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TRADE-RELATED DEVELOPMENT OUTCOMES AND IMPACTS: AN ANALYSIS OF THE 2013 AID-FOR-TRADE FACT SHEETS

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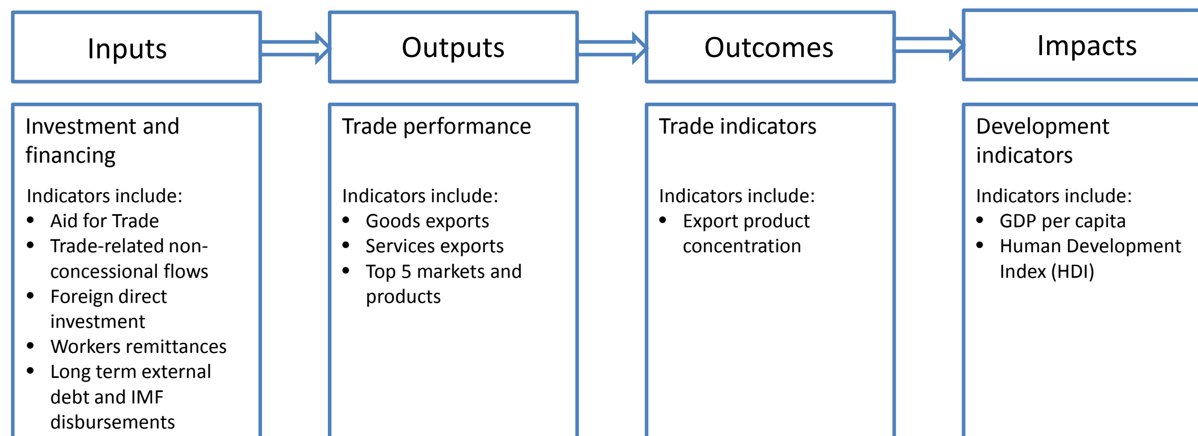
1 OVERVIEW AND MAIN FINDINGS

1.1. One of the functions of the Aid-for-Trade Initiative is to monitor the demand and supply of Aid for Trade and to evaluate the effectiveness in delivering results on the ground. One innovation of the 2013 edition of the WTO-OECD Aid for Trade at a Glance monitoring report was the inclusion of national fact sheets that were based on a results chain framework at the macro level for the period 2005 to 2010/11. This methodology seeks to examine how development finance inflows are linked to trade and development outcomes.[1] Figure 1 below highlights how this approach has been conceptualized in the design of the 2013 fact sheets.

Figure 1 - Results Chain Framework to Conceptualize Trade and Development Performance in Developing Countries



Source: WTO Secretariat.
Note: Details on the indicators used can be found in Annex II. While the fact sheets covered several indicators, Figure 1 only shows the indicators used in this study.

1.2. The fact sheets contained in the WTO/OECD Aid for Trade at a Glance 2013 publication provide factual information for the period 2005-2010. Data in each of the categories is reported (where available) for the 80 developing countries that responded to the Aid-for-Trade self-assessment monitoring questionnaire in 2012/2013.

1.3. The aim of this report is threefold. First, it provides an analysis of the 80 country fact sheets at the aggregate level, including for the five country groupings Least-developed countries (LDCs), Lower Middle Income Countries (LMICs), Upper Middle Income Countries (UMICs), Small and Vulnerable Economies (SVEs), and Landlocked Developing Countries (LLDCs).[2] Furthermore, more detailed analysis is provided for LDCs, which are particularly reliant on aid for trade. This aggregate analysis highlights commonalities and differences between country groupings.

1.4. Second, the study assesses Aid for Trade and development finance from a results chain perspective by describing the relationships between development finance and trade performance, and between trade performance and development impacts. The discussion of these relationships allows policymakers to better understand the role of investment and financial flows in achieving development objectives. Furthermore, the study complements a growing body of research pointing to the positive role and challenges of Aid for Trade in fostering trade and development impacts.

1.5. A third objective of the analysis is to illustrate the explanatory power of the fact sheets, thereby providing inputs to the discussion on how to further refine the approach taken by the fact sheets and the methodology used. Therefore, the analysis is limited to the data and variables of the fact sheets, even if newer data such as in the case of Aid for Trade exist.

1.6. Since the analysis is based on data for 80 developing countries for the time-period 2005-2010/11, conclusions drawn are based only on the sample i.e. those who also replied to the

[1] Results based management tracks how inputs become outputs, outputs generate outcomes, and in turn outcomes become impacts.
[2] Annex I provides more details regarding the sample of countries and the composition of the respective country groups.

partner country questionnaire. For instance, a number of countries from the income groups of LMICs (e.g. Philippines, Egypt) and UMICs (e.g. China, Namibia) have not been included in the fact sheets and are therefore also not included in the income group aggregates.

1.7. Another important limitation of the analysis is data availability. For many indicators included in the fact sheets, data are missing for several countries. For example, the lack of export data for Bangladesh, Nepal, Lesotho and Afghanistan results in an underestimation of the importance of textiles and apparel exports for LDCs. In some cases, this was remedied by using data from the closest available year.[3]

1.8. The fact sheets rely on the OECD, DAC-Creditor Reporting System (CRS) Aid Activities Database for Aid for Trade and trade-related Other Official Flows disbursements. Disbursement data do not capture South-South flows of trade-related assistance, which is mostly not reported to the OECD.

1.1 Key Conclusions

1.9. The following general conclusions can be drawn:

a. Financial inflows to the 80 developing countries increased by more than 62% between 2005 and 2010. Aid for Trade remains of particular importance for LDCs and accounts, on average, for 20% of their external financial inflows. Support for trade facilitation has increased significantly between 2005 and 2010 growing at a faster rate than overall Aid for Trade.

b. Between 2005 and 2010 goods' and services' exports increased by 66% and 70% respectively for the 78 countries for which data were available. Goods exports increased the most for LDCs, LLDCs and LMICs with 98%, 102% and 83%, respectively. In the case of LDCs, export growth has been driven by primary commodities leading to increased product concentration in several countries.

c. South-South trade is proving an important driver for market diversification. Between 2005 and 2010, China and India moved into the top five export and import markets for an increasing number of developing countries.

d. Developing countries experienced positive development trends as captured by the indicators GDP per capita and human development index. In particular, GDP per capita increased the most for poor countries, i.e. on average by 27% for LDCs and 30% for LLDCs. Furthermore, all LDCs in the sample improved their human development index score between 2005 and 2010.

e. The assessment of the fact sheets from a results chain perspective at the macro level highlights the positive relationships between development finance and trade performance as well as between trade performance and development impacts. The analysis suggests positive correlations between Aid for Trade and export growth and between export growth and GDP per capita income growth.

[3] The choice of indicators was itself influenced by the availability of time series data. New indicators are appearing which may, in some cases, be more fitting for the purpose of this analysis. However, the absence of historical data and geographic coverage means they were not appropriate for inclusion.

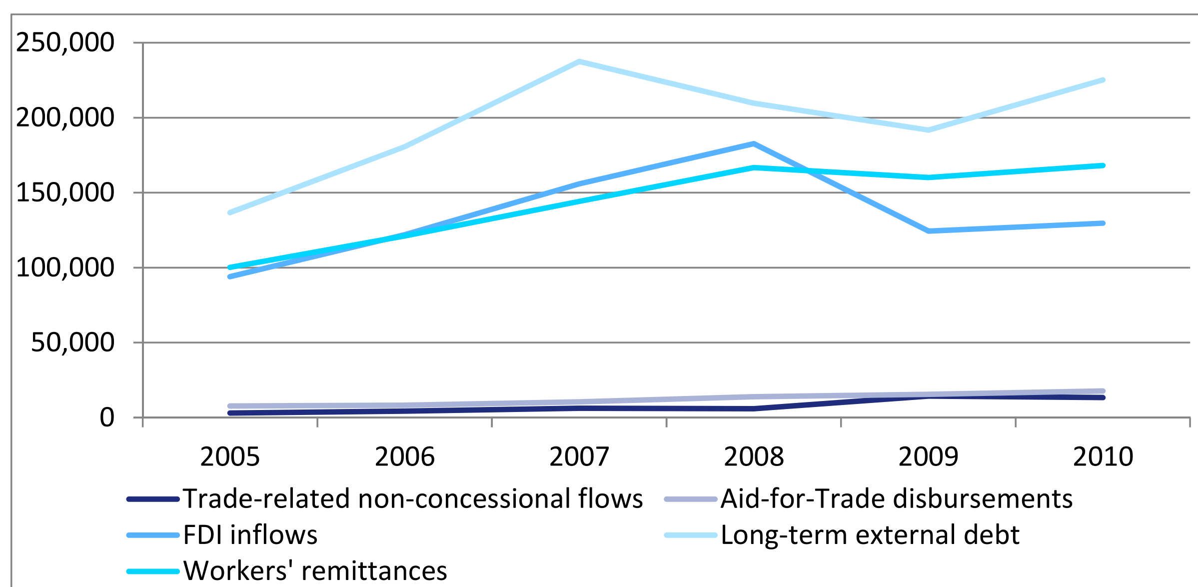
2 FINANCIAL INFLOWS

2.1. Development finance refers to external financial inflows to developing countries. Development finance can come in different forms, including foreign direct investment (FDI), Official Development Assistance (ODA), remittances, non-concessional flows or Other Official Flows (OOFs) and long term external debt.[4]

2.2. Financial inflows to the 80 economies covered by the fact sheets increased by more than 62% between 2005 and 2010. Figure 2 shows that disbursement of long term external debt, workers' remittances and FDI are the main sources of external finance to these countries and increased respectively by 65%, 68%, and 38% between 2005 and 2010.

2.3. While Aid for Trade and trade-related OOFs are smaller in size compared to other financial flows, they grew at a faster pace. In particular, trade-related OOFs more than tripled and Aid for Trade disbursements more than doubled between 2005 and 2010. Furthermore, Aid for Trade has been stable over time. In contrast, FDI and long-term external debt have been volatile, experiencing a sharp decline during the 2007-2009 Great Recession. Meanwhile, the multilateral response to the Great Recession led to a temporary increase of OOFs.

Figure 2 - Aggregate financial inflows 2005-2010 (current US$ millions)



Sources: OECD, DAC-CRS Aid Activities Database; World Bank, World Development Indicators; World Bank, International Debt Statistics.

Note: Official development assistance and Other Official Flows that are not Aid for Trade or trade-related are not covered. Graphs are based on data for 80 countries. Long term external debt and workers' remittances are underestimated due to missing data for few countries, e.g. missing data for eight and twelve countries in 2010, respectively.

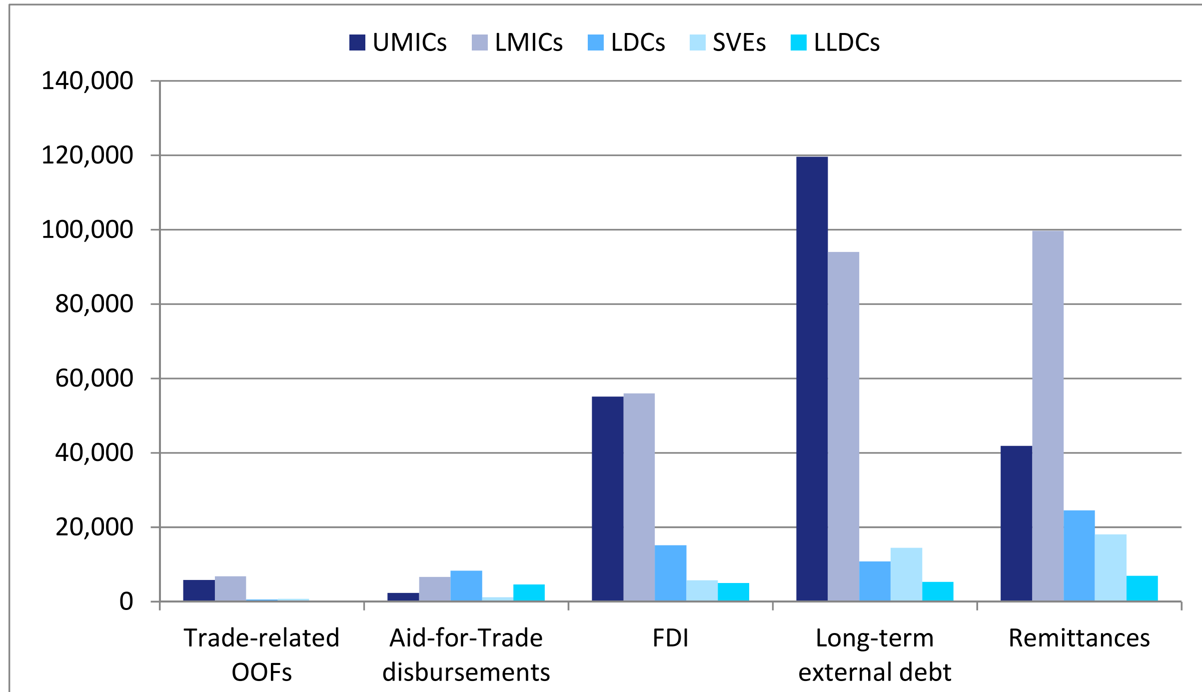
2.4. Figure 3 shows different financial inflows by income group in 2010. Middle income countries were the largest recipients of all financial inflows, except Aid for Trade, for which LDCs were the main beneficiaries.[5] Remittances were the largest financial inflow for all income groupings except UMICs. Disbursements of long-term external debt to UMICs were substantially higher than to other income groups. Trade-related OOFs go mainly to more economically-developed countries, i.e.

