LDCs AND GLOBAL VALUE CHAINS

USING AID FOR TRADE TO SEIZE NEW OPPORTUNITIES

International Trade Centre

EXPORT IMPACT FOR GOOD

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The paper reviewing the recent experience of the Least Developed Countries (LDCs) in international trade – highlights that on average LDCs have fared well in export markets, despite a general over-reliance on commodity exports and some individual underperformance; the first section of this paper sets out the global context and the implications for LDCs in the changing global environment; the second section reviews their trade performance, including their participation in global value chains, then discusses aid-for-trade and its effectiveness in promoting LDC exports; the final section asks whether donors and recipient countries need radical alterations to their aid-for-trade strategies to take advantage of new global opportunities; includes bibliographical references (pp. 23-24).

Descriptors: **Least Developed Countries, Aid for Trade, Value Chain.**

For further information on this technical paper, contact Mr. Rajesh Aggarwal (aggarwal@intracen.org)

English

The International Trade Centre (ITC) is the joint agency of the World Trade Organization and the United Nations.

ITC, Palais des Nations, 1211 Geneva 10, Switzerland (www.intracen.org)

Preface

Least developed countries (LDCs) face several cost disadvantages that tend to exclude them from international trade. Inadequacies in infrastructure, weakness of trade-related institutions, and even restrictive trade policies and regulatory obstacles all tend to compound natural cost disadvantages. But the emergence of global value chains has created new opportunities for all developing countries to link into world markets so that they can use trade to drive growth.

Against this backdrop, this paper reviews the recent LDC experience with trade. On average, LDCs have fared well in export markets, despite a general overreliance on commodity exports and some individual underperformance. Exports have grown rapidly and LDCs appear to be participating increasingly in global value chains, although at a lesser rate than other developing countries. Aid for Trade has been generally effective in promoting trade, especially in policy and managerial environments that are supportive. However, LDCs still lag behind other developing countries, and, recently, their growth has trended down slightly.

This analysis will be of immense use to development partners in channeling their trade-related technical assistance resources to enable LDCs reap the benefits of integration into the global economy.

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Contents

Abbreviations

The following abbreviations are used:

EIF	Enhanced Integrated Framework
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign direct investment
GDP	Gross domestic product
GTAP	Global Trade Analysis Project
GVCs	Global value chains
ICTSD	International Centre for Trade and Sustainable Development
IMF	International Monetary Fund
ITC	International Trade Centre
LDCs	Least developed countries
MFN	Mostf favoured nation
OECD	Organisation for Economic Co-operation and Development
SME	Small and medium-sized enterprises
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
WHO	World Health Organization
WTO	World Trade Organization

Executive summary

Home to more than one-third of the world's poor, least developed countries (LDCs) face several disadvantages in international trade. Many are landlocked and are distant from dynamic markets. Their small domestic markets on average give rise to small firms and small exporters that are less able to achieve economies of scale in production and marketing than firms in larger-market countries. Moreover, inadequate infrastructure, poorly functioning trade-related institutions, and even restrictive trade policies tend to compound natural cost disadvantages. For these and other reasons, LDCs account for less than 1% of global trade.

Many LDCs have begun to overcome these exclusionary barriers. Because of their own efforts and with the support of the international community, LDCs have improved their macroeconomic and trade policies. They have begun to use trade as a driver of growth, and have at last begun to reverse decades of declining global market share. Since 2000, LDC exports have increased 7% in volume. Because of favourable terms of trade, mainly among African LDCs, export revenues have grown by 12% annually since the mid-1990s. Trade as a share of GDP in LDCs has risen on average. This paper offers evidence that LDC participation in global value chains, measured in various ways, has been integral to this process.

Important qualifications to this otherwise solid recent performance suggest that neither the LDCs themselves nor the international community can afford to become complacent about the trade agenda. LDCs are collectively still dependent on a relatively small number of primary products, which subjects them to the vagaries of commodity prices and oscillating terms of trade. Moreover, for about half of the LDC countries, this dependence has increased during the last decade, not diminished. Finally, the average aggregate growth numbers obscure a diverse country performance. There is a real danger that a significant minority of LDCs are falling behind.

This underscores the role of Aid for Trade. Evidence reviewed in this paper shows that Aid for Trade has been generally effective in promoting trade, especially given supportive policy environments. The return on Aid for Trade in the form of increased exports is several multiples of the dollar investment. In a world of global value chains, investments in trade facilitation and lower transit costs are particularly important because delays drive up costs and diminish competitiveness. Aid for Trade to LDCs has undoubtedly contributed to their participation in value-chain trade.

But positive results are not automatic. As with any other developing country, peace and a supportive policy environment – including stable macro policies, well respected property rights and an absence of corruption – are crucial to the productivity of Aid for Trade and to sustain the trade and growth performance it may bring. Moreover, governments that succeed in using Aid for Trade well are typically those that take ownership of the results, provide leadership in the process, fight corruption effectively, and push donors to help them channel assistance into high-return activities.

These conclusions have implications for donor countries and LDCs alike. For donors, the discernible importance of global and regional value chains does not warrant a substantial change in Aid for Trade strategy. If anything, the emergence of global value chains simply makes Aid for Trade more urgent. These global value chains raise the salience of making borders and transits more efficient, of reducing trade costs and expanding power and other infrastructure while encouraging greater efforts to reduce ill-conceived regulations that hobble competition in transport and other markets.

Not only is total aid important, but so too is the way aid is disbursed. Working with governments to ensure their ownership of programmes, the alignment of programmes with their strategic priorities and using government systems (and in so doing helping improve the systems) are crucial for effective Aid for Trade. In short, these comprise the Paris Principles for Aid Effectiveness.

LDCs also must do their part. A central policy priority is to establish public financial management practices to make public investment efficient and establish an investment climate conducive to a private investment. Destabilizing macroeconomic policies, corruption in programme administration, and discretionary and unclear rules of business are antithetical to effective use of Aid for Trade to catalyse rapid growth. Many LDCs have taken these long-standing concerns to heart, and are making considerable progress. But the

clustering of too many LDCs in the bottom quintile of many governance measures underscores the fact that there is still more to do.

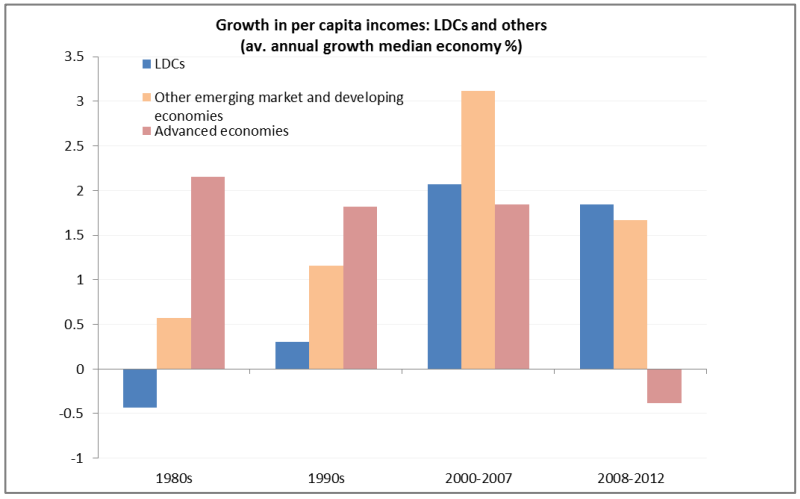
A companion development priority is to continue the pursuit of lowering trade costs. The transit and trade facilitation agenda now under discussion in the WTO is one important step in doing so. It would be a mistake for LDC negotiators to hold an agreement hostage to a few more dollars of development assistance; for most countries, the resources to implement these programmes are already available. Irrespective of any WTO agreement, lowering trade costs is a way to improve competitiveness and make better use trade to power growth. Finally, focusing squarely on reducing policy barriers to competition, whether in border barriers or barriers to entry in service sectors, also merits attention. LDCs generally have higher border barriers and greater restrictions on services trade than other developing countries. For the most part, these are often sources of monopoly rents and inefficiency that are relatively costless to change, and that can often produce profound growth effects.

In summary, the agenda is large. But it corresponds to the challenge – finding ways to use trade to improve the standards of living of one-third of the world's poor.

Introduction

After two decades of comparatively slow growth in per capita incomes, Least Developed Countries (LDCs) have begun to grow more rapidly. Average per capita incomes have risen from US$ 338 in 2000 to US$ 513 in 2012 today.[1] Growth was nearly 7% in the 2001-2010 decade, although this has since tapered off in 2011-2012 to about 4.3%. They have at last started to close the still-enormous gap that separates them from the club of rich countries. With support from the international community and through their own efforts, LDCs have improved on several indicators of macro and trade policy: lower inflation, attenuated fiscal balances, shortened trade delays, and reduced border barriers.

