

Discussions on Innovative Partnership for Sustainable Development

Hyun-Hoon Lee

Professor

Kangwon National University



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I. Sustainable Development

1. What is Sustainable Development?

- **As an individual, what is the ultimate goal?**
 - More money?
 - Answer: Happiness of individual (personal well-being)

- **As a nation, what is the ultimate goal?**
 - Large GDP? high income per capita?
 - Answer: Happiness of the people (national welfare or **sustainable development**)

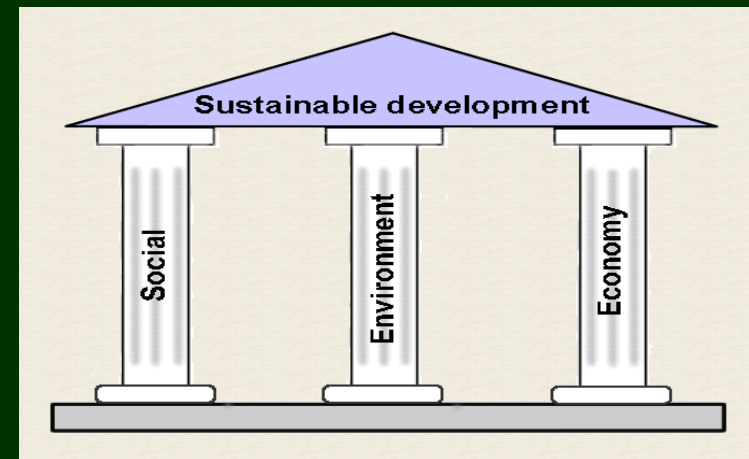
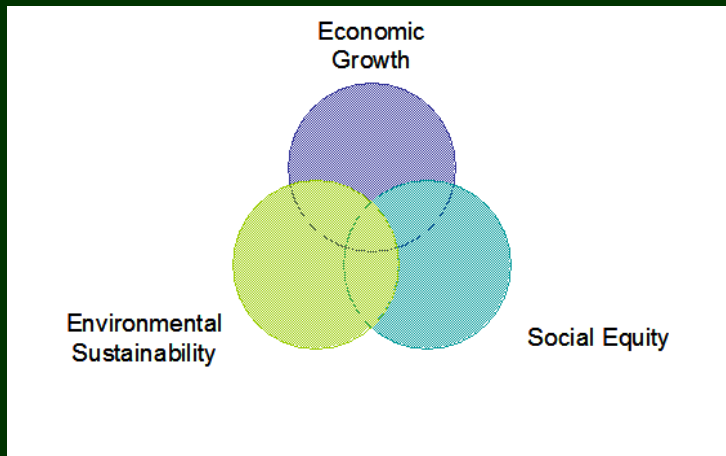
1. What is Sustainable Development?

Nation's Welfare (Happiness)

- A nation's welfare can increase when the following conditions are met.
 - (1) Economic growth (**Y**): Increase in paid consumption of goods and services:
 - (2) Environmental protection (**E**): Increase in unpaid consumption of environmental services:
 - (3) Social equity (**S**): Decrease in desire (Increase in income equity) “One's prosperity makes another jealous”
- i.e. **W** is a function of **YES** ($W = Y * E * S$), where Y = income, E= environmental sustainability, and S = social equity.

1. What is Sustainable Development?

- **Sustainable Development** meets the needs of the present without comprising the ability of future generations to meet their own needs.
- The concept of UN's **Sustainable Development** has the three components



“The achievement of **sustainable development** requires the integration of its economic, environmental and social components at all levels.”
(United Nations Division for Sustainable Development)

2. What have been done by the international community?

□ Brundtland Report, 1987

- Also known as "Our Common Future", submitted by World Commission on Environment and Development (WCED), which was founded in 1983
- Alerted the world to the urgency of making progress toward "sustainable development".
- The report also highlighted three fundamental components to sustainable development: environmental protection, economic growth and social equity.
- Following the recommendation of the report, the UN General Assembly decided to establish the United Nations Conference on Environment and Development (UNCED).