[4] Aid for Trade is a subset of official development assistance. Trade-related non-concessional flows also cover only Aid for Trade sectors. Long-term external debt is defined as debt that has an original or extended maturity of more than one year and that is owed to non-residents by residents of an economy and repayable in currency, goods, or services. It also includes IMF purchases, which are total drawings on the General Resources Account of the IMF during the year specified, excluding drawings in the reserve tranche.

[5] It should be noted that LDCs are the biggest beneficiaries of Aid for Trade in the sample of 80 developing countries used in this study. For a broader sample, Aid for Trade data show that LMICs were the biggest beneficiaries in 2012.

UMICs and LMICs. For instance, low income countries traditionally receive less than 3% of overall OOFs.

Figure 3 - Aggregate financial inflows by income group in 2010 (current US$ millions)

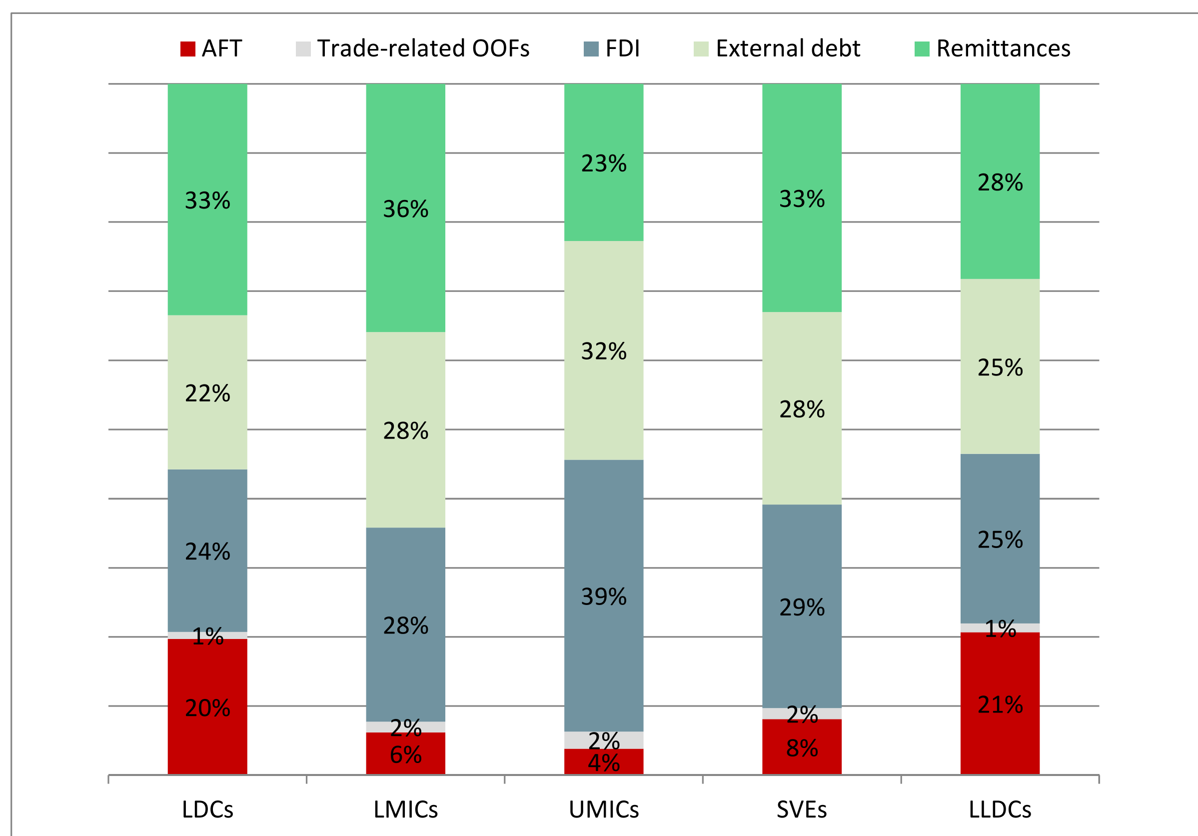


Sources: OECD, DAC-CRS Aid Activities Database; World Bank, World Development Indicators; World Bank, International Debt Statistics.

Note: Country groupings cover the following number of countries: LDCs: 35; LMICs: 17; UMICs: 19; SVEs: 18; LLDCs: 17. Remittances are underestimated as no data were available for 8 LDCs, 4 LLDCs and 1 UMIC.

2.5. Looking at the average share of Aid for Trade in financial inflows by country reveals that Aid for Trade remains relevant (Figure 4). Aid for Trade accounts, on average, for about 20% of financial inflows in LDCs and LLDCs. In contrast, in UMICs, LMICs and SVEs Aid for Trade constitutes on average less than 10% of financial inflows. For these countries, FDI flows are relatively bigger in size. For instance, for UMICs, FDI is the most important source of development finance accounting for almost 40% of inflows. Meanwhile, for all country groupings except UMICs, remittances constitute, on average, the biggest external finance resource.

Figure 4 - Average share of financial inflows by country group

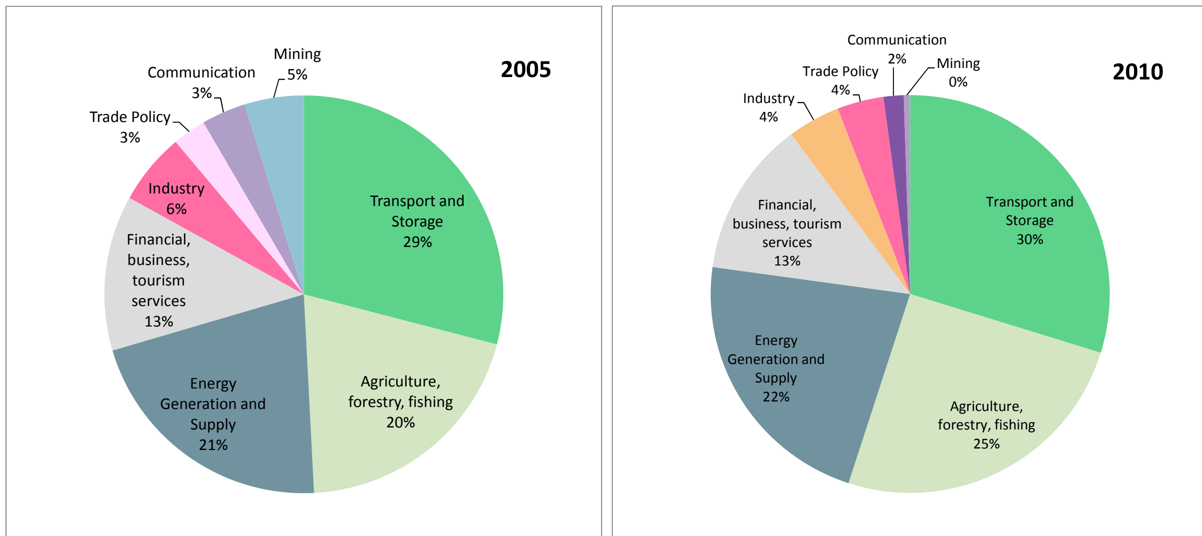


Sources: OECD, DAC-CRS Aid Activities Database; World Bank, World Development Indicators; World Bank, International Debt Statistics.
Note: Country groupings cover the following number of countries for all indicators: LDCs: 27; LMICs: 17; UMICs: 18; SVEs: 18; LLDCs: 13.

2.6. Aid for Trade to the 80 developing countries surveyed increased by 131% between 2005 and 2010. During this period, there was little change in the distribution of Aid for Trade to different categories (Figure 5). Aid for Trade was mainly spent on transport and energy infrastructure as well as agriculture, forestry and fishing. In particular, in 2010 these three categories accounted for more than 75% of total disbursements.

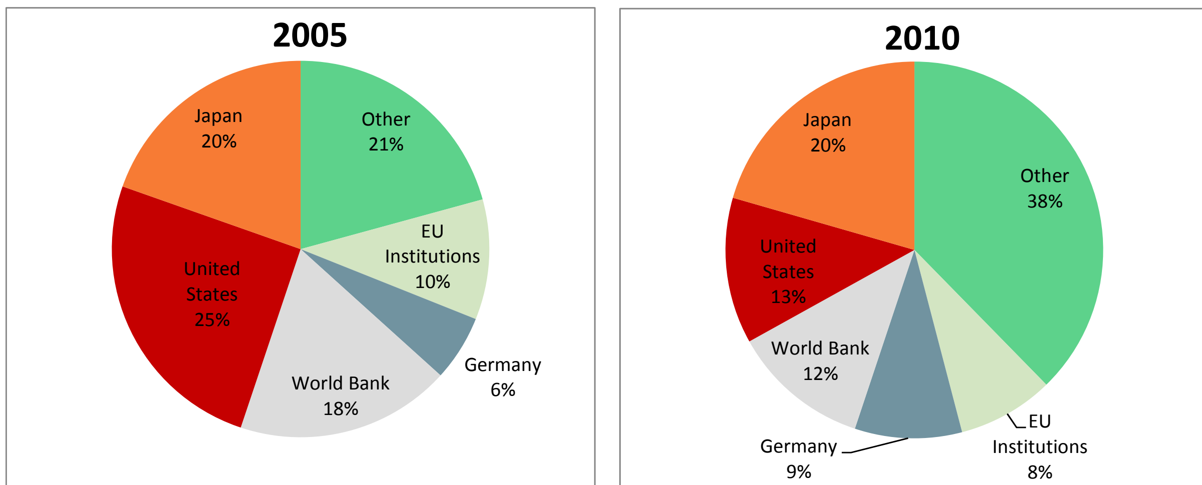
2.7. The top five Aid-for-Trade donors in 2010 were Japan, USA, the World Bank, Germany and EU Institutions accounting together for more than 60% of total Aid-for-Trade disbursements (Figure 6). However, the increasing contribution of other countries ("Other") from 21% in 2005 to 38% in 2010 highlights that an increasing number of actors play a significant role in the Aid-for-Trade Initiative. In addition, the growing importance of other countries can partly be explained by an increasing loan share of their assistance, while, for example, the US only provides grant-based Aid for Trade.

Figure 5 – Aid-for-Trade disbursements: category shares, 2005/2010



Source: OECD, DAC-CRS Aid Activities Database.

