

Domestic effects of foreign aid

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Abstract

The authors analyse the link between Dutch development aid and Dutch (sectoral) exports to 130 recipient countries over the period 2000 to 2022. The findings indicate that in the last decades, there is a positive and both statistically and economically significant long run impact of Dutch bilateral aid on goods exports. We find that the average return on aid for Dutch exports in the period since 2000 is approximately 0.75 Euros increase in goods exports for each Euro spent on aid. For the period since 2010, in an average year, aid can be linked to an additional € 2,020 million in goods exports. This additional demand in turn can be linked to about 6,500 jobs in sectors producing final and intermediary outputs, as not only the demand for the exported goods increases but also the demand for intermediary inputs. The positive, significant and sizeable effect of aid on exports also holds when applied to service exports: it translates into an average return on aid for Dutch exports of around 2 Euros increase in goods *and* services exports for each Euro spent on aid in the period since 2005. Moreover, aid can be linked to an additional amount of around € 754 million in services exports, translating into about 4,300 jobs.

Non-technical summary

International development assistance, or "aid," is primarily aimed at addressing urgent needs and fostering long-term development in recipient countries. Accordingly, the effectiveness of aid is typically assessed in terms of outcomes such as economic growth, improved health, and better education.

However, beyond its effects abroad, economic research shows that aid can also generate tangible benefits for donor countries. While some of these benefits arise from explicitly tied aid—where domestic firms or organizations are required to participate in delivering the assistance—positive effects may also occur through less direct channels. For instance, aid can boost donor-country exports by increasing the import capacity of recipient countries as their

economies develop. In addition, goodwill or habit formation may make local buyers more inclined to source goods and services from donor countries.

Using data on Dutch aid since 2000, this study finds that, on average, each additional Euro of Dutch aid is associated with approximately 0.75 Euro in additional Dutch exports when considering goods exports. The monetary return increases to around 2 Euro when adding services exports. The size of this effect varies over time and across sectors. For example, the production of machinery or chemicals shows relatively strong export gains, while exports of basic and fabricated metals appear unaffected. Overall, Dutch aid can be linked to an average of € 2.02 billion in additional goods exports per year since 2010. Additionally, the authors can link aid to € 753.73 million in additional services exports in this period—for example in computer programming, consultancy and related activities as well as information service activities.

Of course, Dutch exports are rarely produced entirely within the Netherlands; they typically involve imported intermediate goods. To better gauge the impact on the domestic economy, the study also estimates the number of Dutch jobs and the amount of domestic value added associated with these aid-linked exports. The findings suggest that the € 2.02 billion in average annual goods exports supported by aid translates into roughly 6,496 jobs and € 755 million in value added within the Netherlands. Moreover, services account for an additional 4,313 jobs and € 408 million in value added.

To estimate the effect of Dutch aid on Dutch exports, the study applies a so-called gravity model of trade—a standard approach in international economics that explains trade flows based on economic size and trade-related frictions. Aid is included in the model as a potential trade-enhancing factor. The analysis uses data covering exports to 130 countries over several decades and controls for various factors such as income levels, exchange rates, and trade agreements. With further statistical means, the study also accounts for potential endogeneity—i.e. the possibility that trade flows may by themselves influence aid.

In sum, the study shows that when the Netherlands spends one Euro on aid, this Euro indirectly leads to an increase in exports from the Netherlands to aid recipient countries. This rise in exports, in turn, is linked to jobs that have been created or maintained. The effectiveness of aid in recipient countries, however, was not examined in this study.

Background

The results presented are part of a study commissioned by *Cordaid*, the *ONE Campaign* and *Oxfam Novib*. The study analyses the effects of official development assistance (ODA / aid) on exports, corresponding job creation and economic growth in the Netherlands. The study follows up on an earlier study commissioned by the Policy and Operations Evaluation Department (IOB) (2014) and related studies by Martínez-Zarzoso et al. (2014) and Martínez-Zarzoso et al. (2016).

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Introduction

One of the main objectives of Dutch development aid is to contribute meaningfully to the progress of developing countries. Its focus extends beyond addressing immediate needs—such as hunger relief, malnutrition eradication, poverty reduction, and disease control—to supporting long-term development through investments in economic and social infrastructure aimed at boosting production and competitiveness.

For policymakers in the Dutch Parliament and Government, it is also important that development aid generates benefits for the Netherlands. Specifically, they hope that aid will enable Dutch producers to expand their exports to recipient countries.

Over the years, Dutch development aid has undergone significant changes. One of the most notable developments has been the reduction in the number of recipient countries. Another key change has been a shift towards specialization in a limited number of sectors, such as aid for infrastructure or for enhancing productive capacity.

In terms of financial commitment, the Netherlands has increased its aid volume over the past four decades, becoming one of the few donor countries to meet—or even exceed—the 0.7% target for the aid-to-GDP ratio. While Dutch aid in the 1970s was largely tied—requiring recipients to purchase Dutch goods and services—this began to change in the early 1980s. Minister De Koning took initial steps to untie aid, and his successor, Schoo (1982–1986), emphasized poverty reduction and economic self-reliance to enhance aid effectiveness.

In the 1990s, the focus remained on improving the impact of aid, which was increasingly viewed as a tool for guiding developing countries along a sustainable development path. A major policy shift occurred in the late 1990s when Minister Herfkens abolished tied aid for the least developed countries, cut back on technical assistance, and introduced broad reforms to Dutch development policy.

In 2010, the Dutch Scientific Council for Government Policy (WRR) published a comprehensive report on Dutch development cooperation. Although the report generated significant debate in academic and professional circles, it was well received in the political sphere. It identified a shift in the national discourse on aid and recommended that the Netherlands concentrate on sectors where it holds a comparative advantage.

That same year, a new minority coalition government, comprising the Liberal Party and Christian Democrats and supported by the right-wing Party for Freedom, implemented substantial budget cuts. The development cooperation budget was reduced from 0.8% to 0.7% of GDP. However, the actual negative impact was greater, as additional expenditures were to be covered from this same budget. The Netherlands also decided to phase out general budget support and reduce the number of partner countries. Several embassies were closed as part of the austerity measures. In alignment with the WRR report, State Secretary Ben Knapen redirected aid from social sectors to economic sectors, emphasizing the role of Dutch businesses in development cooperation. The coalition government aimed to ensure that Dutch enterprises would benefit more directly from aid programs, granting them a stronger role in implementing development projects.

The most recent strategy of the Dutch government in development aid, as outlined in the Policy Memorandum on Development Cooperation¹ presented by Minister for Foreign Trade and Development, Reinette Klever, in February 2025, marks a significant shift towards aligning aid more closely with national interests. This approach emphasizes economic, security, and migration concerns over traditional development goals. Minister Klever stated that all the funded programs must contribute directly to the Dutch interests, that is, promoting international trade, enhancing security, and reducing migration (see Appendix 3 for lists of strategic recipients over time).

