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Aid for Trade: A Survey

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Abstract

Aid for Trade was officially born following the 6th Ministerial Conference in Hong Kong in December 2005. This is increasingly pointed to as a promising new development tool to help developing countries to benefit from WTO agreements and to expand their trade. The objective of this paper is twofold. First, it aims at providing an overview of what we currently know about Aid for Trade. Hence, a review is proposed on what Aid for Trade is, both formally and from an empirical perspective. Second, and based on the previous state of the art, a survey is given of the few existing studies providing an empirical assessment of the impact of Aid for Trade on trade performance of recipient

countries. The paper investigates especially the literature on trade costs in order to detect the main channels through which Aid for Trade could be more effective as regards trade performance. This second stage serves to detect the need for further work in view of better understanding and assessing Aid for Trade's impacts and increasing its effectiveness.

Key words: Aid for Trade, trade cost, world trade, developing countries.

JEL Classification: F13, F35, F42, O19

Résumé

L'Aide au commerce est officiellement née suite à la 6^{ème} Conférence Ministérielle de Hong Kong en décembre 2005. Elle est présentée comme un nouvel outil de développement prometteur, visant à soutenir l'intégration commerciale des pays en développement. L'objectif de cet article est double. Il propose tout d'abord une analyse descriptive fine de l'Aide au commerce. En second lieu, et basé sur l'état des lieux préalable, un bilan de la littérature des quelques études empiriques existantes évaluant l'impact de l'Aide au commerce sur la performance commerciale des pays bénéficiaires est réalisé. Le papier examine en particulier la littérature sur les coûts au commerce afin de détecter les

canaux de transmission par lesquels l'Aide au commerce pourrait avoir l'impact positif le plus important sur les performances commerciales des pays bénéficiaires. Cette deuxième étape permet de déterminer les travaux de recherche futurs nécessaires pour mieux comprendre et évaluer les effets de l'Aide au commerce et contribuer à augmenter son efficacité.

Mots clés : Aide au commerce, coûts au commerce, commerce mondial, pays en développement.

Classification JEL : F13, F35, F42, O19.

Introduction

Although the debate is ongoing among economists, a large share of existing theoretical and empirical literature supports the idea that trade can be a powerful engine to enhance economic development and poverty reduction (Winters *et al.*, 2004; Cling 2006). Relying on this view, the aim of the World Trade Organisation (WTO) is to promote and enforce rules which favour trade between countries. Reducing tariff and non-tariff barriers in order to increase market access to foreign exporters is part of these rules. However, it has been shown that some countries, specifically the least developed ones, are not able to take advantage of increased market access due to internal obstacles to trade, such as lack of knowledge, excessive bureaucracy, insufficient financing or poor infrastructure, weak productive capacity and low competitiveness (Hoekman and Nicita, 2008; Portugal-Perez and Wilson, 2008; Huchet-Bourdon *et al.*, 2009). Based on this feature, at least partly, development issues have emerged as a key element in the discussions and debates within the Doha Round of multilateral trade negotiations under the WTO.

In that context, the importance of Aid for Trade (AFT) was officially endorsed at the 6th Ministerial Conference in Hong Kong in December 2005. Since then, AFT has been increasingly cited as a promising new development tool for helping developing countries benefit from WTO agreements, and more broadly for expanding their trade (OECD, 2006 and 2009; Helble *et al.*, 2009). And the AFT definition has been enlarged to include support to productive capacities, trade-related infrastructures and trade related adjustment.

Even if trade-related Aid has always existed as part of Official Development Assistance (ODA) flows,¹ the official creation of Aid for Trade has put a new light on these

specific Aid flows and launched discussions and debates on their effectiveness.² The concept, the definition and the effectiveness of the Aid for Trade category have all been discussed in the literature (OECD, 2006 and 2009; Hoekman and Wilson, 2010). On the other hand, some studies deal with the effectiveness issue empirically by providing methods to identify the needs of potential recipient countries concerning Aid for Trade (Gamberoni and Newfarmer, 2008; Huchet-Bourdon *et al.*, 2009). The general insight that emerges from all these existing studies is that it is very difficult to have a clear picture of both what Aid for Trade actually is and how it should be distributed across countries from an economic point of view. In addition, the fact that there is only very little available work providing some empirical results on the Aid for Trade impact on recipient countries' trade does not make the picture clearer. However, there are some studies, not dealing directly with Aid for Trade but concerned with trade costs, which provide useful insights into the Aid for Trade issue (Hoekman and Nicita, 2008; Portugal-Perez and Wilson, 2008, for instance).

The objective of this paper is not to answer all the above-mentioned remaining questions on Aid for Trade, but to contribute to clarifying the issue by providing a picture, as comprehensively as possible, of what is currently known about Aid for Trade.

For that purpose, in the first section we propose an overview, inspired by the OECD (2006, 2009) but updated with our own computations, of what Aid for Trade

¹ See the glossary in the Appendix for more details.

² According to the OECD, Aid Effectiveness is about improving the management, delivery and complementarity of development co-operation activities to ensure the highest development impact.

is, both formally and empirically. In the second section, we review existing empirical studies that can demonstrate the extent to which Aid for Trade impacts the trade of recipient countries. We distinguish studies that directly analyse the effects of AfT on trade flows from those which measure

these effects indirectly, through some identified transmission channels that will be assimilated to “trade costs”. These costs will be directly linked to the AfT categories discussed in the first section.

1. Definition and Overview of Aid for Trade

1.1 Origins of Aid for Trade and definition

a/ Definition

During the Uruguay Round negotiations, many developing countries started to become full participants of the multilateral trading system, and agreed as part of the Single Undertaking to submit schedules of concessions and commitments on market access, intellectual property rights and the service sector (OECD, 2006). To help developing countries to address the challenge of monitoring their trade and trade policy in order to meet their WTO commitments, the 1994 Marrakesh Agreement and several others explicitly acknowledge the need and the best way to provide trade-related technical assistance to these countries, particularly the least developed ones. Nevertheless, Uruguay Round commitments soon appeared hard to apply because of a lack of institutional capacity in developing countries. Moreover, these countries subsequently concluded that the Uruguay Round agreement could not address their main concerns. One may recognise here that the lack of experience of developing countries in WTO talks, and their limited capacity for identifying their trading interests, building a strong negotiation position and promoting it during negotiations, diminished their influence in the design of the new trading rules.

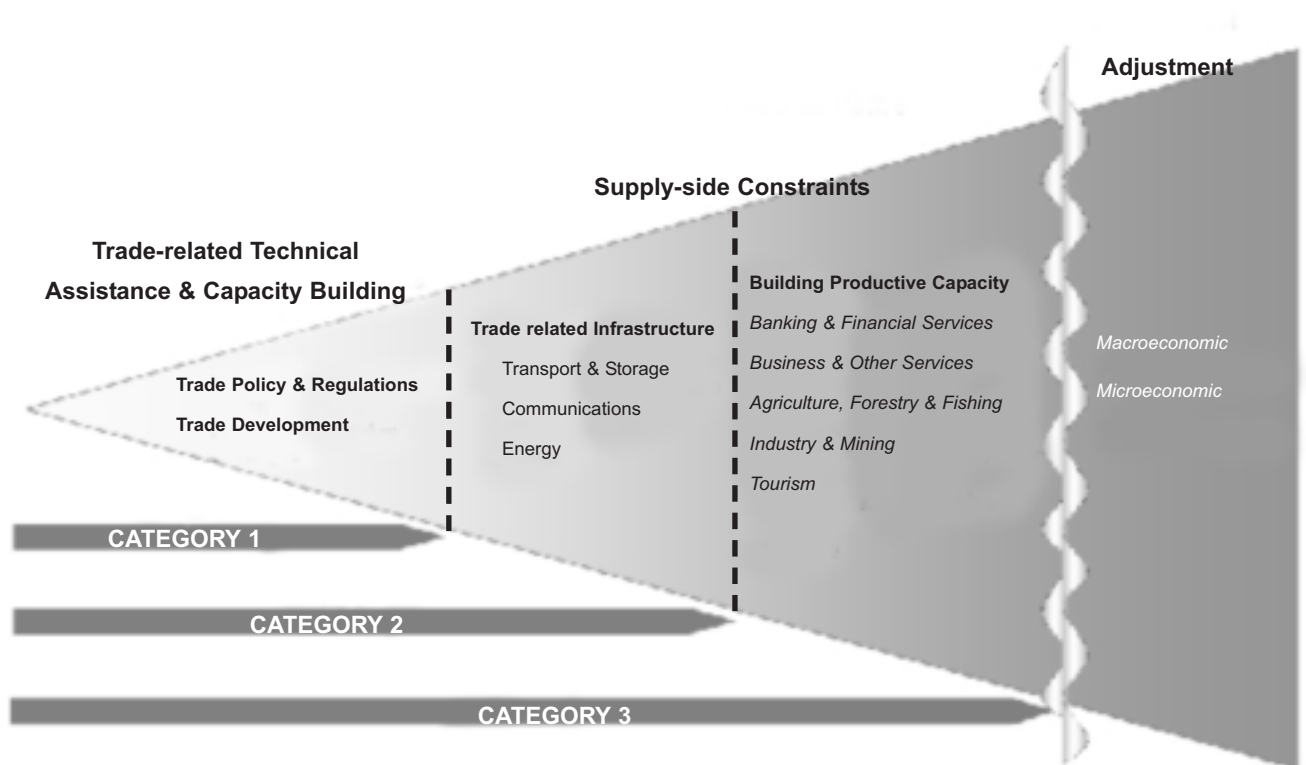
In response to this, immediately following the Uruguay Round Agreement, the Joint Integrated Technical Assistance Program (JTAP) was established, aimed at helping African countries participate in WTO negotiations and take advantage of new trade opportunities arising from the globalisation of markets. Furthermore, in 1997, WTO members adopted the Integrated Framework (IF) for trade-Related Technical Assistance to the Least Developed Countries, an initiative for strengthening Least Developed Countries' (LDCs) trade capacities by integrating this issue into national development plans such as the Poverty Reduction Strategy Paper (PRSP).³ It should be noted that this program can be considered a turning point, since it introduced important aspects of Aid for Trade into the debate, such as coordination and demand-driven responses to developing countries' needs. Finally, these two programs resulted in what is called the "narrow" definition of Aid for Trade, which includes only the technical assistance package.

³ Following the IMF definition, Poverty Reduction Strategy Papers (PRSPs) describe a developing country's macroeconomic, structural and social policies and programs over a three-year or longer horizon to promote broad-based growth and reduce poverty, as well as associated external financing needs and major sources of financing.

Later, during the 2005 Hong Kong Ministerial Conference of the Doha Development Agenda, the World Bank (WB) and the International Monetary Fund (IMF) proposed a framework named the “Aid for Trade” initiative, aimed at promoting an engagement of both donors and developing countries to support the development of trade in developing countries. The Task Force group bringing together donors and developing countries worked on AfT and concluded that to effectively support developing countries, especially LDCs, the definition of AfT had to be widened, including traditional instruments such as trade-related technical assistance and also trade-related infrastructure developments, supply-side capacity Aid and trade-related

adjustment costs, known as the “broad” definition of Aid for Trade (figure 1). Within this enlarged framework, it should be noted that G8 countries in Gleneagles committed to doubling 2005 volumes of Aid for Trade before the year 2010, which is significant considering that volumes of this kind of assistance had been stagnant for several previous years. Lastly, WTO members recognised the major role played by this initiative as a complement to the Doha Round, not as a substitute for market access during negotiations. Different pledges were made by donor countries: the G8, the EU and Japan. Some pledges concerned only ODA, while others included instruments such as concessional loans not eligible for ODA.

Figure 1. Narrow and broad definition of Aid for Trade



Source: OECD (2006).

To be considered part of the Aid for Trade agenda, projects and programs need to be linked to trade-related development priorities in the partner country's national development strategy. For the purpose of this study, assistance flows will be analysed within the framework of the broad definition of Aid for Trade and only ODA flows will be considered.

b/ Database information

There are only two sources of data to track Aid for Trade flows: the trade-related technical assistance and trade Capacity Building Database (TCB), constructed jointly by the OECD and the WTO, and the Creditor Reporting System (CRS) database from the OECD, employed to monitor ODA. The first one gives us more detailed information, but begins only in 2000 and covers only the trade policy and regulation and trade development component (*i.e.*, category 1 in figure 1) of Aid for Trade. Moreover, this database does not follow precise reporting rules, does not include ODA and non-ODA financing, and it was stopped in 2006. By contrast, the CRS provides us with data from 1995 onward, covering overall ODA. In addition, the CRS database reports amounts of both Aid commitments and Aid disbursements.⁴

The CRS database contains the data relating to the broad definition of AfT (categories 1, 2 and 3 and the trade-related adjustment costs of figure 1), and such data are comparable across countries and over time. As the CRS database covers overall ODA, it also offers the possibility of addressing the issue of additionality of Aid flows.⁵ Nevertheless, this database does not cover Aid flows allocated by countries that are not members of the Development Assistance Committee, like China. Moreover, in order to be counted, Aid flows need to be given on concessional financial terms (*i.e.*, if it is a loan, it needs to have a grant element of at least 25%).

For this study, we retain the CRS database. As shown in figure 2, in this database ODA is organised into 11 categories. Among these 11 categories, 4 report what is called "sector allocable Aid" flows: "Social infrastructure and services", "Economic infrastructure and services",

"Production sectors" and "Multisector/cross-cutting". The 7 remaining categories report Aid flows that are not related to any sectors. Consequently, these 7 categories cover the so-called non-sector allocable Aid. Figure 2 indicates that over the 2006-2008 period,⁶ the overall ODA flow commitments (excluding actions related to debt) on average reached USD 129 (constant 2008) billion. Of this USD 129 billion, nearly USD 100.5 billion corresponded to sector allocable aid.