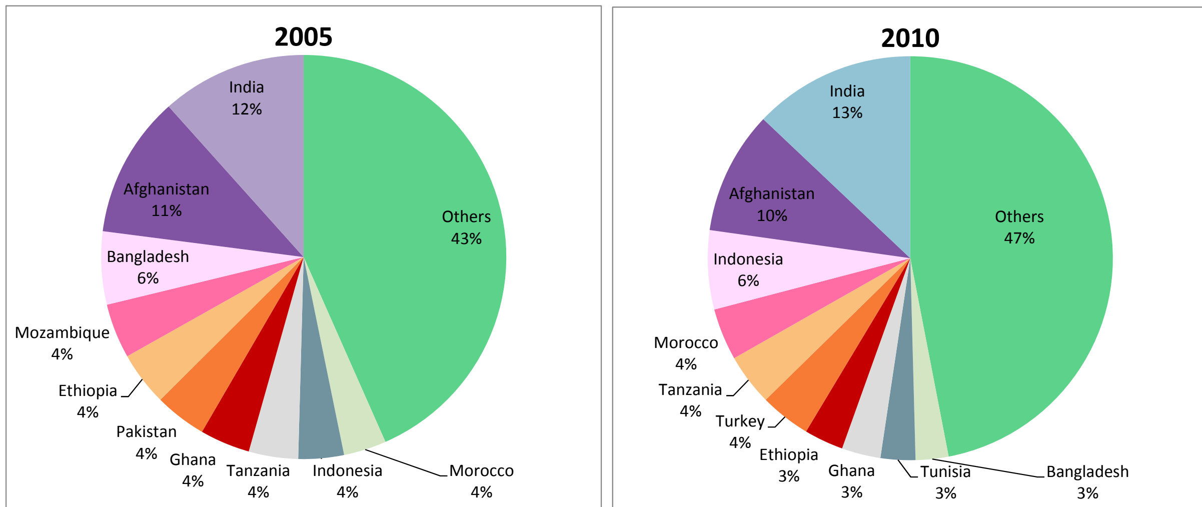
Figure 6 – Aid-for-Trade disbursements: donor shares, 2005/2010



Source: OECD, DAC-CRS Aid Activities Database.

2.8. Of the 80 countries studied, the top ten recipients obtained 53% of Aid-for-Trade disbursements in 2010 (Figure 7). While LDCs were the largest recipient group in the sample, the single main beneficiaries were LMICs and UMICs, except for Afghanistan. Even though Aid-for-Trade Flows, in particular commitments, can fluctuate significantly from year to year, the fact that eight out of the top ten recipients in 2005 were also among the top ten recipients in 2010, underscores the sustained engagement of Aid for Trade at the country level.

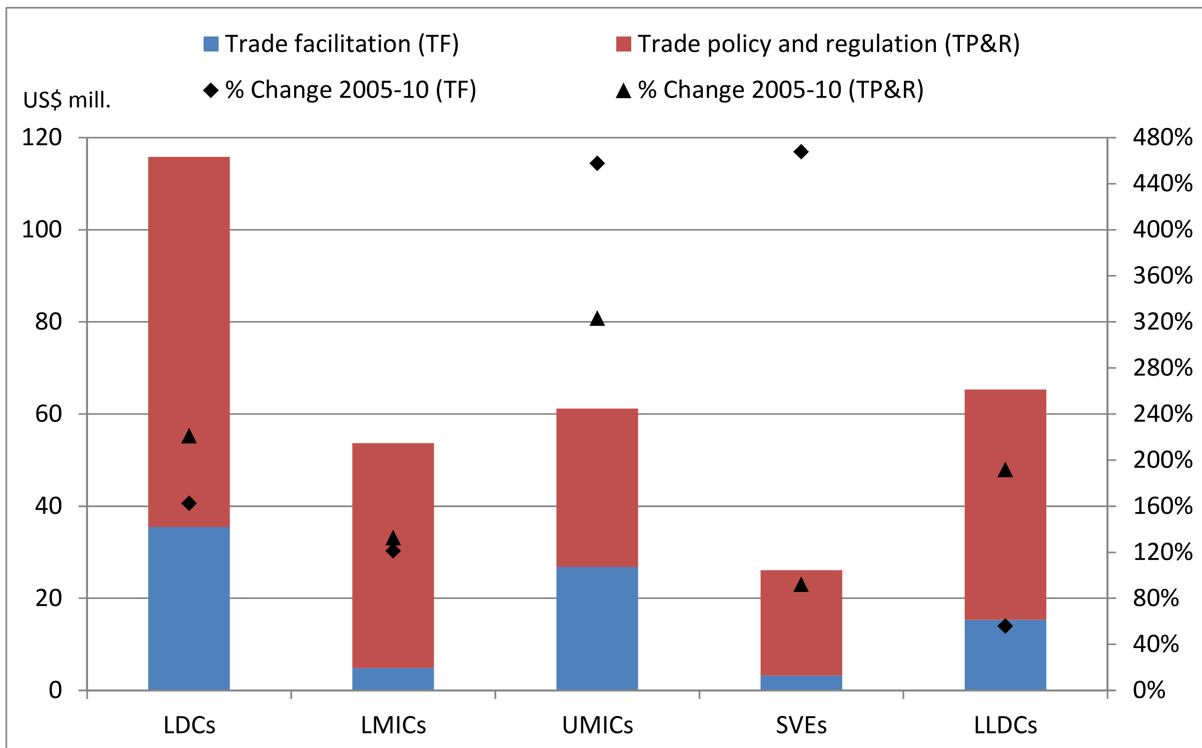
Figure 7 – Aid-for-Trade disbursements: recipient shares, 2005/2010



Source: OECD, DAC-CRS Aid Activities Database.

2.9. Figure 8 shows the value and the change over time of Aid for Trade policy and regulation (TP&R) and its sub-category Aid for trade facilitation (TF) by country grouping. LDCs are the biggest recipients of both TP&R and TF. Aid for trade facilitation accounted for less than 0.5% of total Aid for Trade in 2010, but support has increased significantly since 2005. For instance, for the sample of 77 countries, aid for trade facilitation increased by 228% between 2005 and 2010 compared to 130% for overall Aid for Trade. Furthermore, Figure 8 shows that, between 2005 and 2010, aid for trade facilitation increased by more than 450% for both SVEs and UMICs and by over 160% for LDCs.

Figure 8 - Trade policy and regulation and trade facilitation, value (2010) and change (2005-10)

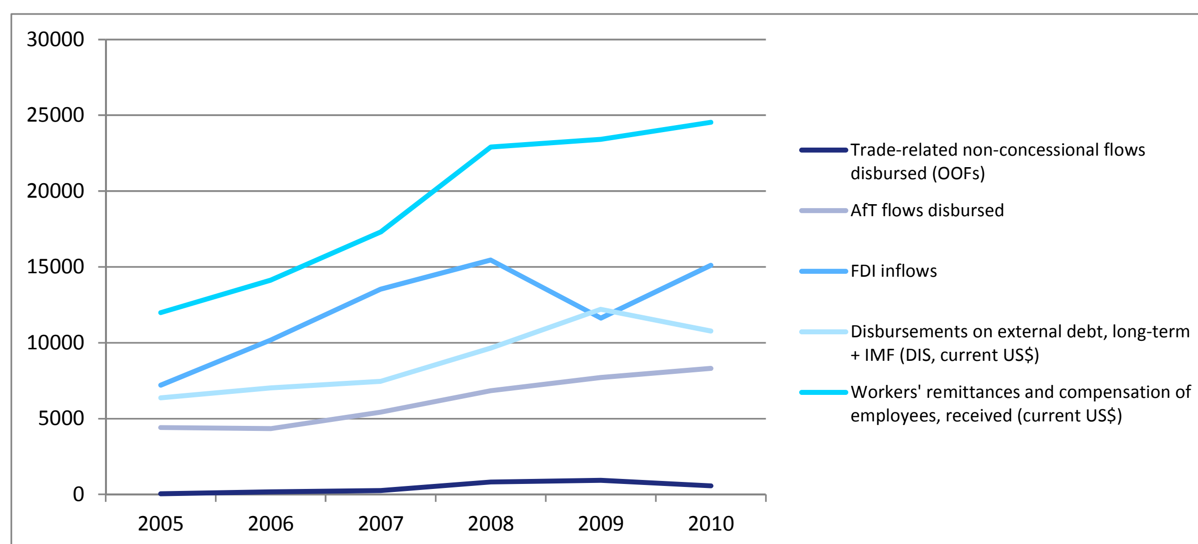


Source: OECD, DAC-CRS Aid Activities Database.
Note: Trade facilitation is a sub-component of trade policy and regulation.

2.1 Least-developed countries (LDCs)

2.10. For LDCs, workers' remittances were the largest financial inflow followed by FDI, long-term external debt, Aid for Trade and OOFs (Figure 9). Workers' remittances and Aid for Trade flows have experienced the most substantial increase between 2005 and 2010, while, FDI declined sharply in 2008 with a partial recovery in 2009. Relative to other income groups, Aid for Trade is of greater importance in LDCs as it constitutes a higher share of development finance.

Figure 9 - Aggregate financial net inflows to LDCs, 2005-2010 (current US$ millions)



Sources: OECD, DAC-CRS Aid Activities Database; World Bank, World Development Indicators; World Bank, International Debt Statistics.
Notes: For workers' remittances, data is available for 27 out for the 36 LDCs surveyed and not available for all the years sought.

2.11. In 2010, Bangladesh was by far the largest recipient of financial flows to LDCs due to remittances, accounting for 81% of Bangladeshi financial inflows (Table 1). In fact, Bangladesh received 44% of total remittances reported. At the country level, Aid for Trade disbursements are most important for the development financing of Afghanistan, Burundi, Rwanda and Tuvalu accounting for 90%, 59%, 51% and 51% of their financial inflows, respectively. Across LDCs, Afghanistan was also the largest recipient receiving over 21% of total Aid for Trade followed by Tanzania at 9% and Ethiopia at 7%.

2.12. FDI is the dominant source of development finance for resource-rich countries such as Chad, the Democratic Republic of Congo, Zambia and Liberia constituting respectively 90%, 88%, 81% and 75% of financial inflows. The Democratic Republic of Congo and Zambia are also among the top three recipients of FDI, obtaining respectively 19% and 11% of FDI to LDCs. The D.R. of Congo, Zambia and Sudan (14%) account for 44% of all inward FDI, which illustrates the concentration of FDI in capital-intensive industries of resource-rich countries.

Table 1- Composition of Financial Inflows to LDCs by country, 2010

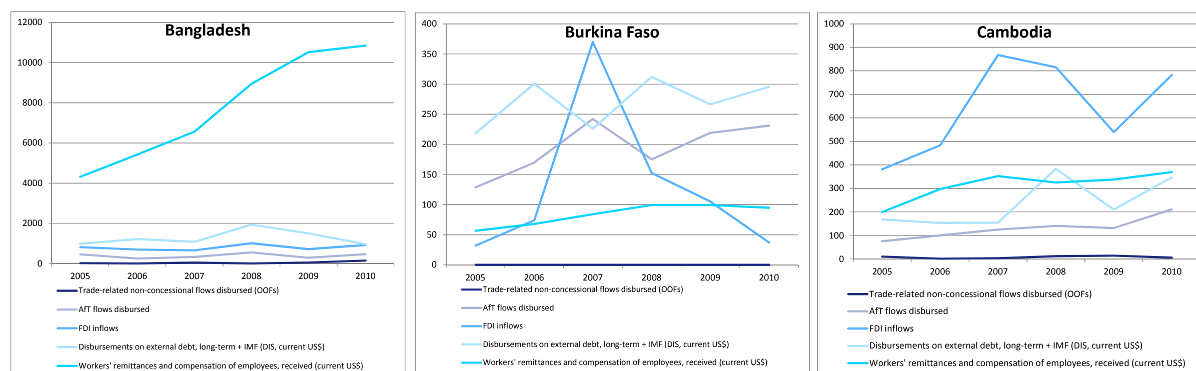
	Financial inflows	Aid for Trade	Trade-rel. OOFs	FDI	Workers' remittances	External debt
	US$ million			*%*		
Bangladesh	13,344	3.5	1.1	6.9	81.3	7.2
Sudan	5,256	5.3	0.1	39.3	37.6	17.8
Nepal	3,985	6.3	0.0	2.2	87.0	4.4
D.R. of Congo	3,343	8.6	0.0	87.9	n.a.	3.5
Ethiopia	2,953	18.9	0.0	9.8	7.6	63.8
Tanzania	2,453	29.9	0.1	17.7	1.0	51.3
Uganda	2,404	17.6	1.5	22.6	38.0	20.2

	Financial inflows	Aid for Trade	Trade-rel. OOFs	FDI	Workers' remittances	External debt
Haiti	2,376	13.2	0.1	6.3	63.1	17.3
Senegal	2,319	10.6	0.2	10.2	58.0	20.9
Zambia	2,149	5.4	0.4	80.5	2.0	11.7
Afghanistan	1,940	90.2	1.4	3.9	n.a.	4.5
Yemen	1,812	9.7	0.0	3.1	68.4	18.8
Cambodia	1,715	12.3	0.3	45.6	21.5	20.2
Mozambique	1,677	20.4	2.1	47.1	7.9	22.5
Madagascar	1,406	9.0	14.8	61.2	0.0	15.0
Niger	1,271	10.0	1.2	74.5	6.9	7.5
Mali	1,238	27.2	0.0	11.9	35.2	25.7
Lesotho	940	2.6	0.0	12.4	79.3	5.6
Chad	865	3.1	0.0	90.3	n.a.	6.6
Benin	753	24.6	0.0	14.7	32.9	27.8
Burkina Faso	659	35.1	0.0	5.6	14.4	44.9
Liberia	606	17.8	0.3	74.6	4.4	2.8
Mauritania	600	19.5	3.9	2.3	n.a.	74.3
Togo	538	6.8	0.0	7.6	61.9	23.7
Malawi	424	43.5	0.0	33.0	0.0	23.6
Rwanda	398	50.8	0.0	10.6	23.1	15.4
Bhutan	310	28.1	6.8	6.1	1.6	57.4
Guinea	260	23.9	0.0	38.9	23.2	13.9
Samoa	256	12.7	0.0	0.3	56.1	30.9
Comoros	237	3.3	1.1	4.0	n.a.	91.6
Gambia	234	14.4	0.0	16.0	49.5	20.1
Burundi	206	58.9	0.0	0.4	13.7	27.0
Djibouti	165	22.5	12.9	22.1	19.8	22.6
Central African Rep.	126	27.5	0.0	57.2	n.a.	15.3
Vanuatu	81	44.1	0.0	48.0	7.9	0.0
Tuvalu	3	51.4	0.0	48.6	n.a.	n.a.

