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Are Korea's Aid for Trade Policies More Effective than Japan's? Evidence from Bilateral Trade Relationships

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Abstract

Korea has developed Aid for Trade (AfT) practices similar to Japan's approach in financing instruments, regional focus, and sectoral priorities. We investigate whether these strategic similarities produce comparable aid outcomes. Using structural gravity models, we find that AfT from Korea and Japan consistently show positive effects on bilateral trade compared to other major donors. However, Korea demonstrates balanced facilitation globally, promoting both recipient exports and imports equally, while Japan shows asymmetric patterns primarily facilitating recipient imports. In Asia, both countries show similar patterns with significant positive effects on their own exports but limited effects on recipient exports. Korea achieves larger coefficient magnitudes, indicating higher effectiveness, yet remains geographically concentrated like Japan.

Keywords: Aid for Trade, aid effectiveness, structural gravity equation, Korea, Japan

JEL Classification: F35, F14, O19

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1. Introduction

Korea joined the OECD Development Assistance Committee (DAC) as its 24th member in 2010, representing a historic transition as the world's first country to transform from aid recipient to donor. Throughout the subsequent decade, Korea has developed into an ambitious emerging donor, expanding its official development assistance (ODA) budget rapidly and achieving the highest growth rate among member countries since joining. Korea now stands as the second recognized Asian donor within the DAC, after Japan, though its ODA scale remains below levels proportional to its economic capacity.

Foreign aid involves dual motivations that most donors find challenging to reconcile. Though commonly viewed as altruistic support for developing countries, ODA simultaneously advances donor countries' national interests through improved international standing, market access, and geopolitical influence. This duality shapes aid policies and allocation patterns, creating strategic considerations for emerging donors like Korea. Most donors face difficulties balancing these seemingly conflicting motivations, with outcomes determined by internal socio-political factors, international standing, external strategy, and geographical calculations.

Among various ODA components, this study focuses specifically on Aid for Trade (AfT), launched at the WTO Ministerial Conference in Hong Kong in 2005 to align aid and trade policies. The AfT Initiative aims to expand aid to support developing countries in increasing

exports of goods and services, and benefitting from free trade and increased market access by addressing supply-side constraints and improving trade infrastructure (Hoekman, 2011; OECD/WTO, 2024). Given Korea's trade-driven economic development experience, promoting trade capacity enhancement in developing countries represents a natural extension of Korea's comparative advantages. Our analysis examines AfT effectiveness from both recipient and donor perspectives, considering recipient export expansion and donor export promotion in bilateral trade relationships.

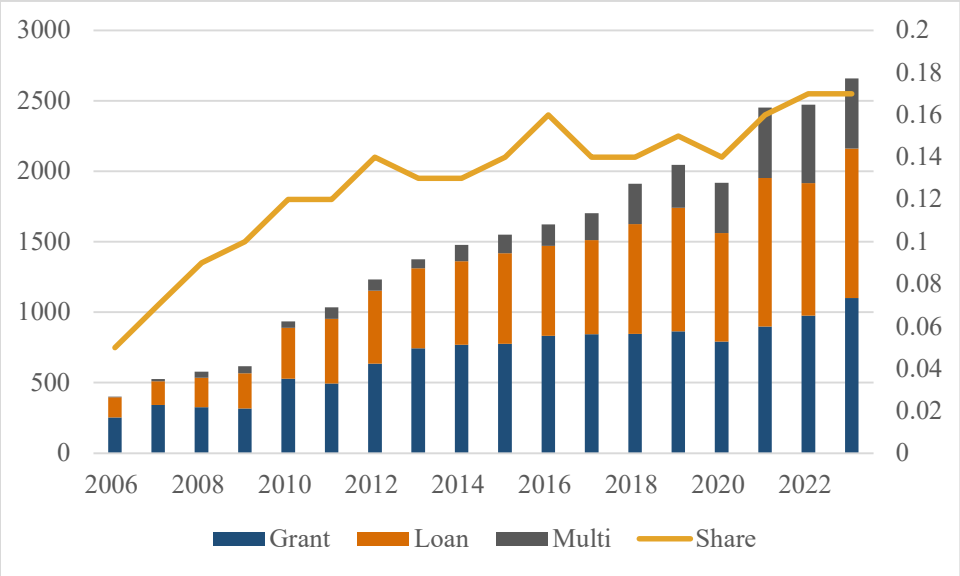
Although Korea has emerged as a major AfT donor, it confronts a policy gap. Unlike Japan, which developed a comprehensive AfT strategic framework, Korea currently lacks systematic policy frameworks, which may limit the effectiveness and visibility of its AfT programs (Jung et al., 2018). We therefore address Korea's notable absence from major donor effectiveness analyses by comparing Korea's AfT effectiveness with Japan's and other major donors. Japan offers a relevant comparison case due to geographical proximity and historical institutional influence. Korea initially drew upon Japanese experience as a reference, with the Japan International Cooperation Agency (JICA) and the Overseas Economic Development Fund (OEDF) serving as models for Korea International Cooperation Agency (KOICA) and Economic Development Cooperation Fund (EDCF). Japan reorganized its aid system in 2008 by consolidating agencies into a single institution, whereas Korea maintains its dual-agency structure. Though institutional differences exist, Korea's aid allocation patterns show close alignment with Japan's, particularly regarding sectoral focus and regional orientation.

Prior research by Kang et al. (2011) confirmed substantial similarities between Korea and Japan's aid allocation patterns during the 1980s to early 2000s. They argued that a donor's primary direction in aid policy is best reflected through its allocation of aid funds, and that similar allocation patterns between Korea and Japan would lead to comparable aid outcomes, distinguishing them from other donors. Building on this foundation, we extend their analysis to Aid for Trade using updated data and PPML estimation with comprehensive fixed effects. We examine whether Korea's AfT policies generate effectiveness patterns similar to Japan's approach or demonstrate more balanced development outcomes, with implications for Korea's future AfT strategy development. The structure of this paper proceeds as follows: Section 2 examines strategic similarities between Korea and Japan's AfT approaches, Section 3 reviews the literature on aid-trade relationships, Section 4 presents our empirical framework and data, Section 5 reports our main findings, and Section 6 concludes with policy implications.

2. Korea and Japan's Aid for Trade: Strategic Similarities and Differences

Over the last 18 years, Korea's ODA has expanded consistently, as illustrated in Figure 1.

Fig. 1. Evolution of Korea’s ODA.