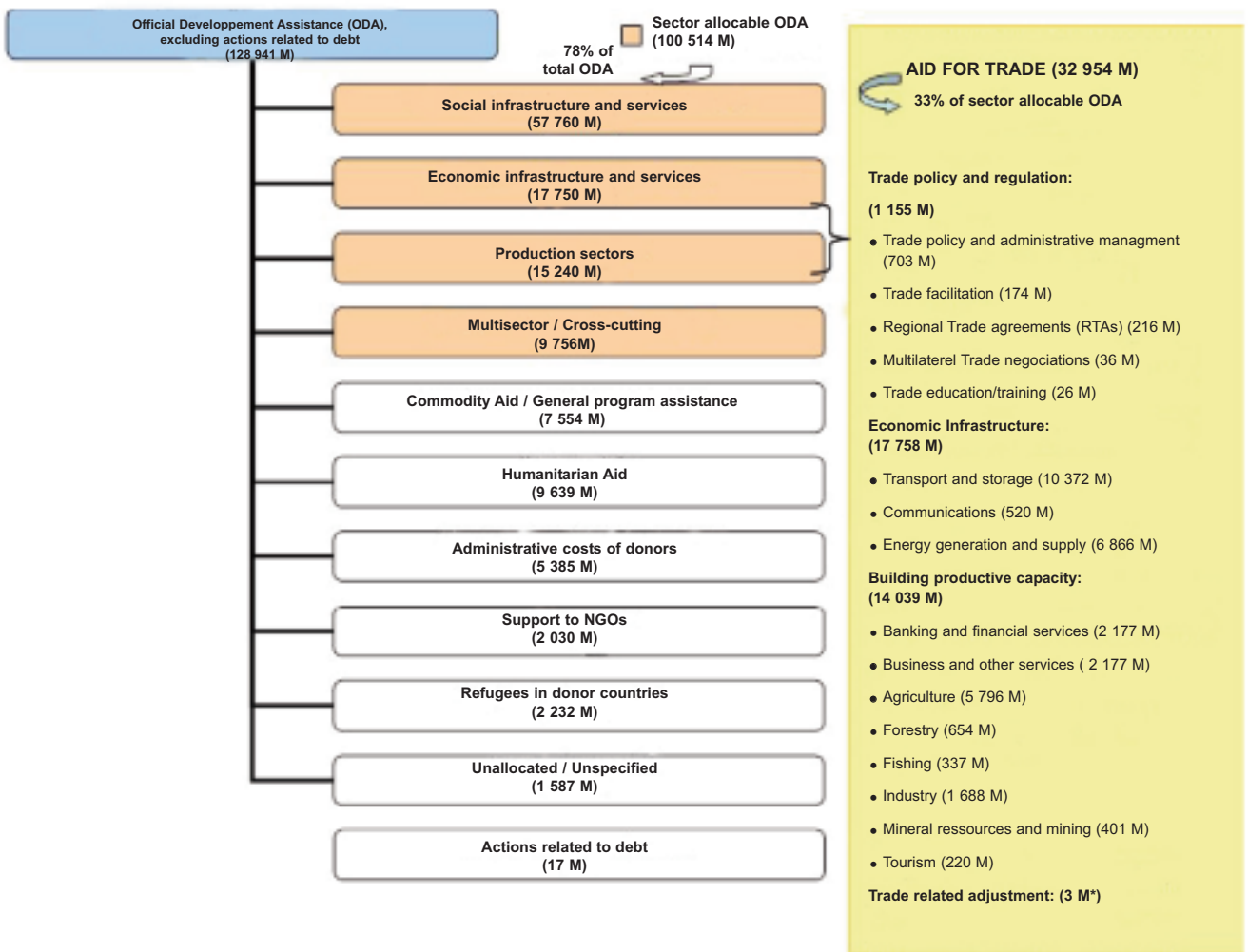
Because the CRS database was created prior to the official creation of AfT, it is not surprising that the 11 ODA categories do not include an AfT category *per se*. However, as shown by figure 2, it is possible to recover AfT flows, whatever the narrow or the broad AfT definition retained, since all categories composing AfT are identified as categories of 2 ODA sector allocable categories : "Economic infrastructure and services" and "Production sectors". Figure 2 shows that over the 2006-2008 period, on average the overall AfT flows accounted for 33 billion USD, that is 33% of the USD 100.5 billion ODA sector allocable Aid, and 25% of the USD 129 billion average ODA Aid flows reached during the period.

⁴ Figures provided in this paper relate to commitment flows. The main reason for this choice is that in the CRS database, commitment data are more complete and of better quality than disbursement data. See the glossary in the Appendix for definitions of commitment and disbursement.

⁵ When the amount of one Aid category increases, it can be due to an absolute increase of the total amount of Aid or to a reallocation of flows within a constant total amount. The latter case corresponds to what is called additionality.

⁶ Preliminary data for 2008.

Figure 2. 2006 - 2008 average Official Development Assistance Commitments in USD millions (constant 2008)



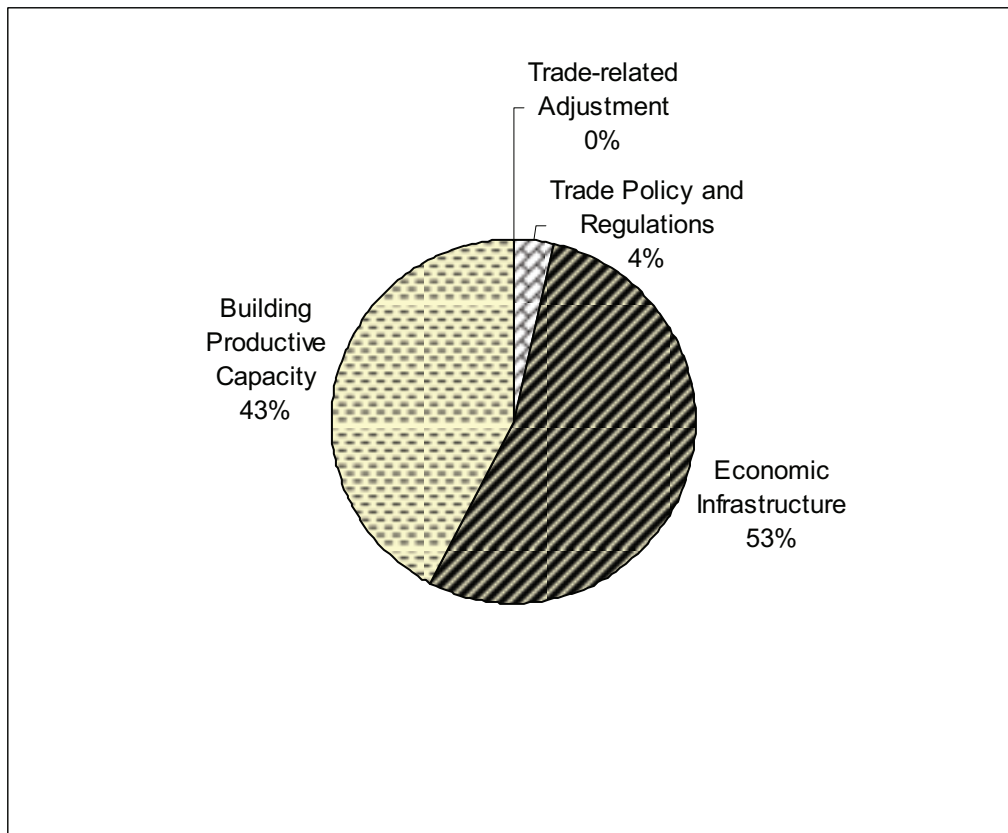
*2007-2008 average amounts due to the inexistence of this category before 2007.

Source: OECD Creditor Reporting System, 2010.

Note: The Creditor Reporting System recently introduced a "Trade development policy marker" for donors to report information on the share of their "productive capacity building" Aid that effectively enhances Trade. This marker allows us to quantitatively identify the "Trade development" component of figure 1.⁷ Nevertheless, of 41 donors, only 13 used the Trade marker in 2007 and 21 in 2008. Thus, this study will not include "Trade development" amounts.

⁷ The marker identifies an activity as a "Trade development" activity if it is intended to enhance the ability of the recipient country to: (i) formulate and implement a trade development strategy and create an enabling environment for increasing the volume and value-added of exports, diversifying export products and markets and increasing foreign investment to generate jobs and trade; or (ii) stimulate trade by domestic firms and encourage investment in Trade-oriented industries. For each programme falling into the productive capacity building category, donors are required to report whether trade development is the "principal" objective or a "significant" one (OECD, 2009).

Figure 3. AfT commitments distribution by categories of AfT (2006-2008 average in %)



Source: OECD Creditor Reporting System, 2010.

In the CRS database, overall AfT flows are split into the 4 categories corresponding to the broad definition of AfT as reported in figure 1: “trade policy and regulation” (labelled trade policy and regulation in figure 1), “economic infrastructure” (labelled trade-related infrastructure in figure 1), “building productive capacity” which also includes the “trade development” in figure 1, and “trade-related adjustment”. Figure 2 indicates that over 2006-2008, on average USD 1 billion were devoted to the “trade policy and regulation” category, 17.8 billion to the “economic infrastructure” category, 14 billion to the “building productive capacity” category and 0.003 billion to the “trade-related adjustment” category. In other words, the largest share of AfT flows (*i.e.*, 53%) was distributed through programmes and projects contributing to economic infrastructures (including transport and storage, communication and energy generation and supply), while programmes and projects directed at trade and policy regulation (including, among others, trade

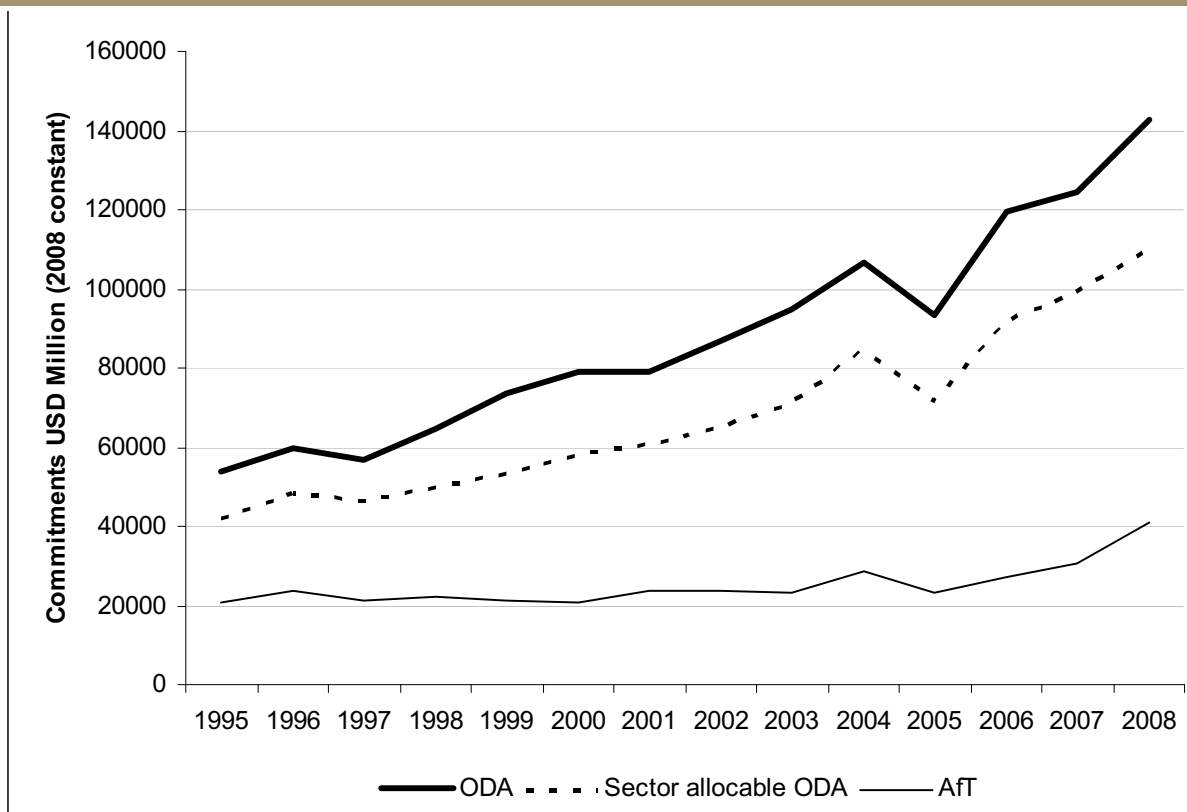
facilitation and trade agreements) and at trade-related adjustment accounted for the lowest shares of AfT flows (4% and nearly 0% respectively). Programmes and projects aimed at building productive capacity received 43% of the overall AfT flows (figure 3). At this stage, two remarks are in order. Firstly, the marginal share of AfT flows devoted to trade-related adjustment, as reported in 2006-2008 average figures, may result from the fact that, in the CRS database, this category was created only in 2007 and until now only 3 donors have notified their commitments in this category (Australia, Canada and the European Commission), and not systematically. Secondly, one must be aware that the above-mentioned AfT flow shares do not automatically reflect donor countries’ priorities, but are likely to indicate that projects and programmes in the “economic infrastructure” and the “building productive capacity” categories are generally more capital-intensive than those from the two other categories.

c/ Evolution of Aid for Trade commitments

Figures 4 and 5 show that total ODA and sector allocable ODA commitments have more than doubled in volume over the period 1995-2008, increasing substantially since 2000 and the Paris Declaration on Aid Effectiveness.⁸ Moreover, Aid for Trade has also doubled in volume since 1995. Peaks observed in all 3 reported series between 2003 and 2008 seem to be caused both by the three-year programme cycles in effect in some significant donor countries and by

the evolution of the euro-dollar exchange rate.⁹ Nevertheless, despite the volume increase of AfT over the 1995-2008 period, figure 5 indicates that its share in total sector allocable ODA has declined from 49% in 1995 to 37% in 2008. In other words, the AfT increase in volume did not result from a diversion of resources at the expense of other social or economic sectors. These observed trends illustrate the crucial importance of closely watching the share evolution of AfT in total and sector allocable ODA, in addition to the evolution in volumes.

Figure 4. Medium-term trends in ODA and AfT

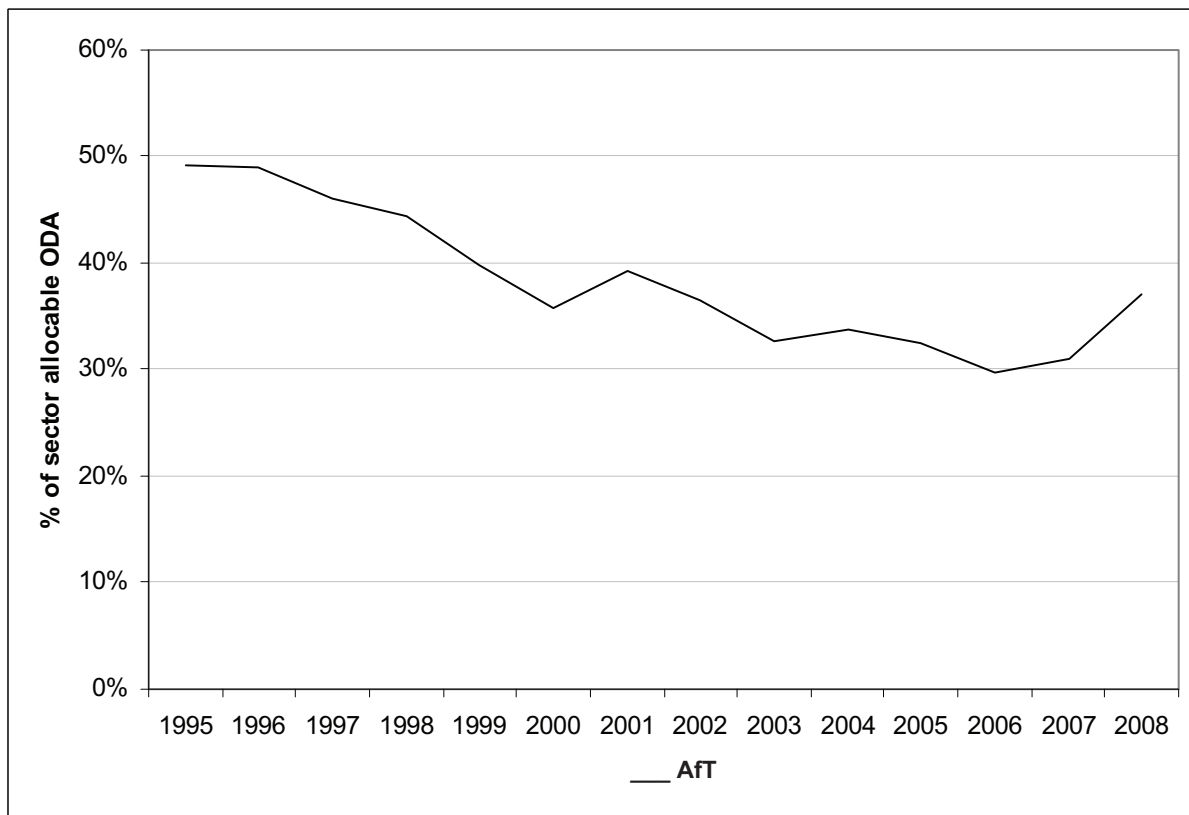


Source: OECD Creditor Reporting System, 2010.

⁸ The Paris Declaration endorsed on 2nd March 2005 is an international agreement according to which over one hundred Ministers, Heads of Agencies and other Senior Officials adhered and committed their countries and organisations to continue increasing efforts in harmonisation, alignment and management of Aid for results using a common set of monitorable actions and indicators (OECD, 2005).