Figure 1 LDCs have raised their per capita growth rates



Source: World Bank, 2013.

Note: calculations based on the GDP per capita, PPP (constant 2005 international US$).

Nonetheless, much remains to be done. Although LDCs account for 13% of global population, they generate only about 1% of global GDP. Moreover, they are home to more than 36% of the world's poor.[2] LDCs as a group, and particularly those in Africa, remain dependent on commodity price trends, and the many small LDCs are at the mercy of global economic conditions. At the same time, it should be noted that the collectively good average economic performance of LDCs masks considerable variance among this diverse group of countries.[3] And civil conflict, poor governance, and corruption still dim growth prospects for a large minority of them.

Trade has been a driver of the improved performance. This paper reviews the recent trade experience of LDCs in the global economy. In particular it addresses three questions:

- To what extent have LDCs been able to take advantage of new opportunities - or have suffered from cost disadvantages that impeded their participation in global trade, and particularly in global value chains?
- Has Aid for Trade been effective in contributing to the export performance of LDCs – or have improvements in commodity prices or other factors been the main drivers?

[1] Constant US dollars and exchange rates of 2005. Source: UNCTADSTAD.

[2] Data are for 2007, and it seems likely that the share of the world's poor that these countries account for would increase because of the strong performance of several large countries that have large populations near the poverty line, and high poverty elasticities with respect to growth.

[3] LDCs comprise 48 countries: 31 in Africa, eight in Asia, eight Island states, and one in the Americas (Haiti). This paper generally follows the practice of UNCTAD in grouping Haiti with the African states, and Comoros and Sao Tome Principe with the Island states of the Pacific.

- Does the emergence of global value chains require LDCs and donors to change their strategy towards Aid for Trade?

To answer these questions, a first section of this paper sets out the global context and the implications for LDCs of recent changes. A second section reviews their trade performance, including their participation in global value chains, then discusses Aid for Trade and its effectiveness in promoting LDC exports. A final section asks whether donors and recipient countries need radical alterations to their Aid-for-Trade strategies to take advantage of new global opportunities.

A new opportunity: global value chains

In the last three decades, the integration of countries into the world market has occurred at startling speed. Falling costs of transportation and - even more sharply - of communication, coupled with progressively lower tariffs and other border barriers, made possible this new wave of globalization (World Trade Organization, WTO, 2013). The phenomenon has several dimensions: the growth rate of global trade has outpaced the growth of national output by a factor of 1.5 to 3 (depending on the time frame); cross-border flows of capital and foreign direct investment (FDI) have reached new heights, even after a pause in the Great Recession; and technologies have been created and diffused across borders at a pace unimaginable in 1980. Formerly isolated segments of the globe – China, the former Soviet Union, and, if with less drama, India − have surged into the world marketplace.[4]

These changes have coincided with another new trend in the global economy, the emergence of global value chains (GVCs) of production. Production that used to be located principally near the sources of supplies for major inputs, or near consumers in the final market, is now commonly located in segments across several countries. One indication of this fragmentation of production is the rising proportion of world trade in intermediate inputs. Trade in intermediates, according to Miroudot et al. (2009), amounted to 56% of goods trade and 73% of services trade in the countries of the Organisatin for Economic Cooperation and Development (OECD) in 1995-2005.[5] Gereffi developed a much broader concept of GVCs that focuses on the 'governance' nature of the supplier-buyer nexus; this definition subsumes intra-firm trade and intermediate trade as well as final goods bought for eventual sale by large retail establishments.[6] Among other things, they differ in degree on the extent of market competition within the chain, barriers to access to the final market, and the control that the lead firm exerts over technology, product specifications, and branding.

However defined, the emergence of global production chains, together with the surging volume of trade generally, has created new opportunities for LDCs, among others. It has provided an avenue allowing countries to industrialize at a much earlier stage of development, to the extent that producing firms off-shore fragments of the production value chain to countries where labour is cheaper or where other advantages related to location confer a competitive cost advantage on the entire GVC. It may also assist suppliers in developing countries to meet standards and regulations that permit them to access rich-country markets. It may offer privileged tariff treatment for imports in intra-firm trade. It may furnish network technology that would not otherwise be available. And it may open up new sources of capital in the form of direct investments, supplier credits, and trade finance.

In this new world of greater trade opportunities, connectivity is crucial. Poor connectivity can occur because natural barriers, such as being landlocked, impede access to global markets. It may be the consequence of inadequate infrastructure or burdensome regulation that makes transportation costly. Or the causes may lie in poor functioning of institutions, or in barriers such as trade restrictions imposed by policy. Moreover, the coordination of delivery times and multiple inputs into production at specific stages

[4] The WTO's World Trade Report 2013 Factors Shaping the Future of World Trade presents an exhaustive review of these changes.

[5] To arrive at these numbers, they looked at disaggregated trade statistics for major products and crossed these with findings from input-output tables. They concluded that intermediate goods trade is growing at about the same pace as all trade, so the trend did not affect the final composition of OECD merchandise trade. Services exhibit a different pattern, as services intermediates were a faster growth segment of the market. These shares are larger than other studies have found, arguably because of the more comprehensive methodology.

[6] In this view, GVCs might cover 70-80% of world trade, and the issue then becomes the 'governance' of the GVC. See Gereffi and Humphreys (2005).

requires effective performance by a wide range of public and private services to ensure global connectedness. Many elements of poor connectivity afflict LDCs. In short, GVCs would appear to create opportunities for fast growth in LDCs, but they also raise exclusionary barriers to exporting countries with inefficient border procedures, high tariffs, non-tariff barriers that unnecessarily constrain goods or services trade, restrictions on the flow of information, impediments to FDI, and restrictions on movement of people.

The challenge: overcoming exclusionary barriers

Exclusionary barriers – that is, factors that drive up trading costs and undermine competitiveness – are a fact of life in LDCs. The average cost of trading is substantially higher for LDCs than for other developing countries. For example, using the costs relating to cross-border movement of a standard container, LDCs on average paid 43% more to export than non-LDCs, and 54% more to import (Koniger, et al., 2011). Exclusionary barriers include disadvantages of geography. Many LDCs are very distant from potentially large markets. Many other LDCs are landlocked.

Exclusionary barriers can also be a consequence of small domestic markets that are populated principally by small and medium-sized enterprises (SMEs). Pioneering research by Fernandes, et al. (2013) shows that the size of the domestic market is highly correlated with the average size of firms and of exporters. Because most LDCs have small – and sometimes very small – domestic markets, their firms tend to be smaller and therefore less able to achieve scale economies available to larger firms. In Rwanda, for example, the great majority of firms are SMEs and household enterprises.[7] In the sample of 45 countries for which enterprise-level export data were available in Fernandes, et al. (2013), firms from the 11 LDCs had a lower value of exports per exporter, exported fewer products, and had a higher percentage of exporters selling just one product to one market.[8] This translates into a substantial disadvantage in nurturing exporters that can attain the scale necessary to be competitive on global markets.

Some exclusionary barriers are amenable to both short- and long-term policy remedies. Infrastructure is often underdeveloped, so that electricity tariffs, internal transport costs, and internet connectivity charges are typically high. Trade-related institutions, such as customs or standards agencies, often have antiquated procedures and impose delays that drive up costs. In 2006, it took 116 days on average to move an export container from a factory in Bangui (Central African Republic) to the nearest port and fulfil all the customs, administrative, and port requirements to load the cargo onto a ship. Similarly, it took 71 days to do so from Ouagadougou in Burkina Faso, and 87 days from N'djamena Chad (Djankov, et al., 2010). This is a stark contrast to the 5 days it took from Copenhagen, 6 from Berlin, 16 from Port Louis (Mauritius), or 20 days from Shanghai, Kuala Lumpur or Santiago de Chile. Transport regulations that impede competition in trucking services also drive up costs (Arvis, et al., 2010). And trade policies can impose costs through tariffs or non-tariff barriers; input tariffs have been shown to be particularly damaging.[9] In many cases, these exclusionary barriers – which could be remedied - can drive up costs as much as or more than natural barriers.