2. What have been done by the international community?

- Earth Summit, 3-14 June 1992, Rio De Janeiro
 - The first UNCED, also known as the Rio Summit.
 - An important achievement was an agreement on the Climate Change Convention which in turn led to the Kyoto Protocol.
 - Produced the Rio Declaration consisted 27 principles intended to guide future sustainable development around the world.
 - Also produced **Agenda 21**, which is a comprehensive blueprint of action to be taken in every area in which humans impact on the environment.
 - Established Commission on **Sustainable Development** (CSD).

2. What have been done by the international community?

- Millennium Summit, 6-8 September 2000, New York
 - 55th Session of the UN General Assembly
 - Adopted the Millennium Declaration and **Millennium Development Goals (MDGs)** – Target year: 2015



2. What have been done by the international community?

□ United Nations Sustainable Development Summit 2015, 25-27 September 2015, New York

- Adopted **Sustainable Development Goals (SDGs)** as the 2030 Agenda



- Unlike the MDGs, which were drawn up by a small group of experts, SDGs have been drafted by and Open Working Group.
- SDGs will be new development agenda for the period 2016-2030

SDGs

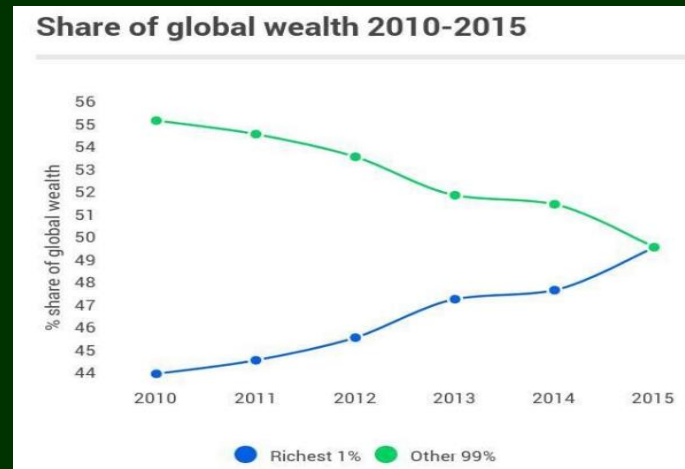
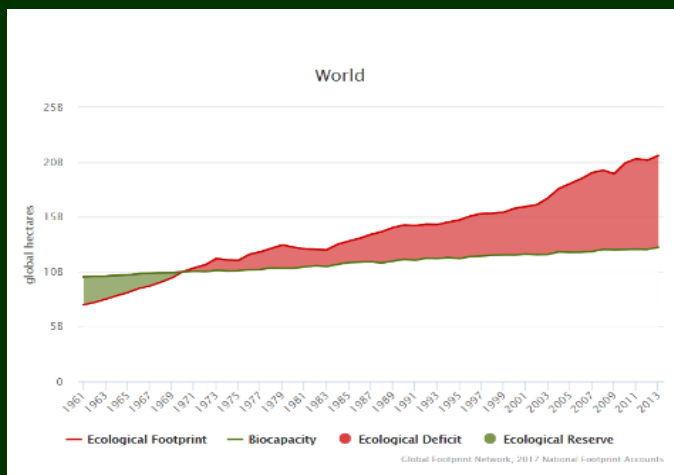
- GOAL 1 End poverty in all its forms everywhere
- GOAL 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- GOAL 3 Ensure healthy lives and promote well-being for all at all ages
- GOAL 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- GOAL 5 Achieve gender equality and empower all women and girls
- GOAL 6 Ensure availability and sustainable management of water and sanitation for all
- GOAL 7 Ensure access to affordable, reliable, sustainable and modern energy for all
- GOAL 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- GOAL 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