⁹ The dollar has been depreciating against the euro over this period.

Figure 5. AfT in total sector allocable (USD million constant 2008) ODA (%)

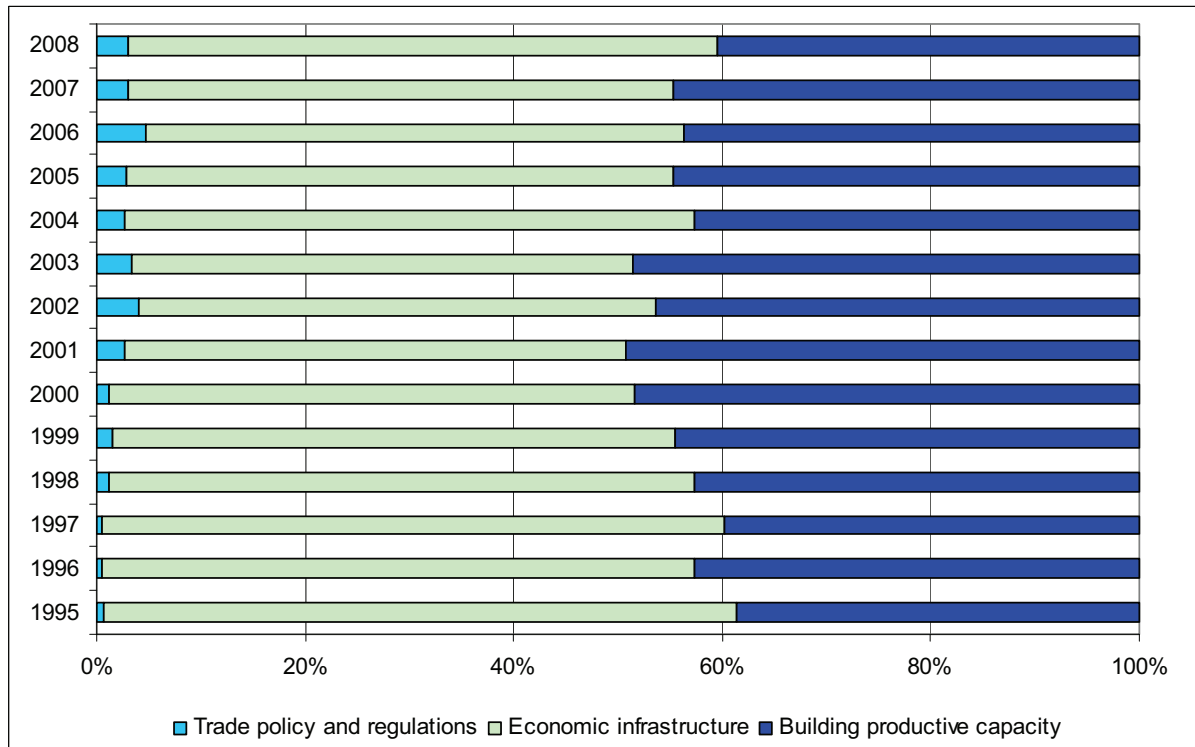


Source: OECD Creditor Reporting System, 2010.

As shown by figure 6, the shares of the various categories of AfT have been rather stable over the 1995-2008 period. The “building productive capacity” category accounts for around 40% of total AfT while the “economic infrastructure”

category represents roughly 60%. One may notice that if the share of the “trade policy and regulation” category remains marginal, this share is increasing over the period, and especially since 2000.

Figure 6. Commitments by AFT category (% of total AFT)



Source: OECD Creditor Reporting System, 2010.

Note: The "Trade related adjustment" category is not reported because of its inexistence in the CRS database before 2007.

1.2 Focusing on Aid for Trade by category¹⁰

a/ trade policy and regulation category

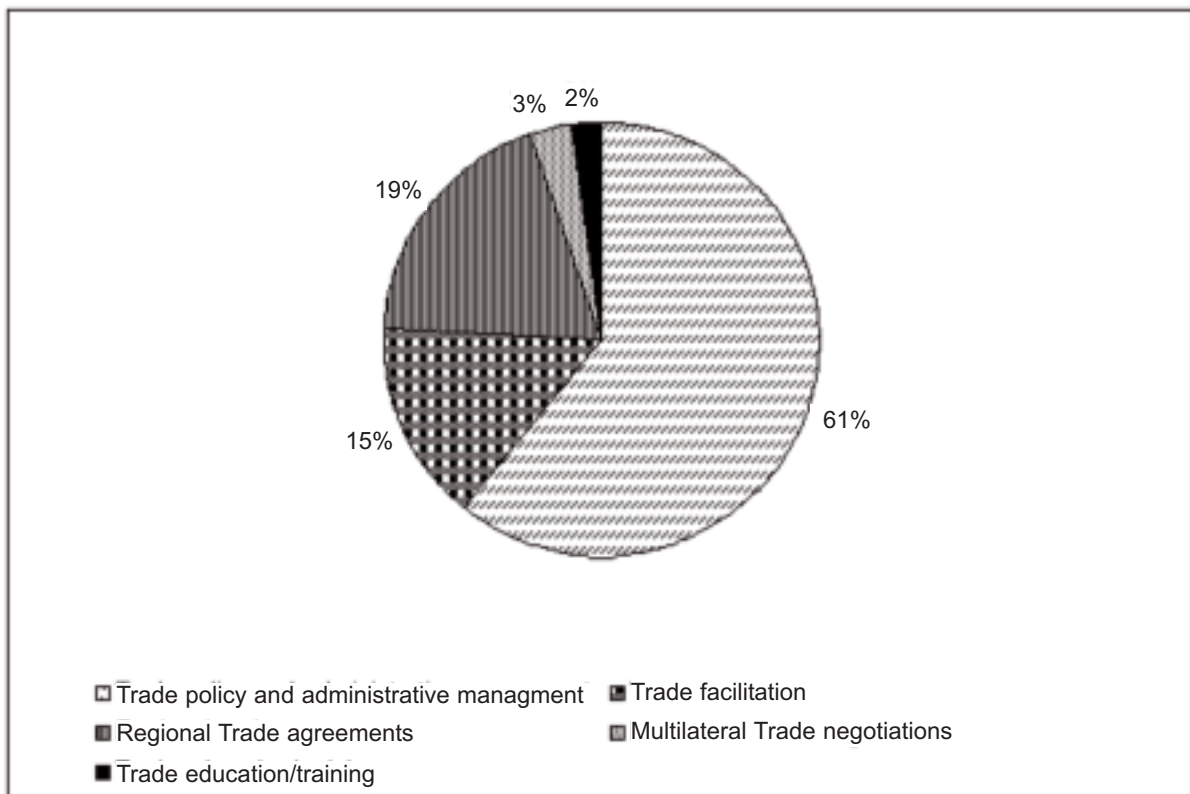
The "trade policy and regulation" category includes five items: projects and programs oriented toward trade policy and administrative management, trade facilitation, regional trade agreements, multilateral trade negotiations and trade education/training. For instance, as part of this category, one finds flows aimed at helping countries develop trade strategies, negotiate trade agreements and implement their outcomes. Assistance from this category is delivered almost exclusively through technical assistance.

We observe that on average from 2006 to 2008, 61% of the "trade policy and regulation" flows are allocated to trade policy and administrative management programmes, which primarily consist of technical assistance to trade ministries and governments of beneficiary countries (figure 7). The

regional trade agreement programmes are second (19%), almost certainly boosted by the proliferation of North-South bilateral trade agreements and South-South regional integration. Finally, trade facilitation programmes, which consist of a simplification and harmonisation of import/export procedures, support to customs services and tariff reform, account for 15% of the total.

¹⁰ The Trade-related adjustment category is not analysed in this paragraph. This category takes the form of budget support aimed at assisting countries with the implementation of their Trade policies, mitigating some adjustment costs, and at managing shortfalls in their balance of payments due at changes in the world trading environment. Today, only Australia, Canada and the European Commission have reported their share of flows in this category, which was introduced only in 2007 into the CRS database. Considering that this is a new category that is still sporadically reported by donors, it is difficult to analyse and predict its evolution.

Figure 7. Category distribution inside the Trade policy and regulation category, mean shares 2006-2008 (%)



Source: OECD Creditor Reporting System, 2010.

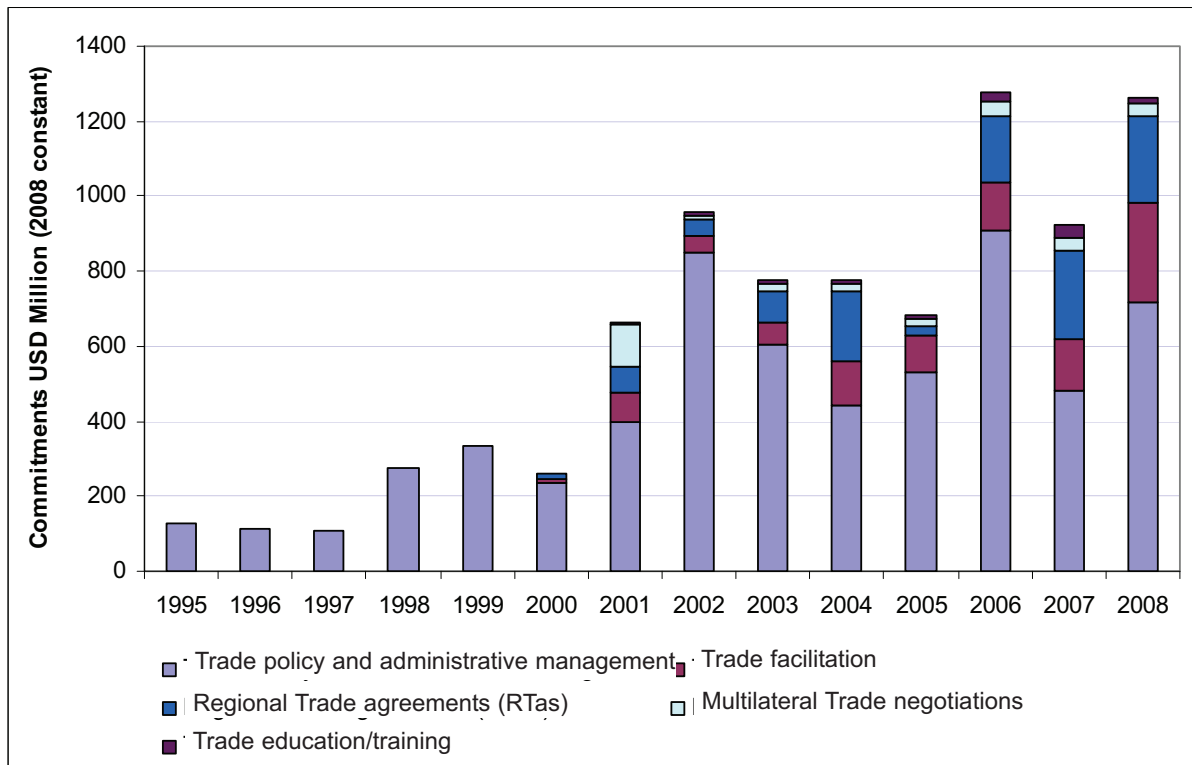
Figure 8 shows that the “trade policy and regulation” category increased over the period. Increases in volumes are particularly strong on key dates like the opening of the Doha negotiations in 2001 and after the Hong Kong Ministerial Conference in 2005, illustrating the common idea that the lack of institutional capacities is an important obstacle faced by developing countries in connecting to global markets. From 1995 to 2000, trade policy and regulation flows were exclusively distributed through policy and administrative management programmes. Since 2001, other types of programmes have appeared, especially

regional trade agreement and trade facilitation programmes.

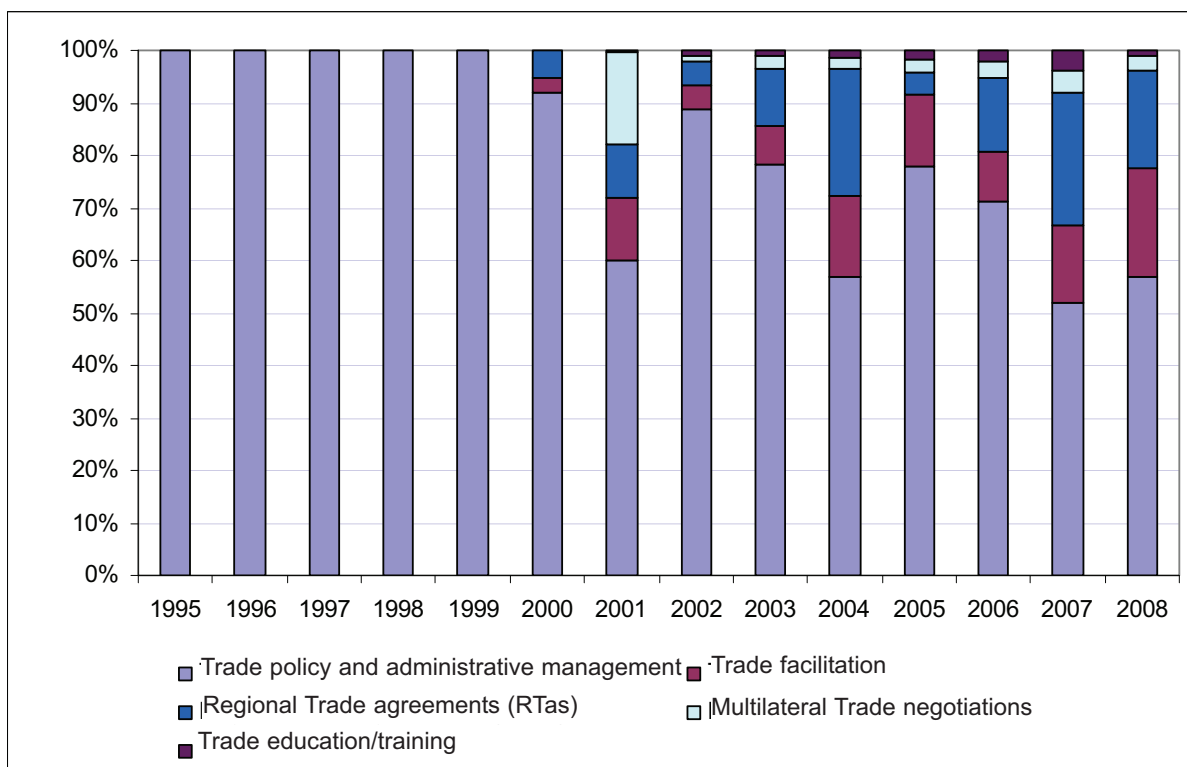
The increasing importance of such programmes is consistent with, respectively, the rising importance of the trade facilitation issue in the WTO negotiations¹¹ and the rising number of regional agreements. However, figure 8 indicates that even at the end of the end of the period, policy and administrative management programmes still account for about 60% of the total trade policy and regulation category.

¹¹ See also Helbe *et al.* (2009).

Figure 8. Trend in Trade policy and regulation distribution
8.a. Volumes from 1995 to 2008



8.b. Shares from 1995 to 2008



Source: OECD Creditor Reporting System, 2010.

b/ Economic Infrastructure category

This category includes Aid for 3 items: transport and storage, communications and energy generation and supply. Projects or programmes under this category range from technical cooperation on policy planning for ministries, to heavy construction of roads, power plants or airports.