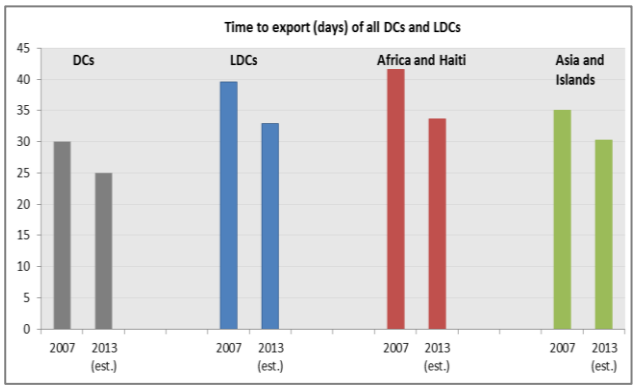
Most LDCs have, to their credit, taken action on these policy-actionable barriers. Most have implemented programmes to reduce costs of trading and delays at the border. The WTO/OECD (2011) report catalogued more than two dozen case stories of government efforts to improve customs and logistics, reduce delays at border crossings, and facilitate trade along corridors. These included LDCs as diverse as Ethiopia, Haiti, the Lao People's Democratice Republic and Zambia. For LDCs as a whole, the number of days to export has fallen from 40 to 33 (figure 2), and LDC logistics have also improved as measured by the World Bank's Logistic Performance Index (figure 3). These efforts translate into improvements in competitiveness. One study calculated that a one-day reduction in transit times reduces costs by an average 0.8% around the world (Hummels, 2001). Another found that each day saved in transit had the effect of increasing trade volumes on average by slightly more than 1% (Djankov, et al., 2010).

[7] See L. Flood and M. Savini 'Analysis of Corporate income tax' International Growth Centre, 2012 Mimeo.

[8] Calculated from tables 1 and 5 in Fernandes, et al. (2013).

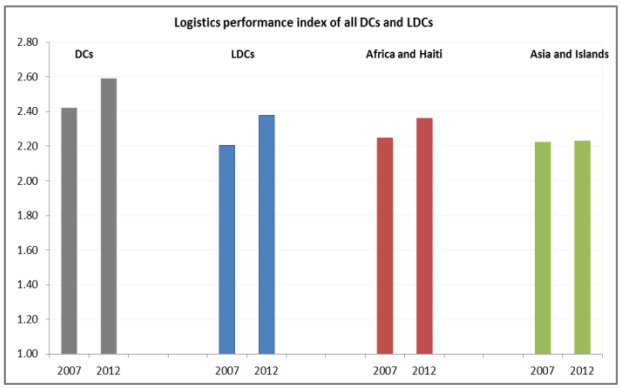
[9] See, for example, Amiti and Konings (2007), Estevadeordal and Taylor, 2011, and Fernandes and Kirk (2013) for Zimbabwe (2013) for three different approaches that produce this finding.

Figure 2 LDCs are reducing time to export…



Source: ITC staff calculation, based on World Bank Data (Doing Business), 2013.

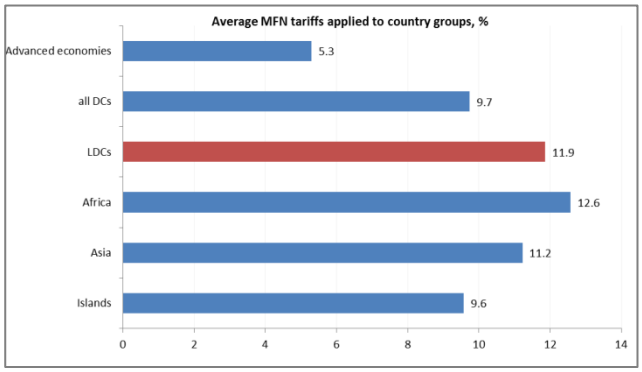
Figure 3 …and improving logistics



Source: Doing Business, World Bank, 2013.
Note: Logistics performance index: overall (1=low to 5=high).

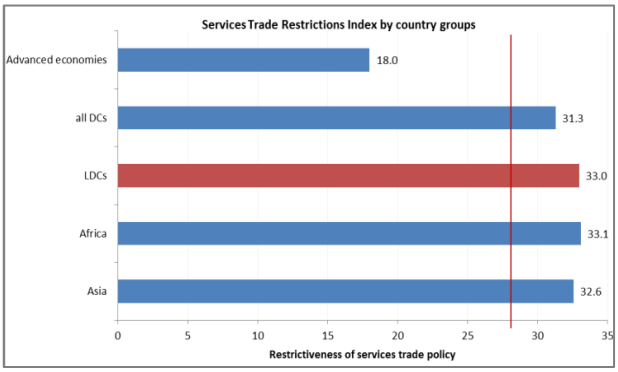
Policy barriers to competition are lower than a decade ago, but they persist. Although the simple average of most-favoured nation (MFN) tariffs has fallen in many countries since 2000, it is the liberalisa tion associated with an array of preference trade agreements that has exposed domestic producers to greater competition. Trade policies are still more restrictive on balance than in the large dynamic markets – such as China, India and Brazil – where tariffs have come down earlier, further, and faster. Trade in services also remains limited because of regulatory and ownership barriers. To paraphrase Borchert, et al. (2011), while a country cannot do much about being landlocked, it does not have to be policy-locked.

Figure 4 MFN tariffs in LDCs are still relatively high…



Source: World Trade Profiles, World Bank, 2013.
Note: simple average tariffs. For LDCs, there are missing data for Somalia and Sao Tome and Principe.

Figure 5 …and so are barriers to services trade

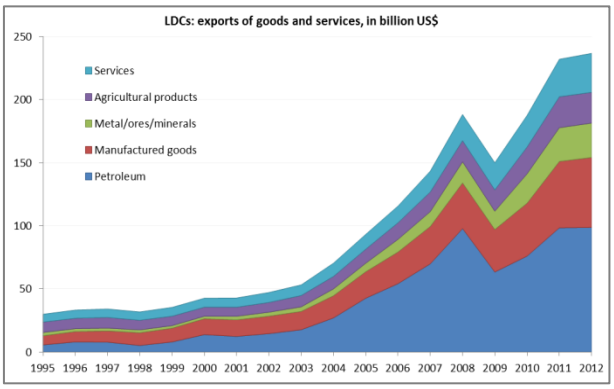


Source: Service Trade Restriction Database, World Bank 2013.
Note: red line is average STRI across 103 countries (28.3). Data are available for 17 LDCs (12 African and 5 Asian LDCs).

LDCs: changing patterns of global integration

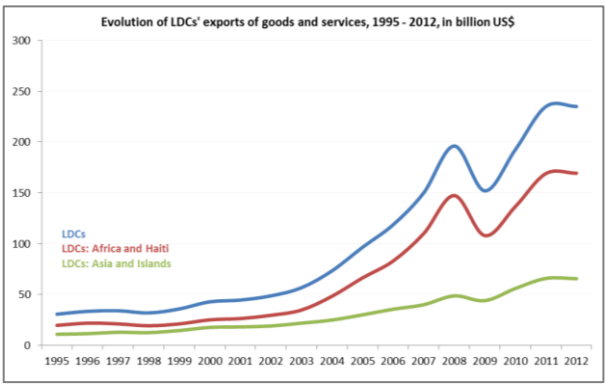
Because of these efforts at policy and institutional level, and despite substantial cost disadvantages, LDCs have turned in a solid trade performance over the last two decades. Since 1995, they have increased their exports of goods and services by over 12% annually in nominal terms (figure 6), and since 2000, exports have increased 7% in volume (UNCTADSTAT). African LDCs were aided by improvements in terms of trade of more than one-and-half times those of 2000, as prices of minerals, oil and agriculture surged during the decade and relative prices of imported manufactures declined. Exports from African LDCs increased by 18.3% annually in value and by 6.8% in volume. Asian and Island LDCs suffered modest losses of some 12%-15% in terms of trade, but still managed to grow annually by 11% in value and 5.5% in volume, on the strength of manufacturing exports from Asia and services exports from the Island countries.

Figure 6 LDC exports have been growing rapidly



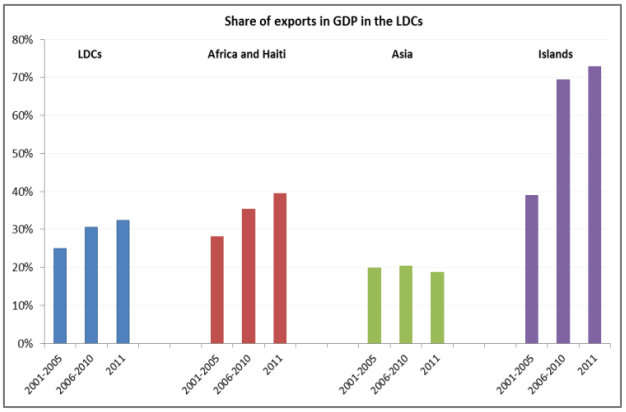
Source: UNCTAD Stat, 2013.

Figure 7 LDCs from all regions have participated



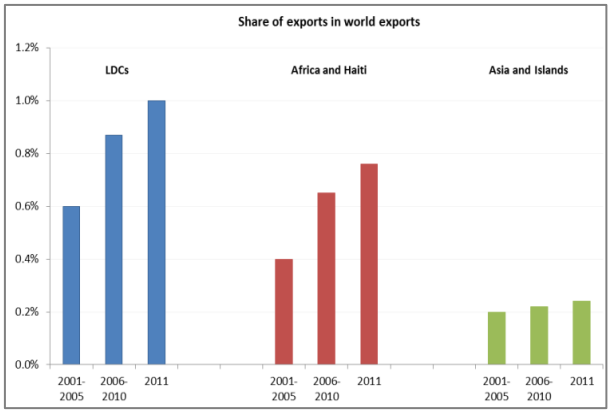
Source: UNCTAD Stat, 2013.