In this report we perform an empirical study on how aid affects donors' exports from 2000 onwards. It complements the previous study done by the Ministry of Foreign Affairs (IOB, 2014) in cooperation with a team of researchers from the Development Economics Chair at the University of Göttingen (Germany) in 2014, covering the period from 1978 to 2009.

The team at the University of Göttingen has examined in several published papers the impact of bilateral aid on trade, assessing benefits for both donor (Martínez-Zarzoso et al., 2009, 2013, (2015), 2017) and recipient countries (Nowak-Lehmann et al., 2013). They have developed sophisticated econometric models to analyse these relationships. Their findings for donors' exports indicated a significant effect: In the case of Germany, for every euro of German development aid, there was an estimated return of € 0.83 in increased exports (period 1973-2011). Overall, bilateral aid from Germany was estimated to have generated between € 24 and € 27 billion in additional exports (Martínez-Zarzoso et al., 2016). This trade boost was also

¹ Policy letter on international development (21/02/2025). Accessed on the 27th of May 2025 at: <https://www.government.nl/topics/development/news/2025/02/20/minister-reinette-klever-dutch-interests-at-the-heart-of-development-policy?>

linked to job creation, contributing to at least 216,000 jobs (based on 2009 figures). For the Dutch case, each dollar of aid disbursed between 1964 and 1999 generated an estimated return of \$ 0.26 to \$ 0.40 (Martínez-Zarzoso et al., 2017a). However, this effect weakened significantly for the 2000–2011 period, when fewer countries—only 33—maintained substantial bilateral aid ties with the Netherlands. For all donors on average, according to Martínez-Zarzoso et al. (2014) the increase in the amount of donors' exports flowing from donors' aid was around \$ 0.50 for every aid dollar spent in the short run.

Methods & Data

In order to study the impact of foreign aid on exports, we will focus on net ODA and within this category on two types of aid, namely bilateral ODA disbursements from the Netherlands to a recipient country j (oda) and the sum of bilateral aid given by all donors (except the Netherlands) to j ($odadac$). We study the aid-export relationship within the framework of the gravity model, the established workhorse model in trade economics². Using a one-sided gravity model of trade, we are able to evaluate and quantify the impact of aid on exports to countries j at time t controlling for a variety of factors related to trade frictions, the business cycle, level of development, bilateral exchange rates, etc. In our model set-up, we add bilateral aid from the Netherlands as a “trade facilitator” factor, aid from other DAC countries as a “trade-deterrent” factor. We estimate our model accounting for a cointegrating long-run relationship using the leads and lags approach that is also known as the panel dynamic ordinary least squares procedure (PDOLS)³, also accounting for endogeneity (e.g., increasing aid due to increasing exports).

$$\begin{aligned}
 LnExports_{jkt} = & (\chi_t) + \alpha_j + \beta_1 LnIncome_{jt} + \beta_2 LnIncomeNLD_t + \beta_3 LnODA_{jt} \\
 & + \beta_4 LnODADAC + \beta_5 LnExchangeRate_{jt} + \beta_6 FTA_Dummy_{jt} \\
 & + \sum_{p=-1}^{p=+1} \theta_{1p} \Delta LnIncome_{jt-p} + \dots + \sum_{p=-1}^{p=+1} \theta_{lp} \Delta LnExchangeRate_{jkt-p} \\
 & + \eta_{jkt}
 \end{aligned} \tag{1}$$

²The gravity model was mainly established and refined by Anderson (1979), Bergstrand (1985, and 1989), Helpman (1987), Deardorff (1998), Feenstra et al. (2001), Anderson and van Wincoop 2003, Feenstra (2004) and Haveman and Hummels (2004).

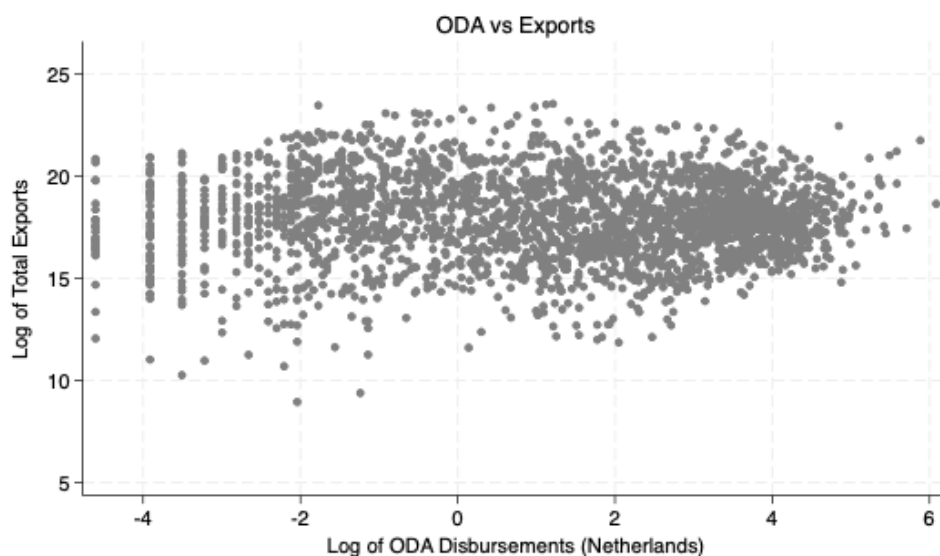
³ PDOLS has been proposed by Kao and Chiang (2000) and Mark and Sul (2003).

where θ_{1p} and θ_{lp} are the coefficients of the lead and lag differences that account for endogeneity. j is recipient, p stands for the number of lags or leads, and t is time. Δ stands for the first difference of the variables analysed.

As we find autocorrelation of the disturbances, we control for autocorrelation in the errors by integrating a panel dynamic feasible generalised least squares (FGLS) procedure into the PDOLS procedure. This involves the following steps: After the model has been estimated via PDOLS (the first step), the residuals are saved and the autocorrelation coefficient ρ of the residuals is estimated using $\eta_{jt} = \rho\eta_{jt-1} + v_{jt}$. A new error term is generated $\eta_{jt}^* = \eta_{jt} - \hat{\rho}\eta_{jt-1}$ which has all desirable properties. The estimated $\hat{\rho}$ is then used to transform all right and left-hand side variables into soft or quasi first differences. In the second step, equation (1) is re-estimated by replacing the original variables with the soft differences.