SDGs

- GOAL 10 Reduce inequality within and among countries
- GOAL 11 Make cities and human settlements inclusive, safe, resilient and sustainable
- GOAL 12 Ensure sustainable consumption and production patterns
- GOAL 13 Take urgent action to combat climate change and its impacts*
- GOAL 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- GOAL 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- GOAL 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- GOAL 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development

2. What have been done by the international community?

- The UN has pursued sustainable development (SD), but with not much success.
 - ➔ World's ecological footprint has been rapidly increasing, thus degrading environmental sustainability.
 - ➔ In many countries, economic growth has contributed to a decline in the poverty, it has also been accompanied by rising income inequalities.



3. How can we achieve sustainable development?

SDGs

- Aspirational?
- Global in nature?
- Universally applicable to all countries?
- Action-oriented?
- Concise?
- Easy to communicate?
- Limited in number?

3. How can we achieve **sustainable development**?

□ Traditionally,

- The three pillars of SD have been thought separately and policies have not been designed and implemented synthetically.
- Also, the three pillars of SD have been often viewed as contradictory, or environmental sustainability and social equity have been viewed as residual outcomes of economic growth,
- Accordingly, in many countries, economic growth was taken up as the first goal and environmental protection and social development were dealt with as secondary goals.

□ But,

- Three pillars can be enhanced via synergy creating policies.
- i.e., while pursuing economic growth, social equity and environmental sustainability can be enhanced.

3. How can we achieve **sustainable development**?

□ Inclusive Growth

- Socially equitable growth
- i.e., Economic growth that allows people to contribute to and benefit from economic growth .
- Socially equitable growth has been termed as “shared growth”, “pro-poor growth”, “broad-based growth” and more recently “inclusive growth”.

□ Green Growth

- Environmentally sustainable growth
- i.e., Economic growth which is consistent with environmental sustainability.
- Environmentally sustainable growth has been termed as “sustainable growth”, “clean growth”, and more recently “green growth.”

3. How can we achieve **sustainable development**?

- The **Green Growth Initiative** and **Inclusive Growth Initiative** should constitute two important “strategies” to achieve the ultimate, long-term goal of **Sustainable Development**.



3. How can we achieve **sustainable development**?

□ Evolvment of Inclusive Growth

- India adopted the theme of 'towards faster and more inclusive growth,' in it's Eleventh Five-Year Plan, which runs from 2007 to 2012
- ADB's framework for inclusive growth in Strategy 2020 (April 2008).
- OECD's initiative for inclusive growth.

□ Evolvment of Green Growth

- UNESCAP adopted as a new growth paradigm at Asia-Pacific Ministerial Conference on Environment and Development (MCED V), (March 2005).
- Korea adopted "Low Carbon Green Growth" as a long-term growth vision (August 2008).
- OECD adopted Green Growth as a new work agenda (July 2009) ¹⁸

Strategies for **Inclusive Growth** and **Green Growth**

Inclusive Growth

1. Creation of synergy between growth and social equity has to be created
2. Support for the long-term perspective
3. International Cooperation

Green Growth

1. Creation of synergy between growth and environmental sustainability has to be created
2. Support for the long-term perspective
3. International Cooperation

Inclusive Growth: Creation of synergy between growth and social equity

- Providing equal opportunities for high-quality education and training
 - Strengthen human capabilities of all members of the economy, including the disadvantaged and the bypassed.
- Providing equal opportunities for employment
 - Create more employment opportunities and make them accessible to all, including the disadvantaged and the bypassed.
- Strengthening “productive” social safety nets
 - Provide and strengthen social safety nets that can increase (not decrease!) capabilities and incentives of the disadvantaged and the bypassed to take part more actively in productive employment.

Green Growth: Creation of synergy between growth and environment

- Internalization of environmental costs in price mechanism
 - Eg. 1: Green tax reform: Increase environment-related tax, while reducing income tax
 - Eg. 2: Subsidy reform:
- Investment in environment-related industry
 - Strengthen the future industry by investing in environment.
 - Eg.: Subsidy for green R&D
- Public investment in environment structure
 - Increase employment by public investment in environment structure, especially when the economy is down.