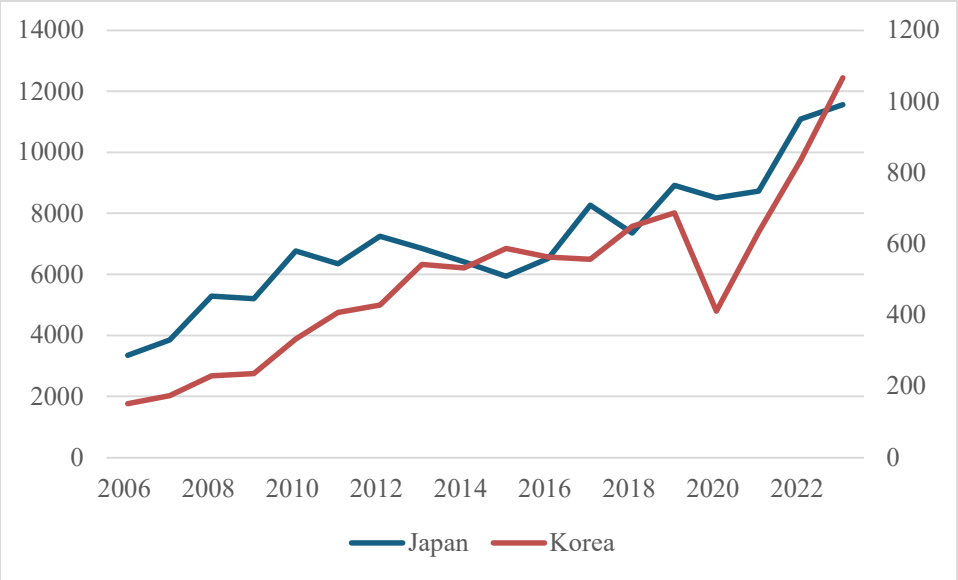
Source: OECD.dat.
Note: Left axis shows ODA amounts in million USD; right axis shows ODA/GNI ratio. Grant, Loan, Multi, and Share denote bilateral grants, bilateral loans, multilateral contributions, and ODA/GNI ratio, respectively.

Total disbursements increased from US$401 million in 2006 to US$2,658 million in 2023, ranking 14th among the 31 member countries of the OECD Development Assistance Committee (DAC). This level is comparable to countries such as Italy and Australia, while surpassing Ireland and Denmark. The ODA/GNI ratio has also improved significantly, rising from 0.05% in 2006 to 0.17% in 2023. Nevertheless, Korea's ratio remains below the DAC average, representing approximately half of the DAC members' average of 0.37% in 2023.

However, Korea's position is notably stronger in Aid for Trade. Korea's AfT expanded rapidly over the past 18 years, reaching US$1,067 million in 2023 and achieving 6th place globally, after Japan, Germany, the United States, France, and the UK. This substantially surpasses contributions from traditional donors such as the Netherlands, Norway, and Canada. Such expansion demonstrates Korea's commitment to supporting trade capacity in developing countries.

Japan shows a similar pattern of AfT prominence relative to overall ODA. In 2023, Japan contributed US$20,383 million in total ODA, placing 3rd globally after the United States and Germany, representing 0.44% of its GNI. More notably, Japan dominates the global AfT landscape as the world's largest donor with US$11,563 million, representing approximately 38% of global AfT flows. Korea's aid scale remains considerably smaller than Japan's in absolute terms. Korea's total ODA represents about one-twentieth of Japan's volume, while Japan's ODA/GNI ratio is 2.6 times higher than Korea's. Yet both countries demonstrate a remarkably similar strategic pattern. Both achieve higher relative rankings in AfT compared to their overall ODA positions, suggesting that AfT represents a shared policy priority despite the significant gap in aid volumes. Figure 2 illustrates the evolution of AfT disbursements by both countries from 2006 to 2023, showing sustained growth with only a brief COVID-19-related interruption in 2020.

Fig. 2. Fluctuation of AfT flows from Korea and Japan (unit: mil. US $)



Source: OECD.dat.
Note: Left axis for Japan; right axis for Korea.

Among major donors, Korea's AfT allocation pattern most closely resembles Japan's approach. Table 1 compares AfT allocation patterns across Korea, Japan, USA, EU and DAC for 2002-2019, utilizing 18-year averages to minimize year-to-year fluctuations.

Table 1. Aid Allocation Patterns by Major Donor Groups (2002-2019 Average, unit: %)

	Korea	Japan	EU average	USA	DAC average
Size					
Total ODA (US$ mil.)	1,008	12,178	1,174	18,722	2,254
ODA/GNI Ratio	0.15	0.24	0.33	0.17	0.31
Total AfT (US$ mil.)	429	5,413	222	2,829	501
AfT in ODA	43	44	19	15	22
Type (AfT)					
Grants	35	21	59	100	57
Loans	65	79	41	0	43
By Region (AfT)					
Asia	61	77	26	52	47
Africa	26	14	36	27	27
America	10	3	11	9	8
Europe & Oceania	2	4	6	5	6
Unspecified	1	1	20	7	12
By Sector (AfT)					
Economic Infrastructure	74	78	40	39	51
Building Productive Capacity	24	21	56	55	46
Trade Policy & Regulations	2	1	3	6	3
By Income (AfT)					
LDCs	41	16	17	34	21
LMICs	45	54	27	21	34
UMICs	12	26	23	33	25
Unallocated	2	4	33	12	20
Aid Tying (Total ODA)					
Share Untied	57	99	73	66	87

Source: OECD.dat.
Note: ODA/GNI ratio and untied aid shares based on recent 5-year average (2015-2019) to reflect current policy status. Also, untied aid shares are limited to EU's DAC members due to data availability.

EU and DAC figures represent averages of individual member countries. Although Korea and Japan differ substantially in total aid volumes, several clear patterns emerge when examining their AfT distribution strategies.

First, both nations prioritize Aid for Trade within their development assistance programs. Korea allocates 44% of total ODA to AfT, while Japan dedicates 43%, significantly exceeding EU's 19%, USA's 15%, and DAC's 22%. While Korea's overall ODA at 1,008 million remains slightly below the EU's individual country's average of 1,174 million, Korea's AfT disbursement of 429 million reaches nearly double the EU average. Japan leads global AfT spending at 5,413 million, nearly double the U.S. level of 2,829 million despite the latter's larger economic scale.

Second, financing mechanisms reveal another key similarity between the two countries. Loan-based instruments dominate both countries' AfT programs, with Korea providing 65% of AfT through loans and Japan reaching 79%. This preference for concessional loans reflects both countries' development finance philosophy, emphasizing sustainable financing that recipients must eventually repay. The approach differs markedly from EU and DAC patterns of 41% and 43% loan ratios respectively, and contrasts completely with USA's grant-only methodology. This loan preference may reflect both countries' own historical experience with development financing and their view that loans encourage more responsible resource utilization by recipients.

Third, geographic distribution indicates clear Asian concentration. Korea directs 61% of AfT toward Asian recipients, while Japan allocates 77% to the region. This Asian focus substantially exceeds other major donors: USA at 52%, EU average at 26%, and DAC average at 47%. Both countries exhibit strong regional preferences, likely reflecting geographic proximity and existing economic ties. Korea allocates 26% to Africa compared to Japan's 14%, with Korea approaching the DAC average of 27% while Japan remains well below this level.