Figure 8 Trade is playing a more important role in LDCs…



Source: UNCTAD Stat, 2013.

Figure 9 …and LDCs are gradually gaining global market share



Source: UNCTAD Stat, 2013.

If further evidence were needed of progressive LDC integration into the global economy, the rising share of trade in GDP provides it. Exports as a share of GDP increased from 25% in the early years of the decade to 32% in 2011 (figure 8). The largest increases were in the African LDCs, driven largely by petroleum and mining,[10] and where the export share of GDP rose by more than one-third to 40%. In Asia, the increase was less dramatic. This was not just a phenomenon of large countries driving a new openness for the subregions, but rather occurred across many countries in both Africa and Asia. Consider total merchandise trade: while in 2001 only 9% of African LDCs had merchandise trade-to-GDP ratios in excess of 30%, by 2011 some 28% did. Among Asian LDCs, the corresponding change was even more dramatic: from 29% to 57% (Bhattacharya and Moazzem, 2013). At the same time, aside from the services-dependent Island LDCs, only a few countries failed to achieve a goods-trade ratio of 10% – including Afghanistan, Burundi, Ethiopia and Rwanda.

Throughout this period, LDCs collectively expanded their share of the global market, a reversal of their fortunes in the 1980s and early 1990s. The share of LDCs in world exports has increased from 0.6% (2001-2005, average) to 1.0% in 2011, a significant increase (figure 9). The rate of increase exceeded the growth they experienced in their share of global GDP. All three regional groups expanded their share of the world economy, with the African region doing so most dramatically - reflecting China's entry into the global market, with its huge demand for raw materials that Africa could provide. Asia also increased its share, but more slowly, and from a lower base.

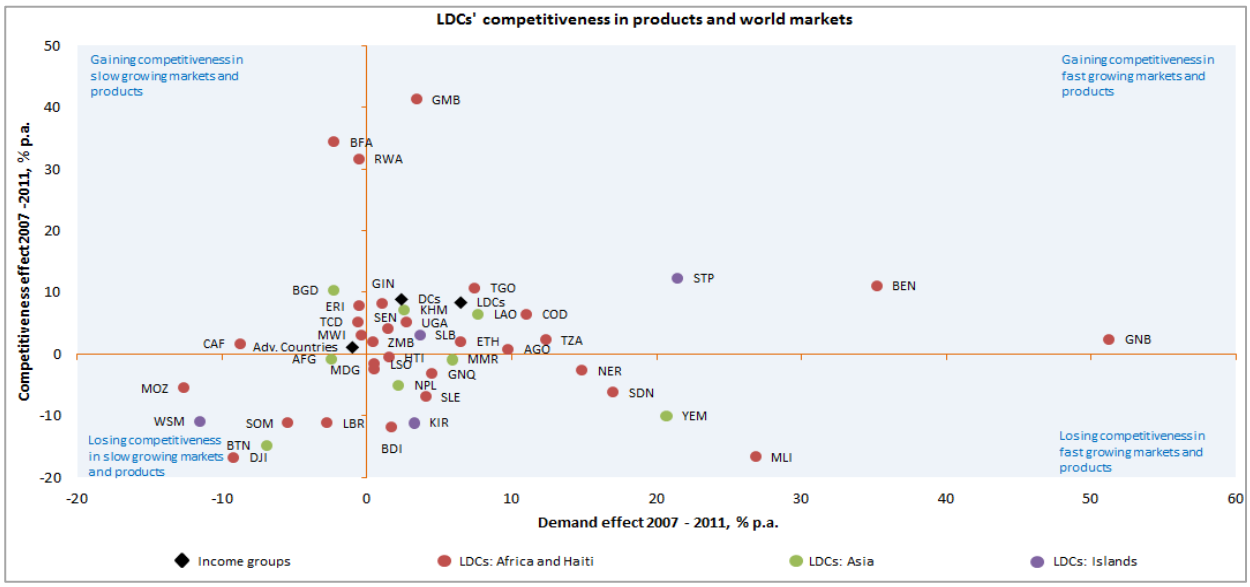
[10] For all of Africa in 2000-2011, petroleum accounted for more than half of the increase in exports, and mining for another fifth. See World Bank, 2013 African Pulse April.

LDCs still experience points of trade vulnerability

Despite solid recent performance, LDCs individually must still deal with some treacherous and complex vulnerabilities. The averages at the level of regional subgroups mask considerable variation in export performance at country level. Beneath the regional aggregates, lies a more complicated pattern in which a healthy majority of countries are doing well in both subregions, but some countries are being left behind.

One way to see this is to decompose export growth into two distinct effects: growth that simply keeps pace with the global market (i.e. the demand effect), and growth that expands market share in the global market (i.e. the competitiveness effect). Figure 10 below offers such a decomposition of annual export growth over 2007-2011, a period of rapid movements in prices and volumes. Many countries – 17 of the 48 – took advantage of both global growth and expansion of their market share (the top right quadrant of figure 10). Another 22 were gaining market share in slow-growing global markets (top left quadrant) or were losing market share in fast-growing markets (bottom right quadrant), but both groups still managed to keep export growth positive. The most vulnerable were those countries in slow-growing world markets and which were also suffering losses in competitiveness (on the bottom left quadrant) – including Afghanistan, Bhutan, Djibouti, Liberia, Mozambique, Samoa and Somalia. Conflicts of differing forms are a common theme that find their echo in the trade performance of these countries. Nonetheless when LDCs are considered as a group, they outperformed all developing countries as well as advanced countries (see the diamonds in the graph).

Figure 10 Country export performance, 2007-2011: Because of world growth or competitiveness?



Source: Trade Competitiveness Map, ITC.

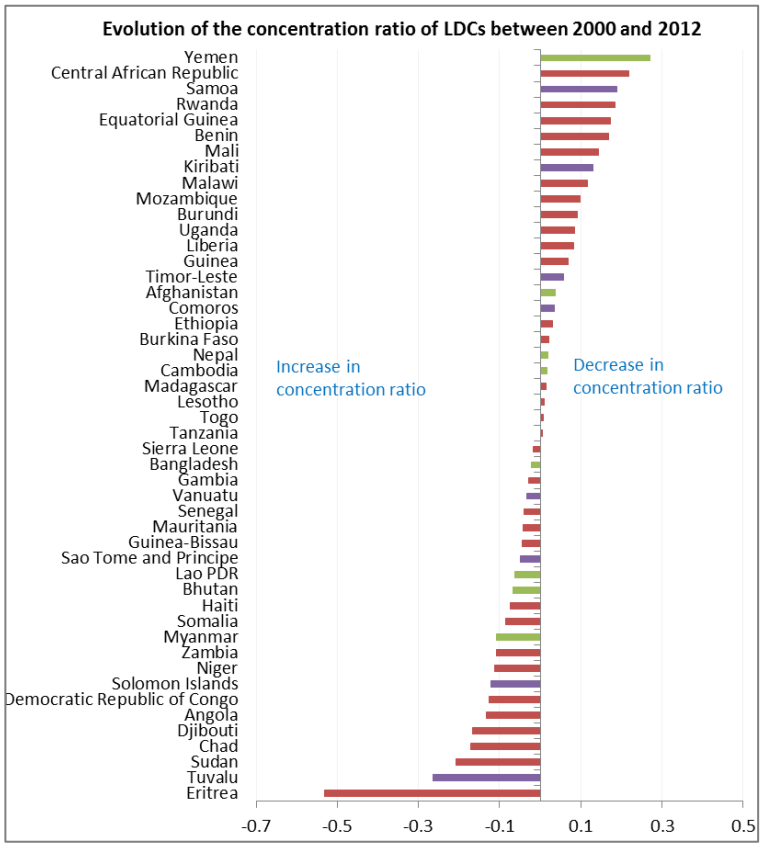
Note: Data for Tuvalu and Timor-Leste are missing. Values for demand effect and competitiveness effect (x, y) of Guinea-Bissau, Comoros and Vanuatu do not appear in the figure and are as follow: Mauritania (72%, -11.3%); Comoros (184%, 8.0%); Vanuatu (144%, 2.3%)

A second persistent problem faced by LDCs is the well-known overreliance on commodity exports. While minerals, petroleum, and some back agricultural products have performed exceedingly well in the last decade, conferring a positive effect on the net terms of trade for countries exporting these commodities, in previous periods the opposite has been true. In fact, the problem with the export structure of LDCs resides less in their dependence on commodities per se and more in their reliance on only a few exports, much as Lederman and Maloney (2010) found for all developing countries. That is, volatility in terms of trade tends to plague countries that are dependent on a few commodities for export earnings. At one extreme, for example, South Sudan exports almost nothing more than oil, so its national income is heavily dependent on the price and quantity of oil. Lesotho, with its dependence on clothing exports, is only slightly less vulnerable to changes in terms of trade, but at least it can shift among an array of different clothing

products within garment exports, much like Bangladesh. Other countries may have export portfolios that are concentrated but varied, such as Rwanda, which exports both agricultural products (tea and coffee) and minerals, whose prices do not tend to oscillate in the same pattern.