Sources: OECD, DAC-CRS Aid Activities Database; World Bank, World Development Indicators; World Bank, International Debt Statistics.

2.13. Figure 10 further reveals the heterogeneity of LDCs regarding financial inflows using the examples of Bangladesh, Burkina Faso and Cambodia. Financial inflows of Bangladesh are dominated by remittances, which more than doubled between 2005 and 2010. On the other hand, Burkina Faso relies more on Aid for Trade and long-term external debt. Lastly, Cambodia attracts mainly FDI. The difference in scale for the three countries must be noted; Bangladesh and Cambodia receive substantially more inflows than Burkina Faso.

Figure 10 - Trends in financial inflows by LDC countries, 2005-2010 (current US$ millions)



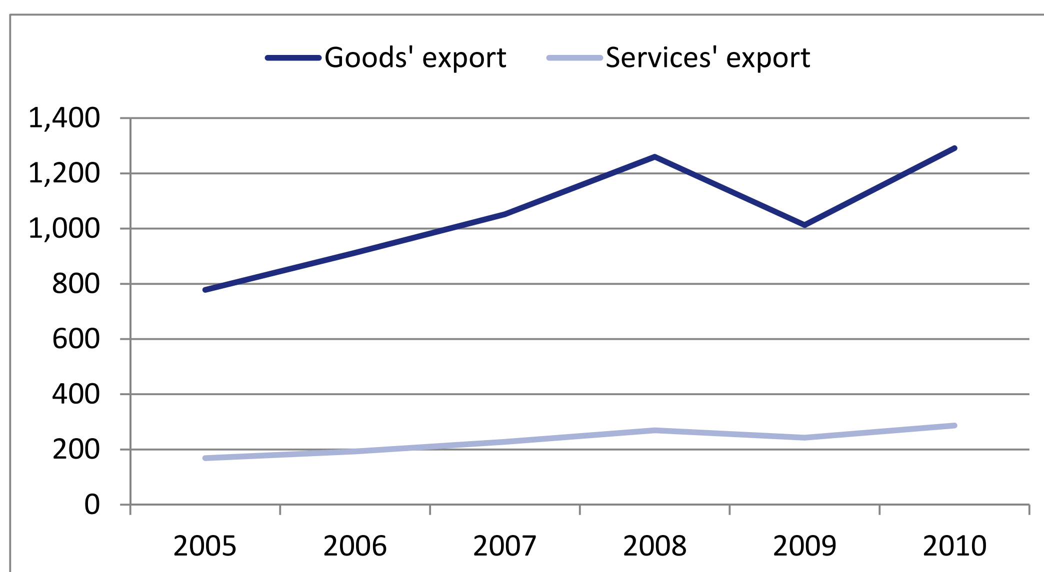
Sources: OECD, DAC-CRS Aid Activities Database; World Bank, World Development Indicators; World Bank, International Debt Statistics.

3 TRADE PERFORMANCE AND TRADE INDICATORS

3.1. Trade performance and trade indicators represent outputs and outcomes in the macro-level results chain framework used in the fact sheets. While factors such as policy and development finance affect trade performance, it is actually the direct objective of Aid for Trade interventions to increase countries' trade performance or to lower trade costs. This section assesses the trends of developing countries in terms of trade performance and indicators.

3.2. Aggregate data on goods and commercial services exports from the 78 developing countries in the sample show an upward trend during the period 2005-10 (Figure 11). Merchandise goods' exports increased by 66% between 2005 and 2010 from close to US$800billion to close to US$1,300 billion. Even though goods' exports experienced a decline in 2009 following the onset of the financial crisis, they recovered quickly in 2010. Services' exports are lower in value terms accounting for less than 20% of total exports. However, services' exports grew at a faster rate than goods' exports, increasing by 70% between 2005 and 2010.

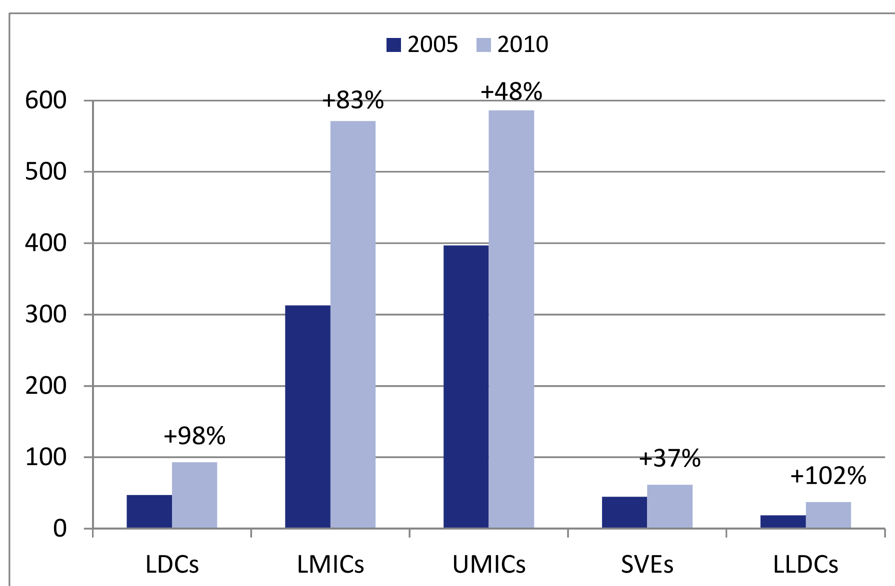
Figure 11 – Goods' and services' exports, 2005-2010 (current US$ billions)



Source: WTO Secretariat.
Note: Based on 78 countries for which data are available.

3.3. Goods' exports increased for all income groups (Figure 12). LDCs and its sub-group LLDCs experienced the greatest increases in goods' exports with 98% and 102%, respectively. In terms of value, lower-middle income countries narrowed the gap to upper-middle income countries with both country groups exporting more than US$570 billion.

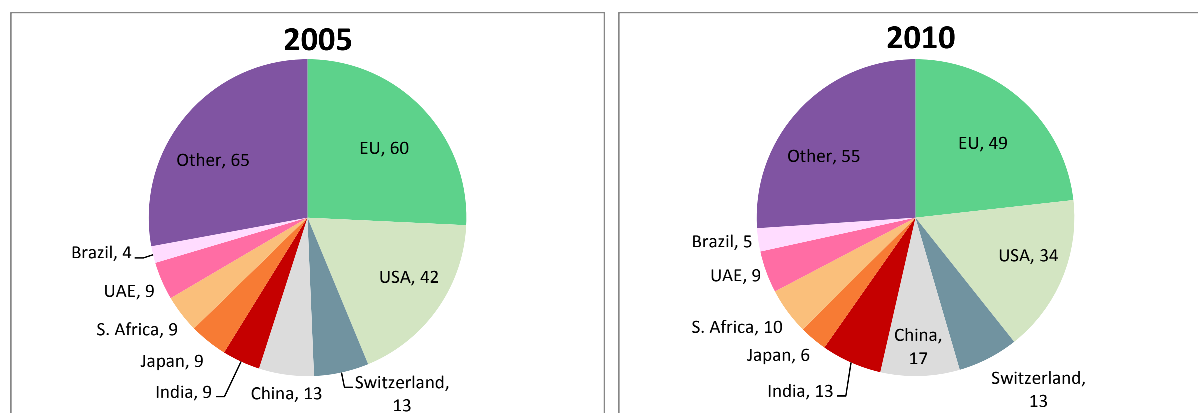
Figure 12 – Goods' exports by income group (current US$ billions)



Source: WTO Secretariat.
Note: Country groupings cover the following number of countries: LDCs: 36; LMICs: 18; UMICs: 22; SVEs: 21; LLDCs: 17.

3.4. The increasing importance of South-South trade has led to export market diversification. Data on the top five markets for developing countries' merchandise imports and exports show the increasing presence of emerging economies, notably India and China, as major trading (Figure 13 and Figure 14). For instance, while in 2005 China was among the top five export markets for 13 developing countries, in 2010, this was the case for 17 developing countries. On the import side, this trend is even more significant where in 2010, China was among the top 5 origin markets for 51 developing countries.[6]

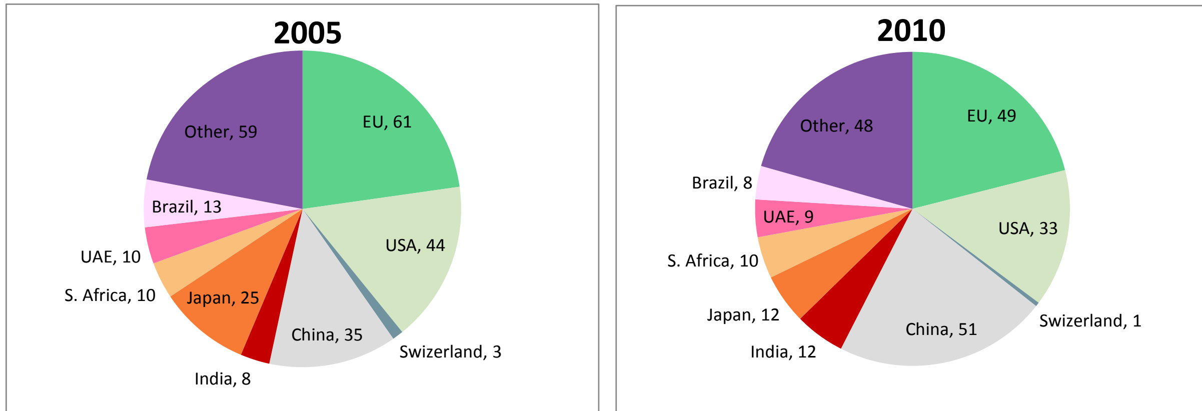
Figure 13 - Top five export markets for developing countries' merchandise, 2005/2010



Source: WTO Secretariat.

[6] A report on rising powers in development (IDS, 2013) provides complementary insights regarding the increasing importance of South-South trade. In particular, it shows that ten emerging economies accounted for more than 30% of imports and 28% of exports of Sub-Saharan Africa in 2010. China plays a significant role with shares of close to 15% in both exports and imports of Sub-Saharan Africa in 2010.