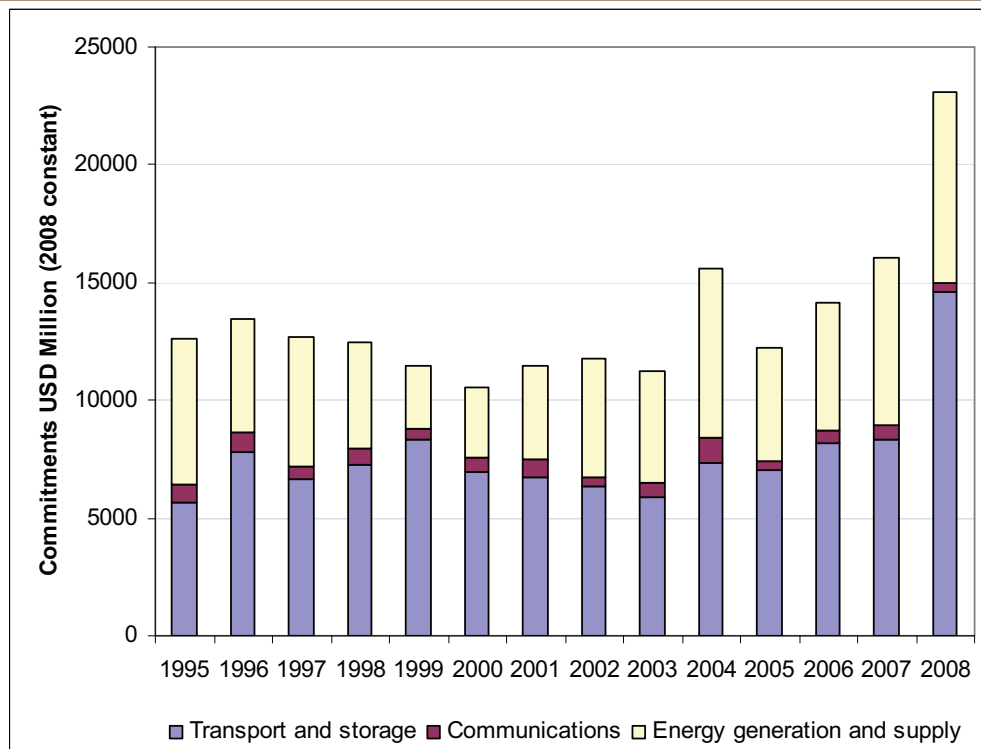
The economic infrastructure category should be considered an imperfect proxy for projects and programmes specifically devoted to trade-related infrastructure. Indeed, this Aid relates to infrastructures that may benefit foreign trade, domestic markets and people transportation. The World Bank and the United States have tried to isolate the share of their “economic infrastructure” Aid that specifically enhances foreign trade. Nevertheless, considering the strong linkages between economic and social sectors, it is often difficult to disentangle the part of the Aid which effectively enhances foreign trade from the part which benefits the domestic market of a recipient country. For example, an increase in imports of intermediate goods explained by an infrastructure project benefits foreign trade

by increasing trade flows, but can also impact the domestic market by enhancing the productivity of a firm that serves local consumers.

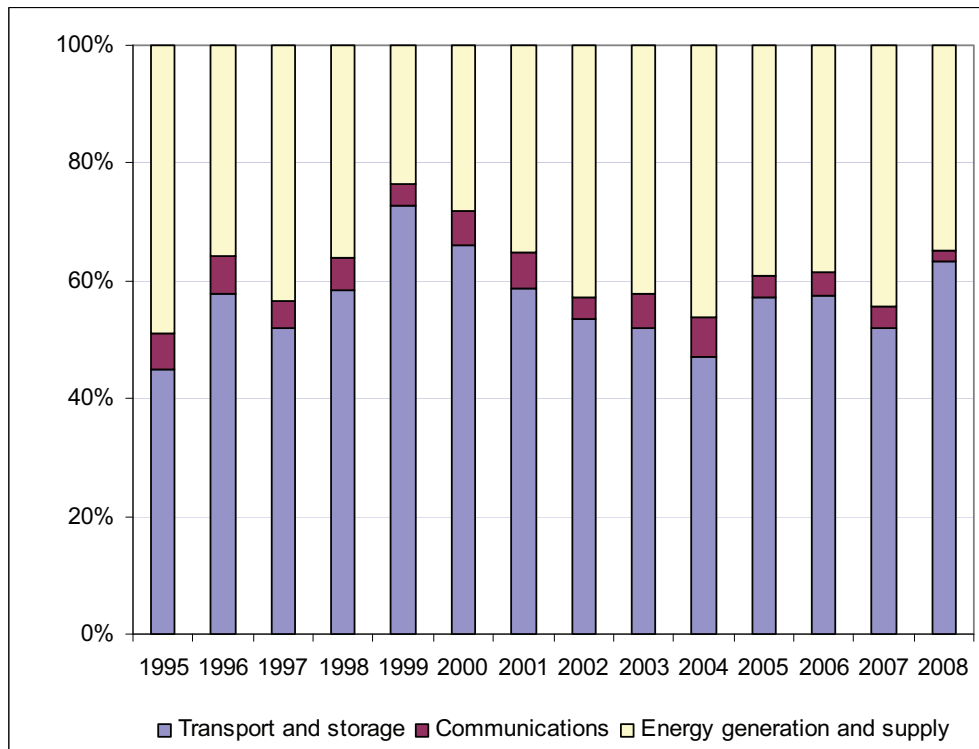
Figure 9.a indicates that the total amount of Aid distributed through the “economic infrastructure” category has declined from 1995 to 2001. Then it grew, recovering to the 1995 level ten years later. The 1995-2001 decrease may have resulted from the lack of interest for investing in large infrastructure programmes observed among donor countries in the late 1990s.

On average, from 1995 to 2008, Aid devoted to transport and storage infrastructure accounts for over half of total assistance to economic infrastructure (figure 9.b). Energy generation and supply projects and programmes rank second, with nearly 40% of the whole “economic infrastructure” category. The residual share devoted to communication (around 4%) seems in line with the extremely fast return on investment observed in this sector, which is consequently mainly financed by private capital.

Figure 9. Trend in economic infrastructure distribution
9.a. Volumes from 1995 to 2008



9.b. Shares from 1995 to 2008



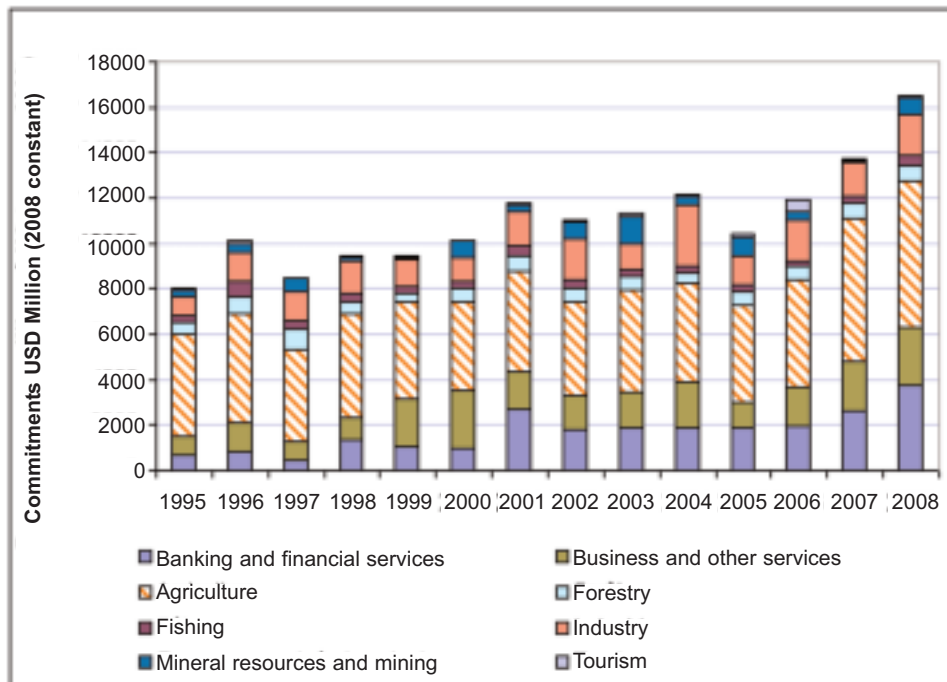
Source: OECD Creditor Reporting System, 2010.

c/ Building Productive Capacity category

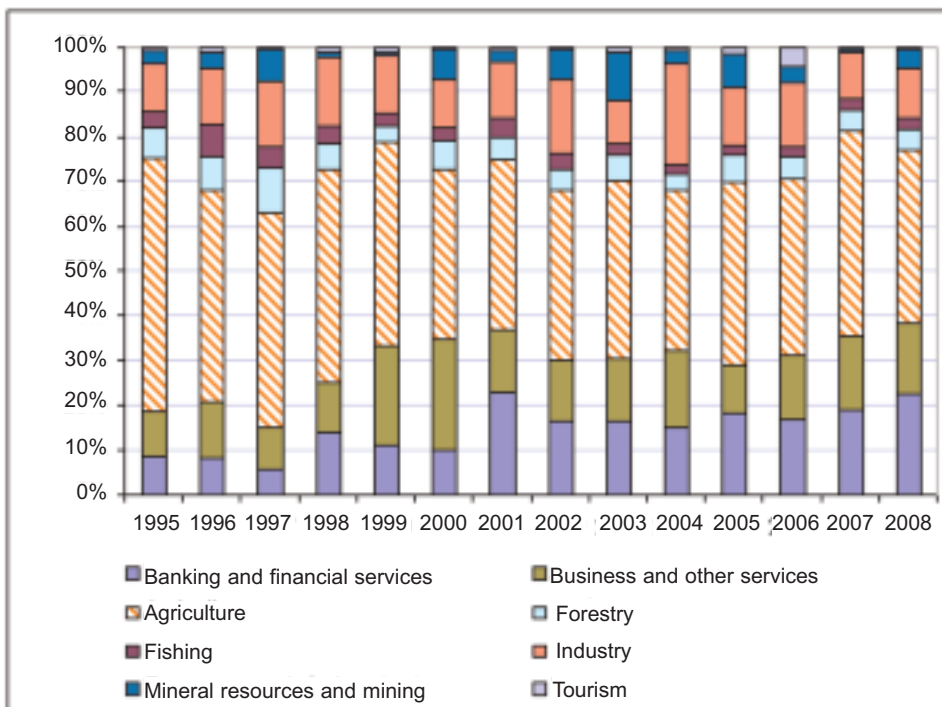
The “building productive capacity” category includes, for example, support devoted to various economic sectors in recipient countries in order to help them exploit their comparative advantage and diversify exports. In the agricultural sector, programmes can range from technical assistance for policy planning for agriculture ministries to microfinance for small farmers, for instance. Nevertheless, as discussed earlier, it is often very difficult to disentangle which part of the Aid distributed under this category actually benefits foreign trade, probably explaining why the “trade development policy marker” is still poorly reported by donors.

Figure 10.a shows that assistance to building productive capacity has increased over the 1995-2008 period, from USD 8 billion (constant 2008) in 1995 to USD 16 billion (constant 2008) in 2008. From figures 10.a and 10.b, we observe that agriculture always received the biggest share of this support over the period (around 40% of the total building productive capacity assistance), followed by banking and financial services (growing from 10 to 20%), business and other services and industry (both around 12%). It must be noted that amounts and shares reported in these figures are most probably greater than those specifically devoted to foreign trade enhancement.

Figure 10. Trend in building productive capacity distribution
10.a. Volumes from 1995 to 2008



10.b. Shares from 1995 to 2008



Source: OECD Creditor Reporting System, 2010.

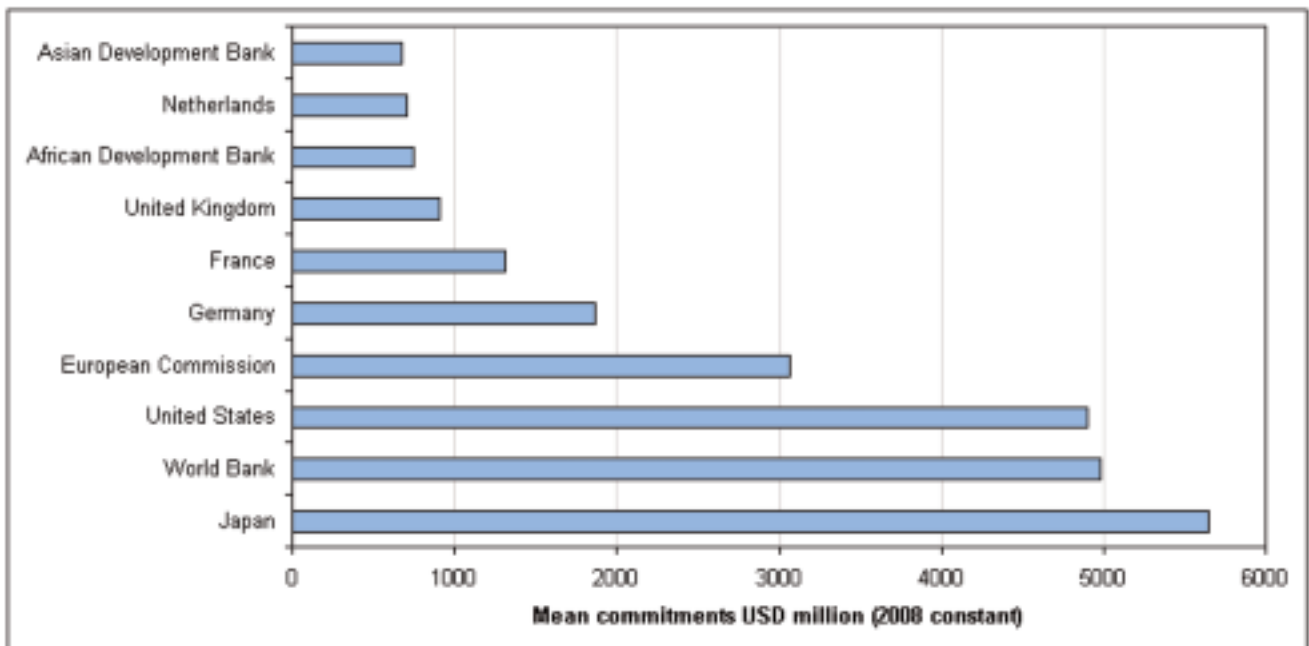
1.3 Aid for Trade: From whom to whom?

a/ From a donor's perspective: Who gives what?

The picture of the most important donors varies slightly every year. Thus, a ranking according to mean values for the 2003-2008 period seems more consistent (figure 12).¹² The ten leading donors during that period gave 87% of the total USD 40.8 billion (constant 2008) of Aid for Trade allocated in 2008. Moreover, within this group four donors dominate the picture: we see in figure 13 that Japan, the United States, the European Commission and the World Bank provided more than half of the AfT during the whole 2003-2008 period. In 2008, they gave 65.1% of total AfT: Japan ranked first with USD 8.7 billion (constant 2008) (21.4% of total AfT in 2008), followed by the United States with USD 6.4 billion (15.7%), the European Commission with USD 5.9 billion (14.4%) and finally the World Bank with USD 5.6 billion (13.6%).

The two major bilateral donors are Japan and the United States, with Aid for Trade flows even higher than development banks. The multilateral agencies working actively in trade programmes are the World Bank, the Asian Development Bank and the African Development Bank. As can be seen from figure 14, the share of economic infrastructure programmes is particularly high for all main donors except the Netherlands and the United Kingdom, which are mainly involved in building productive capacity projects and programmes. Finally, it should be stressed that it is difficult and probably misleading to compare bilateral versus multilateral trends in Aid since an increasing number of bilateral institutions are channelling their Aid for Trade through multilateral actors.