Fourth, sectoral preferences show a shared infrastructure focus. Korea assigns 74% of AfT to Economic Infrastructure sector, while Japan allocates 78%. Both dedicate roughly one-quarter to Building Productive Capacity with Korea at 24% and Japan at 21%. This infrastructure emphasis contrasts sharply with EU and USA preferences for Building Productive Capacity at 56% and 55% respectively, and also exceeds the DAC average of 51% for Economic Infrastructure, revealing different aid strategies.

Fifth, recipient income targeting shows both similarities and differences. Both favor Lower Middle-Income Countries, with Korea at 45% and Japan at 54%, substantially exceeding EU at 27%, USA at 21%, and DAC at 34%. Japan shows greater preference for Upper Middle-Income Countries at 26%, while Korea maintains substantial LDC engagement at 41% compared to Japan's 16%. Both countries show minimal unallocated income categories with Korea at 2% and Japan at 4%, compared to EU's 33%, USA's 12%, and DAC's 20%, indicating more precise recipient selection.

Finally, aid-tying practices show different patterns and historical evolution. Korea maintains 57% untied aid while Japan achieves nearly complete untying at 99%. Japan's current practice

represents a significant shift from earlier policies, as Japan's tied aid ratio peaked at 74% in 1980 before declining in response to international criticism and calls for improved aid practices. Meanwhile, Korea's tied aid concentrates in AfT sectors, including Transport at 24% and Energy at 23%, focusing on infrastructure development. This differs from USA's tied aid pattern in non-AfT sectors like governance and health, suggesting different strategic priorities (OECD, 2021).

Overall, Korea's Aid for Trade shows clear similarities to Japan's approach across multiple dimensions, although some differences exist in aid volumes and tying practices. The similarities between the two countries include high AfT emphasis within total ODA, substantial reliance on loan-based financing, regional concentration in Asia, shared focus on Economic Infrastructure over Building Productive Capacity within AfT, and targeting of middle-income recipients. These patterns distinguish both countries from Western donors who typically allocate lower proportions to AfT, prioritize Building Productive Capacity, and maintain more balanced regional distribution through grant-based assistance approaches.

3. Literature Review

Having established the strategic similarities between Korea's and Japan's Aid for Trade approaches, we now examine the existing literature on aid effectiveness in promoting international trade to provide a theoretical foundation for our empirical analysis.

The relationship between development assistance and trade flows has continuously been examined in development economics. Research in this area has evolved from broad examinations of general development assistance to more focused analyses of AfT as a distinct policy instrument. This shift from general aid to AfT analysis stems from both advancing theoretical understanding and AfT's growing importance in development cooperation since 2005.

Earlier studies examined how overall official development assistance (ODA) affects bilateral trade flows, with generally positive but mixed results. Wagner (2003) documented positive effects of aid on donor exports to recipient countries during 1970-90, while Nowak-Lehmann et al. (2009) found measurable export returns for Germany. Lloyd et al. (2000), Nilsson (1997), and Osei et al. (2004) similarly identified aid-trade relationships, though with considerable variation in magnitudes and significance across samples and periods. These studies faced a fundamental measurement problem: ODA includes humanitarian assistance, political objectives, and diverse development goals, making it difficult to isolate trade-specific effects.

AfT's establishment as a distinct category since 2005 has enabled more focused empirical analysis. Initial AfT studies found generally positive effects, with Helble et al. (2012) estimating that a 1% increase in AfT correlated with approximately $290 million of additional exports from recipients. Subsequent research revealed important sectoral distinctions, with Calì and te Velde (2011) demonstrating that aid for economic infrastructure significantly increased recipient exports while aid for productive capacity showed no discernible effect. This infrastructure advantage was corroborated by Ferro et al. (2014) and Vijil and Wagner (2012), establishing a consistent pattern across multiple studies.

A gap emerged in this literature: the assumption of homogeneous aid effectiveness across

donors and recipients. As methodological sophistication increased, particularly with structural gravity models incorporating comprehensive fixed effects, several studies began revealing substantial heterogeneity in AfT effectiveness across donor countries. Such findings challenged the common practice of combining all donors and assuming that aid has the same effect no matter who gives it.

The importance of donor heterogeneity became evident through recent donor-specific analyses. Nishitateno and Umetani (2023) provided the first comprehensive comparison among top-five donors (Japan, Germany, France, USA, UK) for 2002-2019, finding that Japan's AfT generated substantial export expansion for Japan itself, in contrast to other major donors. They showed methodological originality by including donor dummy variables and their interaction terms in the estimation, employing PPML with three-way fixed effects that yielded more precisely estimated effects than earlier OLS-based studies. Moreover, their analysis went beyond statistical relationships to examine the underlying mechanisms of AfT effectiveness through infrastructure project contract data, suggesting that Japanese AfT functions as an informal tying arrangement linking aid closely to donor exports.

Similarly, Hoekman and Shingal (2024) employed PPML estimation with comprehensive fixed effects for the 2002-2018 period and found that bilateral AfT from EU donors positively correlated with donor exports, while AfT provided through pooled EU institutions enhanced recipient imports, highlighting how institutional arrangements shape aid-trade relationships. Their methodological rigor, especially in accounting for multilateral resistance terms and addressing endogeneity, led to smaller but more robust effects than those found in earlier aggregate studies.

A parallel methodological advancement involved distinguishing between AfT effects on donor exports versus recipient exports. While early work by Nowak-Lehmann et al. (2013) found insignificant effects on recipient exports despite positive effects on donor exports, Hühne et al. (2014) found that AfT increased both recipient exports to donors and recipient imports from donors, with recipient export effects dominating. This directional analysis revealed varying patterns across geographic regions, with significant differences between Asia, Africa, and Latin America.

This donor heterogeneity literature also revealed the importance of examining bilateral trade effects rather than aggregate flows. Hoekman and Shingal (2020) demonstrated this distinction empirically, finding statistically weak effects of AfT on both goods and services trade in aggregate analysis once endogeneity was properly addressed but robust positive effects in bilateral analysis. Their bilateral results showed that AfT allocated to services activities, especially economic infrastructure, had positive effects on donors' merchandise imports from recipient countries, providing evidence of complementarities between services AfT and goods trade. This finding highlighted the importance of sectoral composition, as most AfT is actually allocated to services sectors rather than goods-focused interventions.

The methodological evolution in AfT research has also emphasized the importance of controlling for multilateral resistance terms and unobserved heterogeneity through comprehensive fixed effects structures. Recent studies employing Poisson pseudo-maximum likelihood (PPML) estimation with three-way fixed effects have found smaller and more precisely estimated effects than earlier studies using ordinary least squares, suggesting that methodological rigor significantly affects results interpretation.

For Korea specifically, existing research has been limited to general ODA studies rather than AfT analysis. Kang (2014) found positive effects of Korea's economic aid on exports using 1988-2012 data, while Noh and Heshmati (2021) found that technical cooperation and loans had positive effects, but grants showed negative impacts on Korea's exports to recipients. However, these single-country studies preclude comparison with other donors and do not address Korea's effectiveness within the broader AfT landscape using the bilateral framework that has proven essential for understanding aid-trade relationships.