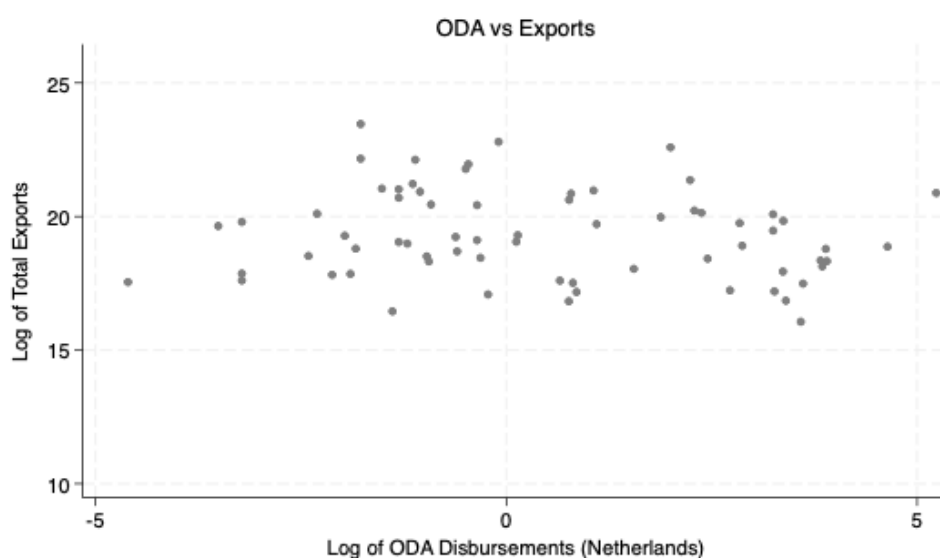
We obtain data on development aid from the OECD Development Database on Aid, using ODA disbursements in current USD. Data on trade in goods is obtained from the UN COMTRADE database using SITC Rev. 2 notation to allow for easy comparison with earlier studies. Data on trade in services is obtained from the OECD-WTO Balanced Trade in Services database (BaTIS). Bilateral exchange rates are obtained from the IMF statistics, data on income and population from the World Development Indicators database provided by the World Bank. Distances and trade influencing factors such as being a former colony are taken from the CEPII database. The FTA variable is based on de Sousa (2012) and has been updated to the current year. For input-output analysis, we use the World-Input-Output Tables (WIOD) as presented by Timmer et al. (2015) and updated by Timmer et al. (2016). Please refer to Appendix 4 for concordance between the trade and the industrial classifications used to link the datasets. All data was accessed between April 11 and May 30, 2025.

Figure 1: Correlation between Official Development Aid and Dutch' exports (2000-2022)



An intuitive entry to the data provide Figure 1 and Figure 2. The respective scatter plots show correlations between Dutch ODA disbursements and exports in goods over time and across destinations (for 2022). In both cases, the correlation is positive, indicating that higher amounts of aid disbursed is linked to higher exports, as expected.

Figure 2: Cross-country correlation between Official Development Aid and Dutch' exports in 2022



Since the shown correlation is not necessarily indicative of a causal relation between aid and exports, we proceed in the next section with the empirical analysis and the estimation of econometric models that will allow us to infer whether more development aid disbursed is leading to higher Dutch exports to recipient countries (also see Appendix 1 and Appendix 2 for similar graphs for all donors and recipients).

Overall results: goods exports

As reported in Table 1, the coefficient for the target variable, Dutch bilateral aid is positive and statistically significant and shows that (for the period since 2000) a **10 percent increase in bilateral aid leads to an increase in Dutch exports of around 0.3 percent** (column 3). A value in line with results from earlier studies. The estimated coefficient for development aid is positive and statistically significant in all the three selected periods.

Table 1: Estimation results for total exports in different periods (Euros)

	(1) 2000-2010	(2) 2010-2022	(3) 2000-
Explanatory Variables:			
log of <i>oda</i>	0.0489*** [0.0164]	0.0598*** [0.0148]	0.0328*** [0.0122]
log of <i>odadac</i>	-0.0146 [0.0320]	-0.0718** [0.0299]	-0.0168 [0.0252]
log donor GDP	1.084*** [0.215]	0.422 [0.280]	0.712*** [0.120]
log recipient GDP	0.794*** [0.0152]	0.798*** [0.0172]	0.778*** [0.0168]
log exchange rate	-0.0115 [0.0117]	-0.0900*** [0.0120]	-0.0633*** [0.0119]
trade agreement dummy	1.085*** [0.0627]	0.513*** [0.0596]	0.484*** [0.0588]
Observations	793	561	1,364
Number of recipients	98	71	106
Leads and lags of explanatory vars in first differences	yes	yes	yes
Number of years	10	12	22

Notes: Coefficients of leads and lags of explanatory vars in first differences not shown, to save space. Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1. For countries included, see Appendix 9.

Using the results from Model (1) as reported in Table 1, column (3), we find that, in static terms, the **average return on aid for Dutch exports in the period since 2000 is approximately a € 0.74 increase in the value of exports for each euro spent**. This average is calculated as:

$$\beta_{LBAID} = \frac{\partial X}{\partial BAID} * \frac{BAIDG}{X} \Rightarrow \frac{\partial X}{\partial BAID} = \beta_{BAIDG} * \frac{X}{BAID} = 0.033 * \frac{355.260}{15.713} = 0.74 \quad (2)$$

The average return more than doubles in the period from 2011 onwards (estimations in column 2) and it is around € 2.78 more exports for each euro spent. Equivalent results calculated for an additional period and in USD are shown in Appendix 5.

Table 2: Static average return on aid by period (Euros)

	(1) 2000-2010	(2) 2011-22	(3) 2000-
Return on aid (for each euro spent)	0.705	2.778	0.740

Note: Values computed using equation (2).

The average return also differs by income level of the recipient country: while aid to low-income-countries (LIC) as defined by the World Bank (here based on a country's 2022 income) shows a large effect on exports before 2010, this effect drops to insignificance after 2010. The effect of aid allocated to non-low-income-countries (NLIC) remains stable across both periods.

Table 3: Results for country groups by development level: Before and after 2010

	(1) LIC2000- 2010	(2) NLIC2000- 2010	(3) LIC2011-	(4) NLIC2011-
Explanatory Variables:				
log of <i>oda</i>	0.0810** [0.0379]	0.0420*** [0.0129]	0.0569 [0.0351]	0.0460*** [0.0144]
log of <i>odadac</i>	-0.301*** [0.109]	-0.00288 [0.0259]	-0.139 [0.149]	0.00578 [0.0334]
log donor GDP	1.353*** [0.301]	0.788*** [0.130]	0.600 [0.797]	0.402 [0.300]
log recipient GDP	0.765*** [0.0728]	0.763*** [0.0188]	0.834*** [0.0935]	0.751*** [0.0172]
log exchange rate	-0.104*** [0.0237]	-0.0507*** [0.0127]	-0.110*** [0.0316]	-0.0666*** [0.0115]
trade agreement dummy		0.459*** [0.0594]		0.524*** [0.0556]
Observations	297	1,067	131	499
Number of recipients	23	83	17	61
Number of years	22	22	13	13

Notes: Coefficients of leads and lags of explanatory vars in first differences not shown to save space. Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1. LIC denotes low-income countries and NLIC the rest of aid recipients.