Figure 14 - Top five origin countries for developing countries' imports, 2005/2010

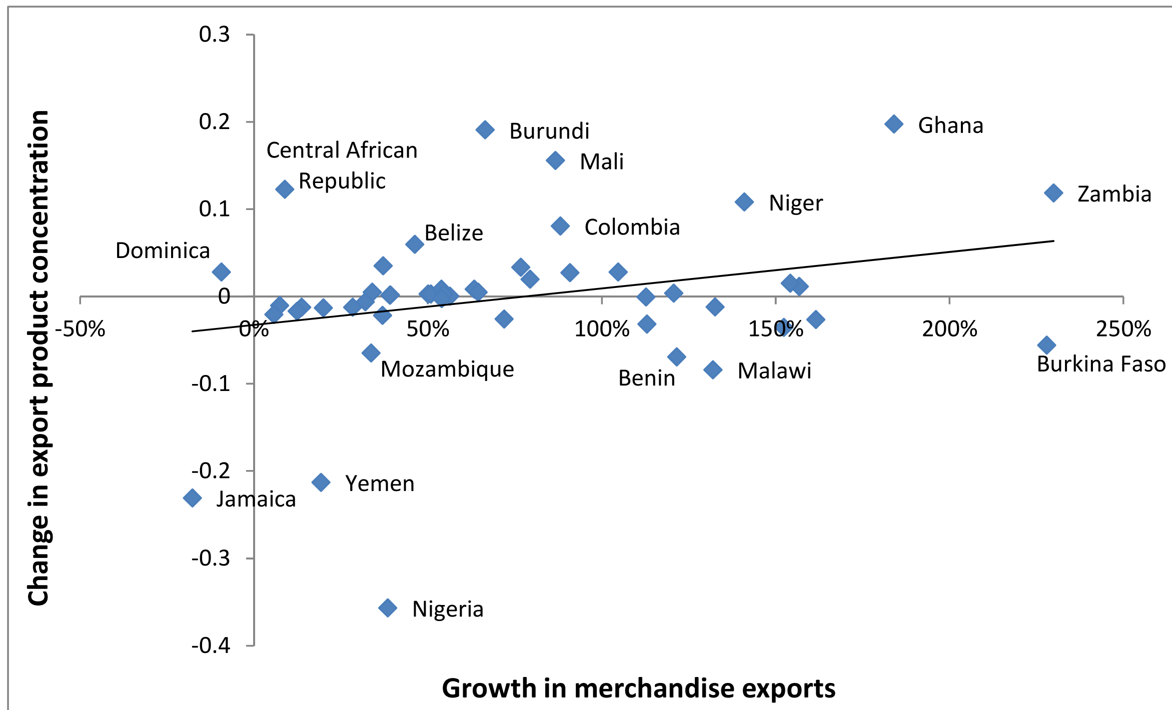


Source: WTO Secretariat.

3.5. Figure 15 shows a slight positive correlation between growth in merchandise exports and changes in export product concentration. In other words, developing countries with the highest growth in exports tend to become less diversified as the value of their main exports increases. Zambia and Ghana are examples where export growth was driven by few products. For resource-rich countries, higher commodity prices can explain export growth that is accompanied by increasing export product concentration. For instance, in the case of Zambia, the share of copper in merchandise export increased from 55% in 2005 to 75% in 2010.

3.6. Importantly, this does not imply that other sectors could not increase their exports, but that growth in other sectors was masked by the high growth of commodity exports. However, if export growth is weak and export concentration nevertheless increases, this indicates falling exports for some sectors. For instance, for the Central African Republic exports only increased by 9%, while export concentration, mainly in diamonds, increased significantly.

Figure 15 - Relationship between growth in merchandise exports and export product concentration, 2005-2010



Source: WTO Secretariat and UN Comtrade.

Notes: Concentration in exported products is measured by the Hirschman-Herfindahl index, which ranges from close to zero (perfectly diversified export portfolio) to one (the country exports only one product).

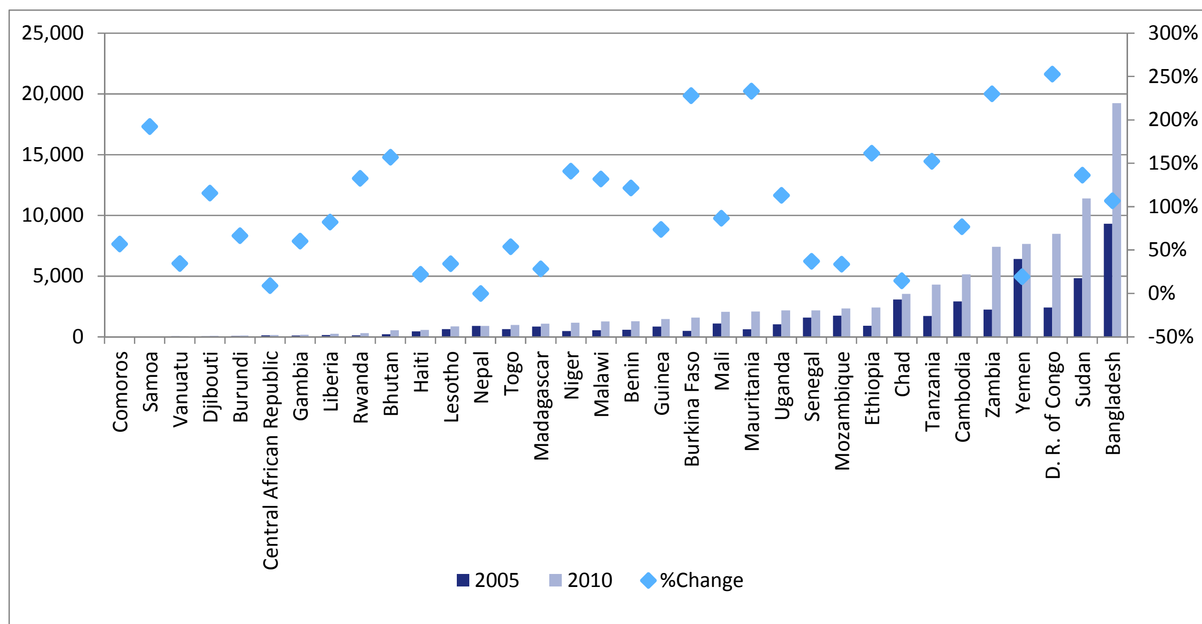
3.1 Least-developed countries (LDCs)

3.7. Figure 16 and Figure 17 show that all LDCs experienced increases in both merchandise and services exports between 2005 and 2010. LDCs also experienced the largest growth in exports compared to other groups, albeit from a low basis.

3.8. Merchandise exports were dominated by Bangladesh accounting for 20% of total LDC exports in 2010 followed by Sudan (12%). Large increases in merchandise exports were achieved by the Democratic Republic of Congo, Zambia, Mauritania and Burkina Faso.

3.9. Trade reforms and reduction in trade barriers conducted in the context of WTO accession have been important for some in this regard. For instance, Samoa, which acceded to the WTO in 2011, increased its exports by more than 190% between 2005 and 2010.

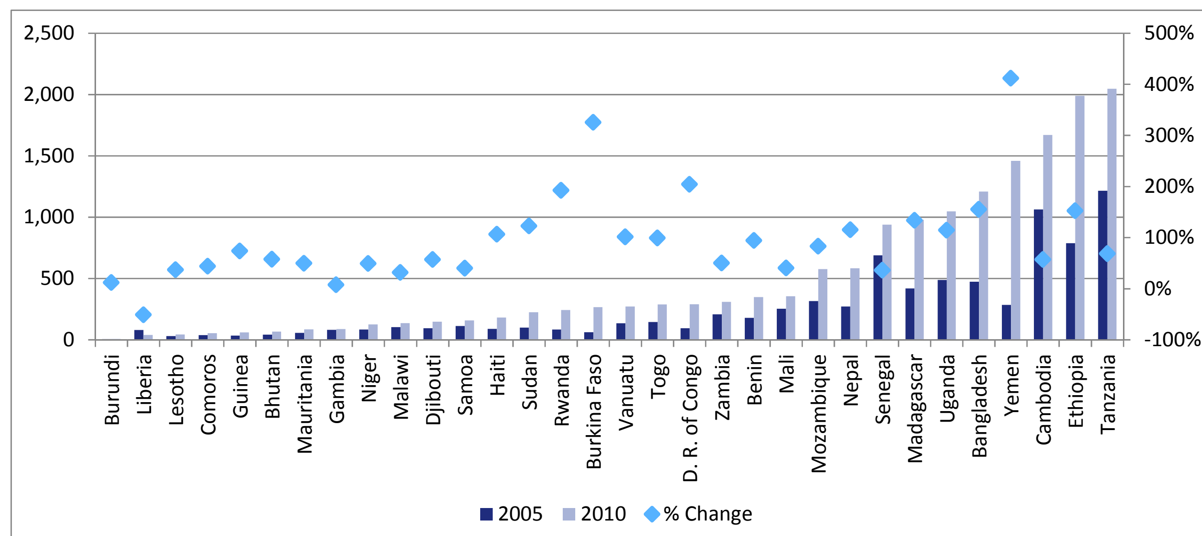
Figure 16 - Merchandise exports from LDCs, 2005-2010 (current US$ millions and % change)



Source: WTO Secretariat

3.10. During the same period, services exports were dominated by Tanzania, Ethiopia and Cambodia, mainly in the area of tourism (Figure 17). Growth in services exports tells an interesting story. The highest growth was experienced in Yemen and Burkina Faso; two countries with a dominant fuels and mining sector that also experienced high growth of merchandise exports.

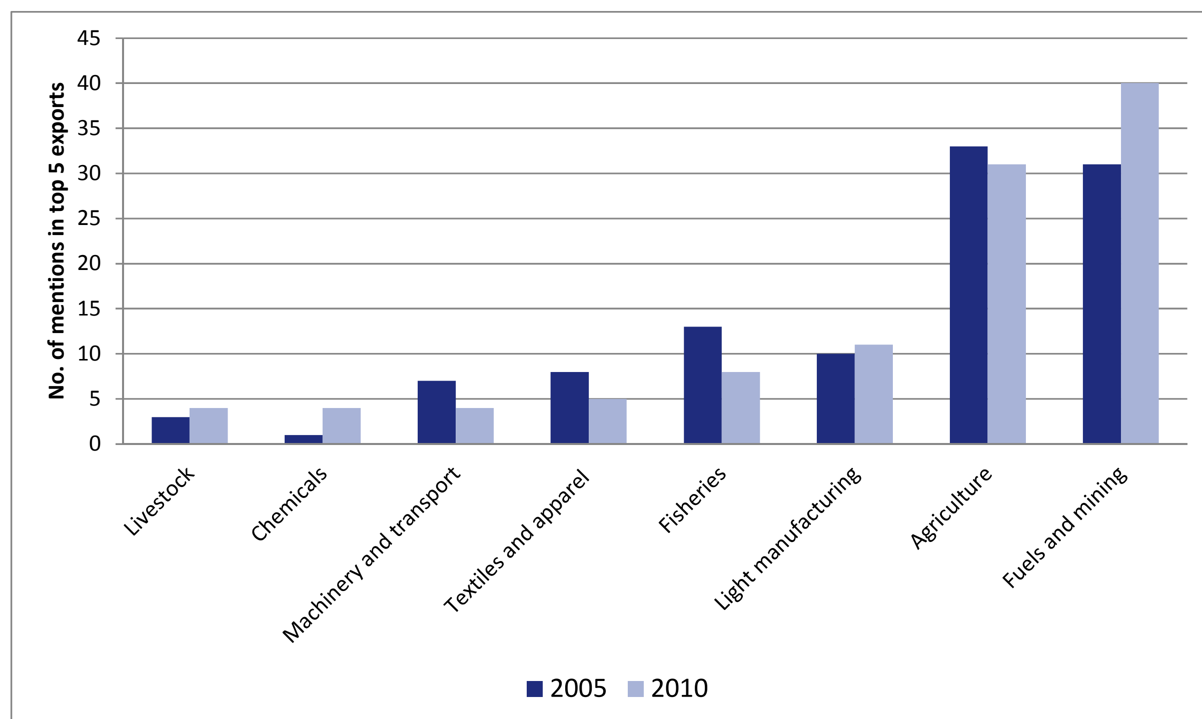
Figure 17 - Commercial services exports from LDCs, 2005-10 (current US$ million and % change)



Source: WTO Secretariat.

3.11. Even though LDCs are becoming more diversified in terms of markets, exports remain concentrated in fuels and mining, agricultural commodities, and textiles and clothing. Figure 18 shows how often products were among the top five export products of LDCs. It is apparent that fuels, mining and agricultural products remain the main export categories. It must, however, be noted that textiles and apparel may be underestimated due to data limitations for major exporters. Figure 18 further shows the ongoing role of fuels and mining for LDCs: fuels and mining products appeared 41 times as top five exports in 2010 compared to 36 times in 2005.

Figure 18 - Evolution of top five merchandise exports from LDCs, 2005-2010



Source: WTO Secretariat.
Note: Data on top five exports were unavailable for Afghanistan, Bangladesh, Central African Republic, Djibouti, Lesotho, Nepal, Sudan, and Vanuatu.

3.12. The "commodity super-cycle" of the past decade, has increased the weight of commodities in LDCs export basket. This phenomenon explains the large growth in merchandise exports for countries engaged in extractive industries with positive spin-off effects for trading partners.