Existing literature has not systematically compared Korea's AfT effectiveness against other major donors, particularly Japan, using a comprehensive bilateral framework that accounts for both donor and recipient perspectives. This gap appears particularly important given the strategic similarities between Korea and Japan's AfT approaches documented in Section 2, including their shared emphasis on infrastructure, loan-based financing, and Asian regional focus. Whether these similar approaches yield comparable effectiveness remains an open empirical question. Alternatively, institutional differences, experience levels, or implementation strategies may produce differential outcomes, which our study examines through bilateral analysis.

4. Estimation Framework and Data

4.1 Estimation Framework

We employ the structural gravity model framework to examine the effects of Aid for Trade on bilateral trade flows. The gravity model is widely used in international trade analysis, following the theoretical foundation established by Anderson and van Wincoop (2003) for properly accounting for multilateral trade resistance. Our analysis builds on recent advances in gravity model estimation that emphasize the importance of controlling for time-varying country-specific factors and unobservable bilateral characteristics. Our baseline empirical specification follows the structural gravity framework and is expressed as:

$$Y_{ijt} = \exp(\beta_1 lnAfT_{ijt} + \beta_2 lnNonAfT_{ijt} + \beta_3 FTA_{ijt} + \beta_4 zero\_AfT_{ijt} + \beta_5 zero\_NonAfT_{ijt} + F_{it} + F_{jt} + F_{ij}) \times \varepsilon_{ijt} \quad (1)$$

where subscripts i, j, and t denote donor, recipient, and year from 2002 to 2019, respectively. ε_{ijt} denotes the error term. Y_{ijt} represents three dependent variables: the total bilateral trade between donor i and recipient j at time t, recipient j's exports to donor i, and recipient j's imports from donor i.

The key explanatory variable, $lnAfT_{ijt}$, is the logarithm of the AfT disbursements from donor i to recipient j at the time t. We include $lnNonAfT_{ijt}$, which means the logarithm of the Non-AfT official development assistance from donor i to recipient j at the time t, as countries receiving substantial AfT often receive significant amounts of other aid that may independently influence trade flows (Bearce et al., 2013). Since bilateral aid flows contain zero values, we add 1 to the AfT and NonAfT variables before taking their logarithmic transformation to retain all observations.

The variable FTA_{ijt} is a binary indicator for free trade agreements between countries i and j at the time t, as trade and aid policies are closely interconnected (Suwa-Eisenmann and Verdier, 2007). Given the high incidence of zero bilateral aid data, unlike aggregate aid, we also include a dummy if the AfT variable is zero ($zero\_AfT_{ijt}$) and a dummy if the Non-AfT variable is zero ($zero\_NonAfT_{ijt}$), following Calì, & te Velde (2011) and Lee & Ries (2016).

Our estimation strategy utilizes three-way fixed effects: donor-year fixed effects (F_{it}), recipient-year fixed effects (F_{jt}), and donor-recipient pair fixed effects (F_{ij}) to account for the multilateral resistance terms and address potential endogeneity concerns. Following the structural gravity model recommendations (Yotov et al., 2016), the donor-year and recipient-year fixed effects enable control for unobservable multilateral resistances and all observable and unobservable characteristics that vary over time for each donor and recipient respectively (Anderson and van Wincoop, 2003). The pair fixed effects provide two major benefits. They account for endogeneity of trade policy variables (Baier and Bergstrand, 2007) and provide a flexible and comprehensive account of all time-invariant bilateral trade costs, as pair fixed effects carry systematic information about trade costs beyond that captured by standard gravity variables (Egger and Nigai, 2015).

The three extensive sets of fixed effects control for all variables typically included in gravity equations. Donor-year-specific characteristics (e.g., GDP, institutional quality), recipient-year-specific characteristics (e.g., economic development, trade openness) and donor-recipient-specific characteristics (e.g., geographical distance, colonial ties, common language) are controlled by these fixed effects. This structure allows us to control for unobservable donor-year-specific, recipient-year-specific, or donor-recipient-specific characteristics that might influence both AfT allocation and trade flows, effectively addressing endogeneity concerns, including selection bias and reverse causality. The approach has been adopted in recent studies examining bilateral aid-trade relationships (Lee and Ries, 2016; Hoekman and Shingal, 2024; Nishitateno and Umetani, 2023).

We consider the Poisson pseudo-maximum likelihood (PPML) estimator following Silva and Tenreyro (2006). The authors demonstrate that log-linearized gravity equations estimated by ordinary least squares (OLS) can be highly misleading in the presence of heteroskedasticity. PPML provides a more robust alternative that naturally handles zero observations while addressing heteroskedasticity concerns in trade data.

To examine whether Korea's AfT effectiveness differs from that of major donors, particularly Japan, we further decompose equation (1) to examine the differential effects of AfT by five donor groups:

$$Y_{ijt} = \exp(\beta_1 lnAfT_{ijt}^{EU} + \beta_2 lnAfT_{ijt}^{USA} + \beta_3 lnAfT_{ijt}^{KOR} + \beta_4 lnAfT_{ijt}^{JPN} + \beta_5 lnAfT_{ijt}^{Other} + \beta_6 lnNonAfT_{ijt} + \beta_7 FTA_{ijt} + \beta_8 zero\_AfT_{ijt} + \beta_9 zero\_NonAfT_{ijt} + F_{it} + F_{jt} + F_{ij}) \times \varepsilon_{ijt} \quad (2)$$

where AfT_{ijt}^{EU}, AfT_{ijt}^{USA}, AfT_{ijt}^{KOR}, AfT_{ijt}^{JPN}, AfT_{ijt}^{Other} represent AfT flows from the EU, United States, Japan, Korea, and the other countries, respectively. This decomposition allows

us to examine whether aid from Korea or Japan in particular has differential effects as distinguished from aid by other donor groups, while maintaining our comprehensive fixed effects structure that controls for all other potential confounding factors. Details on the classification criteria and coverage are provided in Section 4.2.

To ensure the robustness of our findings, we implement two additional specifications. First, we re-estimate equations (1) and (2) using a one-year lag structure for aid variables to account for potential implementation delays and endogeneity concerns. Second, we estimate equation (2) excluding years significantly affected by the U.S.-China trade war period (2018-2019) to eliminate confounding factors unrelated to AfT that could distort our results. This ensures that our findings capture the genuine effects of AfT rather than the impact of extraordinary trade policy measures during this period.

4.2 Data

Our sample comprises bilateral flows between 46 donor countries and 156 recipient countries for the period 2002-2019. The complete list of donor and recipient countries is provided in Annex 1. We exclude pre-2002 data because the OECD Creditor Reporting System (CRS) did not provide bilateral ODA disbursements by sectors in earlier years. We also exclude post-2019 data to avoid distortions from the COVID-19 pandemic.