II. International Cooperation for Sustainable Development

1. Effectiveness of foreign aid for Sustainable Development

□ Should be philanthropic

- Should aim to focus on welfare of recipient countries, rather than seeking “win-win” relations between donor and recipient countries
- For example, foreign aid should increase recipient country’s overall trade and FDI, rather than bilateral trade and bilateral FDI

□ Should seek “win-win” relations between three pillars of Sustainable Development

- Should aim to seek **inclusive growth** by creating synergy between economic growth and social development.
- Should aim to seek **green growth** by creating synergy between economic growth and environmental sustainability

2. Aid for Trade for (AfT) for international trade and investments

Hyun-Hoon Lee and John Ries (2016), “Aid for Trade and Greenfield Investment”, *World Development*, 84, 206-218.

- 25 donors and 120 recipients for the period 2003-2013.
- Data on the counts and values of bilateral greenfield investments acquired from fDi Intelligence (Financial Times Ltd.).
- Structural gravity equation
- Poisson Pseudo-Maximum Likelihood (PPML) estimator

Table 1. *Effects of Aid for Trade (AfT) on greenfield FDI, country-period fixed effects*

	All		Big 5 Donors		Other Donors	
	Number	Value	Number	Value	Number	Value
AfT	0.050a (0.016)	0.041c (0.023)	0.094a (0.028)	0.094a (0.028)	0.003 (0.012)	-0.029 (0.030)
AfT0	0.587a (0.180)	0.364 (0.269)	1.174a (0.356)	0.349 (0.397)	0.085 (0.127)	-0.201 (0.336)
RTA	0.141 (0.127)	*	0.283b (0.142)	0.797a (0.154)	-0.421a (0.114)	-0.625a (0.227)
BIT	0.133 (0.201)	*	-1.328 (0.953)	-1.506b (0.587)	0.071 (0.148)	-0.709b (0.347)
N	5295	5295	1552	1552	3536	3536
R-sq	0.984	0.949	0.988	0.972	0.970	0.910

Estimates are obtained using the Poisson Pseudo-Maximum Likelihood estimator. Numbers in parentheses are standard errors based on clustering by country pair. Significance at 1, 5, and 10% levels are indicated by a, b, and c. All specifications include bilateral fixed effects as well as country-period fixed effects.

- Bilateral Aid for Trade (AfT), particularly big 5-donors, increases bilateral greenfield investment.↵
- AfT effects on bilateral greenfield investment are strongest for Japan, Germany, and the UK, but none for the US and France.↵
- AfT for infrastructure has the strongest effect on greenfield investment.↵

Table 3. *Effects on greenfield FDI, bilateral and period fixed effects*

	All		Big 5 Donors		Other Donors	
	Number	Value	Number	Value	Number	Value
AfT	0.052a (0.020)	0.017 (0.023)	0.100a (0.032)	0.039 (0.034)	0.023b (0.011)	0.036 (0.026)
AfT0	0.671a (0.232)	-0.021 (0.301)	1.138a (0.376)	-0.132 (0.490)	0.277b (0.137)	0.242 (0.327)
AfT_OTH	0.071b (0.032)	0.138a (0.048)	0.039 (0.047)	0.100 (0.067)	0.094a (0.033)	0.159b (0.068)
POP_r	1.673c (0.904)	-2.190 (1.527)	1.806 (1.148)	-3.099 (1.955)	1.157 (1.137)	-0.822 (1.752)
PCGDP_r	-0.397a (0.129)	-0.755a (0.257)	-0.455a (0.150)	-1.094a (0.315)	-0.207 (0.153)	-0.085 (0.229)
POP_d	-0.067 (1.921)	-2.977c (1.697)	-0.232 (3.137)	-0.923 (2.858)	5.683a (1.398)	0.788 (2.615)
PCGDP_d	0.250 (0.311)	-0.355 (0.375)	1.151 (0.937)	1.423c (0.852)	-1.036a (0.231)	-1.676a (0.511)
RTA	0.080 (0.099)	0.154 (0.142)	0.205 (0.134)	0.433a (0.149)	-0.205 (0.135)	-0.274 (0.256)
BIT	0.628a (0.206)	-0.052 (0.268)	-0.143 (1.105)	0.311 (0.740)	0.361b (0.166)	-0.170 (0.288)
N	5452	5452	1715	1715	3737	3737
R-sq	0.946	0.896	0.958	0.925	0.935	0.767