A major challenge, therefore, is diversification. Nearly all LDCs have had trade programmes that encourage the introduction of new products into their export mix. However, progress has been slow and uneven. Most LDCs still depend on only a few products, and concentration of their export basket remains high. In 2010-2012, LDCs had a Herfindahl index of 0.27, compared to 0.023 for all lower- and middle-income developing countries[11] – which means that LDCs' exports are approximately 10 times more concentrated. Moreover, comparing averages of 2000-2002 with 2010-2012, there are no signs over time that LDCs as a group are becoming less reliant on only a few products. In fact, in 23 out of 48 countries, exports became more concentrated (figure 11).[12]

Figure 11 Reliance on a few products is not diminishing for many LDCs



Source: Author's calculations from mirror Comtrade data at HS 6-digit levels.

[11] The Herfindahl index ranges from 0 to 1, with 1 as the maximum concentration. It is the sum of squares of each product share in the total exports, so that, at the limit, if a country exported only one product, it would register 1.0. The numbers cited are taken from mirror data and are calculated at the HS 6 digit level.

[12] One measure of diversification does show some improvement. The diversification index of the United Nations Conference on Trade and Development (UNCTAD) compares LDC portfolios with world average production. By this measure, LDCs as a whole have increased their diversification since the mid-1990s, although from a low base. This trend is evident in African and Asian LDCs, but the Island countries show relatively little such progress, mostly because the index does not include services, the primary source of earnings for the group. However, this progress may be at least partly illusory: the shift in commodity prices throughout this period may have caused world production (the denominator) to move closer to the LDC composition, rather than the LDC composition moving toward some global norm. Whatever the reason, LDCs still fall short of the average level of diversification evident for all developing countries. On average, other developing countries had trade compositions that were more than twice as diversified.

Nor have LDCs become less dependent on only a few markets. A measure of concentration of sales to particular markets shows that LDC exports in virtually all regions have tended to become more focused on a few geographic markets.[13] This measure may hide changes in trading partners, as China may have replaced the EU or the United States as the lead market destination. But the pattern of reliance on only a few markets persists.

One cause of this shortcoming is the low survival rate of new products that LDCs introduce into regional and global markets. Nicita, et al. (2013) studied the survival of the flows of LDC exports to 190 countries in 1993-2007. The study found that LDCs had much higher incidences of product extinction during this period than other developing countries – 41% of LDC products disappeared from the market, compared to 15% for other developing countries (Nicita, et al., 2013). They concluded that once products are introduced, greater activity is necessary at policy level to consolidate incipient comparative advantage and sustain export growth. Fernandes, et al. (2013) studied these dynamics in greater depth and found that new-entry rate was lower for countries with low per capita income, and exit rate was higher. This underscores the disadvantages that LDCs have in pursuing more diversified export product baskets.

LDCs and global value chains

One way to diversify is to tap into global value chains (GVCs). Has the progressive emergence of GVCs as a central feature of the world economy created opportunities for LDCs, or left them behind? Measuring participation in GVCs is difficult because definitions of GVC vary widely. In its broadest sense, any traded product is part of a larger production chain as long as it requires further manufacture, processing or marketing in the destination country and/or involves established supplier-buyer relationships. This definition would generally exclude raw materials and commodities sold in auction markets, for example. At the narrowest end of the spectrum of definitions, GVCs can be understood as those products that transform imported inputs into exports, within a defined supplier-buyer relationship. Among other factors that characterise them, GVCs differ according to the extent of market competition at different points within the chain, barriers to entry in the final market, and the control exerted by the lead firm over technology, product specifications, and branding.[14]

Three different export-related measures of LDC participation in GVCs point to opportunity triumphing over obstacles: LDCs, much like their better-off developing country counterparts, are seizing these opportunities. Consider the first measure. ITC (2013) staff undertook a detailed analysis of the export portfolios of 46 LDCs, and analysed them in six country groupings,[15] using 'transformed exports' – including any manufactures, semi-manufactures, and processed primary products – as a measure of participation in GVCs. This formulation would capture, for example, finished T-shirts from Bangladesh being sold to Carrefour and other big retailers around the world, and woven baskets from Rwanda

[13] See UNCTAD's measure of concentration, UNCTADSTAT on line.

[14] In a seminal article, Gereffi, Humphey, and Sturgeon (2005) divided GVCs into five categories, based on the degree of competition at each stage, and/or market power of lead firms, or what they termed 'GVC governance':

- Market-driven chains in which both buyers and suppliers have multiple sources of transactions, the price is fully market determined, and the cost of switching to new partners is low; an example is commodity markets;
- Modular chains in which suppliers produce to the specification of the buyers, using generic technology; many apparel chains serve as an example;
- Relational value chains in which interactions between buyers and sellers are mutually dependent, usually with sustained involvement over time, and are based on family or ethnic ties that tend to cement business relationships; this is characteristic of many of the East Asia production chains;
- Captive chains in which the lead firm controls a highly differentiated product, the key technologies, and/or product standards; suppliers have little incentive to move outside the production chain to work with competitors; leading electronic firms such as Apple have supplier relationships of this type;
- Hierarchical chains in which the buyer-supplier relationship is internal to the firm; auto companies have many suppliers that are internal to the firm; all intra-firm trade falls into this category.

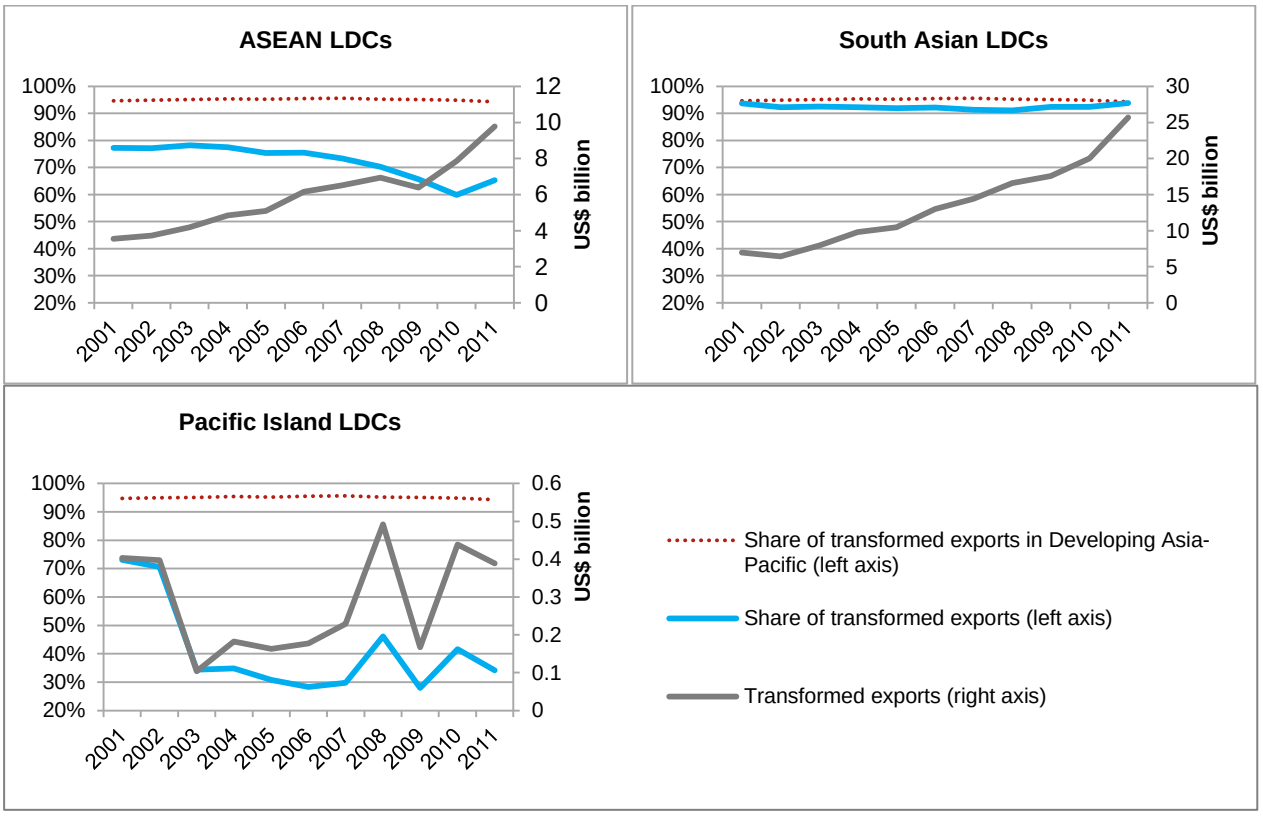
[15] These closely correspond to the 48 countries and their groupings in the previous section. The ITC (2013) analysis used the input-output structure of the Global Trade Analysis Project (GTAP) model based on 2007 data. Because GTAP did not have data for Haiti, Lesotho, the Pacific Islands or Yemen, these were omitted from the statistical analysis. It also classified Comoros and Sao Tome and Principe as part of Africa, and Timor Leste as part of Asia rather than as Islands. And it considered South Sudan as a separate country. This produced a total of four ASEAN LDCs, four South Asian LDCs, 12 Western African LDCs, six Central African LDCs, 15 East African LDCs and five Pacific Island LDCs.