Sectoral results & effect on jobs, growth

To gain a better understanding of the effect on a sectoral basis, we repeat the empirical strategy based on sectoral trade data. The 99-SITC sectors are merged into fifteen sectors according to the International Standard Industrial classification (ISIC) to allow for better comparison with previous studies. Following up on Policy and Operations Evaluation Department (IOB) (2014), we focus on the time period since 2010. We find that the facilitating effect from aid on trade is statistically and economically significant in ten out of fifteen sectors, indicating that the effects are more widespread than in the period covered in earlier studies (up to 2009). Exports in agriculture, food, rubber products and machinery can now also be linked to aid-induced increases, while not having shown a statistically significant relation in prior studies. Exports in textiles, wood and other manufacturing and recycling do not show a statistically significant link over the period under analysis.

Using input-output tables, we can estimate the number of jobs added as a consequence to exports added. Given that an increase in final demand in a certain sector requires production of intermediates whose production in turn also requires intermediates (and so forth), the job multiplier accounts for the inputs necessary from across all other sectors in the Netherlands. When the elasticities of exports with respect to aid were not statistically significant, no export and employment effects were calculated. Table 4 shows that, **in the period from 2010 to 2022, aid can be linked to an average additional export value (gross) of about € 2,020 million—translating into an average number of 6,496 additional jobs.**

To estimate how the aid-induced additional exports can affect the overall economic development of the Netherlands (as measured by the GDP), input-output analysis again allows for an indication. It allows to trace how export demand flows through the economy, extracting the value-added content of exports—that is, the portion of export value that is created domestically, excluding imported inputs. This procedure includes the knock-on effects: it accounts not only for the direct output needed to fulfil export demand, but also for all the intermediate goods required across supply chains—and the intermediates needed to produce those, etc. This ripple effect is captured through a production multiplier, allowing for an indicative estimate of how exports translate into GDP growth. **In the period from 2010-2022, aid can be linked to an average amount of € 755.19 million contribution to the Dutch GDP per year; 0.09% of the period's average GDP.**

Table 4: Estimation results for sectoral exports for the period 2010-2022. Values as period averages.

<i>SECTORS:</i>	Aid elasticities		Exports	ODA	Added Exports	Job Multipl.	Jobs created	Value Added
	(beta coefficients)	significance	(billions of EUR)	(million EUR)	(million EUR)	(per 1 million of output)	(number of jobs)	(million EUR)
Agriculture	0.032	*	2.32		73.54	4.42	325	44.30
Food	0.110	***	2.89		317.9	2.96	940	124.81
Textiles	0.052		0.59		/	/	/	/
Leather & footwear	0.196	***	0.07		13.72	5.28	72	5.82
Wood	0.090		0.04		/	/	/	/
Pulp, paper & printing	0.061	***	0.31		18.972	3.99	76	8.41
Coke & petroleum	0.041		7.41		/	/	/	/
Chemicals	0.095	***	5.04		479.81	2.04	979	143.42
Rubber & plastics	0.138	***	1.25		172.5	4.56	786	73.62
Non-metallic minerals	0.090	**	0.09		8.06	4.82	39	4.13
Basic & fabricated metal	0.047		2.32		/	/	/	/
Machinery	0.089	***	5.96		529.84	4.14	2,191	236.40
Electrical equipment	0.067	***	2.80		187.6	2.78	521	40.26
Transport equipment	0.107	***	2.04		218.28	2.59	566	74.01
Manufct. & recycling	-0.023		2.24		/	/	/	/
Total			35.37	750.25	2,020.23		6,496	755.19

Note: Coefficients of leads and lags of explanatory vars in first differences not shown, to save space. Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1.

Outlook: trade in services

So far, the analysis concentrated on physical exports—goods and merchandise. In developed economies such as the Netherlands, trade in services like transport, finance, and digital infrastructure becomes ever more important. In today's global economy, services account for over a quarter of international trade.

Unfortunately, the analysis of aid's impact on trade in services is less straightforward than the analysis of physical goods. Unlike goods, services are intangible, harder to track at borders, and often supplied remotely or via commercial presence, making them less visible in conventional trade statistics. Data collection is fragmented, with wide asymmetries between what countries report and what their partners mirror—requiring extensive estimation, interpolation, and balancing methods. We make use of the work by the OECD (2025) and include data from its Balanced Trade in Services Database (BaTIS) into our analysis. This dataset provides data on bilateral trade in services that already balances differences between export and import reporting. Also, it cleans the dataset of negative entries (often a side-effect of deducting trade in services from a country's balance of payments) and fills gaps in the dataset using econometric estimation techniques. Please note: as we map different data sources on trade in goods, trade in services and inter-economy-connection (input-output tables), we lose accuracy. Also, we cannot rule out some degree of double counting between the different data sources. Hence, the link between aid and trade in services is less robust and merits further analysis.

We proceed with the same methodology as outlined before, now applied to a dataset comprising both trade in goods and trade in services. The results including trade in services are reported in Table 5. The period under analysis varies slightly with respect to Table 1 due to data availability. The coefficient for Dutch bilateral aid is positive, statistically significant and shows that (for the period since 2005) a **10 percent increase in bilateral aid leads to an increase in Dutch exports (of goods *and* services) of around 0.4 percent. This indicates that the effect established for exports in goods does also hold when taking services into account.** The estimated coefficient for development aid is positive and statistically significant in all periods selected.

Table 5: Estimation results for total exports in different periods when considering services (Euros)

	(1) 2005-2010	(2) 2010-	(3) 2005-
Explanatory Variables:			
log of <i>oda</i>	0.0423** [0.0200]	0.0515*** [0.0134]	0.0404*** [0.0115]
log of <i>odadac</i>	-0.00145 [0.0430]	-0.0969*** [0.0269]	-0.0743*** [0.0266]
log donor GDP	-14.47*** [1.772]	0.343 [0.249]	-0.252 [0.157]
log recipient GDP	0.784*** [0.0196]	0.807*** [0.0154]	0.785*** [0.0156]
log exchange rate	-0.0200 [0.0130]	-0.0792*** [0.0113]	-0.0642*** [0.0114]
trade agreement dummy	0.742*** [0.0720]	0.421*** [0.0559]	0.367*** [0.0540]
Observations	280	590	881
Number of recipients	74	74	90
Leads and lags of explanatory vars in first differences	yes	yes	yes
Number of years	4	12	16

Notes: Coefficients of leads and lags of explanatory vars in first differences not shown, to save space. Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1. For countries included, see Appendix 9.