Estimates are obtained using the Poisson Pseudo-Maximum Likelihood estimator. Numbers in parentheses are standard errors based on clustering by country pair. Significance at 1, 5, and 10% levels are indicated by a, b, and c. All specifications include bilateral fixed effects and period fixed effects.

- Third-party AfT, particularly from non-big 5 donors, promotes bilateral greenfield investment⁴

Table 2. *Effects of non-AfT on greenfield FDI, country-period fixed effects*

	All		Big 5 Donors		Other Donors	
	Number	Value	Number	Value	Number	Value
Non-AfT	-0.006 (0.020)	-0.025 (0.036)	0.030 (0.034)	0.060 (0.052)	-0.018 (0.019)	-0.073 (0.048)
NonAfT0	0.181 (0.273)	-0.290 (0.490)	0.627 (0.499)	0.496 (0.801)	-0.005 (0.253)	-0.453 (0.601)
RTA	0.171 (0.140)	0.359b (0.165)	0.366b (0.170)	0.879a (0.174)	-0.425a (0.115)	-0.633a (0.233)
BIT	0.088 (0.193)	-0.523c (0.289)	-1.754c (1.010)	-2.218a (0.566)	0.070 (0.148)	-0.684c (0.351)
N	5312	5312	1553	1553	3551	3551
R-sq	0.981	0.952	0.984	0.969	0.970	0.909

Estimates are obtained using the Poisson Pseudo-Maximum Likelihood estimator. Numbers in parentheses are standard errors based on clustering by country pair. Significance at 1, 5, and 10% levels are indicated by a, b, and c. All specifications include bilateral fixed effects as well as country-period fixed effects.

- Non-AfT does not appear to increase greenfield investment.
- But, does it mean non-AfT is not effective?

2. Aid for Trade for (AfT) for international trade and investments

Hyun-Hoon Lee (2017), “Effects of Aid for Trade (AfT) on Trade and Foreign Direct Investments: A Comprehensive Analysis”, A project report for Asian Development Bank.

- 24 donors and 138 recipients for the period 2003-2015.
- Data on trade in goods drawn from OECD’s STAN Bilateral Trade Database
- Data on the counts and values of bilateral greenfield investments acquired from fDi Intelligence (Financial Times Ltd.).
- Data on the counts of M&A acquired from Zephyr.
- Structural gravity equation
- Poisson Pseudo-Maximum Likelihood (PPML) estimator

Table 4-4: Effects of Components of Bilateral AfT on Bilateral Trade - PPML Results

	Recipient exports to donor				Recipient imports from donor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All goods	Agriculture	Mining	Manufacturing	All goods	Agriculture	Mining	Manufacturing
Bilateral INF	0.016***	-0.007	0.041***	0.007*	0.002	-0.007	0.061**	0.000
$\ln\{\max(1, INF_{dt})\}$	(0.006)	(0.005)	(0.015)	(0.004)	(0.005)	(0.007)	(0.029)	(0.005)
Bilateral BPC	0.010*	-0.008	-0.004	0.002	0.003	0.006	-0.019	0.006
$\ln\{\max(1, BPC_{dt})\}$	(0.006)	(0.007)	(0.020)	(0.004)	(0.005)	(0.017)	(0.037)	(0.005)
Bilateral TPR	-0.023**	-0.004	-0.055**	-0.004	-0.004	-0.001	-0.051*	0.000
$\ln\{\max(1, TPR_{dt})\}$	(0.010)	(0.008)	(0.023)	(0.005)	(0.007)	(0.013)	(0.029)	(0.007)