Aid for Trade data are taken from the OECD Development Assistance Committee Creditor Reporting System. The data cover bilateral aid flows including both grants and loans from donor to recipient countries. We use disbursement flows rather than commitments, as commitments do not fully reflect actual aid delivery. AfT comprises three categories as defined by the OECD:

(1) Economic Infrastructure: Transport and storage (210), Communications (220), Energy Generation and supply (230)
(2) Building Productive Capacity: Banking and financial services (240), Business and other services (250), Agriculture (311), Forestry (312), Fishing (313), Industry (321), Mineral resources and mining (322), Tourism (332)
(3) Trade Policy and Regulations: Trade policy and regulations and trade related adjustment (331)

We first collect bilateral ODA data, then extract AfT flows using OECD CRS codes. When no AfT records exist or sectors are unspecified, AfT values are set to zero. Countries without ODA records are treated as missing values. We construct a Non-Aid for Trade (NonAfT) variable by subtracting bilateral AfT from total bilateral ODA.

To examine heterogeneous effects across major donors, we decompose AfT into five groups as mentioned above: EU, USA, Korea, Japan, and other countries. The EU is treated as a single entity since overall ODA policy is determined by the European Commission. The United Kingdom is included in the EU as it belonged to the EU during our analysis period. The United States, being a major donor, is treated as a separate country. Together, the EU, USA, Korea, and Japan account for 89% of total AfT in our sample, while the remaining donors are categorized as ‘other countries’. Note that while the OECD database includes China as a recipient, it does not provide China's donor data.

Table 2 shows the top ten AfT recipients by donor group in our dataset.

Table 2: Top 10 AfT Recipients by Donor group (2002-2019 average)

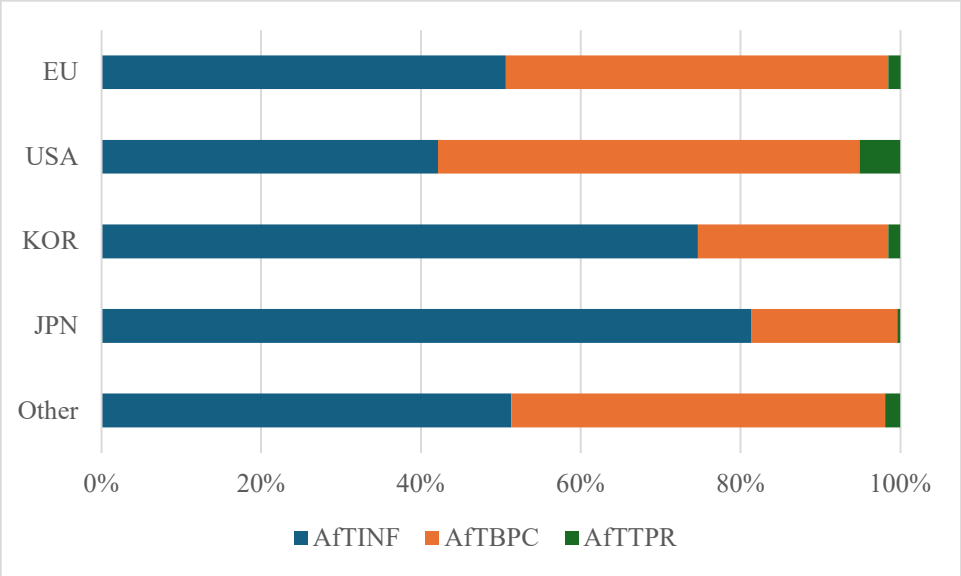
Rank	Korea	Japan	USA	EU	Other countries
1	Vietnam (77.9)	India (1,080.0)	Iraq (671.1)	India (509.5)	Egypt (253.8)
2	Philippines (27.7)	Vietnam (738.7)	Afghanistan (535.1)	Morocco (310.6)	Morocco (81.8)
3	Cambodia (26.6)	Indonesia (404.5)	Egypt (149.7)	China (252.0)	Papua New Guinea (73.4)
4	Bangladesh (24.4)	Bangladesh (293.1)	Pakistan (124.6)	Indonesia (183.9)	Indonesia (58.2)
5	Tanzania (18.9)	Thailand (264.2)	Colombia (68.1)	Turkey (182.7)	Jordan (52.6)
6	Ethiopia (16.7)	Philippines (258.4)	Tanzania (59.5)	Egypt (173.1)	Vietnam (52.2)
7	Lao PDR (15.7)	China (200.8)	Ghana (56.8)	Brazil (162.7)	Yemen (51.3)
8	Myanmar (14.4)	Iraq (165.1)	Georgia (51.2)	Vietnam (160.3)	Ethiopia (45.1)
9	Sri Lanka (14.2)	Sri Lanka (160.2)	Occ.Pal.Terr (39.7)	South Africa (143.9)	Oman (44.7)
10	Mozambique (12.7)	Turkey (128.2)	Senegal (38.3)	Kenya (133.7)	Bangladesh (38.5)

Note: Values in US$ millions, annual average. EU represents 28 member countries in aggregate. Other countries include all other donors not classified in the four main groups.

Korea and Japan demonstrate similar regional concentration, with both countries focusing heavily on Asian recipients including Vietnam, Philippines, Bangladesh, and Sri Lanka. By contrast, the USA prioritizes geopolitically strategic countries such as Iraq and Afghanistan, while EU allocations show a more diverse geographic distribution. Other countries as a group show mixed patterns with Egypt and Morocco featuring prominently. Such patterns reflect the geographic and strategic preferences underlying each donor group's AfT allocation strategy.

Figure 3 illustrates the sectoral distribution of AfT by donor groups in our sample, confirming the patterns described in Table 1.

Figure 3. Sectoral distribution of AfT by donor groups (total of 2002-2019).



Source: Author.

Note: AfTINF (Aid for Economic Infrastructure), AfTBPC (Aid for Building Productive Capacity), and AfTTPR (Aid for Trade Policy and Regulations) represent the key sectors of AfT.

The visualization clearly shows Korea and Japan's shared emphasis on Economic Infrastructure compared to the more balanced allocation strategies of EU, USA, and other countries.

Bilateral trade flows are drawn from the World Integrated Trade Solution (WITS). Since bilateral trade data are often incomplete for 156 recipient countries while being more comprehensive from the 46 donors' perspective, we collect trade data from the donor country's viewpoint. This means donor exports to recipients represent recipient imports from donors, and vice versa. As mentioned earlier, most control variables are absorbed by the three sets of fixed effects. Additional control variable that is donor-recipient-year-specific is the free trade agreement (FTA) dummy, drawn from CEPII's gravity dataset.

The final dataset has a feature of a panel structure consisting of 81,013 observations from 2002 to 2019. AfT, NonAfT, and bilateral trade flows are expressed in current US dollars. Table 3 presents summary statistics of the variables used in the estimation.