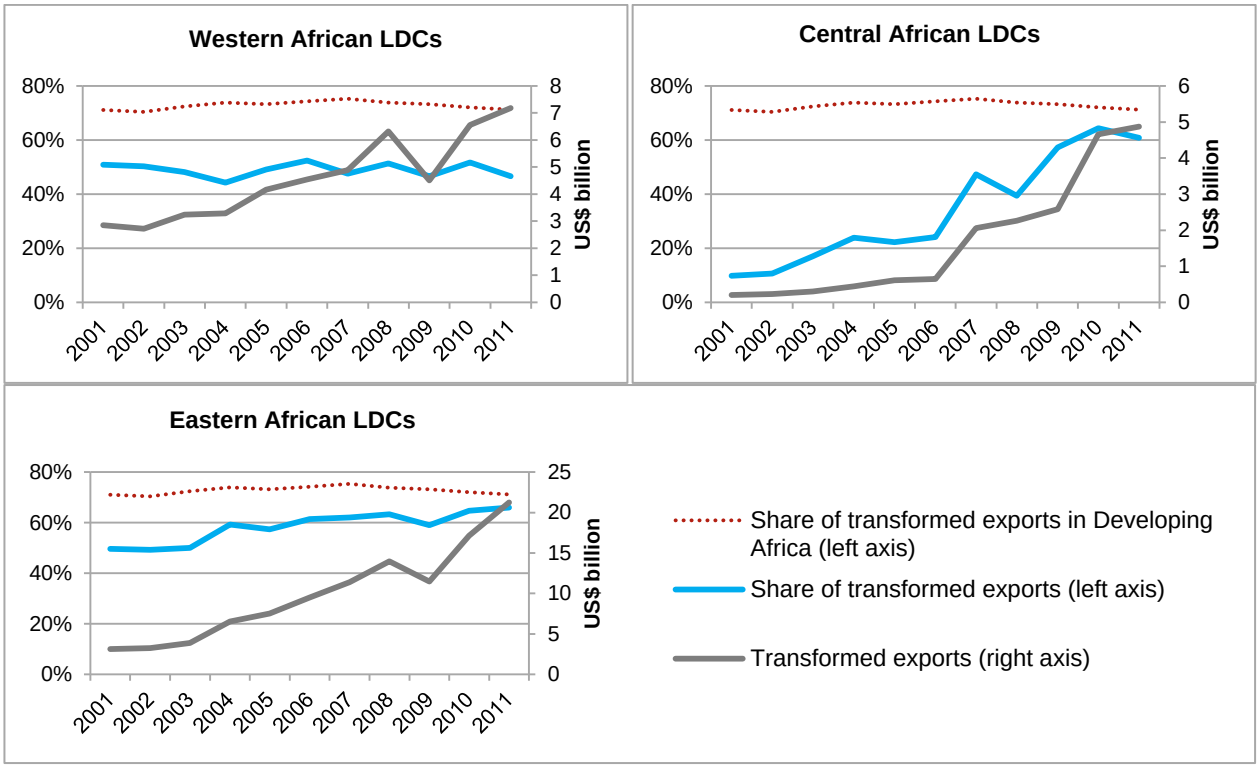
marketed through non-governmental organizations (NGOs) and Costco. The results indicate a broad participation in GVCs when seen through the lens of exports of 'transformed products.' All six of the country groupings show an increase in the dollar value of transformed exports (figure 12). In four of the six – all but the Pacific Islands and Western Africa – exports of transformed goods amounted to more than 60% of total exports. The outlier is the Pacific Islands, but this is understandable since the analysis does not include services, which is a mainstay of their economy. All the African LDCs increased their share of transformed goods in total non-oil merchandise exports. In the ASEAN-Asian LDCs the share was almost stable at already high levels, with a modest decline in the share of transformed exports in ASEAN primarily the result of a rapid increase in total non-oil exports from Myanmar, boosted particularly by the preponderance of precious stones (ITC, 2013).

Many of the transformed goods were destined for the fast-growing markets of Asia, a region that increased its share of imports of transformed goods from all of the country groupings except for South Asia (ITC, 2013). Both Asian and African LDCs sold a large, if declining, percentage to the OECD and EU.

Despite this noteworthy performance, LDCs still lag in their participation in GVCs relative to other developing countries. Calculations based on the GTAP database show that the output of LDCs still depends heavily on production of raw materials, much of it food and subsistence agriculture. It is no surprise that raw materials, even with the new forms of value chain participation, constitute a much higher share of exports than they do in other developing countries in the same region (see table below). In Africa, the gap between LDCs and developing countries appears even larger. This does not contradict the view that LDCs are actively participating in GVCs – but it does put it in perspective.

Figure 12 The rise of transformed exports from LDCs (excluding oil)





Note: ITC staff calculations based on ITC Trade Map data. Source: ITC, 2013.

Table Most LDCs export mainly raw materials

(% share of non-energy exports, 2007)

	Raw products	Transformed oroducts
ASEAN LDCs	22	78
South Asian LDCs	6	94
Western African LDCs	41	59
Central African LDCs	61	39
Eastern African LDCs	34	66
For comparison:		
Developing Asia-Pacific	3	97
Developing Africa	18	82
Developed OECD & EU	4	96

Source: Calculated from ITC, 2013 based on GTAP 2007. Note: Excludes oil, coal and gas exports.

The conclusion that LDCs are increasingly participating in GVCs also emerges from a study employing a more eclectic methodology: Bhattacharya and Moazzem (2013) traced trade linkages constructed from open-source web-based materials and country interviews in Bangladesh. They identify 95 separate products that LDCs sell as part of GVCs – 63 in Africa and 53 in Asia. Approximately 61% of these are primary agricultural products, 9% are primary minerals, and 29% are processed agricultural and manufactured products, with Africa - as might be expected - exporting a slightly smaller percentage in manufactured goods (27%) than Asia (34%). The study did not quantify this over time or as a share of exports, but the sheer number of these relations suggests that GVCs are becoming an important part of LDC export activities.

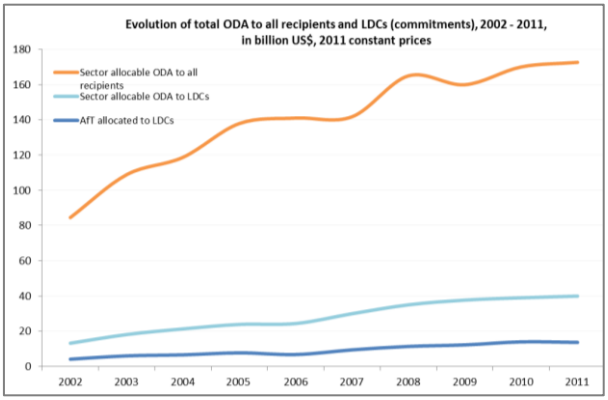
A third and far narrower measure is to look at the export of parts and components, a subset mainly of machinery exports, and conventionally used in the literature (see Kimura, et al., 2007). Because LDCs generally do not export machinery, this measure is arguably the least appropriate. However, even by this narrow measure, LDCs managed to increase their exports of parts and components from US$ 200 million in 2002 to over US$ 1.0 billion by 2010, almost evenly divided between Africa and Asia. This segment of their export portfolio is relatively fast-growing, although from a low base.

These three different assessments point to the same conclusion: LDCs as a group are indeed seizing the opportunities presented in global and regional value chains. A large and growing share of their exports is inextricably bound up with deepening supplier-buyer networks. While available data preclude precise identification, these networks probably exhibit the full range of governance characteristics evident in other developing countries, but with more reliance on primary product and semi-processed value chains, and less participation in chains involving manufactures.