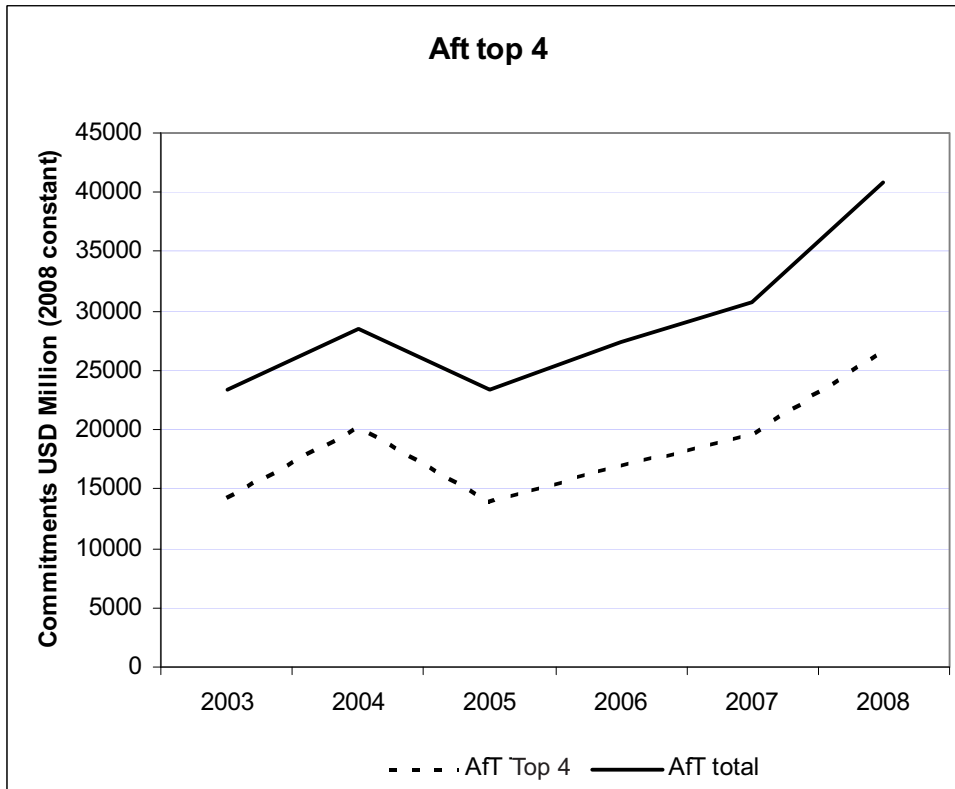
Figure 11. AfT 10 leading donors, mean values during the 2003-2008 period, USD million



Source: OECD Creditor Reporting System, 2010.

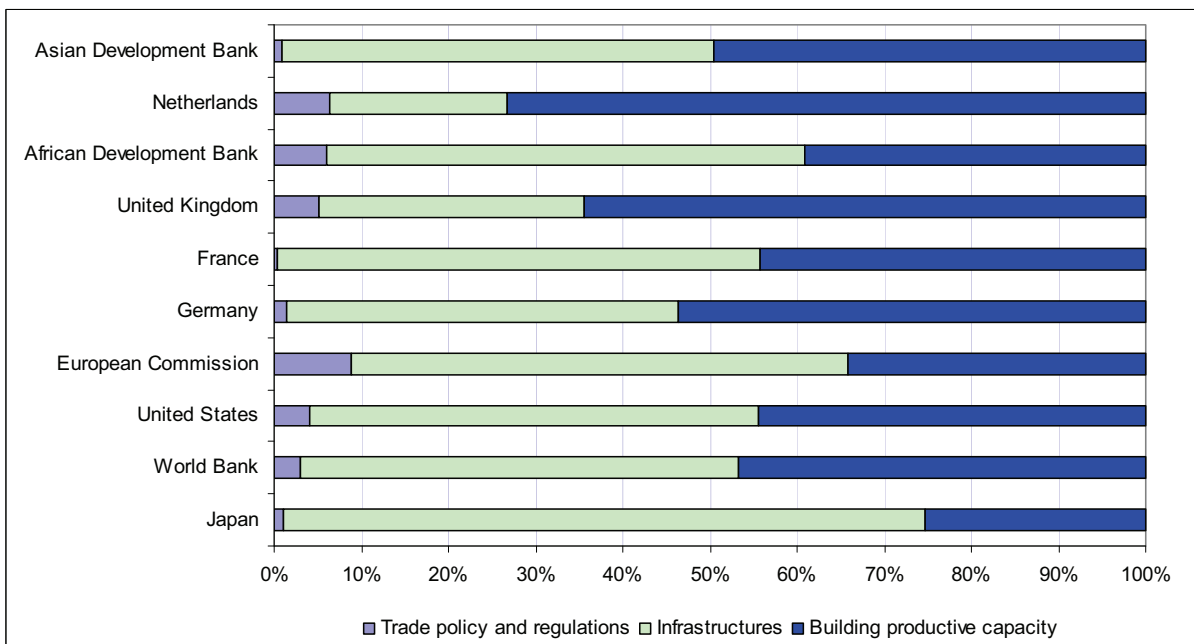
¹² For more details on the top 20 donors in the 2002-2007 period, see OECD (2009).

Figure 12. AfT 4 leading donors, evolution during the 2003-2008 period, USD million



Source: OECD Creditor Reporting System, 2010.

Figure 13. AfT category distribution for the 10 leading donors (mean shares 2003-2008 in %)



Source: OECD Creditor Reporting System, 2010.

Note: The "Trade-related adjustment" category is not reported because of its inexistence in the CRS database before 2007.

b/ From a recipient’s perspective: Who receives what?

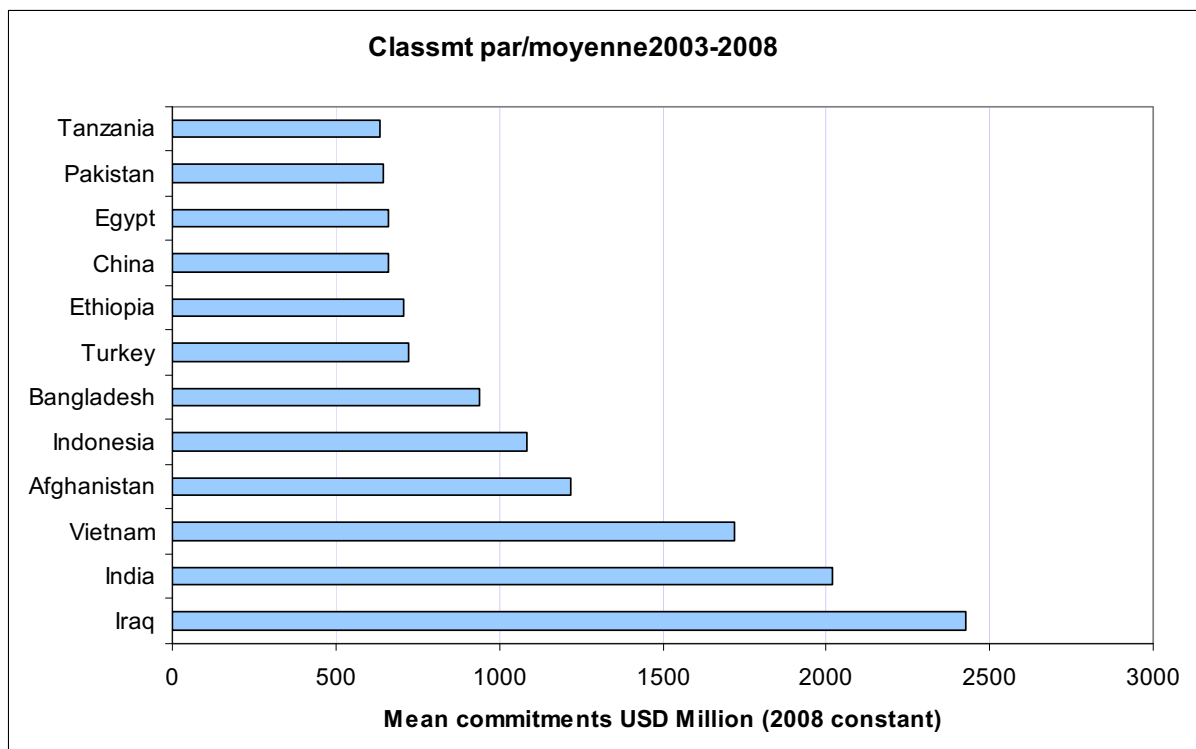
AfT recipients are far less concentrated than donors: there are numerous recipient countries, some of them receiving very small amounts of Aid. In addition, different criteria of AfT distribution among developing countries lead to different rankings of recipient countries. Hence, in order to provide the most complete picture of AfT distribution across recipient countries, we retained 3 different criteria: total amount of AfT received, received AfT per capita, and received AfT per unit of export value. We will also use rankings according to mean values for the period 2003-2008.

Total AfT received:

According to this criterion, the 10 leading recipients of Aid for Trade for the period 2003-2008 received 41.2% of total

AfT in 2008.¹³ Most major recipients are Lower Middle Income Countries (7 LMICs).¹⁴ Nevertheless, as already mentioned, it is likely that not all the AfT is specifically directed to enhancing trade capacity in recipient countries. For instance, one may imagine that AfT flows to Afghanistan and Iraq, recipients of large amounts during the period, mainly concern reconstruction rather than trade. That is why figure 15 reports the 12 leading recipients of AfT (47% of total AfT in 2008). Given the high heterogeneity of the 12 countries receiving the largest shares of AfT, this first ranking reveals the great difficulty in drawing a clear picture of the main characteristics of the median recipient of Aid for Trade. We also noted that most of the 12 leading recipients are populous developing countries. Furthermore, Sub-Saharan and Asian regions, two populous regions, are also the biggest recipients (figure 16).¹⁵ Thus, it could be more relevant to examine ranking according to AfT per capita and per export.

Figure 14. AfT 12 leading recipients, mean values 2003-2008



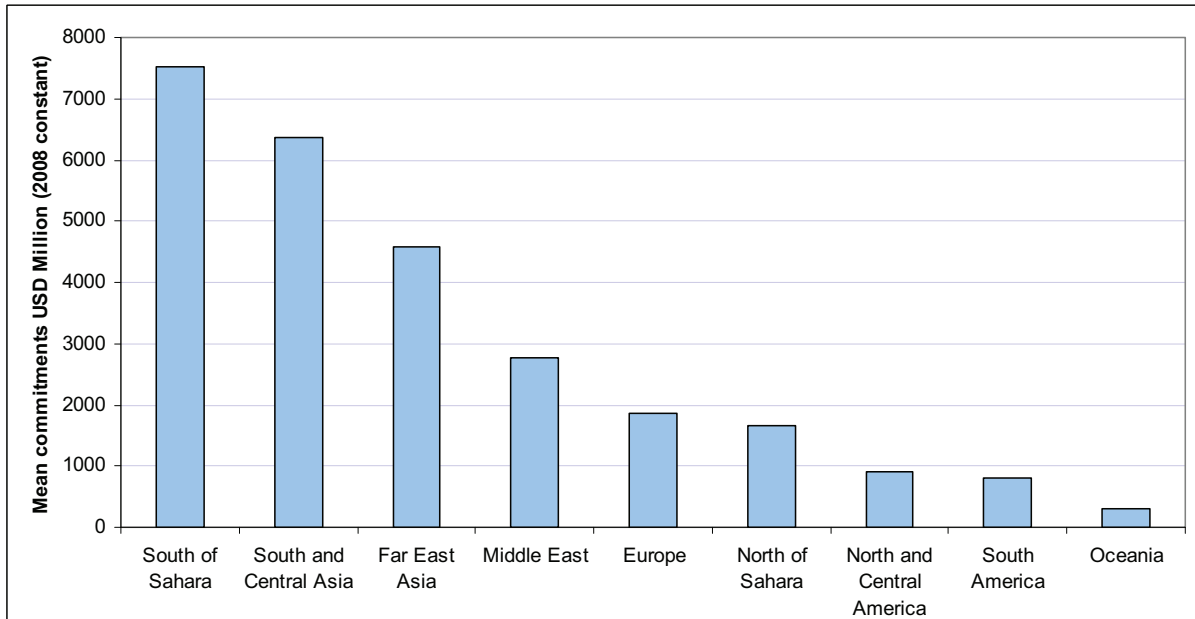
Source: OECD Creditor Reporting System, 2010.

¹³ For more details on the 20 leading recipients in 2002-2007, see OECD (2009).

¹⁴ The World Bank classifies countries according to their yearly Gross National Income (GNI) per capita, computed using the World Bank Atlas method. For 2008, the groups are: low income (LIC) with a USD 975 GNI per capita or less; lower middle income (LMIC) with a USD 976 to USD 3 855 GNI per capita; upper middle income (UMIC) with a USD 3 856 to USD 11 905 GNI per capita and high income (HIC) with a USD 11 906 or more GNI per capita. The United Nations use the Least Developed Countries (LDCs) classification for low income countries with human resource weakness and economic vulnerability.

¹⁵ This is also due to the fact that the major recipients of Aid for Trade are principally included within these two regions.

Figure 15. AfT per region, mean values 2003-2008¹⁶



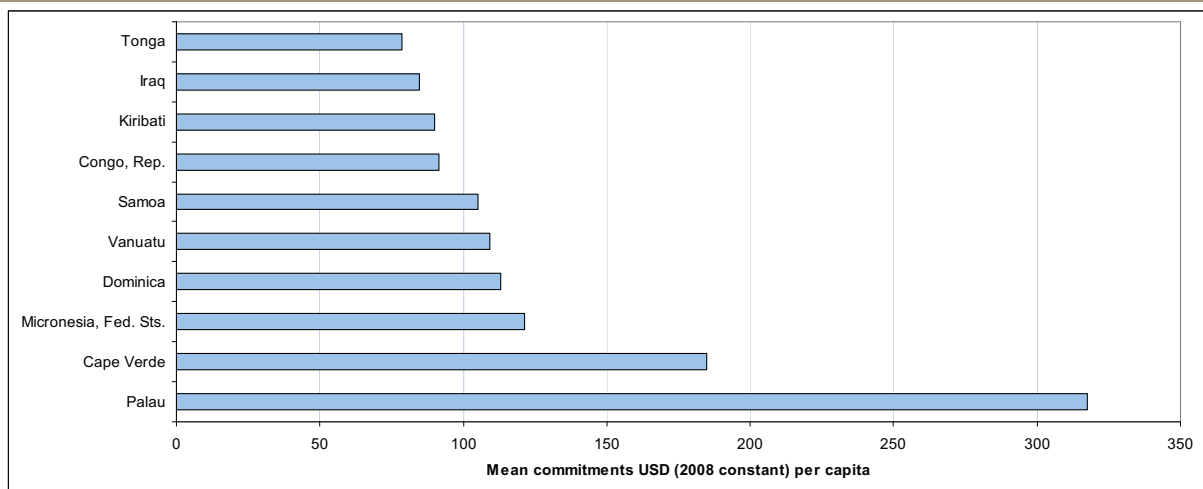
Source: OECD Creditor Reporting System, 2010.

Per capita Aid for Trade:

Unsurprisingly, based on the Aid for Trade per capita criterion for the period 2003-2008, the 8 major recipients are Island States mainly located in Oceania (figure 17). As a result, the average ratio of AfT received per capita during 2003-2008 is higher for Oceania than for other regions, almost USD 30 per capita vs. USD 2 to 15 per capita for the

other regions (figure 18.a.). As regards the ranking of recipients by income groups (figure 18.b.), the Least Developed Countries (LDCs) received the highest Aid for Trade per capita with a USD 11.3 per capita average “over the” 2003-2008 period, followed by Other Low Income Countries (OLICs) with USD 7.5 per capita. The Lower Middle Income and Upper Middle Income Countries (LMICs and UMICs) received nearly the same amount per capita.