Table 3. Summary statistics

Variables	Obs.	Mean	Std. Dev.	Min	Max
Trade	81,013	1.01e+06	1.18e+07	0	6.83e+08
Export	81,013	5.98e+05	7.92e+06	0	5.63e+08
Import	81,013	4.16e+05	4.43e+06	0	2.65e+08
lnAfT	81,013	0.36	0.87	-5.05	7.91
lnNonAfT	81,013	0.85	1.35	-2.32	9.07
No AfT (dummy)	81,013	0.65	0.48	0	1
No NonAfT (dummy)	81,013	0.39	0.49	0	1
FTA	81,013	0.17	0.37	0	1

5. Empirical Results

5.1 Baseline

The estimation results for Equation (1) are reported in Table 4.

Table 4. Impact of AfT on bilateral trade flows.

	AfT variables at time t			AfT variables lagged one time period		
	(1) Bilateral Trade	(2) Recipient Export	(3) Recipient Import	(4) Bilateral Trade	(5) Recipient Export	(6) Recipient Import
lnAfT	0.014**	0.020***	0.021**	0.013**	0.020***	0.020**
	(0.006)	(0.008)	(0.008)	(0.006)	(0.007)	(0.008)
lnNonAfT	0.002	-0.001	0.011	-0.002	-0.008	0.011
	(0.006)	(0.008)	(0.009)	(0.006)	(0.008)	(0.009)
No AfT (dummy)	-0.031**	-0.051***	0.012	-0.044***	-0.082***	0.014
	(0.012)	(0.016)	(0.015)	(0.013)	(0.017)	(0.015)
No NonAfT (dummy)	0.019	0.026	0.014	-0.008	0.006	-0.005
	(0.023)	(0.029)	(0.024)	(0.020)	(0.030)	(0.022)
FTA	0.101***	0.011	0.190***	0.100***	0.011	0.191***
	(0.032)	(0.038)	(0.046)	(0.032)	(0.036)	(0.046)

Observations	80,550	79,485	79,108	74,165	73,254	72,812
Pseudo R2	0.996	0.994	0.995	0.996	0.994	0.995
Donor-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Recipient-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Donor-recipient FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: PPML estimates with bilateral, donor-year, and recipient-year fixed effects. Standard errors clustered by donor-recipient pairs in parentheses. ***, **, and * denote significance at 1%, 5%, and 10% levels, respectively.

The table shows the estimation results using the PPML estimator with our three-way fixed effects structure. Columns (1), (2), and (3) represent results for bilateral trade flows, recipient exports to donors, and recipient imports from donors, respectively. Columns (4), (5), and (6) present results using lagged AfT variables to address potential timing issues. The high Pseudo R2 values (over 0.99) suggest that our model adequately explains the patterns in bilateral trade flows.

Our primary variable of interest, Aid for Trade, demonstrates positive and statistically significant coefficients across all specifications. The estimated elasticities are modest: approximately 0.014 for bilateral trade, 0.020 for recipient exports, and 0.021 for recipient imports. These coefficients remain stable between current and lagged specifications, indicating that AfT effects are relatively immediate and persistent over time.

When we decompose bilateral trade into directional flows, the estimation results show that AfT promotes trade in both directions at comparable magnitudes. With coefficients for recipient exports and imports nearly identical (0.020 vs. 0.021), AfT appears to have a neutral effect on trade direction, facilitating balanced trade expansion rather than systematically favoring either exports or imports.

Regarding other variables in our model, several patterns emerge. The "No AfT" dummy variable displays negative and significant coefficients except for recipient imports. This supports the interpretation that AfT may contribute positively to trade flows. The "No NonAfT" dummy exhibits varying significance levels depending on the specification. For free trade agreements, we observe positive impacts on bilateral trade and recipient imports, while the effect on recipient exports lacks statistical significance. This uneven pattern implies that FTAs may mainly help donors access recipient markets rather than promote recipient export performance, which is consistent with Hoekman and Shingal (2020, 2024).

Our findings suggest that Aid for Trade creates positive effects on bilateral trade flows. However, the magnitude of the coefficients shows that while AfT's impact is positive and statistically significant, its practical significance should be interpreted cautiously. The analysis can present different impacts of AfT by examining effects by donor groups, which we investigate in the following section.

5.2 AfT Effects by Major Donors

Table 5 presents the estimation results for Equation (2), allowing us to compare Korea and Japan's AfT effectiveness against other major donors.

Table 5. Impact of AfT on bilateral trade flows by donor group.

	AfT variables at time t	AfT variables lagged one time period

	(1) Bilateral Trade	(2) Recipient Export	(3) Recipient Import	(4) Bilateral Trade	(5) Recipient Export	(6) Recipient Import
$\ln AFT^{EU}$	0.012	0.021*	0.010	0.012	0.023**	0.007
	(0.007)	(0.011)	(0.007)	(0.008)	(0.011)	(0.007)
$\ln AFT^{USA}$	0.028	0.017	0.036*	0.023	0.013	0.031
	(0.023)	(0.028)	(0.019)	(0.022)	(0.026)	(0.019)
$\ln AFT^{JPN}$	0.021**	0.024	0.048***	0.022**	0.023	0.052***
	(0.010)	(0.016)	(0.014)	(0.010)	(0.015)	(0.014)
$\ln AFT^{KOR}$	0.050**	0.090**	0.070**	0.057**	0.079**	0.089***
	(0.025)	(0.036)	(0.031)	(0.027)	(0.037)	(0.031)
$\ln AFT^{Other}$	-0.067***	-0.023	-0.098***	-0.066**	-0.024	-0.087**
	(0.025)	(0.022)	(0.036)	(0.026)	(0.026)	(0.036)
lnNonAfT	0.001	-0.002	0.006	-0.003	-0.008	0.004
	(0.007)	(0.009)	(0.009)	(0.007)	(0.009)	(0.009)
No AfT (dummy)	-0.036***	-0.054***	0.000	-0.046***	-0.082***	0.005
	(0.012)	(0.016)	(0.015)	(0.013)	(0.017)	(0.015)
No NonAfT	0.015	0.023	0.004	-0.010	0.004	-0.010
(dummy)	(0.022)	(0.029)	(0.023)	(0.020)	(0.030)	(0.022)
FTA	0.094***	0.005	0.171***	0.096***	0.008	0.176***
	(0.031)	(0.038)	(0.043)	(0.030)	(0.036)	(0.043)
Observations	80,550	79,485	79,108	74,165	73,254	72,812
Pseudo R2	0.996	0.994	0.995	0.996	0.994	0.995
Donor-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Recipient-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Donor-recipient FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: PPML estimates with bilateral, donor-year, and recipient-year fixed effects. Standard errors clustered by donor-recipient pairs in parentheses. ***, **, and * denote significance at 1%, 5%, and 10% levels, respectively.

The impact of AfT on bilateral trade flows varies across donor countries. As the estimates in Table 5 indicate, only AfT from Korea and Japan has a significant impact on bilateral trade flows. This indicates that AfT from Japan and Korea promotes bilateral trade with recipient countries.