Notes: 1. All estimates in each column are obtained using Poisson Pseudo-Maximum Likelihood (PPML) Estimator, with the inclusion of bilateral fixed effects as well as donor-period fixed effects and recipient-period fixed effects. 2. All other variables including the non-Aid dummies (NAD) are included in regressions but not reported for the sake of brevity. 3. Standard errors are in parenthesis are based on clustering by country-pair. 4. ***, **, and * indicate the significance levels of 1, 5, and 10 percent, respectively.

Among the three components AfT, “bilateral” aid to infrastructure (INF) is found to impact positively and significantly bilateral exports of goods, particularly of mining and manufacturing products. It is also found to impact positively and significantly bilateral imports of mining products.

Table 4-2: Effects of Components of Third-Party Aft on Bilateral Trade - PPML Results

	Recipient Exports to donor				Recipient Imports from Recipient			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All goods	Agriculture	Mining	Manufacturing	All goods	Agriculture	Mining	Manufacturing
Third-party INF $\ln(INF_{-drt})$	-0.004 (0.013)	0.004 (0.014)	0.071*** (0.026)	-0.024* (0.013)	0.008 (0.009)	-0.003 (0.021)	-0.002 (0.053)	0.010 (0.009)
Third-party BPC $\ln(BPC_{-drt})$	0.039*** (0.014)	0.103*** (0.022)	-0.006 (0.037)	0.028* (0.014)	0.007 (0.011)	-0.048 (0.036)	-0.047 (0.070)	0.009 (0.012)
Third-party TPR $\ln(TPR_{-drt})$	0.009 (0.013)	-0.009 (0.011)	0.013 (0.023)	-0.007 (0.010)	-0.021*** (0.008)	0.011 (0.017)	-0.130* (0.072)	-0.019*** (0.007)

Notes: 1. All estimates in each column are obtained using Poisson Pseudo-Maximum Likelihood (PPML) Estimator, with the inclusion of bilateral fixed effects as well as donor-period fixed effects. 2. All other variables such as bilateral aid variables are included in regressions but not reported for the sake of brevity. 3. Standard errors are in parenthesis are based on clustering by country-pair. 4. ***, **, and * indicate the significance levels of 1, 5, and 10 percent, respectively.

Among the three components Aft, “third-party” aid to infrastructure (INF) is found to impact positively and significantly bilateral exports of mining, while aid to building productive capacity (BPC) promotes exports of agricultural and manufacturing products. ↵

Table 4-10: Effects of Components of Bilateral AfT on Bilateral Greenfield FDI and Cross-border M&A - PPML Results

	Number of Greenfield FDI				Value of Greenfield FDI				Number of Cross-border M&A			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	All industries	Primary	Manufacturing	Services	All industries	Primary	Manufacturing	Services	All industries	Primary	Manufacturing	Services
Bilateral INF $\ln\{\max(1, INF_{art})\}$	0.013 (0.009)	-0.002 (0.018)	0.008 (0.010)	0.025** (0.012)	0.015 (0.017)	-0.034 (0.043)	-0.016 (0.016)	0.087*** (0.026)	0.019 (0.014)	0.039 (0.030)	-0.020 (0.021)	0.036** (0.017)
Bilateral BPC $\ln\{\max(1, BPC_{art})\}$	0.027*** (0.010)	-0.002 (0.023)	0.029** (0.012)	0.029** (0.014)	-0.011 (0.022)	-0.105** (0.053)	0.060** (0.026)	0.041 (0.028)	-0.021 (0.015)	-0.056 (0.048)	-0.006 (0.023)	-0.023 (0.021)
Bilateral TPR $\ln\{\max(1, TPR_{art})\}$	0.001 (0.010)	0.027 (0.024)	0.016 (0.012)	-0.003 (0.012)	0.023 (0.021)	0.119** (0.054)	0.027 (0.024)	-0.037 (0.024)	0.021 (0.017)	0.079* (0.042)	0.032 (0.024)	-0.019 (0.023)