Using the results from Model (1) as reported in Table 5, column (3), we find that, **in static terms, the average return on aid for Dutch exports in the period since 2005 is approximately a € 2.23 increase in the value of exports (in goods *and* services) for each euro spent.** This average is calculated as:

$$\beta_{LBAID} = \frac{\partial X}{\partial BAID} * \frac{BAIDG}{X} \Rightarrow \frac{\partial X}{\partial BAID} = \beta_{BAIDG} * \frac{X}{BAID} = 0.0404 * \frac{649.909}{11.796} = 2.23 \quad (3)$$

The average return peaks in the period since 2010 (estimations in column 2) with around € 3.99 euros of exports for each euro spent on aid.

Table 6: Static average return on aid by period including services (Euros)

	(1) 2005-2010	(2) 2010-	(3) 2005-
Return on aid (for each euro spent)	1.23	3.99	2.23

Note: Values computed using equation (3).

Sectoral results & effect on jobs, growth–services perspective

To have a full picture of the economic effects of development aid, we follow the empirical strategy outlined earlier to break the effects down to the sectoral level. Service-sectors are aggregated on a two- and three-digit level following EBOPS 2010 classification. Please again refer to Appendix 4 for concordance between the trade and the industrial classifications used to link the two datasets.

We find that the facilitating effect from aid on trade is statistically and economically significant in 13 out of 20 sectors (See Appendix 8 for the results on all service sectors), indicating that the effects are widespread and vary in magnitude across sectors. Table 7 shows that, **in the period from 2010 to 2022, aid can be linked to an average additional export value (gross) of about € 754 million in services alone—translating into an average number of 4,313 additional jobs.** Note: When the elasticities of service exports with respect to aid were not statistically significant, no export and employment effects were calculated. Also, payments for intellectual property use and other business services cannot clearly be matched with input-output-tables; their effect on jobs and value added is hence excluded from the analysis.

Table 7: Estimation results for sectoral exports for the period 2010-2022, including services. Values as period averages.

SECTORS:	Aid elasticities		Exports	ODA	Added Exports	Job Multipl.	Jobs created	Value Added
	(beta coefficients)	significance	(billions of EUR)	(million EUR)	(million EUR)	(jobs per 1 million of output)	(number of jobs)	(million EUR)
Mainten. & repair	0.149	***	0.38		56.77	7.4	420	33.43
Air transport	0.044	*	1.15		50.26	5.2	261	19.47
Post & courier	0.084	*	0.05		3.76	16.16	61	2.73
Construct.	0.190	***	0.53		101.46	6.78	688	56.91
Insurance	-0.064	**	0.12		-7.42	7.47	-55	-5.57
Finance	-0.093	***	0.31		-28.67	4.34	-124	-26.09
Intellectual Property	-0.125	***	3.49		-436.25	<i>no data</i>		
Telecommunications	0.131	***	0.32		42.05	3.53	148	28.98
Computer services	0.103	***	1.33		136.99	8.12	1,112	114.69
Consulting services	0.227	***	1.06		240.62	7.12	1,713	178.68
Other business services	0.135	***	4.36		588.60	<i>no data</i>		
Personal & Recreation	0.085	*	0.07		5.58	16.02	89	4.91
Total				750.25	753.73		4,313	408.14

Note: Coefficients of leads and lags of explanatory vars in first differences not shown, to save space. Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1.

To estimate how the aid-induced additional exports can affect the overall economic development of the Netherlands (as measured by the GDP), we again use the Dutch value added of service exports as an indication. **In the period from 2010-2022, aid-induced service exports can be linked to an average amount of € 408.14 million contribution to the Dutch GDP per year; 0.05% of the period's average GDP.**

Robustness of the Results

Two robustness checks are presented in the Appendix. First, Appendix 6 presents results for the different groups of priority partner countries that were considered over time for the different Minister of Cooperation. Model (1) has been estimated for the whole period and not only for the period in which the given Ministry was in power, because the interest is on the average return for a given group of recipients. The results indicate that aid was effectively increasing Dutch exports for the groups of countries targeted by Minister Van Ardenne (2002-2007) and Ploumen (2012-2017).

Second, Appendix 7 presents the results for all donors comparing two different methodologies: a linear gravity model with high-dimensional fixed effects versus non-linear Poisson Pseudo-Maximum Likelihood (PPML) also with high dimensional fixed effects. It further considers different types of development aid (ODA; ODA + multilateral aid bilaterally imputed; these two items excluding food and humanitarian aid).

The linear gravity model with origin-time, destination-time and origin-destination fixed effects is used to control for all factors that are country-time specific, such as GDP, whereas the origin-destination fixed effects are used to absorb all the variability coming from factors such as distance, common currency, colonial relationship that are time invariant. The PPML-estimator is a method widely used in recent academic papers to estimate gravity models of trade in a multi-country framework (all donors and all recipients in the case of aid). Its use is due to its ability to handle zero values in the dependent variable and address heteroskedasticity issues. It is a special case of the Generalized Linear Model framework.

The results from the two alternative model specifications indicate that the average effect on ODA on donors' exports is positive and significant with effects that range between 0.1-0.4% increase in exports for each 10% increase in ODA, similar to the effect we found for the Netherlands.

Similarly, the results remain significant and higher in magnitude, when including multilateral aid bilaterally imputed and when excluding components of ODA that are not expected to generate returns in terms of higher donors' exports, such as humanitarian and food aid. **Therefore, our previous results for the Netherlands are consistent with average results obtained for all donors with more sophisticated econometric models.**

Conclusion

Taken together, the study shows that when the Netherlands spends one Euro on aid, this Euro indirectly leads to an increase in exports from the Netherlands to aid recipient countries. This relation holds significantly and sizeably for both exports in goods and services. This rise in exports, in turn, is linked to jobs that have been created or maintained.

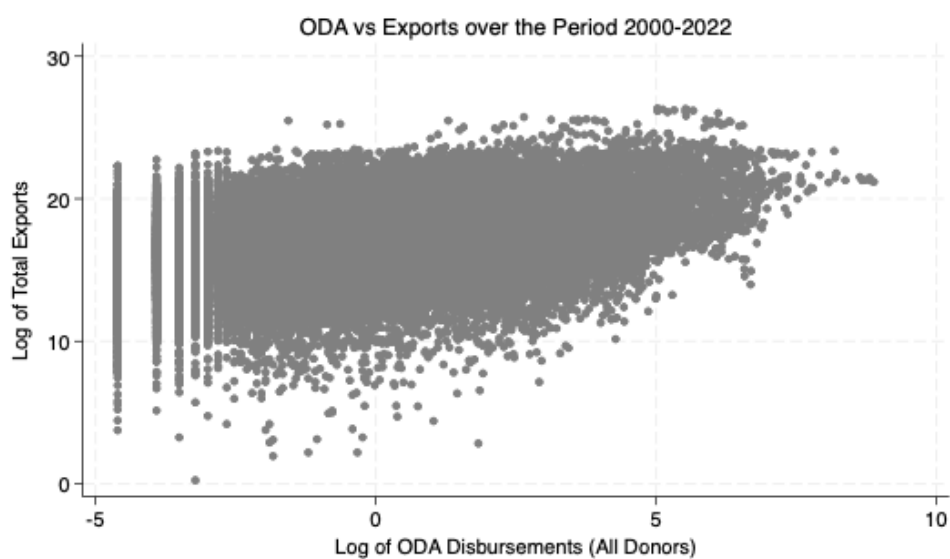
The effectiveness of aid in recipient countries, however, was not examined in this study. Also, the effect on services exports deserves further analysis given data constraints.