3.13. Burkina Faso and Mauritania increased their exports of gold, most of which is going to Switzerland and South Africa for further processing. As a result, Switzerland and South Africa are rapidly gaining market share in terms of value.

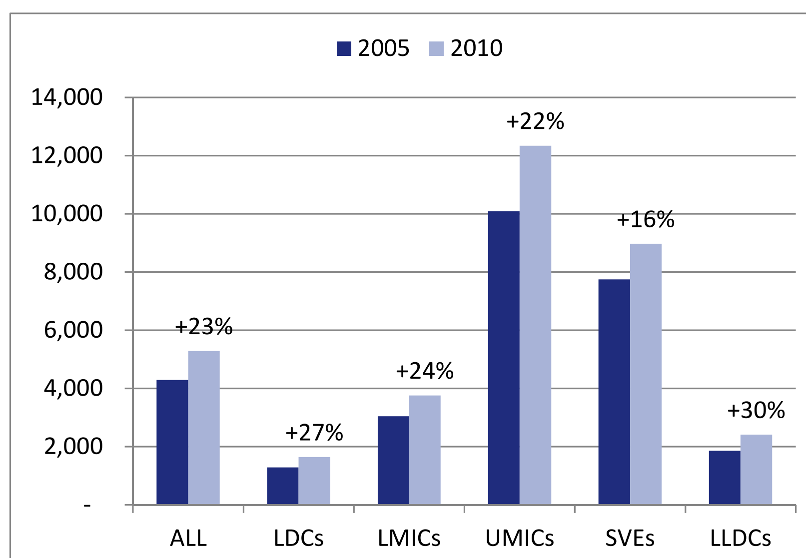
3.14. However, it must also be noted that due to large growth in the export of fuels and mining, growth in the export of other goods have not been reflected. Figure 18 shows that light manufacturing, chemicals and livestock are becoming more prevalent in the top exports of LDCs. Furthermore, Escaith and Tamenu (2013) found that for other export categories from LDCs; "whereas most types of exporters enjoyed a similar export growth in terms of volume, they fared differently when it came to the evolution of the prices of their exports".

4 DEVELOPMENT INDICATORS

4.1. Development interventions such as Aid for Trade seek to achieve development impacts, which represent the last link in the results-chain framework. This section uses GDP per capita and the Human Development Index (HDI) to summarise the trends and achievements of developing countries in economic and human development.

4.2. Developing countries of all income groups experienced, on average, positive economic development between 2005 and 2010 (Figure 19). GDP per capita increased on average the most in the poorest countries, i.e. by 30% in LLDCs and by 27% in LDCs. While this increase has been partly driven by the rise in commodity prices, it also reflects that these countries started from a lower base compared to, for instance, UMICs. Despite their higher economic growth, the average GDP per capita of LDCs in 2010 was still less than one third of the average GDP per capita of 75 developing countries.

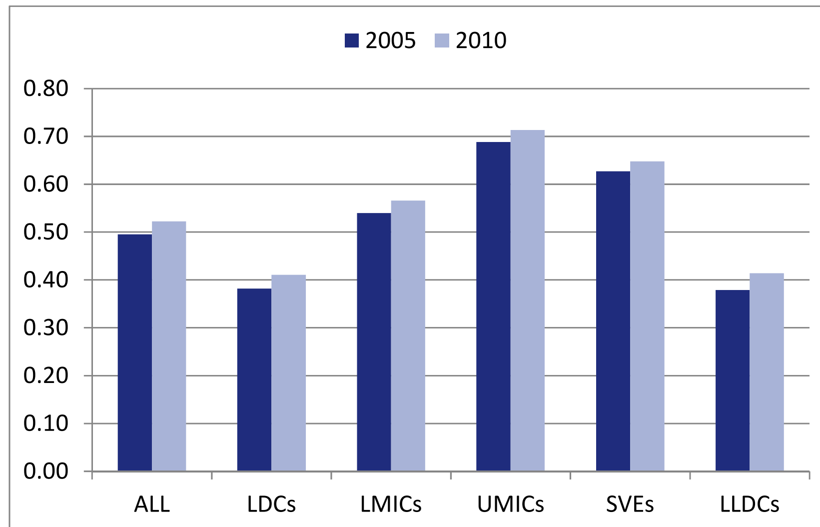
Figure 19 - GDP per capita by country grouping, PPP (current international $)



Source: World Bank, World Development Indicators.
Notes: GDP per capita by country grouping are simple averages and based on 75 countries for ALL, 35 for LDCs, 18 for LMICs, 22 for UMICs, 20 for SVEs and 16 for LLDCs.

4.3. The Human Development Index takes a broader approach towards development, capturing not only GDP per capita, but also life expectancy and schooling. On average, all country groupings increased their HDI between 2005 and 2010 (Figure 20).

Figure 20 - Human development index (HDI) by country grouping

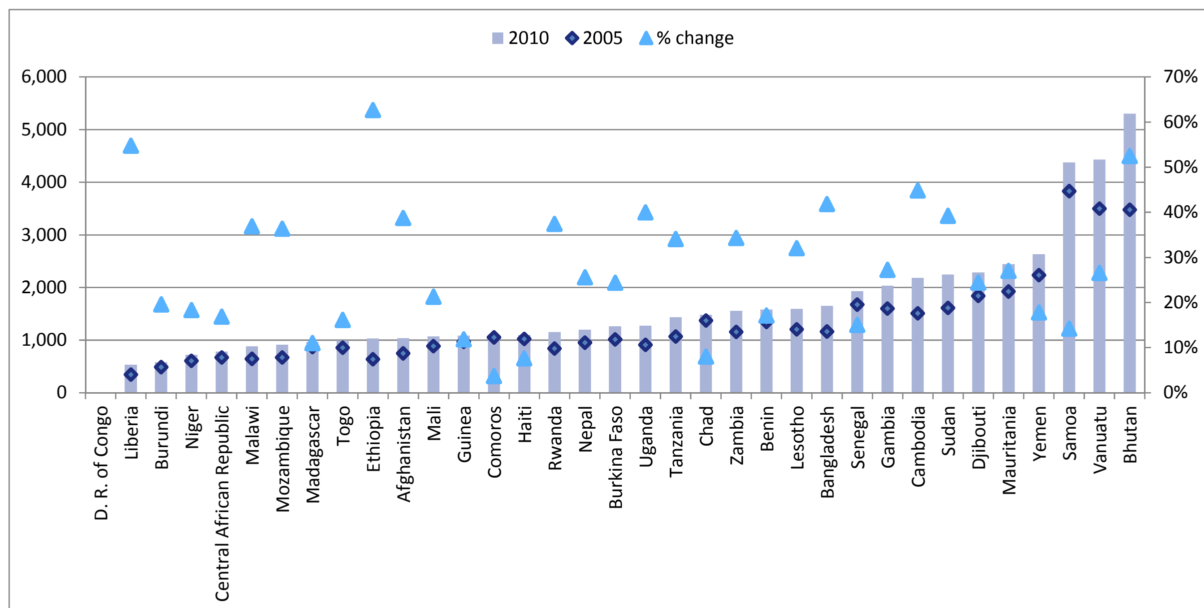


Source: UNDP, International Human Development Indicators.
Notes: The HDI ranges from 0 (minimum development) to 1 (maximum development). HDI aggregates are simple averages and based on 68 countries for ALL, 33 for LDCs, 18 for LMICs, 16 for UMICs, 14 for SVEs and 16 for LLDCs.

4.1 Least-developed countries (LDCs)

4.4. All LDCs experienced an increase in their GDP per capita between 2005 and 2010 (Figure 21). Ethiopia, Liberia and Buthan could increase their GDP per capita by more than 50% between 2005 and 2010. Bhutan, Vanuatu and Samoa, which are expected to graduate from LDC status in 2014, are the LDCs with the highest GDP per capita.

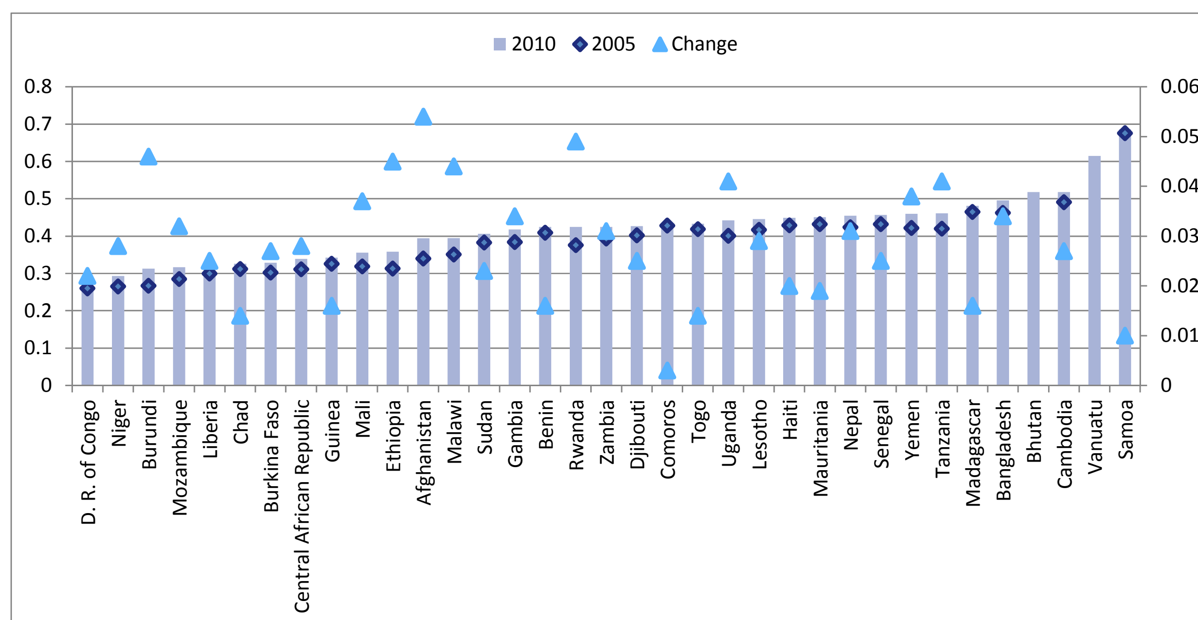
Figure 21 - GDP per capita of LDCs, PPP (current international $) and % change



Source: World Bank, World Development Indicators.

4.5. Figure 22 shows that the Human Development Index increased for all LDCs for which data are available. Countries that improved the most on their situation compared to 2005 were Afghanistan, Rwanda, Burundi, Ethiopia and Malawi. The fact that no LDC stepped backward in terms of development, can be regarded as an encouraging sign. Nevertheless, the distance to more developed countries, in particular in economic terms, appears still substantial.

Figure 22 - HDI of LDCs, index (left axis) and change in index (right axis)



Source: UNDP, International Human Development Indicators.

5 THE RESULTS CHAIN PERSPECTIVE APPLIED AT THE MACRO LEVEL

5.1. The first part of this paper focused on describing the trends in the indicators pertaining to the four elements of the results chain framework at the macro level (Figure 1), namely investment financing (inputs), trade performance and indicators (outputs and outcomes) and development indicators (impacts) for different country groupings.