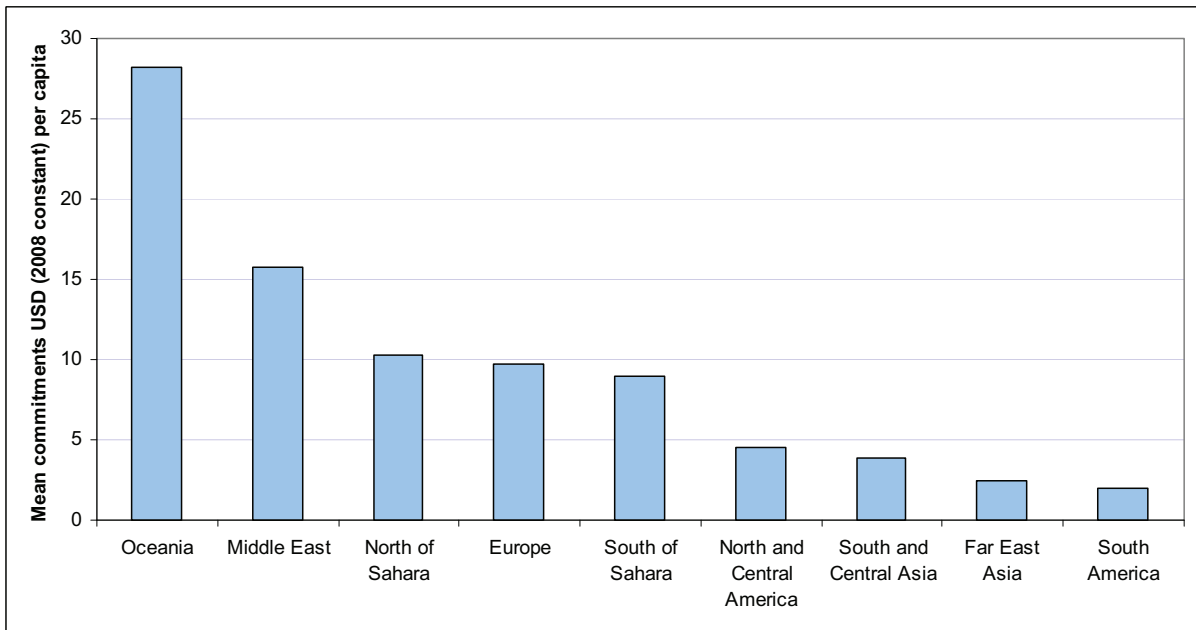
Figure 16. AfT per capita 10 leading recipients, mean values 2003-2008



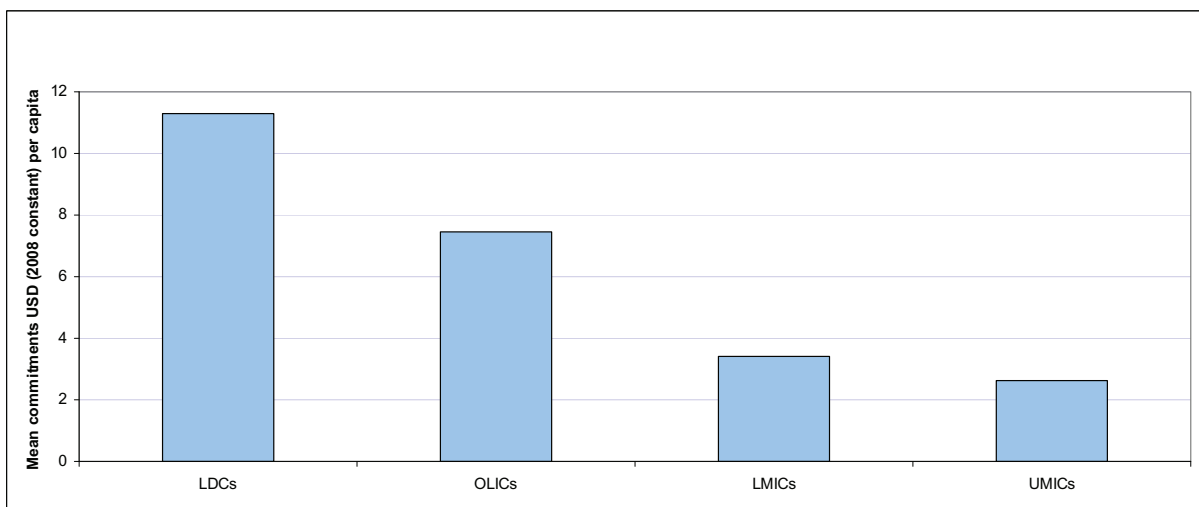
Source: OECD Creditor Reporting System, 2010.

¹⁶ The mean is calculated using an aggregation of Aid commitments for each region, divided by the number of years within the period.

Figure 17. Aft per capita distribution, mean values 2003-2008¹⁷
 17.a. Across regions



17.b. Across income groups



Source: OECD Creditor Reporting System, 2010.

¹⁷ Means are calculated using an aggregation of Aid commitments over the total population for each region, divided by the number of years within the period.

Furthermore, we match Aid per capita with the small and vulnerable economies (SVEs) category recognized by the United Nations Conference on trade and Development (UNCTAD) that includes countries sharing structural weakness, vulnerability and smallness.¹⁸ As expected, on average between 2003 and 2008, countries included in this category received 3 times more (USD 12 per capita) than countries outside this category (USD 3.6 per capita). Island States received a much larger amount than continental countries (USD 64 versus USD 15 per capita), explained by the small populations of these countries. Finally, landlocked countries received less (USD 17.5 per capita) than those that have access to the sea (USD 26 per capita).

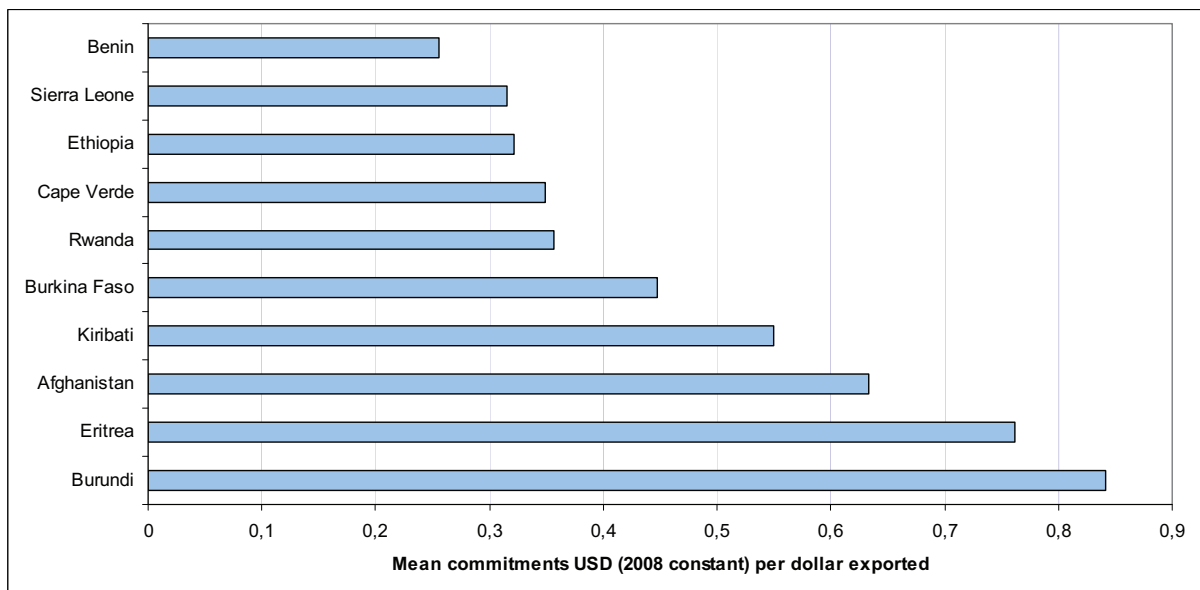
Aid for Trade per export:

Based on the AfT per export criterion, the ranking of the 10 leading recipients is quite different: 8 recipients are Sub-Saharan African countries (figure 19). Over the 2003-2008 period, Sub-Saharan Africa received on average 2.3 cents of AfT per unit value of exports, followed by South and Central Asia, exhibiting approximately the same ratio. This is substantially higher than other regions, which reached less than 1 cent per unit value of exports (figure 20.a). The AfT per export

ratios of Sub-Saharan Africa and South and Central Asia changed little over the 1995-2008 period, in contrast with most other regions, which registered decreases. In the case of Sub-Saharan countries, given that they benefited from increasing Aid for Trade amounts over the period, observed stability in their AfT per export suggests that the increase in their export capacity potentially induced by AfT did not compensate for the decrease in the value of their exports due to falling prices.

Finally, as regards AfT per export distribution across income groups, figure 20.b indicates that the LDC group received on average 7 cents per dollar exported between 2003 and 2008, which is significantly higher than the corresponding ratio exhibited by other income groups. This is also the case for the SVEs that received 3 cents per dollar exported (versus 0.4 cents for other countries). It should be noted that even if the LDC and SVE categories are not recognised by all donors, AfT allocation seems to benefit these recipients. Island States received 1.4 cents per dollar exported (versus 0.6 for continental countries) and landlocked countries benefited from 4.4 cents per dollar exported compared to the 0.05 cents for countries with access to the sea.

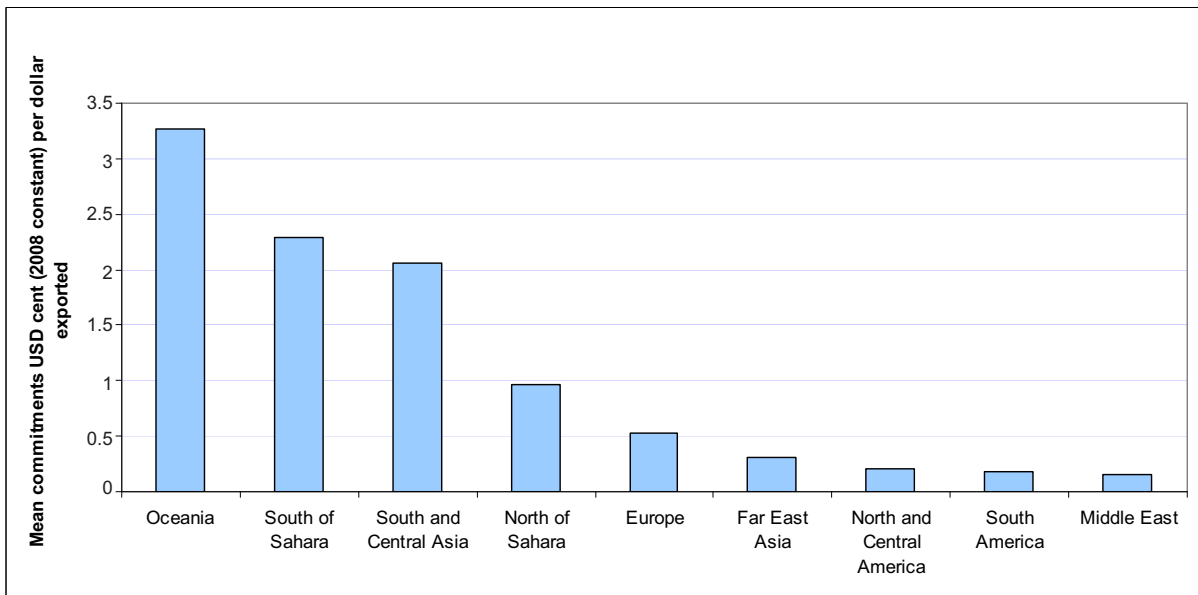
Figure 18. AfT per exports 10 leading recipients, mean values 2003-2008



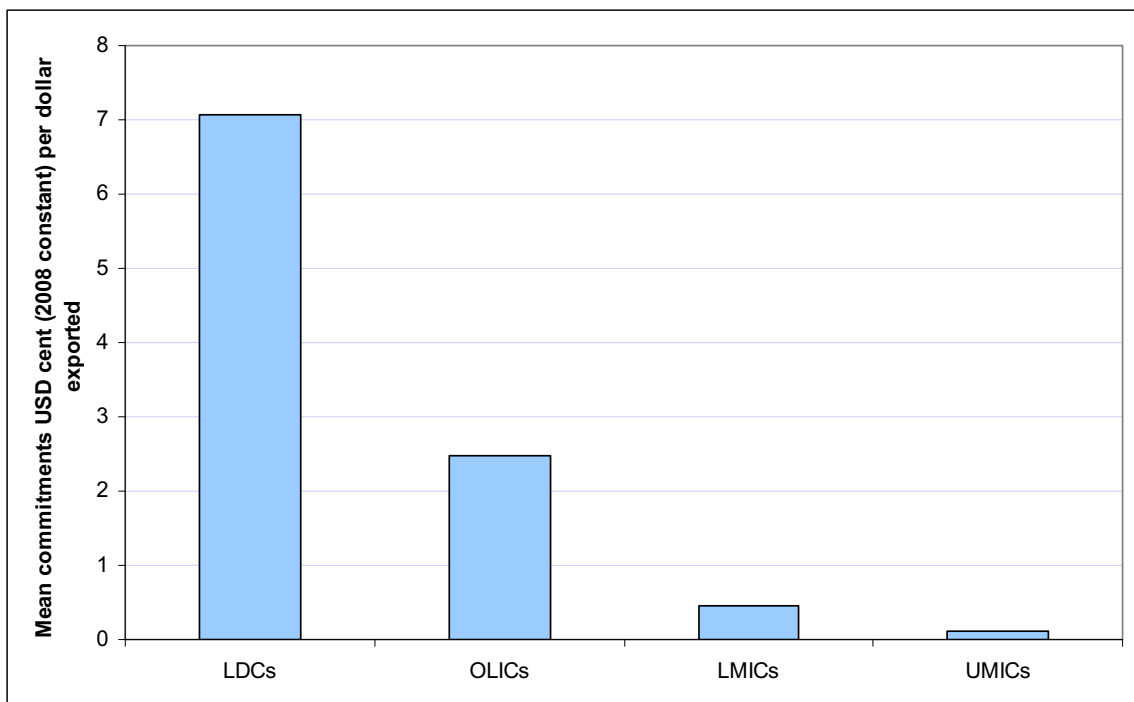
Source: OECD Creditor Reporting System, 2010.

¹⁸ See Appendix 3 for a list of countries.

Figure 19. Aft per exports, mean values 2003-2008
19.a. By region



19.b. By income group



Source: OECD Creditor Reporting System, 2010.

2. Empirical Assessment of the Impact of AfT on trade Flows: A Survey

There is an abundant literature dealing with the AfT concept and definition, and with the potential effectiveness of AfT.¹⁹ By contrast, there are very few studies providing empirical assessments of the impacts of AfT in recipient countries. In the following section, we first review the few existing studies which have tried to quantify the direct impact of AfT on the Trade performances of recipient countries. Secondly, we propose a survey of empirical studies that are not directly

concerned with AfT but may provide insights into AfT effectiveness. These are studies focused on trade costs and which aim to quantify the extent of the negative impact on trade of various factors entering trade costs. As reducing trade costs for developing countries is one major AfT objective, such studies may provide insights into the various channels through which AfT may help recipient countries to improve trade performance and how AfT should be channelled in priority to maximize effectiveness.

2.1 Quantitative assessments of the trade impacts of Aid for Trade

There are only a handful of studies aimed at quantifying the effects of Aid for Trade on trade flows. Cali and Te Velde (2009) is the most complete study in the sense that it considers the 3 main categories of AfT and measures their respective impact on recipient countries' exports. Both other studies, namely Helble *et al.* (2009) and Lederman *et al.* (2010), focus on one category of AfT or even one item from one category, and assess their effects on world trade for the former, and on exports of recipient countries for the latter. One additional study (Gamberoni and Newfarmer, 2009) is different from the previous ones since it is not concerned with the trade impacts of AfT but rather with the detection of the AfT needs of potential recipient countries. As this study also examines the link between trade and AfT, we chose to list it in this sub-section. However, one must bear in mind that this last study investigates the trade performance of potential recipient countries in order to detect the extent of their AfT needs, while other reviewed studies quantify the impact of AfT on the trade performance of actual recipient countries.