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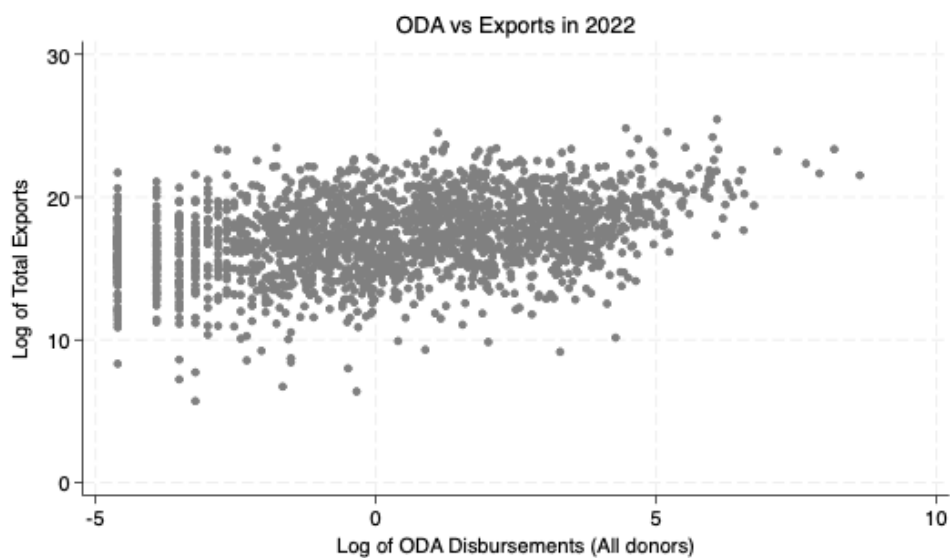
Appendix | Figures

Appendix 1: Correlation between Official Development Aid and Donors' exports (2000-2022)



Note: All DAC donors included. Authors' elaboration with OECD data.

Appendix 2: Correlation between Official Development Aid and Donors' exports in 2022



Note: All DAC donors included. Authors' elaboration with OECD data.

Appendix | Tables

Appendix 3: List of strategic partner countries since 1998

Period 1 (1998-2002)	Bangladesh, Bolivia, Burkina Faso, Eritrea, Ethiopia, Ghana, India, Yemen, Macedonia, Mali, Mozambique, Nicaragua, Sri Lanka, Tanzania, Uganda, Vietnam and Zambia; Egypt, Indonesia, South Africa and the Palestinian Territories. GHP countries: Albania, Armenia, Bosnia and Herzegovina, Cambodia, Colombia, El Salvador, Georgia, Guatemala, Guinea-Bissau, Honduras, Kenya, Moldavia, Namibia, Nepal and Rwanda. Environmental countries: Brazil, China, Ecuador, the Philippines, Cape Verde, Mongolia, Peru and Senegal. Business sector: Cuba, Côte d'Ivoire, Jordan, Nigeria and Thailand.
Period 2 (2002-2007)	Afghanistan, Albania, Armenia, Bangladesh, Benin, Bolivia, Bosnia and Herzegovina, Burkina Faso, Colombia, Egypt, Eritrea, Ethiopia, Georgia, Ghana, Guatemala, Indonesia, Yemen, Cape Verde, Kenya, Macedonia, Mali, Moldavia, Mongolia, Mozambique, Nicaragua, Pakistan, the Palestinian Territories, Rwanda, Senegal, Sri Lanka, Suriname, Tanzania, Uganda, Vietnam, Zambia and South Africa.
Period 3 (2007-2010)	MDG countries: Benin, Ethiopia, Bangladesh, Bolivia, Burkina Faso, Ghana, Yemen, Kenya, Mali, Moldavia, Mongolia, Mozambique, Nicaragua, Rwanda, Senegal, Tanzania, Uganda and Zambia; Fragile states: Afghanistan, Burundi, Colombia, Congo (DCR), Guatemala, Kosovo, Pakistan, the Palestinian Territories and Sudan; Emerging countries: Egypt, Georgia, Vietnam and Suriname
Period 4 (2010-2012)	MDG countries: Benin, Ethiopia, Mali, Mozambique, Uganda, Rwanda Fragile States: Afghanistan, Burundi, Yemen, the Palestinian Territories and Sudan Emerging countries: Bangladesh, Ghana, Indonesia, Kenya
Period 5 (2012-2017)	Minister for Foreign Trade and Development Cooperation (<i>new combined role</i>) Dutch Good Growth Fund (DGGF: € 250 million a year): Afghanistan, Albania, Algeria, Angola, Armenia, Bangladesh, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cape Verde, Colombia, Djibouti, DRC, Egypt, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Guatemala, India, Indonesia, Jordan, Kenya, Kosovo, Laos, Libya, Macedonia, Madagascar, Maldives, Malawi, Mali, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Palestinian Territories, Peru, Philippines, Rwanda, Sao Tomé, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sri Lanka, Suriname, Tanzania, Thailand, Tunisia, Uganda, Vietnam, Yemen, Zambia, Zimbabwe.
Period 6 (2017-2021)	MENA: Burkina Faso, Niger, Mali; East Africa: Ethiopia, Uganda and Sudan; Asia: Bangladesh and Afghanistan; Phasing out of traditional partners: Ghana, Indonesia and Vietnam. Thematic focus areas: Migration Management: Addressing root causes of migration through development initiatives. Women's Rights and Gender Equality: Promoting gender equality and empowering women. Climate Change

and Water Management: Collaborating on climate resilience and sustainable water use. **Private Sector Development:** Encouraging entrepreneurship and economic growth. **Education and Employment:** Enhancing access to education and job opportunities, particularly for youth and refugees

de Bruijn(interim)	de Bruijn's tenure was marked by a continuation of existing policies, with an emphasis on responsible business conduct and sustainability. Schreinemacher introduced the policy document “ Doing what the Netherlands is good at ”, which outlined a strategic focus on combining trade and development efforts.
(2021-2022) /Schreinemacher	
(2022-2023)	Geographic Focus: Concentrating efforts on a select number of countries where aid and trade could be effectively combined. Thematic Priorities: Emphasizing areas such as water management, agriculture, sexual and reproductive health and rights (SRHR), and climate action. Private Sector Engagement: Encouraging Dutch businesses to invest in developing countries, fostering mutual economic growth. While the policy emphasized a focused approach, specific lists of priority countries were not detailed.