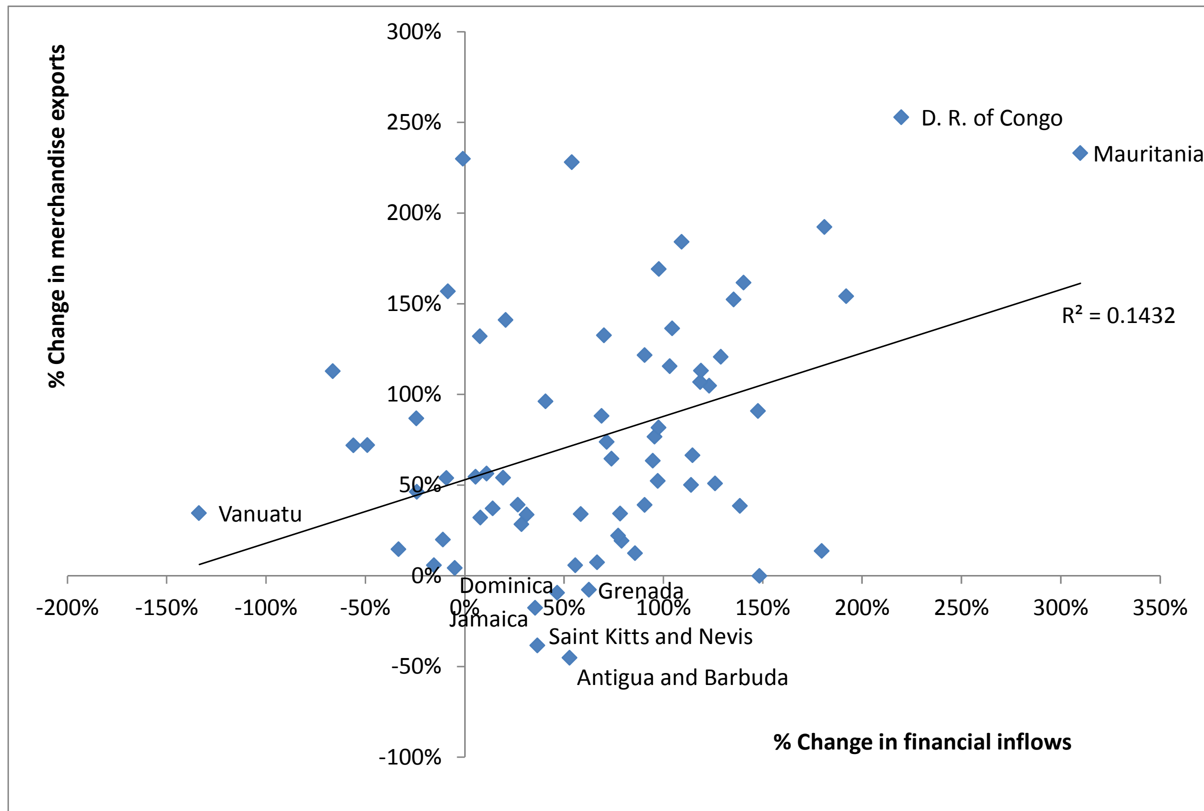
5.2. This second part provides an assessment of the linkages between the elements of the results chain framework. In particular, it will touch upon the relationships between development finance and trade performance (outputs and outcomes) and between trade performance and development impacts. As already mentioned at the beginning of the paper, the aim of the analysis is not to assess possible causal effects but rather to describe correlations between the different indicators.

5.1 Development finance and trade performance

5.3. Correlations between financial inflows and exports of goods and services illustrate the relationship between development finance (inputs) and trade performance (outputs and outcomes).

5.4. Figure 23 shows a positive relationship between growth in financial inflows and growth in merchandise exports between 2005 and 2010 for 68 countries. Mauritania and the Democratic Republic of Congo recorded the highest growth in both financial inflows and merchandise exports. In the case of the Democratic Republic of Congo, the link between financial inflows and exports works mainly through FDI in extractive industries and subsequent exports of primary commodities. Countries that experience negative growth in merchandise exports were the SVEs Antigua and Barbuda, Saint Kitts and Nevis, Jamaica, Dominica, and Grenada. Vanuatu recorded negative growth in financial inflows accompanied by relatively low growth in merchandise exports.

Figure 23 - Correlation between growth in financial inflows and growth in merchandise exports, 2005-2010



Sources: WTO Secretariat, OECD, DAC-CRS Aid Activities Database; World Bank, World Development Indicators; World Bank, International Debt Statistics.
Notes: Six countries with a more than 400% increase in financial inflows between 2005 and 2010 have been excluded from the graph.

5.5. Development finance consists of a variety of different financial inflows, including FDI, ODA, which includes Aid for Trade, OOFs, loans and remittances, which are related to trade through different channels. For instance, FDI targets economic activities and is thereby closely linked to trade. However, the effects of FDI on trade differ depending on whether FDI is horizontal (market seeking), vertical (resource seeking) or used to create export platforms to serve third markets. In contrast, Aid for Trade supports infrastructure financing, strengthens government capacities or addresses other market failures to help firms overcome supply-side constraints. More broadly, ODA targets also other development issues that are only indirectly related to trade such as health or education. Remittances affect trade mainly through the demand side by financing household consumption.

5.6. Given this variety, it is not surprising that each source of development finance and its relationship with trade performance has been subject to a distinct assessment in the academic literature. However, due to the focus of this study, only the link between Aid for Trade and trade performance is described in more detail.

5.1.1 Aid for Trade and trade performance

5.7. Figure 24 shows a positive relationship between Aid for Trade and growth in merchandise exports. Obviously, this scatterplot does not imply causality and does not control for other factors that affect export growth. Nevertheless, it provides a first illustrative evidence in line with the findings from the empirical literature.

Figure 24 - Correlation between the level of Aid for Trade and export growth

Sources: WTO Secretariat; OECD, DAC-CRS Aid Activities Database.

5.8. Existing empirical analyses (reviewed in OECD-WTO, 2013a) come to the conclusion that Aid for Trade is positively correlated with trade expansion and reductions in trade costs. The impact of Aid for Trade on trade costs or trade performance, will, however, vary depending on the type and purpose of aid, country characteristics and, of course, on factors related to the implementation of projects. For instance, (OECD-WTO, 2013a) report research that US$1invested in Aid for Trade in International Development Association (IDA)-eligible countries is associated with an expected US$20 increase in exports compared to an average expected US$8 increase for developing countries. However, since generalisations are difficult, the sectors and type of instruments of Aid for Trade interventions should be tailored to the necessities of specific countries and regions.

5.1.1.1 Aid for trade facilitation and trade performance

5.9. Relatively few empirical studies exist that assess the relationship between, on the one hand, aid for trade facilitation and, on the other, trade costs and trade performance at the macro level. Nevertheless, empirical analyses suggest that aid for trade facilitation reduces the cost of trading (Calì and te Velde, 2011; Busse et al., 2012) and increases trade performance (Helble et al., 2012).

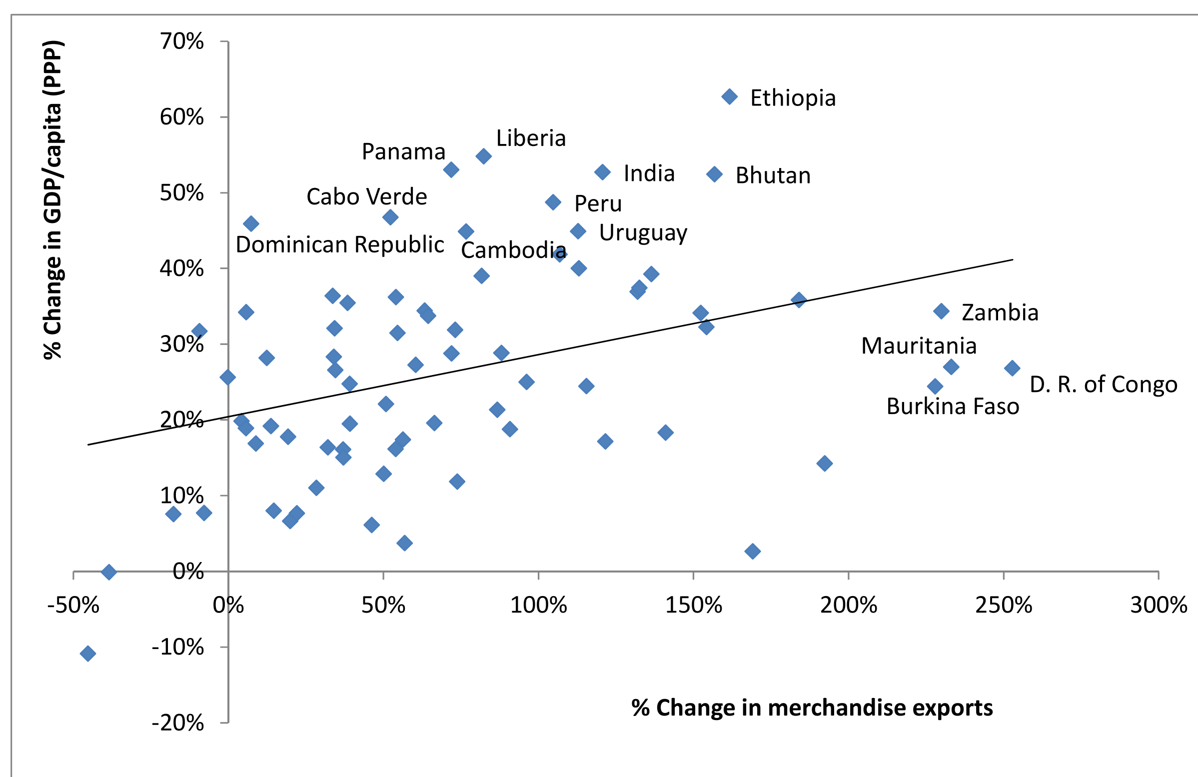
5.10. Case studies provide another source of evidence regarding the effectiveness of aid for trade facilitation. The 3rd Global Review of Aid for Trade in 2011 gathered 269 case stories, 62 of which relate to trade facilitation, including hard infrastructure investments, trade policy, customs regulations, border crossings and the business environment (OECD-WTO, 2013b). These case stories highlight several key factors for the success of a project with ownership and political commitment by the recipient country being the most important. Further success factors include strong involvement of local stakeholders, in particular the private sector, as well as efficient coordination among donors and recipients.

5.2 Trade performance and development impacts

5.11. In the previous section, it has been discussed that various development finance flows and Aid for Trade in particular are related to reduced trade costs and increased exports. This section looks at the last link in the results chain framework between trade performance and development impacts. For policymakers it is of crucial importance to better understand the links between trade and development and how a better trade performance can result in positive development impacts such as higher GDP per capita, reduced poverty, or human development.

5.12. Figure 25 illustrates a positive correlation between export growth and economic growth. The largest GDP growth rates between 2005 and 2010 were recorded for Cambodia, Uruguay, Dominican Republic, Cabo Verde, Peru, Bhutan, India, Panama, Liberia and Ethiopia. These countries also experienced high growth in exports. The countries surpassing 200% growth in exports had export baskets comprising mainly of fuels and mining: Burkina Faso, Zambia, Mauritania, and the Democratic Republic of Congo.

Figure 25 - Relationship between growth in merchandise exports and GDP per capita, 2005-2010 in % change



Sources: WTO Secretariat; World Bank, World Development Indicators.

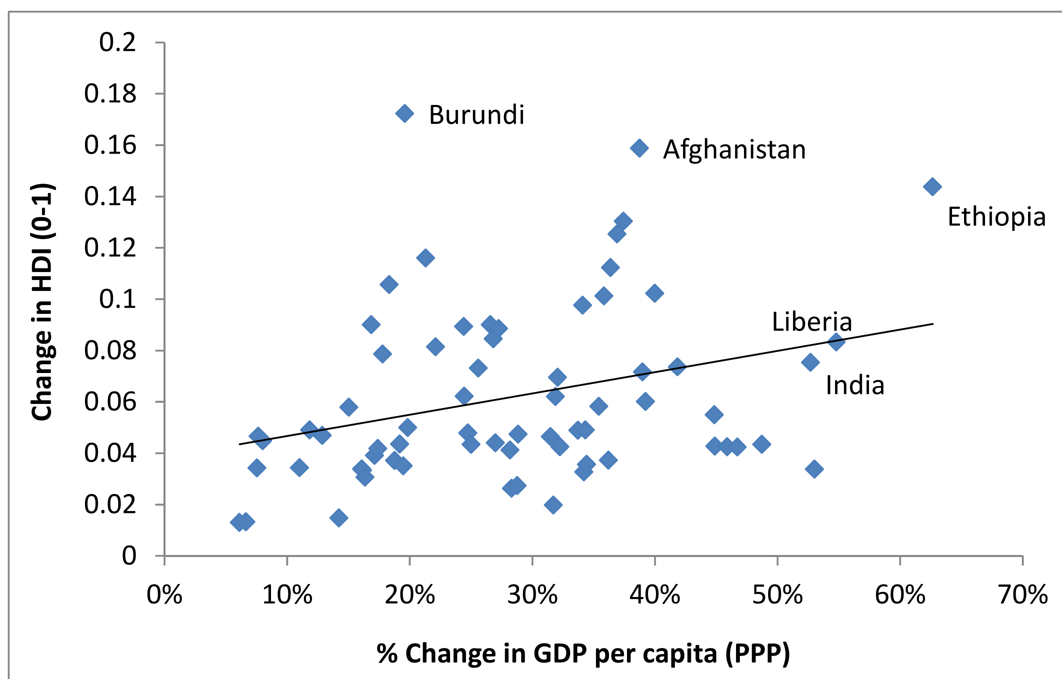
5.13. The WTO World Trade Report 2008 (WTO, 2008) describes theoretical predictions and empirical findings regarding the relation between trade and growth. International trade can impact growth through two broad channels, namely by altering the incentives to accumulate capital and by influencing technological progress. In particular, trade has an effect on factor prices, which changes the incentives for investment, and trade can increase the propensity of firms to innovate through increased market size, knowledge spillovers, more competition or improved quality of institutions. However, positive effects of trade on economic growth might be offset, for instance, by specialization in sectors with low growth potential or a worsening of policies.