Cali and Te Velde (2009) assess the impact of different types of Aid for Trade flows on the export performance of recipient countries. The empirical results from a cross-section estimation framework for 120 recipient developing countries show that Aid for "trade facilitation", which includes a "simplification and harmonization of foreign trade procedures, a support to custom departments and tariffs reforms", reduces export time and export cost (in USD) in recipient countries. In addition, using panel data, they test whether Aid related to infrastructure and productive capacity building has an impact on both sectoral and total recipients' exports. They find that Aid for infrastructure has an impact on both sectoral and total exports, while Aid to productive capacity building significantly affects only sectoral exports.

¹⁹ OECD (2006), Gamberoni and Newfarmer (2009), Huchet-Bourdon *et al.* (2009), Hoekman and Wilson (2010), for example.

Helble *et al.* (2009) find that assistance directed toward trade facilitation enhances the trade performance of recipient countries. They estimate, with a gravity model, that a one percent increase in assistance to trade facilitation could generate an increase in global trade of about USD 415 million. Furthermore, the effect of Aid directed to the “trade Policy and Regulation” category seems stronger both in robustness and magnitude, with a particularly high impact on recipient’s exports. Also, this Aid category exhibits the highest rate of return, with USD 697 in additional trade for every dollar invested.

Lederman *et al.* (2010) evaluate the effectiveness of Export Promotion Agencies (EPAs) on exports. It should be noted that these agencies are mostly financed by foreign assistance in the poorest developing countries. They find that these institutions have, on average, a positive and significant impact on exports, but with heterogeneous effects across regions and with Africa particularly lagging behind. The authors also note that private-sector EPAs (but receiving a large share of public sector funding) are the best performers. Brenton and von Euxkull (2009) also find that technical assistance for exports targeted to some specific products enhances, on average, export performance. Nevertheless, using a difference-by-difference approach, they conclude that this effect is not entirely due to the export development program, and that the allocation of funds should be directed more to sectors that remain behind.

Finally, a Gamberoni and Newfarmer (2009) study aims to detect countries that are under-performing in trade and that receive less Aid for Trade than their potential demand. The authors construct a trade performance indicator which is assimilated to the potential Aid for Trade demand of each developing country. This index includes trade variables and internal capacity constraints related to institutions, infrastructure and trade policy. Finally, to identify countries that receive less Aid for Trade than expected, they introduce this index of trade performance into a cross-sectional estimation explaining Aid for Trade per recipient GDP, controlling for the level of development and the potential effectiveness of assistance. This work highlights the need to raise Aid to countries that are under-receiving

and can be used as a benchmark for monitoring the trade performance of recipients. Nevertheless, it does not assess the key question of the effectiveness of these flows on trade outputs.

The above-described studies (except the last one) all provide empirical evidence that AfT or at least some categories of AfT do positively affect the export performances of recipient countries. However, they do not offer much information on the mechanisms and channels through which AfT assistance enhances recipient countries’ exports. In the same vein, they do not provide many insights regarding the effectiveness of AfT and its various categories. Indeed, to our knowledge, there is no existing study covering the whole chain from AfT to the determinants of trade (*i.e.*, the various channels) and from these latter to trade flows. Such an approach has recently been investigated by Vijil and Wagner (2010), focusing on 2 determinants of trade, namely quantity and quality of infrastructure and quality of institutions. This paper adopts a two-step approach, where the main determinants (including infrastructure and institutions) of trade flows between considered countries are investigated first, while in the second stage the impact of AfT on the 2 considered trade determinants is quantified for recipients countries. Then, using the results of the 2 stages, it is possible to assess the impact of AfT on recipient country trade flows.

Fortunately, there are numerous empirical studies dealing with the first stage of the above-described approach. Such studies do not deal with AfT but aim at modelling trade flows between countries, and for that purpose they investigate the main determinants of these flows. Hence their empirical results provide insights into the main channels through which AfT may affect the trade of recipient countries on the one hand, and which AfT channels should be primarily targeted for being the most effective. A crucial determinant of trade flows, which is also one main target of AfT, is what is commonly named “trade costs” in the literature. As defined by Abe and Wilson (2009) for instance, trade costs include costs which increase the price of Traded goods during the delivery process from the exporters (or producers) in exporting countries to the importers (or final consumers) in importing countries. trade costs depend on

many factors (such as transport and storage conditions, logistics, functioning of institutions, functioning and complexity of administration, market structure, etc.) and are

different across countries. Existing literature thus provides empirical results on the extent of the negative impact of various elements of trade costs on trade flows.

2.2 Literature on trade costs: An overview

Trade facilitation measures, which can be assimilated to improving infrastructures and trade institutions, facilitating export goods to meet foreign standards and market search as a way to reduce trade costs, have been widely analysed and their effects have been empirically investigated using 3 different approaches: Computable General Equilibrium (CGE) models which quantify effects on income and welfare, gravity models which focus on bilateral trade effects, and country case studies.

The CGE approach usually considers the trade facilitation measures' incidence as an improvement in the productivity of the transport sector or as a reduction in trade costs. Within this framework, the OECD (2003) finds that developing countries will benefit the most from these trade facilitation measures because of their less efficient border procedures, the relative importance of their trade in agri-food products and the relative high share of small and medium-size businesses as Traders observed in these countries. Nevertheless, as Helble *et al.* (2009) point out, such results are sensitive to the hypothesis concerning the impact of trade facilitation measures on transport productivity or trade costs, a hypothesis that is part of the simulated scenario. Indeed, there is little observed data available to calibrate this impact and the empirical bases of the hypothesis are weak. Furthermore, while these studies conclude that potential gains arise from trade facilitation reforms, they do not identify through which channels such reforms affect transport productivity or trade costs.

The gravity model approach permits an estimation of the impact of different trade facilitation measures on bilateral trade flows. Perhaps the major examples are Wilson *et al.* (2003, 2005), who analyse the impact of trade facilitation reforms in terms of increased port efficiency, better customs environment, better regulatory environment and improved electronic business usage for Asian Pacific Economic

Cooperation members and for a broader sample of 75 countries. They find that improvements in trade facilitation, even unilateral efforts, significantly increase both imports and exports. Also, Hoekman and Nicita (2008) estimate that a 10% fall in the domestic cost of exporting would increase exports by about 4.7%.

Finally, country case studies allow a broader analysis of trade facilitation programs. These analyses generally present the rationale under the reform, describe precisely how measures were implemented in the field, the obstacles that such programmes have sought to overcome, approaches that countries have adopted to address them, and their results. In terms of costs of implementation, Duval (2006) presents the results of an expert survey on 12 trade facilitation measures. This study highlights the expert's opinion that long-term benefits largely exceed perceived costs of implementation.

Moreover, a growing body of the empirical literature considers that costs induced by internal constraints are comparable, and even higher, than tariffs barriers. Using a gravity model, Anderson and van Wincoop (2004) find that transportation, information and security cost barriers for industrialized countries are equivalent to a 30% tariff measure on trade flows, with an even higher magnitude for developing countries. Abe and Wilson (2009) also find that facilitation measures addressing port congestion could achieve impacts equal to those resulting from across-the-board uniform tariff reduction. Accounting for the relative preference margins of developing countries, Hoekman and Nicita (2008, 2010) suggest that an improvement in logistic performances and trade facilitation, which includes port efficiency, customs environment, regulatory environment and service sector infrastructure, is likely to have a greater payoff to improve trade performance of developing countries than further

market opening. Using the same domestic trade costs, Portugal-Perez and Wilson (2008) find the same results for African exporters. Considering that negotiations on tariff reduction in Doha are dragging on, the results of

these studies support the focus on internal trade cost reduction as an alternative development policy to WTO market opening for developing countries (Ikenson, 2008; Hoekman and Nicita, 2010).

2.3 A focus on some Trade cost components

Trade costs can be classified into two main categories: “natural” barriers like institutions, infrastructures and production costs, which are mainly internal barriers, and trade policy barriers (Grether and de Melo, 2000; Anderson and van Wincoop, 2004; Gamberoni and Newfarmer, 2009). Using a gravity model, Gamberoni and Newfarmer (2009) find that they all matter in explaining both export volumes and the export probability of developing countries. Using the same methodology, François and Manchin (2007) find similar results and point out that North-South trade is more affected by the lack of infrastructure and weak institutions than by tariff barriers. Furthermore, Djankov *et al.* (2006) conclude that time delays for export due to poor infrastructure and institutions are an even greater issue in developing countries’ exports of perishable goods. Also, this study highlights that trade burdens are 75% explained by weak institutional features and 25% by poor physical infrastructure.

a/ trade costs related to a lack of infrastructures

Theoretical and empirical evidence suggests that infrastructure quantity and quality, and investments effectively affect exports (Bougheas *et al.*, 1999; Limao and Venables, 2001; Brun *et al.*, 2005; Adam and Bevan, 2006). Introducing an average of road network density, the paved road network, the rail network and the number of phone lines per person in a gravity model, Limao and Venables (2001) find that the level of infrastructure is one of the main determinants of transport costs, and explains approximately half of the low export value displayed by Sub-Saharan countries. Using a similar methodology in three sub-samples of equal size selected according to income per capita, Brun *et al.* (2005) conclude that a lack of infrastructure has a greater impact on the bilateral trade between low-income countries and their exports to the North.

There is also empirical evidence of the impact of some specific kinds of infrastructure on exports. Freund and Weinhold (2004) find that a 10% increase in the number of a country’s web hosts is related to an export gain of around 0.2%. François and Manchin (2007) find that transport infrastructure is more relevant for low income countries’ trade performances, but that as income per capita rises, communications become more important.

Furthermore, soft infrastructure, in the sense of efficiency of infrastructure services and related regulation, is also essential because of the high rents that prevail at every step of an often non-competitive trade logistic chain. Indeed, a growing literature suggests that transport costs are endogenous to both the characteristics of the Traded goods and the market or organizational structure of the industry providing the transport service (Hummels *et al.*, 2009; Sequeira and Djankov, 2009). This evidence suggests that barriers to trade need to be addressed by concerted policy action, and that technical assistance to upgrade logistics and fight corruption can play a substantial role (Hoekman and Nicita, 2008; Portugal-Perez and Wilson, 2008; Anderson and Marcouiller, 2002).

b/ trade costs related to weak institutions

Findings on the effect of trade barriers due to institutional weakness affecting exports are less clear than for infrastructure. As an example, using indexes of the quality of institutions in a gravity model, François and Manchin (2007) find some ambiguous impacts on exports. Also, controlling for foreign market access and geography, the Redding and Venables (2004) index of protection of property rights and risk of expropriation does not appear to be a robust determinant of export performance.

This ambiguity may be explained by the difficulty in measuring institutional costs exclusively related to trade activities. Consequently, a few papers have tried to focus on more specific data. For example, Sequeira and Djankov (2009) estimate that in Southern Africa, corruption in port institutions increases total shipping costs for a standard 20-foot (13-metre) container by 14%. Anderson and Marcouiller (2002) also show that insecurity associated both with contractual enforcement problems and with transparency lowers international trade volumes significantly.

Finally, negotiations on multilateral and bilateral agreements by developing countries could also be considered a trade cost influenced by their institutional capacity. Indeed, talks on Rules of Origin (RoO), for example, are very complex, with substantial consequences on the export performance of Member States (Cadot *et al.*, 2008; Carrère and de Melo, 2004). Also, as we will discuss later, increasing the participation of developing countries in international standards organizations seems relevant to strengthening their institutional capacity facing these non-tariff barriers (Disdier *et al.*, 2008).

c/ trade costs related to production costs

Considering that when Rules of Origin (RoO) are binding, they can raise the production costs of the good that meets the required RoO, and such RoO can be considered as trade costs (Carrère and de Melo, 2004; Cadot *et al.*, 2006 and 2008). Indeed, the burdensome administrative procedures for conferring originating status and making an inefficient choice of inputs or of technical processes can harm the competitiveness of exporting firms and limit the use of preferential schemes. Carrère and de Melo (2004) found that for Mexican exports under the North American Free trade Agreement (NAFTA), administrative costs represented 42% of compliance costs to meet RoO in 2001. Even if the best policy action seems to be moving toward a simplification of RoO (Cadot *et al.* 2008), Aid for Trade can lower this administrative cost by strengthening the institutional capacity of customs, and facilitating the learning process and dissemination of information on the requirements needed to export under preferential schemes.

Furthermore, theory suggests that meeting foreign standards and technical regulations can also be assimilated to a trade cost which introduces a fixed cost and affects the marginal production costs of firms²⁰ (Czubala *et al.*, 2009). Their net effect on trade is ambiguous because standards can also be considered to be information on markets and consumer preferences that reduce search costs. Nevertheless, evidence indicates that these costs tend to reduce the export performance of developing country firms because of their incapacity to cope with the associated technical requirements and paperwork, particularly for small and medium-size businesses and trade in homogenous goods like agricultural products (Moenius 2004 and 2006; Wilson *et al.*, 2006; Disdier *et al.*, 2008; Czubala *et al.*, 2009).

Indeed, using survey data from 617 firms in 17 developing countries, Wilson *et al.* (2006) find that testing procedures and lengthy inspection procedures imposed by industrialized importers reduce firms' exports by 9% and 3% respectively. In addition, standards reduce the likelihood of exporting to more than three markets by 7%. Further still, a study on textiles and clothing being exported by African countries to the European Union suggests that the hindrance on the volume and the propensity to export is stronger if standards are not internationally harmonized (Czubala *et al.*, 2009).

Besides, Sanitary and Phytosanitary (SPS) standards are particularly relevant for developing countries, considering the share of agricultural goods in their exports to OECD markets (Otsuki *et al.*, 2001; Disdier *et al.*, 2008). Using a gravity model, Disdier *et al.* (2008) found that these standards reduce South to North agricultural exports significantly but not the North-North trade, reflecting the fact that SPS measures reduce trade because of the inability of developing countries to meet standards. Otsuki *et al.* (2001) find that a 1% strengthening in European aflatoxin standards exports of African groundnuts by 1.3%. Indeed, this evidence suggests that programs or projects aimed at helping developing countries reach international norms can induce a significant growth in trade flows.

²⁰ The World Bank's Technical Barriers to Trade Database reports that investment costs to comply with technical requirements, as a percentage of firm sales, are on average 7.65% for Sub-Saharan firms, with a maximum that can reach 124% (Wilson *et al.*, 2009).

Finally, this literature review clearly shows that to enhance trade performance, there is a need to facilitate the information exchange from importing to exporting countries concerning standards and technical regulations conditioning entry to their markets. Also, administrative systems, modern and technology-intensive inspections and quality control infrastructures, as well as production techniques, need to be financed so as to meet and maintain

these standards (Otsuki *et al.*, 2001). Furthermore, considering the credit constraint in developing countries, the fixed cost induced by the adaptation of the production to standards also needs to be financed (Czubala *et al.*, 2009). These obstacles can be partially addressed by Aid for Trade in the form of Export Promotion Agencies, trade policy and regulation, infrastructures related to trade financing, and credits for exporters.

Conclusion

Aid for Trade (AfT) was officially born following the 6th Ministerial Conference in Hong Kong in December 2005. This is increasingly pointed to as a promising new development tool to help developing countries benefit from WTO agreements and expand their trade.

The aim of this paper has been to contribute to clarifying the AfT issue by providing a picture, as comprehensive as possible, of what is currently known about Aid for Trade.