Source: Authors’ elaboration from governmental reports.

Appendix 4: Concordance between trade nomenclatures

SITC Rev. 2	WIOD 2014 release (ISIC Rev. 3.1)	WIOD 2016 release (ISIC Rev. 4)
00+03+04+05+08+22+29	AtB Agriculture, Hunting, Forestry and Fishing	A01-A03 Crop and animal production, hunting and related service activities, Forestry and logging, Fishing and aquaculture
n.a.	C Mining and Quarrying	B Mining and quarrying
01+02+06+07+09+11+12+41+42+43	15t16 Food, Beverages and Tobacco	C10-C12 Manufacture of food products, beverages and tobacco products
26+65+84	17t18 Textiles and Textile Products	C13-C15 Manufacture of textiles, wearing apparel and leather products
21+61+85	19 Leather and Footwear	C13-C15 Manufacture of textiles, wearing apparel and leather products
24+63	20 Wood and Products of Wood and Cork	C16 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
25+64	21t22 Pulp, Paper, Printing and Publishing	C17-C18 Manufacture of paper and paper products, Printing and reproduction of recorded media
32+33+34+35	23 Coke, Refined Petroleum and Nuclear Fuel	C19 Manufacture of coke and refined petroleum products
27+51+52+53+54+55+56+59	24 Chemicals and Chemical Products	C20-21 Manufacture of chemicals and chemical products, Manufacture of basic pharmaceutical products and pharmaceutical preparations
23+57+58	25 Rubber and Plastics	C22 Manufacture of rubber and plastic products
66	26 Other Non-Metallic Mineral	C23 Manufacture of other non-metallic mineral products
28+67+68+69	27t28 Basic Metals and Fabricated Metal	C24-C25 Manufacture of basic metals, Manufacture of fabricated metal products, except machinery and equipment
71+72+73+74+75+76	29 Machinery, Nec	C28 Manufacture of machinery and equipment n.e.c.
77+87+88	30t33 Electrical and Optical Equipment	C26-C27 Manufacture of computer, electronic and optical products, Manufacture of electrical equipment
78+79	34t35 Transport Equipment	C29-C30 Manufacture of motor vehicles, trailers and semi-trailers, Manufacture of other transport equipment
81+82+89+93	36t37 Manufacturing, Nec; Recycling	C31_C32 Manufacture of furniture; other manufacturing

BaTIS / EBOPS2010		WIOD 2016 release (ctd.)	
SA	Manufacturing services on physical inputs owned by others	n.a.	n.a.
SB	Maintenance and repair services n.i.e.	C33	Repair and installation of machinery and equipment
SC1	Sea transport	H50	Water transport
SC2	Air transport	H51	Air Transport
SC3	Other modes of transport	H52	Warehousing and support activities for transportation
SC4	Postal and courier services	H53	Postal and courier activities
SD	Travel (aggregate)	I	Accommodation and food service activities
SE	Construction	F	Construction
SF	Insurance & pension services	K65	Insurance, reinsurance and pension funding, except compulsory social security
SG	Financial services	K64	Financial service activities, except insurance and pension funding
SH	Charges for the use of intellectual property n.i.e.	n.a.	n.a.
SI1	Telecommunications services	J61	Telecommunications
SI2	Computer services	J62_J63	Computer programming, consultancy and related activities; information service activities
SI3	Information services	J58	Publishing activities
SJ1	Research & development services	M72	Scientific research and development
SJ2	Professional & management consulting services	M69_M70	Legal and accounting activities; activities of head offices; management consultancy activities
SJ3	Technical, trade-related & other business services	n.a.	n.a.
SK1	Audiovisual & related services	J59_J60	Motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities
SK2	Personal, cultural & recreational (other)	Q	Human health and social work activities
SL	Government goods & services n.i.e.	U	Public administration and defence; compulsory social security

Source: Authors elaboration. SITC=Standard International Trade Classification; ISIC=International Standard Industrial Classification; EBOPS = Extended Balance of Payments Services Classification

Appendix 5: Estimation results for total exports in previous periods (USD)

	(1) 1989-1999	(2) 2000-2010	(3) 2011-22	(4) 2000-
Explanatory Var.				
log of <i>oda</i>	0.0549*** [0.0200]	0.0524*** [0.0172]	0.0568*** [0.0149]	0.0342*** [0.0115]
log of <i>odadac</i>	0.0671** [0.0317]	-0.0332 [0.0339]	-0.0707** [0.0303]	-0.0151 [0.0245]
log donor GDP	0.0968 [0.137]	0.565*** [0.0908]	0.775*** [0.256]	0.629*** [0.0789]
log recip. GDP	0.729*** [0.0193]	0.788*** [0.0172]	0.792*** [0.0171]	0.776*** [0.0147]
log exch. rate	-0.0356*** [0.00994]	-0.0258** [0.0130]	-0.0873*** [0.0122]	-0.0638*** [0.0107]
trade agreement	0.849*** [0.218]	0.907*** [0.0731]	0.529*** [0.0602]	0.539*** [0.0542]
Observations	939	880	559	1,448
N of recipients	112	100	71	107
N of years	11	11	12	23

Notes: Coefficients of leads and lags of explanatory vars in first differences not shown to save space. Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1.

Appendix 6: Results for country groups by list of strategic countries

	(1) (1998-2002)	(2) (2002-2007)	(3) (2007-2010)	(4) (2012-2017)
Explanatory Var:				
log of <i>oda</i>	0.0270 [0.0178]	0.0399* [0.0214]	-0.00163 [0.0282]	0.0356** [0.0158]
log of <i>odadac</i>	0.0708* [0.0422]	-0.149*** [0.0514]	-0.248*** [0.0608]	-0.0742* [0.0414]
log donor GDP	0.779*** [0.187]	0.989*** [0.204]	1.196*** [0.230]	0.731*** [0.162]
log recip. GDP	0.751*** [0.0198]	0.770*** [0.0332]	0.791*** [0.0381]	0.814*** [0.0223]
log exch. rate	-0.0750*** [0.0147]	-0.0946*** [0.0162]	-0.0655*** [0.0184]	-0.122*** [0.0139]
trade agreement	0.478*** [0.0763]	0.397*** [0.0881]	0.171 [0.128]	0.511*** [0.0724]
Observations	713	599	499	868
N of recipients	46	35	28	59
N of years	21	21	21	21

Notes: Leads and lags of explanatory vars in first differences Standard errors in Brackets. *** p<0.01, ** p<0.05, * p<0.1. See Table A1 in the Appendix for the list of countries in each column.