Notes: 1. All estimates in each column are obtained using Poisson Pseudo-Maximum Likelihood (PPML) Estimator, with the inclusion of bilateral fixed effects as well as donor-period fixed effects and recipient-period fixed effects. 2. All other variables including the non-Aid dummies (NAD) are included in regressions but not reported for the sake of brevity. 3. Standard errors in parenthesis are based on clustering by country-pair. 4. ***, **, and * indicate the significance levels of 1, 5, and 10 percent, respectively.

Among the three components AfT, “bilateral” aid to infrastructure (INF) appears to positively impact both greenfield and M&A investments in services industry. ↵

↵

In contrast, aid to building productive capacity (BPC) is found to increase greenfield investment in manufacturing and services industries. ↵

Table 4-7: Effects of Components of Third-Party AIT on Bilateral Greenfield FDI and Cross-border M&A - PPML Results

	Number of Greenfield FDI				Value of Greenfield FDI				Number of Cross-border M&A			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	All industries	Primary	Manufacturing	Services	All industries	Primary	Manufacturing	Services	All industries	Primary	Manufacturing	Services
Third-party INF	0.125***	0.090***	0.129***	0.151***	0.119***	0.097	0.136***	0.199***	0.079***	0.062	0.101***	0.119***
$\ln(INF_{-dit})$	(0.014)	(0.032)	(0.016)	(0.019)	(0.030)	(0.068)	(0.031)	(0.044)	(0.026)	(0.047)	(0.029)	(0.033)
Third-party BPC	0.025	0.107**	0.073***	-0.069**	-0.038	-0.051	0.030	-0.100*	-0.022	-0.046	-0.035	-0.061
$\ln(BPC_{-dit})$	(0.026)	(0.049)	(0.027)	(0.029)	(0.052)	(0.105)	(0.058)	(0.059)	(0.035)	(0.084)	(0.051)	(0.043)
Third-party TPR	0.031**	-0.001	0.017	0.058***	-0.003	0.055	-0.014	-0.017	0.124***	0.041	0.155***	0.116***
$\ln(TPR_{-dit})$	(0.014)	(0.025)	(0.018)	(0.019)	(0.028)	(0.047)	(0.033)	(0.030)	(0.027)	(0.050)	(0.037)	(0.031)

Notes: 1. All estimates in each column are obtained using Poisson Pseudo-Maximum Likelihood (PPML) Estimator, with the inclusion of bilateral fixed effects as well as donor-period fixed effects. 2. All other variables such as bilateral aid variables are included in regressions but not reported for the sake of brevity. 3. Standard errors are in parenthesis are based on clustering by country-pair. 4. ***, **, and * indicate the significance levels of 1, 5, and 10 percent, respectively.

Aid to INF appears to promote greenfield FDI most significantly. ↵

Aids to BPC and TPR are also positively associated with greenfield FDI. ↵

↵

Aid to INF and aid to TPR also appear to promote M&A investment inflows to the recipient country. ↵

III. Concluding Remarks

□ Should be philanthropic

- Should aim to focus on welfare of recipient countries, rather than seeking “win-win” relations between donor and recipient countries
- For example, foreign aid should increase recipient country’s overall trade and FDI, rather than bilateral trade and bilateral FDI

□ Should seek “win-win” relations between three pillars of **Sustainable Development**

- Should aim to seek **inclusive growth** by creating synergy between economic growth and social development.
- Should aim to seek **green growth** by creating synergy between economic growth and environmental sustainability



Hyun-Hoon Lee

hhlee@kangwon.ac.kr