The most striking features of the provided statistical overview on AfT flows are the following: first, the allocated amount of AfT has risen particularly since 2005, but the share of AfT in the allocable ODA has decreased since 1995 from 49% to 37%. Second, inside the AfT, the most important share is devoted to the Infrastructure category, followed by the Building productive capacity category, and, increasing in weight since 2001, by the trade policy regulations category. Third, four donors gave 65% of the volume of AfT in 2008, whereas twelve recipients shared

around 47% of the total amount allocated. It is worth noting that Asian and Sub-Saharan African countries seem to be the main regions receiving AfT when ranking according to total AfT received. Moreover, if we classify countries according to Gross National Income, the Least Developed Countries group is the top recipient according to both AfT per capita and AfT per export. Finally, considering the strong linkages between economic and social sectors, it is often difficult to disentangle the part of Aid which effectively enhances foreign trade from the part which benefits other social or economic sectors.

The second general insight that emerges from this paper is that there are only very few empirical works assessing Aid for Trade impacts on recipient country trade. Some papers dealing with components of trade costs offer useful results. Further research will be devoted to the various channels through which Aid for Trade may help recipient countries improve trade performance. This knowledge could help donors more effectively allocate Aid for Trade.

References

- Abe, K. and J.S. Wilson, (2009), "Investing in Port Infrastructure to Lower trade Costs in East Asia", *Policy Research Working Paper Series*, The World Bank.
- Adam, C. S. and D.L. Bevan, (2006), "Aid and the Supply Side: Public Investment, Export Performance, and Dutch Disease in Low-Income Countries?" *World Bank Economic Review*, 20(2), pp. 261-90.
- Anderson, J. E. and D. Marcouiller, (2002), "Insecurity and the Pattern of trade: An Empirical Investigation", *Review of Economics and Statistics*, 84(2), pp. 342-52.
- Anderson, J. E. and E. van Wincoop, (2004), "trade Costs," *Journal of Economic Literature*, 42(3), pp. 691-751.
- Brenton, P. and E. von Uexkull (2009), "Product Specific Technical Assistance for Exports - Has It Been Effective?", *Journal of International trade & Economic Development*, 18(2), pp. 235-54.
- Brun, J. F., C. Carrere, P. Guillaumont and J. de Melo (2005), "Has Distance Died? Evidence from a Panel Gravity Model", *World Bank Economic Review*, 19(1), pp. 99-120.
- Bougheas, S., P.O. Demetriades and E.L.W. Morgenroth (1999), "Infrastructure, Transport Costs and trade." *Journal of International Economics*, vol. 47(1), pp. 169-189.
- Cadot, O., C. Djiofack and J. de Melo (2008), "Préférences commerciales et règles d'origine: conséquences des APE pour l'Afrique de l'ouest et centrale," 65, *Working Paper*, Agence Française de Développement.
- Cadot, O., A. Estevadeordal, A. Suwa-Eisenmann and T. Verdier (2006), eds. *The Origins of Goods. Rules of Origin in Regional trade Agreements*, Oxford University Press.
- Cali, M. and D.W. Te Velde (2009), "Does Aid for Trade Really Improve trade Performance", Overseas Development Institute London.
- Carrère, C. and J. de Melo (2004), "Are Different Rules of Origin Equally Costly? Estimates from Nafta", in Cadot, O. *et al.* (2006), eds. *The Origins of Goods. Rules of in Regional trade Agreements*, chap. 7, pp.191-212, Oxford University Press.
- Cling, J. P. (2006), "Commerce, croissance, pauvreté et inégalités dans les PED: Une revue de la littérature," *Working Paper*, DIAL.

- Czubala, W., B. Shepherd and J.S. Wilson (2009), "Help or Hindrance? The Impact of Harmonised Standards on African Exports", *Journal of African Economies*, 18(5), pp. 711-44.
- Disdier, A.C., L. Fontagne and M. Mimouni (2008), "The Impact of Regulations on Agricultural trade: Evidence from the Sps and Tbt Agreements," *American Journal of Agricultural Economics*, 90(2), pp. 336-50.
- Djankov, S., C. Freund and C.S. Pham (2006), "Trading on Time", *Policy Research Working Paper Series*, The World Bank.
- Duval, Y. (2006), "Costs and Benefits of Implementing trade", Facilitations Measures under Negotiations at the WTO: An Exploratory Survey", *Working Paper Series*, Asian-Pacific Research and Training Network on trade.
- François, J. and M. Manchin (2007), "Institutions, Infrastructure and trade", *CEPR Discussion Papers* 6068.
- Freund, C. L. and D. Weinhold, "The Effect of the Internet on International trade", *Journal of International Economics*, 62(1), pp. 171-89.
- Gamberoni E. and R. Newfarmer (2009), "Aid for Trade: matching potential demand and supply", *Policy Research Working Paper Series*, The World Bank.
- Grether, J. M. and J. de Melo (2000), *Commerce International - théories et applications*, De Boeck University.
- Helble, M., C. Mann and J.S. Wilson (2009), "Aid for Trade Facilitation", *Policy Research Working Paper Series*, The World Bank.
- Hoekman, B and A. Nicita (2010), "trade Policy, trade Costs, and Developing Country trade", *Policy Research Working Paper Series*, The World Bank.
- Hoekman, B. and A. Nicita (2010), "Assessing the Doha Round: Market Access, Transactions Costs and Aid for Trade Facilitation", *Journal of International trade & Economic Development*, 19(1), pp. 65-79.
- Hoekman, B. and S. Wilson (2010), "Aid for Trade: Building on Progress Today for Tomorrow's Future", *Policy Research Working Paper Series*, The World Bank.
- Huchet-Bourdon M., A. Lipchitz and A. Rousson (2009), "Aid for Trade in Developing countries: Complex Linkages for Real Effectiveness", *African Development Review*, vol. 21 (2), pp. 243-290.
- Hummels, D., V. Lugovskyy and A. Skiba (2009), "The trade Reducing Effects of Market Power in International Shipping", *Journal of Development Economics*, 89(1), pp. 84-97.
- Ikenson, D. (2008), "While Doha Sleeps: Securing Economic Growth Through trade Facilitation", *trade Policy Analysis*, Center for trade Policy Studies.
- Lederman D., M. Olarreaga and L.. Payton (2010), "Export Promotion Agencies: Do They Work?", *Journal of Development Economics*, 91(2), pp. 257-65.

- Limao, N. and A.J. Venables (2001), "Infrastructure, Geographical Disadvantage, Transport Costs, and trade", *World Bank Economic Review*, 15(3), pp. 451-79.
- Moenius, J. (2006), "The Good the Bad and the Ambiguous: Standards and trade in Agricultural Products", *Food regulation and trade: Institutional Framework, Concepts of Analysis and Empirical Evidence*, Bonn, Germany.
- Moenius, J. (2004), "Information Versus Product Adaptation: The Role of Standards in trade", Northwestern University.
- OECD (2009), "Aid for Trade at a Glance 2009," Organisation for Economic Co-operation and Development, Paris.
- OECD (2006), "Aid for Trade: making it effective", Organisation for Economic Co-operation and Development, Paris.
- OECD (2005), "The Paris Declaration on Aid Effectiveness and the Accra Agenda for Action", Organisation for Economic Co-operation and Development, Paris
- OECD (2003), "Quantitative Assessment of the Benefits of trade Facilitation", Organisation for Economic Co-operation and Development, Paris.
- Otsuki, T., J.S. Wilson and M. Sewadeh (2001), "Saving Two in a Billion: Quantifying the trade Effect of European Food Safety Standards on African Exports", *Food Policy*, 26(5), pp. 495-514.
- Portugal-Perez, A. and J.S. Wilson (2008), "trade Costs in Africa: Barriers and Opportunities for Reform", *Policy Research Working Paper Series*, The World Bank.
- Redding, S. and A.J. Venables (2004), "Geography and Export Performance: External Market Access and Internal Supply Capacity", R. E. Baldwin and L. A. Winters, *Challenges to Globalization: Analyzing the Economics*, 95-130.
- Sequeira, S. and S. Djankov (2009), "On the Waterfront: An Empirical Study of Corruption in Ports", mimeo, Harvard University.
- Vijil, M. and L. Wagner (2010), "Does Aid for Trade enhance export performance? Investigating on the infrastructure channel", Working Paper UMR SMART, INRA.
- Wilson, J. S., M.X. Chen and T. Otsuki (2006), "Do Standards Matter for Export Success?", *Policy Research Working Paper Series*, The World Bank.
- Wilson, J. S., C.L. Mann and T. Otsuki (2005), "Assessing the Benefits of trade Facilitation: A Global Perspective", *World Economy*, 28(6), pp. 841-71.
- Wilson, J. S., C.L. Mann and T. Otsuki (2003), "trade Facilitation and Economic Development: A New Approach to Quantifying the Impact", *World Bank Economic Review*, 17(3), pp. 367-89.
- Winters, A., N. McCulloch and A. McKay (2004), "trade Liberalization and Poverty: The Evidence So Far", *Journal of Economic Literature*, 42(1), pp. 72-115.

Appendix 1. A short glossary

Commitment: following the CRS database definition, a commitment is “a firm written obligation by a government or official agency, backed by the appropriation or availability of the necessary funds, to provide resources of a specified amount under specified financial terms and conditions and for specified purposes for the benefit of the recipient country”.

Disbursements: CRS gives the following definition: “a disbursement is the placement of resources at the disposal of a recipient country or agency, or in the case of internal development-related expenditures, the outlay of funds by the official sector”.

Equity Investment: includes direct financing of enterprises in a developing country which does not (as opposed to direct investment) imply a lasting interest in the enterprise. This is not an ODA flow.

ODA Grant: following the DAC definition, grants are transfers in cash or in kind for which no legal debt is incurred by the recipient.

ODA Grant-like: these flows contain 1) loans for which the service payments are to be made into an account in the borrowing country and used by this country for its own benefit, and 2) provision of commodities for sale in the recipient’s currency, the proceeds of which are used in this country for its own benefit.

ODA Loans: these are transfers for which the recipient incurs a legal debt and repayment is required in convertible currencies or in kind.

Official Development Assistance (ODA) is flows to

development countries in the DAC list of Aid Recipients and to multilateral development institutions. These flows must satisfy 2 conditions to be considered ODA:

- need to be supplied by official agencies (including State and local government) or by their executing agencies; and
- each transaction must have:
 - i) a main objective of promotion of the economic development and welfare of developing countries; and
 - ii) a concessional nature: if it is a loan, it needs to have a grant element of at least 25% (calculated at a discount rate of 10%).

In addition to financial flows, Technical Cooperation is also included in Aid.

Countries in this list have a per capita GDP below USD 10,065 in 2004 constant prices (except those that are members of the G8 or the European Union).

OOF: these are official sector transactions (Other Official Flows) which do not meet the ODA criteria.

Sector allocable Aid: some contributions are not susceptible to be allocated by sector and are reported as non-sector allocable Aid. Examples are Aid for general development purposes such as Aid allocated to debt relief, humanitarian Aid and internal transactions in the donor country. Considering this definition, in our ODA analysis we eliminate all the flows allocated to categories upper the 41009 CRS sector code.

Appendix 2. Matching Aid for Trade data from the Creditor Reporting System database with the WTO task force definition of Aid for Trade

The Creditor Reporting System (CRS) is a database constructed by the OECD that follows the Official Development Assistance and other official flows accorded to developing countries. This database, which has been recognized as the best available source for Aid analysis, including on Aid for Trade, has been approved by the Development Assistance Committee (DAC) members.

In 2006, the WTO Task Force on Aid for Trade proposed a definition on Aid for Trade that includes five categories:

technical assistance to trade policy and regulations, trade-related infrastructure, productive capacity building (which includes trade development), trade-related adjustment, and other-trade related needs. However, the CRS database only provides proxies for the first four categories.

The CRS purpose codes that can be partially matched with the official Aid for Trade definition presented above are the following:

Aid for Trade official definition	CRS data purpose code	Content of the CRS data
Trade Policy and Regulations	33110 to 33140 and 33181	Trade policy and administrative management, trade facilitation, regional trade agreements, multilateral trade negotiations, trade education/training
Trade-related infrastructure	21010 to 23082	Transport and storage, communications, energy generation and supply
Productive capacity building	24010 to 32268 and 33210	Banking and financial services, business and other services, agriculture, forestry, fishing, industry, mineral resources and mining, tourism
Trade-related adjustment	33150	Contribution to the government budget to cover cost related to trade adjustment
Other trade-related needs that	Not recognized by the CRS	Aid to other sectors than those mentioned above - e.g. health, education - enhance trade

Source: OECD Creditor Reporting System, 2010.

"Trade development policy marker": For each programme falling in the productive capacity building category, donors are required to report whether trade development is the "principal" objective or a "significant" one.

Further information on the content of the CRS data on Aid for Trade can be found at the link to this OECD document: <http://www.oecd.org/dataoecd/57/36/43234667.pdf>

Appendix 3. Lists of countries by group

Least Developed Countries

Afghanistan	Central African Rep.	Malawi	Swaziland
Armenia	Chad	Mali	Tajikistan
Azerbaijan	Ethiopia	Moldova	Turkmenistan
Bhutan	Kazakhstan	Mongolia	Uganda
Bolivia	Kyrgyz Republic	Nepal	Uzbekistan
Botswana	Laos	Niger	Zambia
Burkina Faso	Lesotho	Paraguay	Zimbabwe
Burundi	Macedonia, FYR	Rwanda	

Small and Vulnerable Economies

Afghanistan	Cote d'Ivoire	Madagascar	Sao Tome & Principe
Angola	Djibouti	Malawi	Seychelles
Antigua and Barbuda	Dominica	Maldives	Sierra Leone
Bahamas	Dominican Republic	Mali	Solomon Islands
Bahrain	El Salvador	Marshall Islands	Somalia
Barbados	Equatorial Guinea	Mauritania	St. Kitts-Nevis
Belize	Eritrea	Mauritius	St. Lucia
Benin	Fiji	Micronesia, Fed. States	St. Vincent & Grenadines
Bhutan	Gabon	Mongolia	Sudan
Bolivia	Gambia	Mozambique	Suriname
Botswana	Ghana	Myanmar	Swaziland
Brunei	Grenada	Namibia	Tanzania
Burkina Faso	Guatemala	Nauru	Timor-Leste
Burundi	Guinea	Nepal	Togo
Cambodia	Guinea-Bissau	Nicaragua	Tonga
Cameroon	Guyana	Niger	Trinidad and Tobago
Cape Verde	Haiti	Oman	Tuvalu
Central African Rep.	Honduras	Palau	Uganda
Chad	Jamaica	Panama	Uruguay
Comoros	Kiribati	Papua New Guinea	Vanuatu
Congo, Dem. Rep.	Laos	Paraguay	Yemen
Congo, Rep.	Lesotho	Rwanda	Zambia
Costa Rica	Liberia	Samoa	Zimbabwe

Small Island States

Antigua and Barbuda	Jamaica	Papua New Guinea	Timor-Leste
Bahamas	Kiribati	Samoa	Tonga
Barbados	Maldives	Sao Tome & Principe	Trinidad and Tobago
Cape Verde	Marshall Islands	Seychelles	Tuvalu
Comoros	Mauritius	Solomon Islands	Vanuatu
Dominica	Micronesia, Fed. States	St. Kitts-Nevis	
Fiji	Nauru	St. Lucia	
Grenada	Palau	St. Vincent & Grenadines	

Landlocked Countries

Afghanistan	Central African Rep.	Malawi	Swaziland
Armenia	Chad	Mali	Tajikistan
Azerbaijan	Ethiopia	Moldova	Turkmenistan
Bhutan	Kazakhstan	Mongolia	Uganda
Bolivia	Kyrgyz Republic	Nepal	Uzbekistan
Botswana	Laos	Niger	Zambia
Burkina Faso	Lesotho	Paraguay	Zimbabwe
Burundi	Macedonia, FYR	Rwanda	

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