Appendix 7: Results for all donors: Different types of Aid

SPECIFICATION	Dependent Variable:	Linear logX (b/se)	PPML Export Value (b/se)	N	R-sq
Without imputed multilateral aid	LogODA	0.025*** (0.004)	0.010* (0.005)	68543	0.942
	RTA	0.098*** (0.032)	0.227*** (0.038)		
Including imputed multilateral aid	LogODA	0.046*** (0.007)	0.028*** (0.007)	71046	0.943
	RTA	0.089*** (0.031)	0.163*** (0.046)		
Only total net-food & humanitarian aid	logODA	0.025*** (0.004)	0.011** (0.005)	68468	0.942
	RTA	0.087*** (0.032)	0.222*** (0.038)		
Total bil+multi - food & humanitarian aid	logODA	0.043*** (0.006)	0.028*** (0.008)	70661	0.943
	RTA	0.092*** (0.032)	0.182*** (0.044)		

Notes: All donors and recipients included in the analysis. *** p<0.01, ** p<0.05, * p<0.1. Estimation method: gravity model with high-dimensional FE. The dependent variable in the natural log of donor's exports in the linear specification and the export value in the Poisson Pseudo-Maximum Likelihood (PPML) estimation

Appendix 8: Estimation results on all service sectors

<i>SECTORS:</i>	Aid elasticities		Number of observations	Number of recipients
	<i>beta coefficients</i>	<i>significance</i>		
Manufacturing services on physical inputs owned by others	0.039		404	61
Maintenance and repair services n.i.e.	0.149	***	474	61
Sea transport	0.016		474	61
Air transport	0.043	*	474	61
Other modes of transport	-0.012		474	61
Postal and courier services	0.083	*	471	61
Travel (aggregate)	-0.032		474	61
Construction	0.190	***	474	61
Insurance & pension services	-0.064	**	474	61
Financial services	-0.093	***	474	61
Charges for the use of intellectual property n.i.e.	-0.125	***	474	61
Telecommunications services	0.131	***	474	61
Computer services	0.103	***	474	61
Information services	-0.081		468	61
Research & development services	0.110	*	474	61
Professional & management consulting services	0.227	***	474	61
Technical, trade-related & other business services	0.135	***	474	61
Audiovisual & related services	0.055		461	61
Personal, cultural & recreational (other)	0.085	*	471	61
Government goods & services n.i.e.	0.0378		474	61

Note: *** p<0.01, ** p<0.05, * p<0.1.

Appendix 9: Countries included in regressions

<i>ANALYSIS</i>	<i>COUNTRIES</i>
Table 1 (1) 2000 – 2010	Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Congo, Costa Rica, Cote d'Ivoire, Croatia, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Eswatini, Ethiopia, Gambia, Georgia, Ghana, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Iran, Iraq, Jordan, Kazakhstan, Kenya, Kyrgyz Republic, Laos, Lebanon, Lesotho, Liberia, Libya, Madagascar, Malawi, Malaysia, Mali, Macedonia, Mauritania, Mexico, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sri Lanka, Sudan, Suriname, Syria, Tajikistan, Tanzania, Thailand, Togo, Tunisia, Turkey, Uganda, Ukraine, Uruguay, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe
Table 1 (2) 2010 – 2022	Afghanistan, Albania, Algeria, Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Benin, Bolivia, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Colombia, Congo, Costa Rica, Cote d'Ivoire, Dominican Republic, Egypt, El Salvador, Ethiopia, Georgia, Ghana, Guatemala, Haiti, Honduras, India, Iran, Iraq, Jordan, Kazakhstan, Kenya, Lebanon, Libya, Macedonia, Malawi, Mali, Mexico, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Philippines, Rwanda, Senegal, Somalia, South Africa, South Sudan, Sri Lanka, Suriname, Syria, Tajikistan, Tanzania, Tunisia, Turkey, Uganda, Ukraine, Vietnam, Yemen, Zambia
Table 1 (3) 2000 -	Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Congo, Costa Rica, Cote d'Ivoire, Croatia, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Iran, Iraq, Jordan, Kazakhstan, Kenya, Kyrgyz Republic, Laos, Lebanon, Lesotho, Liberia, Libya, Madagascar, Malawi, Malaysia, Mali, Macedonia, Mauritania, Mexico, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sri Lanka, Sudan, Suriname, Swaziland, Syria, Tajikistan, Tanzania, Thailand, Togo, Tunisia, Turkey, Uganda, Ukraine, Uruguay, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe
Table 5 (1) 2005 – 2010	Afghanistan, Albania, Argentina, Armenia, Bangladesh, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Chad, Chile, China, Colombia, Costa Rica, Cote d'Ivoire, Croatia, Democratic Republic of Congo, Ecuador, Egypt, El Salvador, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Guatemala, Honduras, India, Indonesia, Iran, Iraq, Jordan, Kazakhstan, Kenya, Kyrgyz Republic, Lebanon, Madagascar, Macedonia, Malawi, Mali, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Sri Lanka, Sudan, Suriname, Syria, Tajikistan, Tanzania, Uganda, Venezuela, Vietnam, Yemen, Yugoslavia, Zambia
Table 5 (2) 2010 – 2022	Afghanistan, Albania, Algeria, Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Benin, Bolivia, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Congo, Costa Rica, Cote d'Ivoire, Croatia, Democratic Republic of Congo, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Guatemala, Haiti, Honduras, India, Indonesia, Iran, Iraq, Jordan, Kazakhstan, Kenya, Kyrgyz Republic, Lebanon, Libya, Madagascar, Macedonia, Malawi, Mali, Mexico, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Philippines, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sri Lanka, Sudan, Suriname, Syria, Tajikistan, Tanzania, Tunisia, Turkey, Uganda, Ukraine, Venezuela, Vietnam, Yemen, Yugoslavia, Zambia
Table 5 (3) 2005 -	Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Congo, Costa Rica, Cote d'Ivoire, Croatia, Democratic Republic of Congo, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Guatemala, Haiti, Honduras, India, Indonesia, Iran, Iraq, Jordan, Kazakhstan, Kenya, Kyrgyz Republic, Lebanon, Libya, Madagascar, Macedonia, Malawi, Malaysia, Mali, Mexico, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sri Lanka, Sudan, Suriname, Syria, Tajikistan, Tanzania, Thailand, Togo, Tunisia, Turkey, Uganda, Ukraine, Uruguay, Venezuela, Vietnam, Yemen, Yugoslavia, Zambia, Zimbabwe