sup> (0.000)
Average Parent Share <sub>it</sub>	0.021 <sup>***</sup> (0.006)	0.004 (0.006)	0.016 <sup>*</sup> (0.009)	0.008 (0.009)
Average Parent Invest <sub>it</sub>	-0.029 (0.098)	0.184 <sup>*</sup> (0.095)	0.664 <sup>***</sup> (0.114)	0.068 (0.145)
Parent Major Ratio <sub>it</sub>	0.695 <sup>*</sup> (0.387)	-0.645 <sup>*</sup> (0.386)	-0.076 (0.689)	0.672 (0.512)
Individual Fixed Effect	Yes	Yes	Yes	Yes
Time Fixed Effect	Yes	Yes	Yes	Yes
Constants	4.240 <sup>**</sup> (1.902)	-7.915 <sup>***</sup> (2.298)	-17.807 <sup>***</sup> (2.154)	4.002 (2.801)
Number of Observations	192	141	141	192
Wald $\chi^2$	58.490	81.066	238.608	69.570

## 4.2. Robustness Check

This study investigated the impact of ODA on the number of jobs created by foreign subsidiaries in recipient countries. The main argument behind our finding is that the ODA would be effectively applied at foreign subsidiaries. Then, we assume that these foreign subsidiaries can increase the number of jobs in the recipient countries. According to previous studies (DFID, 2008; ILO, 2017; Jones, Page, Shimeles, & Tarp, 2015; Page & Söderbom, 2015), we believe that providing more jobs in local markets helps economic development and reduces the amount of poverty in the recipient countries. In particular, we observed that ODA has a more significant impact on creating sales job positions than other types of jobs (e.g., managerial and production positions). Thus, ODA plays an essential role in creating a boom for the local market economy. However, one might argue that the foreign subsidiaries may just create local jobs to exploit local resources, and that they do not, in fact, help the local economic development of the recipient countries. Thus, we decided to examine the impact of ODA on the local amount of sales of foreign subsidiaries. If the ODA directly increases the local sales of foreign subsidiaries, then the ODA does indeed help the economic development of the local market. Accordingly, foreign subsidiaries may need to have more employees in sales positions. To estimate such an effect, we created a new dependent variable, “local sales,” which represents the total amount of local sales generated from the foreign subsidiaries. In column (2) in Table 9, we see that the coefficient of the total ODA is 0.214, which is statistically significant. This suggests that when ODA increases by 1%, the local sales of foreign affiliates increases by 0.214 (51,072 US dollar on average). Thus, ODA has a positive impact on both job creation and local sales of foreign subsidiaries. These findings support our argument that ODA can influence private actors and help improve their levels of economic activity, which, in turn, should lead to a more significant amount of economic development in recipient countries. In column (3), the two types of ODA positively influence local sales. Column (1) represents the impact of total sales of foreign subsidiaries regardless of sales resources (e.g., sales generated from the local market or sales developed from their parent firms).

**Table 9.** The Robustness Check with Local Sale Amount

	(1) Total Sales	(2) Local Sales	(3) Local Sales
<i>Total ODA</i> <sub>it-1</sub>	0.378*** (0.138)	0.214* (0.124)	
<i>Service ODA</i> <sub>it-1</sub>			0.224* (0.129)
<i>Governacne ODA</i> <sub>it-1</sub>			0.402*** (0.124)
<i>Total FDI</i> <sub>it-1</sub>	-0.043 (0.030)	-0.026 (0.033)	-0.022 (0.032)
<i>Consumer Price Index</i> <sub>it</sub>	0.002 (0.015)	-0.003 (0.014)	0.006 (0.019)
<i>GDP</i> <sub>it</sub>	0.005 (0.012)	0.011 (0.015)	0.009 (0.018)
<i>Wage Level</i> <sub>it</sub>	-0.729* (0.409)	-1.494*** (0.236)	-1.319*** (0.441)

**Table 9.** (Continued)

	(1)	(2)	(3)
	Total Sales	Local Sales	Local Sales
<i>Employment Rate<sub>it</sub></i>	0.000 (0.000)	0.542** (0.222)	0.290 (0.194)
<i>Household Expenditure<sub>it</sub></i>	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
<i>Average Parent Share<sub>it</sub></i>	0.006 (0.009)	-0.000 (0.008)	0.010 (0.008)
<i>Average Parent Investment<sub>it</sub></i>	0.552*** (0.179)	0.404*** (0.145)	0.364** (0.179)
<i>Parent Major Ratio<sub>it</sub></i>	1.935*** (0.518)	1.481*** (0.461)	1.607*** (0.541)
<i>Individual Fixed Effect</i>	Yes	Yes	Yes
<i>Time Fixed Effect</i>	Yes	Yes	Yes
<i>Constants</i>	3.263 (3.283)	-3.444 (4.263)	-2.414 (4.249)
<i>Number of Observations</i>	192	192	192
Wald $\chi^2$	78.135***	140.766***	202.773***

## 5. Conclusions

This study investigated the effects of ODA on the business activities of foreign subsidiaries in developing countries. Using the internal business data of foreign subsidiaries and panel GLS methods, we found that ODA creates a significant number of jobs for the foreign subsidiaries. Moreover, the effect of ODA exhibits a varying pattern that is contingent on the job position (e.g., managerial, sales, and production). In particular, ODA had the most significant impact on job creation in sales. This indicates that when developing countries receive ODA, foreign subsidiaries invest in more market-seeking jobs, not resource-seeking jobs, to boost entry into the local market. This implies that foreign subsidiaries play an essential role in reducing the rates of poverty, which is the fundamental purpose of the aid, by creating more jobs. For further details, we examined ODA effects according to the purpose of the ODA. We found that sales jobs showed most increase as a consequence of the ODA, regardless of the ODA aid's purpose. Again, the results confirm that there are significant effects from ODA that influences job creation in foreign subsidiaries. Moreover, we found that ODA's effect created more jobs overall when the purpose of the aid was to support the service sector. This suggests that the effectiveness of foreign assistance differs depending on the purpose of the aid.