Aid for Trade to LDCs

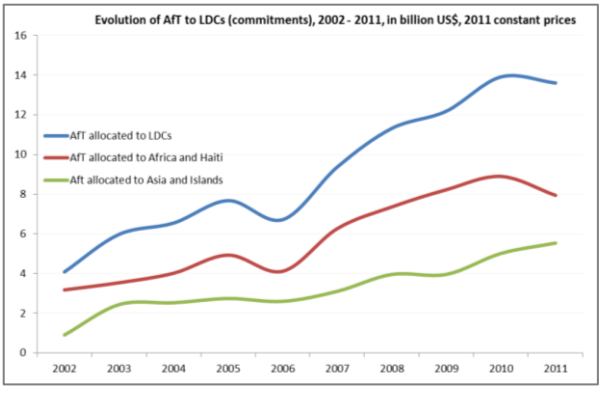
Against this backdrop, it is appropriate to assess whether Aid for Trade to LDCs has been instrumental in promoting new exports and greater participation in value chains. Since the WTO Ministerial Declaration of 2005 gave explicit priority to helping LDCs participate in world trade, resources allocated to Aid for Trade in LDCs have increased, and they have accordingly benefited substantially in the last decade. Using the WTO/OECD definition, Aid for Trade totalled some US$ 86 billion between 2002 and 2011. About one third of this went to investments in transport and storage, about one quarter to agriculture, and one-fifth to energy. The remainder was apportioned to communication, industry, trade policy and regulation, and services, such as finance and tourism.[16] Seen through the WTO Aid for Trade categories, LDCs received most of this for economic infrastructure (57%), building capacity (including productive capacity in agriculture and industry, and trade development – 40%), and trade policy and regulation (3%).

Figure 13 Aid for Trade has been increasing



Source: OECD, Aid for Trade data, 2013.

Figure 14 Aid for Trade growth is uneven across regions



Source: OECD, Aid for Trade data, 2013.

[16] See OECD website for Creditor Reporting System data on Aid-for-Trade.

Amounts have been rising (figure 13). In 2002, Aid for Trade to LDCs amounted to slightly more than US$ 4 billion (constant 2011 dollars) (figure 14). Since the launch of the Aid for Trade initiative at the Hong Kong Ministerial in late 2005 and the Task Force Report in mid-2006, it more than doubled to 2011 levels of US$ 13.6 billion. This coincided with an overall increase in official development assistance, so the percentage of resources devoted to Aid for Trade actually increased only marginally – from an average of 31% in 2002-2006 to 35% in 2010-2011. Within the programme, the top 10 countries – Afghanistan, Bangladesh, Ethiopia, United Republic of Tanzania, Democratic Republic of the Congo, Uganda, Mozambique, Mali, Burkina Faso and Madagascar – received about two-thirds of the total, while the poorest 10 recipients received only 1.3%.[17] This is not as disproportionate as it first appears: the top 10 countries account for 58% of the LDC population and the bottom 10 account for 7% (of which one alone, Myanmar, accounts for 6%).

Non-monetary Aid for Trade is no less important

Aid for Trade is not only money. Technical assistance embodied in projects and studies is arguably more important because it implies the transfer of 'policy technology'. Learning about the organization of one-stop border posts, computerized customs systems, or policies that encourage more efficient use of existing infrastructure can increase the productivity of investments. And in addition to policy knowledge disseminated through donor projects, there is real value in special funds that LDCs can access, such as the Enhanced Integrated Framework (EIF), a trust fund for technical studies and very small infrastructure projects run by donors and LDC trade representatives, with the support of cooperating multilateral partners, including ITC, UNCTAD, WTO, the World Bank, the United Nations Development Programme, the United Nations Industrial Development Organization, and the International Monetary Fund. Other funds include the Standards and Trade Development Facility of the WTO/World Bank/Food and Agriculture Organization/World Health Organization/World Organisation for Animal Health, the Trade Facilitation Facility of the World Bank, and the European Union's Africa Infrastructure Fund.

EIF has been particularly important in promoting penetrating studies of the trade problems confronting LDCs. Through the participation of core agencies and donors, it has connected the trade community in Geneva with the development community. The programme now receives contributions from 22 donors, with a funding target of US$ 250 million (Brenton and Gilson, 2013). It has financed Diagnostic Trade Integration Studies and subsequent updates in nearly all LDCs, providing detailed analysis of trade-impeding problems and roadmaps for possible donor assistance, as well as in-country meetings of donors to arrange financing for meritorious technical assistance activities. EIF suffered start-up problems because of initially divergent aspirations among LDCs, donors and agencies, and it evolved with excessively bureaucratic procedures.[18] But moving into its second phase, it will be a source of continued technical analysis and small catalysing grants for development projects, as well as a platform with convening power to call attention to LDC trade issues.

Aid for Trade can support SME development

Because LDCs have generally smaller markets, their exporters are generally smaller (Fernandes, et al., 2013) – and many countries have an exceptionally high percentage of SMEs in their industrial sectors. Aid for Trade to SMEs in LDCs is particularly important, because they find themselves at a natural disadvantage in the face of large firms, whose greater productivity gives them a competitive advantage on export markets, and which account for the dominant share of exports in nearly all countries (Melitz, 2003).

Emphasis on the importance of developing SMEs was a feature of more than 10% of the case stories submitted in response to the call that WTO and OECD issued for the 2011 report.[19] More than a score of them recounted government efforts to develop and promote exports through a variety of mechanisms, such as Malawi's training in business economics for SMEs, and the Belgian government's programme to increase professionalism in sustainable trade among small-scale producers and their associations in 18 developing countries, and to help them access the market. Other stories focused on how Aid for Trade

[17] See Saana Consulting 2012 'Medium Term Review of the EIF – Final Report', 15 November, Geneva: EIF.

[18] *Ibid.*

[19] This section draws on WTO/OECD (2011) Chapter 5.

could help SMEs develop environmentally sustainable technologies, like the sustainable trade initiative in the Netherlands that provides matching grants to help SMEs export to the EU market, based on sustainable technologies and fair labour practices. UNCTAD and the United Nations Environment Programme have also helped establish organic production programmes in several countries of East Africa.

Some stories recounted government and donor efforts to use SME trade to raise the income of women in selected LDCs. The government of Canada and ITC sponsored a Programme for Building African Capacity to Trade that is active in Ethiopia, Mali, Mozambique, Senegal, and the United Republic of Tanzania. This has a subprogramme focused exclusively on women, ACCESS! for African Businesswomen in International Trade, which provides training in exports, and in using information technology to gain market information, as well as expert advice on market readiness, and market access missions. It involved 22 training modules for African businesswomen, with 46 trainers in five languages, and issued certificates to more than 770 women in 11 countries.

Effectiveness of Aid for Trade: does it work? Yes, with qualifications

A WTO/OECD review of effectiveness for the 4th Global Review of Aid for Trade in 2013 [20]found that firm conclusions about outcomes and impacts cannot be drawn solely from one method, because the diversity among trade objectives, intermediate objectives, instruments, sectors and activities, to say nothing of a country's initial conditions. Instead, they reviewed three categories of studies: aggregate cross-country approaches, sectoral reviews, and project-level evaluations.

In general, the cross-country econometric approaches look at the effect of Aid for Trade on trade growth.[21] They tend to find fairly robust correlations between Aid for Trade and export growth under different specifications. Koniger, et al., 2011, for example, report:

Our results indeed confirm that Aid for Trade and Aid-for-Trade facilitation may lower trade costs and therefore play an important role in helping developing countries to benefit from trade. Aid spent on trade policies and regulations, and particularly on trade facilitation, have a leverage effect on trade – the comparatively small aid figures may cause quite large trade volume increases. For the time of trading as our second dependent variable, the evidence is less robust, but we find some evidence of a reduction in the time of trading due to aid used to improve trade policies.

Moreover, Cali and te Velde (2010) found that Aid for Trade has an overall positive and significant impact on exports – an effect that is almost entirely driven by economic infrastructure. They also demonstrate that when Aid for Trade is allocated to infrastructure, it results in an expansion of exports, especially in the mining and manufacturing sectors, with the greatest effects in Africa. Improvements in trade facilitation measures associated with Aid for Trade are associated with increases in trade flows (see Basnett, et al., 2012). Trade costs can be lowered for importers and exporters by reforming customs to increase efficiency, reducing transaction costs at the border, eliminating bureaucratic interventions that create opportunities for corruption, and adopting procedures to speed goods across borders. Helble, et al. (2012) concluded that Aid for Trade targeted at trade policy and regulatory reform produces a high rate of return. They estimate that US$ 1 of Aid for Trade targeted at trade policy and regulatory reform could lead to US$ 1.3 of additional trade.