When we decompose bilateral trade into directional flows, the two countries show somewhat different patterns. Japan's AfT significantly promotes recipient imports but shows no significant effect on recipient exports. This asymmetric pattern suggests that Japan's AfT may primarily serve its own export promotion purposes rather than balanced trade development. In the case of Korea, however, AfT shows significant positive effects on both recipient exports and imports at comparable magnitudes. Our analysis indicates that Korea's AfT facilitates more balanced trade expansion rather than systematically favoring either direction.

Meanwhile, AfT from the EU shows significant positive effects on recipient exports but no significant impact on recipient imports, suggesting that EU aid focuses on enhancing recipient export capabilities. While these results differ from Hoekman et al. (2024), this discrepancy likely reflects differences in sample composition, as our EU-only analysis yields similar findings to their study. The USA shows limited and inconsistent effects, with some positive impact on recipient imports in the current period but no significant effects in the lagged specification.

To ensure the robustness of our findings, we re-estimate the model excluding the US-China trade war Period (2018-2019) to control for potential trade policy disruptions. Table 6 shows results for the 2002-2017 period.

Table 6. Impact of AfT on bilateral trade flows by donor group (Excluding US-China Trade War Period, 2002-2017)

	AfT variables at time t			AfT variables lagged one time period		
	(1) Bilateral Trade	(2) Recipient Export	(3) Recipient Import	(4) Bilateral Trade	(5) Recipient Export	(6) Recipient Import
$\ln AFT^{EU}$	0.012*	0.021*	0.008	0.013*	0.022*	0.007
	(0.007)	(0.011)	(0.006)	(0.007)	(0.011)	(0.006)
$\ln AFT^{USA}$	0.034*	0.016	0.050***	0.021	0.004	0.037**
	(0.020)	(0.027)	(0.015)	(0.019)	(0.025)	(0.018)
$\ln AFT^{JPN}$	0.030**	0.033	0.064***	0.029**	0.029*	0.066***
	(0.014)	(0.020)	(0.015)	(0.012)	(0.017)	(0.014)
$\ln AFT^{KOR}$	0.063**	0.105***	0.084**	0.059**	0.079**	0.089***
	(0.028)	(0.039)	(0.033)	(0.027)	(0.038)	(0.030)
$\ln AFT^{Other}$	-0.064**	-0.010	-0.105***	-0.068**	-0.021	-0.098***
	(0.028)	(0.026)	(0.039)	(0.029)	(0.032)	(0.037)
lnNonAfT	0.001	-0.000	0.005	-0.006	-0.008	0.000
	(0.007)	(0.008)	(0.008)	(0.007)	(0.009)	(0.008)
No AfT (dummy)	-0.038***	-0.051***	-0.011	-0.039***	-0.064***	0.001
	(0.012)	(0.017)	(0.013)	(0.013)	(0.017)	(0.014)
No NonAfT (dummy)	-0.001	0.015	-0.017	-0.022	-0.007	-0.028
	(0.025)	(0.034)	(0.023)	(0.023)	(0.034)	(0.024)
FTA	0.082***	0.001	0.165***	0.079***	0.001	0.165***
	(0.031)	(0.043)	(0.040)	(0.030)	(0.039)	(0.040)
Observations	67,766	66,814	66,564	61,531	60,720	60,437
Pseudo R2	0.996	0.994	0.995	0.996	0.994	0.995
Donor-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Recipient-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Donor-recipient FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: PPML estimates with bilateral, donor-year, and recipient-year fixed effects. Standard errors clustered by donor-recipient pairs in parentheses. ***, **, and * denote significance at 1%, 5%, and 10% levels, respectively.

The results remain largely consistent with our main findings. Korea shows significant effects on both recipient exports and recipient imports, while Japan continues to display asymmetric effects with significant impact on recipient imports but limited effect on recipient exports. While the USA's AfT effectiveness appears sensitive to the time period, Korea and Japan show consistent patterns across different specifications and time periods, suggesting more stable aid-trade relationships.

5.3 Additional Analysis (Asia, Non-Asia)

To further explore the geographic dimension of AfT effectiveness, we examine results separately for Asian and non-Asian recipients, given both countries' strong regional bias toward Asia. Tables 7 and 8 present the estimation results for Asian and non-Asian samples, respectively.

Table 7. Impact of AfT on bilateral trade flows by donor group (Asia sample)

	AfT variables at time t			AfT variables lagged one time period		
	(1) Bilateral Trade	(2) Recipient Export	(3) Recipient Import	(4) Bilateral Trade	(5) Recipient Export	(6) Recipient Import

$\ln AFT^{EU}$	0.020**	0.015	0.019	0.017	0.015	0.011
	(0.010)	(0.010)	(0.012)	(0.011)	(0.011)	(0.014)
$\ln AFT^{USA}$	0.054**	0.051*	0.048*	0.043*	0.042	0.040
	(0.027)	(0.030)	(0.029)	(0.025)	(0.027)	(0.029)
$\ln AFT^{JPN}$	0.019	0.001	0.066***	0.017	-0.001	0.070***
	(0.013)	(0.017)	(0.014)	(0.012)	(0.014)	(0.014)
$\ln AFT^{KOR}$	0.074**	0.064	0.134***	0.075**	0.054	0.148***
	(0.031)	(0.043)	(0.032)	(0.033)	(0.047)	(0.031)
$\ln AFT^{Other}$	-0.092***	-0.032	-0.134***	-0.090***	-0.037	-0.119***
	(0.034)	(0.040)	(0.042)	(0.034)	(0.041)	(0.043)
Observations	19,183	19,075	19,076	17,621	17,535	17,526
Pseudo R2	0.997	0.996	0.995	0.997	0.997	0.995
Donor-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Recipient-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Donor-recipient FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: PPML estimates with bilateral, donor-year, and recipient-year fixed effects. Standard errors clustered by donor-recipient pairs in parentheses. All estimations include control variables, output unreported. ***, **, and * denote significance at 1%, 5%, and 10% levels, respectively.

Table 8. Impact of AfT on bilateral trade flows by donor group (Non-Asia sample)

	AfT variables at time t			AfT variables lagged one time period		
	(1) Bilateral Trade	(2) Recipient Export	(3) Recipient Import	(4) Bilateral Trade	(5) Recipient Export	(6) Recipient Import
$\ln AFT^{EU}$	0.009	0.011	0.020***	0.008	0.011	0.019***
	(0.010)	(0.015)	(0.006)	(0.010)	(0.016)	(0.006)
$\ln AFT^{USA}$	-0.006	-0.026	0.029**	0.000	-0.020	0.032*
	(0.037)	(0.057)	(0.015)	(0.036)	(0.054)	(0.018)
$\ln AFT^{JPN}$	0.043	0.053	0.018	0.038	0.056	0.013
	(0.029)	(0.046)	(0.032)	(0.029)	(0.043)	(0.030)
$\ln AFT^{KOR}$	-0.020	0.005	-0.028	-0.009	0.013	-0.021
	(0.036)	(0.077)	(0.038)	(0.038)	(0.066)	(0.042)
$\ln AFT^{Other}$	-0.012	-0.040	0.023	-0.011	-0.045	0.029
	(0.016)	(0.028)	(0.014)	(0.018)	(0.037)	(0.018)
Observations	61,367	60,410	60,032	56,544	55,719	55,286
Pseudo R2	0.993	0.988	0.994	0.993	0.989	0.995
Donor-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Recipient-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Donor-recipient FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: PPML estimates with bilateral, donor-year, and recipient-year fixed effects. Standard errors clustered by donor-recipient pairs in parentheses. All estimations include control variables, output unreported. ***, **, and * denote significance at 1%, 5%, and 10% levels, respectively.