5.14. A number of empirical studies have provided evidence of positive correlation between trade and growth. Even though the direction of causality has been subject to academic contention, trade plays a crucial role in the economic development strategies of countries.

5.15. Figure 26 shows that GDP per capita growth is positively correlated with improvements in human development. Since trade is strongly linked to economic development, trade has a broader

development impact affecting also social development for instance. In other words, as broad-based development relies on economic development, it is crucial that sound policy and functioning institutions are in place to help make trade an engine for economic growth.

Figure 26 - Relationship between GDP per capita growth and HDI growth, 2005-2010



Sources: UNDP, International Human Development Indicators; World Bank, World Development Indicators.

6 CONCLUSIONS

6.1. This paper has analysed 80 fact sheets prepared for the 4th Global Review of Aid Trade (OECD-WTO 2013a) to highlight commonalities and trends for different development country groupings.

6.2. Financial inflows to the 80 developing countries increased by more than 62% between 2005 and 2010. Even though lower in size than other inflows such as FDI, Aid for Trade has grown at a faster pace with disbursement more than doubling over the five year period.

6.3. For all country groups except UMICs, remittances constitute, on average, the biggest source of external financing. Aid for Trade is of particular importance for LDCs, which are the main beneficiaries of Aid for Trade in the sample and where Aid for Trade accounts for a higher share relative to other financial flows. In particular, Aid for Trade accounts, on average, for 20% of financial inflows in LDCs and 21% in LLDCs.

6.4. Even though aid for trade facilitation is only a small share of total Aid for Trade, support for trade facilitation has increased significantly between 2005 and 2010 growing at a faster rate than overall Aid for Trade. While LDCs are the biggest beneficiaries of Aid for trade facilitation, increases in support were highest for UMICs and SVEs.

6.5. In terms of trade performance, goods' and services' exports increased by 66% and 69% respectively, for the 80 countries between 2005-2010. Goods' exports increased the most for LDCs, LLDCs and LMICs with 98%, 102% and 83%, respectively. South-South trade is proving an important driver for market diversification. In particular, China and India have leaped into the top five export and import markets between 2005 and 2010 for an increasing number of developing countries.

6.6. High export growth in LDCs and LLDCs can be attributed to rising commodity prices during 2005 and 2010. This was further highlighted through the positive relationship between growth in

merchandise exports and export product concentration. Results show that the export baskets of LDCs and LLDCs were becoming more concentrated towards a few products, in particular fuels and mining. Since FDI is concentrated in extractive sectors, Aid for Trade can play an important role in helping diversify LDC exports.

6.7. Developing countries experienced positive development as captured by the indicators GDP per capita and human development index. In particular, GDP per capita increased the most for poor countries, i.e. on average by 27% for LDCs and 30% for LLDCs, as compared to the sample average of 23%. Furthermore, all LDCs in the sample improved their HDI score between 2005 and 2010.

6.8. The assessment of the fact sheets from a results chain perspective at the macro level places Aid for Trade in a broader development context. It highlights the positive relationship between development finance and trade performance, as well as between trade performance and development impacts. In particular, relying on the data from the fact sheets, financial inflows, including Aid for Trade, are positively correlated with export growth, while export growth is positively correlated with GDP per capita growth. These findings are not new but rather confirm existing empirical studies.

6.9. Of course, correlations are not causations and individual countries deviate from average correlation patterns. At this point, the analysis of the individual fact sheets proves useful for policymakers. The strength of the individual fact sheets is actually to benchmark countries against aggregate trends. Furthermore, the fact sheets help identify instances where a country deviates from the expected positive relationships between Aid for Trade and trade performance as well as between trade performance and development impacts.

6.10. Lack of data for certain countries and indicators poses a significant challenge for analysis. Since sound policymaking relies on well-informed analysis, more efforts to collect and design suitable indicators and to assist developing countries in their data collection are needed.

6.11. The refinement of the methodology of the fact sheets in terms of time span and indicators could take into account current trends and the Aid-for-Trade work programme. For instance, more focus and detail could be given to aid for trade facilitation both in terms of inputs (i.e. Aid for Trade) and outcomes. A further possibility is also to incorporate more information on donors, including on South-South assistance providers.

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ANNEX I - 80 DEVELOPING COUNTRIES USED FOR THE ANALYSIS ACCORDING TO INCOME GROUPS

The scope of the analysis is limited to developing countries under the following categories which participated in the monitoring exercise of the 2013 4th Global Review on Aid for Trade.

Least Developed Countries (LDCs), Lower Middle Income Countries (LMICs) and Upper Middle Income Countries (UMICs)

The DAC List of ODA Recipients[1] shows the countries and territories eligible to receive official development assistance (ODA). These consist of all low- and middle-income countries based on gross national income (GNI) per capita as published by the World Bank, with the exception of G8 members, European Union (EU) members and countries with a firm accession date for entry into the EU. The list also includes all of the Least Developed Countries (LDCs) as defined by the United Nations (UN).

LDCs: The identification of LDCs is currently based on three criteria.

1) Low-income criterion, based on a three-year average estimate of GNI per capita, based on the World Bank Atlas method (under $992 for inclusion, above $ 1,190 for graduation as applied in the 2012 triennial review).

2) Human Assets Index (HAI) based on indicators of: (a) nutrition: percentage of population undernourished; (b) health: mortality rate for children aged five years or under; (c) education: the gross secondary school enrolment ratio; and (d) adult literacy rate.

3) Economic Vulnerability Index (EVI) based on indicators of: (a) population size; (b) remoteness; (c) merchandise export concentration; (d) share of agriculture, forestry and fisheries in gross domestic product; (e) share of population living in low elevated coastal zones; (f) instability of exports of goods and services; (g) victims of natural disasters; and (h) instability of agricultural production.

LMICs: Countries with per capita GNI between US$1,006 – US$3,975 in 2010

UMICs: Countries with per capita GNI between US$3,975 – US$12,275. The list shall also include Trinidad and Tobago

Small and Vulnerable Economies (SVEs)

The list of SVEs is taken from the criteria of "small economies" as per the text in the Doha Round's Revised Draft Modalities for Agriculture. It describes a small economy as one whose average share for the period 1999-2004 (a) of world merchandise trade does not exceed 0.16% and; (b) of world NAMA trade does not exceed 0.10% and; (c) of world agricultural trade does not exceed 0.40%. While Annex I of the Agriculture Draft Modalities text lists 45 countries as meeting the above criteria, some 15 of the listed countries do not readily identify themselves as small economies and have not expressed an interest in the on-going Work Programme on Small Economies, established as part of the Doha Round in November 2001.

[1] OECD, DAC List of ODA Recipients: Effective for reporting on 2012 and 2013 flows.

Landlocked Developing Countries (LLDCs)

Countries that lack territorial access to the sea.

Table 2 - Countries and country groupings used in the analysis

LDCs	LMICs	UMICs	SVEs	LLDCs
Afghanistan	Belize	Antigua and Barbuda	Antigua and Barbuda	Afghanistan
Bangladesh	Cabo Verde	Botswana	Barbados	Bhutan
Benin	Congo, Rep.of	Colombia	Belize	Botswana
Bhutan	Côte d'Ivoire	Costa Rica	Cabo Verde	Burkina Faso
Burkina Faso	El Salvador	Dominica	Dominica	Burundi
Burundi	Fiji	Dominican Republic	Dominican Republic	Central African Republic
Cambodia	Ghana	Gabon	El Salvador	Ethiopia
Central African Republic	Guatemala	Greneda	Fiji	Lesotho
Chad	Honduras	Jamaica	Grenada	Malawi
Comoros	India	Jordan	Guatemala	Mali
Dem. Rep. of Congo	Indonesia	Mauritius	Honduras	Nepal
Djibouti	Morocco	Mexico	Jamaica	Niger
Ethiopia	Nicaragua	Panama	Mauritius	Paraguay
The Gambia	Nigeria	Peru	Nicaragua	Rwanda
Guinea	Pakistan	Saint Kitts and Nevis	Papua New Guinea	Uganda
Haiti	Papua New Guinea	Saint Lucia	Paraguay	Zambia
Lesotho	Paraguay	Saint Vincent and the Grenadines	Saint Kitts and Nevis	Zimbabwe
Liberia		Suriname	Saint Lucia	
Madagascar		Trinidad and Tobago	Saint Vincent and the Grenadines	
Malawi		Tunisia	Suriname	
Mali		Turkey	Trinidad and Tobago	
Mauritania		Uruguay	Tuvalu	
Mozambique			Vanuatu	
Nepal				
Niger				
Rwanda				
Samoa				
Senegal				
Sudan				
Tanzania				
Togo				
Tuvalu				
Uganda				
Vanuatu				
Yemen				
Zambia				

ANNEX II – CHOICE OF INDICATORS

The choice of indicators has been influenced by the availability of time series data. New indicators are appearing which may in some cases be more fitting for the purposes of this analysis. However, an absence of historical data and geographic coverage means that they are not ripe for inclusion. As such, the indicators in the fact sheets will be updated and refined in future editions.

A. Investment and financing (inputs)

The inputs section covers investment and financing flows in the economy that form the basis for economic growth and development. Indicators include gross fixed capital formation (overall, public and private) capturing investment into fixed capital, and external financing inflows capturing the reliance of capital investment on financing from abroad. External financing indicators used are foreign direct investment (FDI) inflows, long-term external debt and IMF disbursements, disbursed trade-related non-concessional flows, disbursed Aid-for-Trade flows (overall, by sector and by donor), and remittances and compensation of employees by migrants and non-resident workers. External financing inflows can be used to finance capital investment and also serve purposes such as private and public consumption.

The comparison of disbursed Aid-for-Trade flows with other external financial inputs illustrates the relative importance of Aid for Trade for investment and the local economy. Furthermore, the presentation of Aid-for-Trade flows by sector and by donor provides a more nuanced view on Aid-for-Trade development for the period 2005-2010.

Sources and variables:
OECD, DAC-CRS Aid Activities Database: Aid-for-Trade flows disbursed (overall, by sector and by donor), trade-related non-concessional flows disbursed, i.e. "Other Official Flows" that are not considered as official aid either because they are not primarily aimed at development or because they have a grant element of less than 25%.
World Bank, World Development Indicators: Gross fixed capital formation (overall, public and private), FDI inflows, remittances and compensation of employees.
World Bank, International Debt Statistics: Long-term external debt and IMF disbursements.

B. Trade performance (outputs)

In the results chain, inputs and accompanying activities result in outputs. The trade performance section covers trade performance indicators that provide a reflection of inputs, policies and economic developments. The primary focus of this analysis will be on trade values for 2005 and 2010. Respective changes are shown for exports and imports of goods and commercial services. Finally, to provide a dynamic view on the export structure of countries, the top five markets and products for merchandise exports and imports are presented for 2005 and 2010 (or other years depending on data availability).

Sources and variables:
WTO Secretariat: Goods and commercial services export and imports, top five markets for exports (imports), top five export (import) products.

C. Trade indicators (outcomes)

The outcomes section covers mostly trade performance indicators. Indicators include: The Hirschman-Herfindahl index of export concentration shows to what extent the country is concentrated or diversified in terms of exported products with scores closer to zero indicating a more diversified export portfolio and scores nearer to one indicating high concentration on a few products.

Sources and variables:
UN Comtrade: Hirschman-Herfindahl index of product export concentration ranging from close to zero (perfectly diversified export portfolio) to one (the country exports only one product).

D. Development indicators (impacts)

The impacts section covers indicators that describe long-term objectives of economic development which Aid for Trade aims to achieve. GDP per capita in current international US$ capture the country's overall economic development over time. The Human Development Index ranges from

zero (minimum level of development) to one (maximum level of development) summarising the three basic development dimensions health, education and living standard.

Sources and variables:
United Nations Development Programme (UNDP), International Human Development Indicators: Human Development Index (from 0=minimum level of development to 1=maximum level of development).
World Bank, World Development Indicators: GDP per capita (based on purchasing power parity, PPP, in current international US$).

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