The contributions of this study are as follows. First, we examined the effectiveness of foreign aid from a microeconomic standpoint. The existing literature on the effectiveness of foreign assistance mainly addresses foreign aid from a macroeconomic perspective by focusing on the overall economic growth of the recipient countries. While studies do exist that focus more on micro-level aspects of the effectiveness of foreign assistance, they are often too narrow in terms of their research contexts (e.g., individual projects) (Tarp & Director,



2009), and this is insufficient when assessing the effectiveness of foreign aid. By examining the ODA effect on the job creation of foreign subsidiaries, we can position our work in microeconomic research and still make up for the gap in the literature concerning the effectiveness of foreign assistance. This study sheds light on the effects of the ODA on the business activities of foreign subsidiaries.

This study has pragmatic implications as well. First, foreign subsidiaries can play an important role as a channel spreading the foreign assistance to individual economic actors by creating jobs. In particular, ODA creates more jobs in sales than in managerial or production positions. That is, ODA can help create “market-seeking” jobs for foreign subsidiaries that aim to penetrate the local markets of the recipient countries, as opposed to the “resource-seeking” jobs that exploit host countries’ raw materials and take advantage of a cheap labor force. These jobs could provide a basis for alleviating poverty and providing a sustainable income for individual economic actors in the developing countries (DFID, 2008; ILO, 2017; Jones, Page, Shimeles, & Tarp, 2015; Page & Söderbom, 2015).

Also, according to UNCTAD’s *Trade and Development Report 2008*, it is important to look at “what types of jobs are created”. Accordingly, this study is the first to differentiate the ODA effect on the different types of job creation. In particular, this is the first study to show that ODA has a positive impact on high-level job positions at foreign subsidiaries. For example, if foreign subsidiaries hire more executive members or high-level managers due to ODA, it should be much more sustainable than if hiring the simple or low-level employees. Again, Also, given our panel data set and our empirical model results, we can argue that ODA can sustainably create various types of jobs at least for 8 years (from 2008 to 2013). Therefore, we argue that the foreign subsidiaries play a crucial role in achieving the ultimate goals of the ODA. Furthermore, we found that the ODA effect leads to more jobs when the purpose of the aid is to support the service sector than when the aim is to support the governance sector. Thus, to foster the more efficient use of the ODA, donor and recipient countries should consent to allocate more of the budget for aid to engender business activities.

We should also discuss the limitations of this study. First, while addressing the business activities of local market at recipient countries, we examined employment data for foreign subsidiaries whose parent firms are based in South Korea only. Hence, because of data constraints we account for only a proportion of all of the foreign subsidiaries located in developing countries. Nevertheless, we believe the proposed implications of this study (i.e., the ODA effect for the foreign subsidiaries of Korea-based firms) remain warranted. The outward FDI from South Korea has grown dramatically over the past few decades. According to the UNCTAD, South Korea’s FDI outflow increased 242% between 2005 and 2013, from \$8.3 billion to \$28.4 billion. The country’s share of global FDI outflows more than doubled in these years. South Korea’s FDI outflow as a percentage of GDP increased from 0.92% to 2.17%. This number is comparable to that of developed countries such as the United States (1.99%), Germany (2.13%), and France (2.23%). Outward FDI also exerts a significant influence on the country’s domestic economy, given that FDI stocks in Korea exhibit upward trends similar to that of the FDI outflows, which have increased rapidly since 2005. Therefore, these findings are significant in that they address the effectiveness of aid provided by a burgeoning player in the field of overseas financial assistance. Indeed, it would be reasonable to examine the employment of other local businesses, especially in terms of their various sizes, since employment for larger enterprises (e.g., MNEs) may create more stable jobs than small enterprises (e.g., SMEs) can do (Page & Shimeles, 2015, Page & Söderbom, 2015). Fruitful

future research could improve upon these shortcomings and examine the ODA effects on job creation while considering local generic firms in the recipient countries. We also notice that the crowding-out effect could be negatively related to the job creation of foreign subsidiaries also. However, given our data set and our empirical model, it is difficult to examine the crowding-out effect. We also believe that the crowding-out effect is beyond the scope of this study. So, we hope that future research would examine how the crowding-out effect actually influence the job creation of foreign subsidiaries.

Last, we did not directly examine the link between job creation and poverty reduction. However, this link has been studied extensively in the extant literature and by global organizations. Thus, we believe this limitation can be overcome by other publications. To illustrate this, the International Labour Organization (ILO) argues that the creation of paying jobs is one of the most prominent means of reducing poverty for the individual economic actors in developing countries. Moreover, many related studies, such as that by Page & Söderbom (2015), show the beneficial relationship between job creation and poverty alleviation.

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