Interestingly, when focusing on Asian recipients, Korea displays patterns similar to Japan's asymmetric approach. Korea shows significant effects on recipient imports but no significant effect on recipient exports. Similarly, Japan demonstrates strong impact on recipient imports with no effect on recipient exports. This suggests that in their priority region, both countries may be primarily facilitating their own export expansion rather than building recipient export capabilities.

Outside Asia, both Korea and Japan show limited effectiveness across all measures, with no significant effects on either recipient exports or recipient imports. The EU and USA emerge as

more effective donors for non-Asian recipients, particularly in promoting recipient imports, though their effects remain substantially smaller than Korea and Japan's impact in Asia. Such regional differences indicate that donor effectiveness may be closely linked to regional expertise and geographic proximity.

6. Conclusions

We demonstrated that Korea's Aid for Trade practices exhibit similarities to Japan's approach among major donor countries. The resemblance manifests clearly in aid allocation patterns across financing instruments, geographic distribution, sectoral focus, and recipient income targeting. These similar allocation strategies translate into comparable effectiveness patterns, evident in their shared priority region of Asia.

Our empirical analysis reveals that while AfT shows general effects when pooled across all donors, only Korea and Japan consistently generate significant positive effects on bilateral trade flows among major donors. Korea shows larger coefficient magnitudes than Japan. When examining trade direction, the patterns differ between the two countries and vary by geographic focus. Japan demonstrates asymmetric patterns across all samples, promoting recipient imports while showing limited effects on recipient exports, reflecting the de facto tying arrangements observed in Japan's aid delivery practices (OECD, 2021).

Korea displays different effectiveness patterns depending on sample composition. In the full sample, Korea's AfT demonstrates significant positive effects on both recipient exports and imports, suggesting balanced trade facilitation. However, in Asia where Korea concentrates the majority of its AfT disbursements, Korea displays asymmetric patterns similar to Japan's. The concentration of effectiveness in Asia, combined with limited impact outside the region, indicates that geographic proximity and existing economic relationships play important roles in aid effectiveness. The EU and USA emerge as relatively more effective donors for non-Asian recipients, revealing potential complementarity in donor specialization by region.

Both Korea and Japan demonstrate strong asymmetric patterns in their priority region, achieving larger effects than other donors. Our findings indicate that Korea and Japan have developed intensive aid-trade relationships in Asia, following similar strategic approaches that distinguish them from Western donors. These asymmetric trade effects need not be interpreted as inappropriate use of development assistance. Increased recipient imports from Korea and Japan can contribute to recipient development by facilitating technology transfer, providing access to quality capital goods, and enabling industrial upgrading. The challenge lies in ensuring this translates into broader trade competitiveness rather than dependency.

Whether Korea and Japan's approaches in their priority region crowd out other donors' contributions or complement broader development efforts requires further investigation. If their effectiveness stems primarily from creating exclusive economic relationships, this could constrain recipient countries' options for diversified development partnerships. Our findings indicate Korea's effectiveness patterns reflect the complex relationship between aid allocation and trade outcomes. Korea's growing ODA budget and rising global AfT ranking offer opportunities to refine this approach. Learning from Japan's extensive experience, Korea could potentially address the limitations observed in regional specialization while building on demonstrated strengths in aid effectiveness.

According to our analysis, effective Aid for Trade requires strategic frameworks that balance development objectives with economic considerations. Both countries' success in generating measurable trade impacts indicates that coherent implementation approaches appear crucial, whether through Japan's formal strategic framework or Korea's pragmatic practices without explicit AfT policies. If Korea can identify both the strengths and limitations of Japan's Aid for Trade model, particularly the tendency toward asymmetric trade promotion in priority regions, it may develop more balanced approaches that serve recipient development needs while maintaining aid effectiveness. Effective Aid for Trade lies not in abandoning economic considerations but in ensuring they advance broader development goals that benefit both donors and recipients.

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Data Availability Statement

Data are publicly available from OECD-DAC CRS, WITS, and CEPII gravity datasets. Replication codes are available upon request.

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Annex 1. Sample countries

Donor countries (46): Australia, Austria, Azerbaijan, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Kazakhstan, Korea, Kuwait, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Qatar, Romania, Saudi Arabia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Thailand, Turkey, United Arab Emirates, United Kingdom, United States

Recipient countries (156): Afghanistan, Albania, Algeria, Angola, Anguilla, Antigua and Barbuda, Argentina, Armenia, Azerbaijan, Bahrain, Bangladesh, Barbados, Belarus, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Comoros, Congo, Dem. Rep., Congo, Rep., Cook Islands, Costa Rica, Cote d'Ivoire, Croatia, Cuba, Djibouti, Dominica, Dominican Republic, East Timor, Ecuador, Egypt, Arab Rep., El Salvador, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Fiji, Gabon, Gambia, Georgia, Ghana, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Iran, Islamic Rep., Iraq, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Kyrgyz Republic, Lao PDR, Lebanon, Lesotho, Liberia, Libya, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Mauritania, Mauritius, Mayotte, Mexico, Micronesia, Fed. Sts., Moldova, Mongolia, Montenegro, Montserrat, Morocco, Mozambique, Myanmar, Namibia, Nauru, Nepal, Nicaragua, Niger, Nigeria, Niue, North Macedonia, Occ.Pal.Terr, Oman, Pakistan, Palau,

Panama, Papua New Guinea, Paraguay, Peru, Philippines, Rwanda, Saint Helena, Samoa, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Slovenia, Solomon Islands, Somalia, South Africa, South Sudan, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sudan, Suriname, Syrian Arab Republic, Tajikistan, Tanzania, Thailand, Togo, Tokelau, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Isl., Tuvalu, Uganda, Ukraine, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Wallis and Futura Isl., Yemen, Zambia, Zimbabwe

Note1: Some countries act as both donors and recipients, reflecting their changing role in ODA; Azerbaijan, Croatia, Kazakhstan, Malta, Saudi Arabia, Slovenia, Thailand, and Turkey.
Note2: EU member states in the list (including the UK for the 2002–2019 period):
Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom.
Note3. Following the OECD regional classification, our Asian sample includes 37 recipient countries across Far East Asia (10 countries), Southern and Central Asia (17 countries), and the Middle East (10 countries).

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