[20] WTO/OECD, 2013 Aid for Trade at a glance, 2013: Connecting to value chains Paris: OECD. This section summarizes sections of chapter 5. This study was the latest of several studies using different evaluation approaches and methodologies. See, for example, OECD, (2013a) and Cadot, et al. (2011).

[21] Basnett, et al. (2012), in one of the most comprehensive overviews of the recent literature evaluating Aid for Trade, includes a useful discussion of the methods and variables used in the aggregate analyses.

A broader WTO and OECD cross-country study of whether Aid for Trade was effective in promoting exports (excluding oil and minerals) subsumed LDCs (WTO/OECD (2013)[22], and found it had a significant and positive association with greater exports. The results suggest that a 10% increase in bilateral Aid for Trade committed to developing countries would increase their exports by about 0.3%. The impact was not limited to exporters. Aid for Trade provided to a bilateral trading partner has an additional positive effect of promoting more imports from the exporter. For example, if Rwanda exports to Uganda, Aid for Trade to Rwanda would not only help Rwanda export more than countries not receiving aid; if Uganda also receives Aid for Trade, this will lead to even greater exports from Rwanda, since improvements to Uganda's transport infrastructure or border posts will also benefit exporters from Rwanda. For bilateral flows between two countries receiving aid, the increase of bilateral Aid for Trade to both partners increases the size of the twin coefficients to nearly 0.4%.

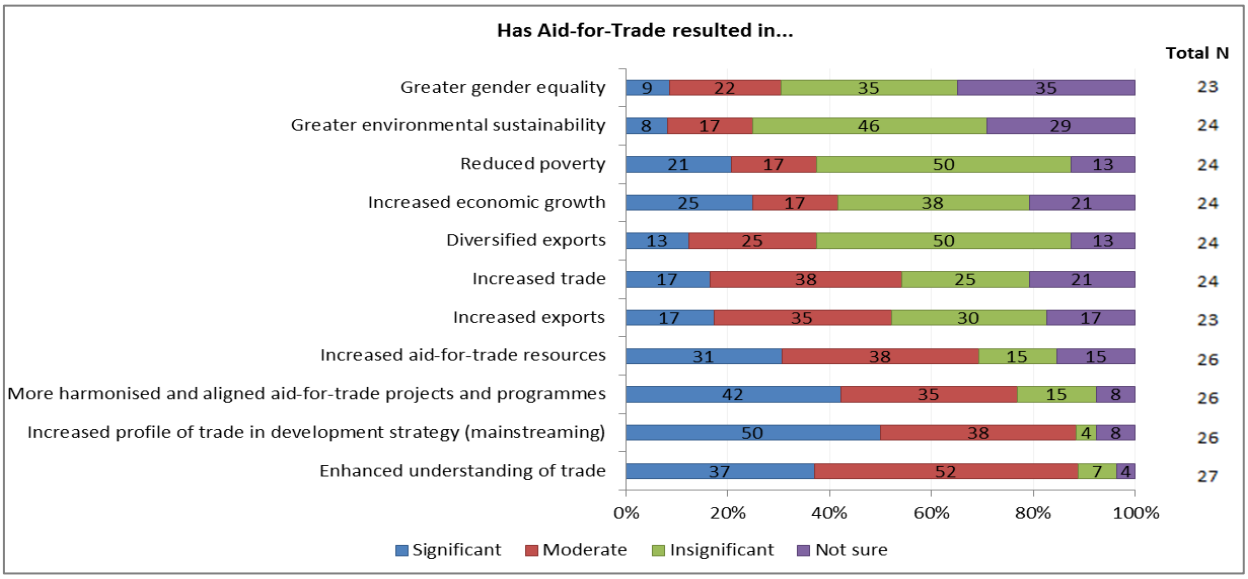
Programme evaluations generally supported these conclusions, although sometimes with more nuance, and often with less quantitative methodologies.[23] Project analyses, while of varying sophistication, also pointed to positive effects. The World Bank review of trade-related projects that had closed in 2002-2008 found that 83% were rated satisfactory. Trade-related projects had an average economic rate of return of 32.4%, compared to a return of 23.7% on non-trade projects (World Bank, 2009). But a deeper examination of these projects gives pause before accepting an unreservedly sanguine view. When Cadot, et al. (2011) examined 85 World Bank trade-related investment projects in 1995-2005, they found that evaluations were too frequently partial or altogether absent. Other studies have applied more sophisticated methodologies. Brenton and Von Uexkull (2009) used a difference-in-differences method to examine the effects of 88 export development programmes in 48 different countries. They found that, on average, export development programmes have coincided with or predated stronger export performance. Volpe and Carballo's (2008) evaluation of export promotion programmes in six Latin-American countries also found positive impacts on exports.

Even though many LDCs were included in the studies cited above, the consequences of Aid for Trade in LDCs as a group have received less study. One starting point is to ask LDCs themselves – and that is what WTO/OECD did for the 2011 Global Review of Aid for Trade. Questionnaires were sent to all LDC members of the WTO, and 28 replied. Their answers, no doubt impressionistic, convey a clear perspective on the usefulness of Aid for Trade in attaining particular objectives. It was not seen as directly useful in promoting gender equality and greater environmental sustainability (figure 15), but more than 40% of countries responding spoke of reduced poverty, increased economic growth, and diversified exports, and more than 50% mentioned increased trade and exports. The overwhelming majority noted that an increase in Aid-for-Trade resources, greater prominence of trade in policy circles, and enhanced understanding of the role of trade. If these numbers had excluded respondents that were simply 'not sure', the results for those that had opinions in all categories would be much higher.

[22] The objective was to look at the effectiveness of Aid for Trade on increasing non-mineral non-oil exports. A gravity model was used to estimate the impact three years later of bilateral aid reported by countries belonging to the Development Assistance Committee in a given year for trade commitments on non-mineral exports. Lagging the expected export results was incorporated in the study design to account for the time taken for commitments to influence actual investments and exports. To distinguish the role of Aid for Trade from other possible explanations, estimates controlled for 11 other conventional determinants of trade levels in gravity models, including, for example, country characteristics of exporters and importers (such as size), distance from trading partners, and membership in trading agreements, as well as factors that might reduce trade, such as social conflict and being landlocked. Idiosyncrasies affecting trade were controlled through introducing fixed effects for country and year.

[23] Two exceptions were the econometric analysis of the United States Agency for International Development (USAID 2010), and a helpful review of several cross-country studies in Basnett, et al. (2012) for the Department for International Development of the United Kingdom (UKAID). The USAID study found a high rate of return on investments in capacity building through Aid for Trade; every dollar invested was associated with a US$ 42 return in higher exports the following year. USAID (2010) From Aid to Trade: Delivering Results: A Cross Country Evaluation of USAID Trade Capacity Building, Washington: USAID November. The study also presents in an annex a commissioned study by David Bearce, Steven Finkel, and Anibal Perez-Linan 'The Effects of US Trade Capacity Building Assistance on Trade-Related Outcomes, 1999-2008' September 2010; a US$ 1 investment of total United States government assistance to trade on average would increase exports US$ 53.

Figure 15 LDCs respond to questions



Source: Adapted from UNCTAD, 2012 based upon the 28 LDCs reporting to the WTO/OECD online questionnaires, 2011, omitting those responses with no answer.

Country case studies offer a window into LDC-specific results. The International Centre for Trade and Sustainable Development (ITCSD) undertook case studies of Aid for Trade impact in three LDCs – Cambodia, Malawi and Nepal – and found that the macro impact on export growth was positive in Cambodia, partly positive in Nepal, and less successful in Malawi. Specific projects in each country at the micro-level reflected these patterns – a Cambodian rice project was successful because the government 'owned' the project and made serious efforts, while in Malawi a training and capacity-building project appeared to have had short-lived effects. OECD recently conducted case studies of management systems for Aid for Trade in six countries, including three LDCs – Solomon Islands, Bangladesh, and Rwanda (OECD, 2013b).[24] These countries had very different results-based management organizations: Rwanda had the most sophisticated system, complete with indicators, annual performance review, feedback systems and systematic interaction with donors; Bangladesh relied on standard budget systems, so the OECD study proposed specific new systems for trade facilitation projects; Solomon Islands, while reporting that it had benefited from the EIF-sponsored trade diagnostics, was still at the early stages of developing management systems. Only the study for Rwanda reported on trade outcomes associated with Aid for Trade, and these were found to be positive.[25]

[24] OECD, (2013b) Aid for Trade and development results: A management framework.

[25] Beyond this, the WTO/OECD (2013), using cross-country econometric techniques, found that the quality of management systems for Aid for Trade were crucial determinants of its impact.

Box 1. Connecting SMEs to global value chains: a success story in Namibia

'The Marula tree produces a plum-size, yellow fruit with seeds that are rich in oil – an oil that was used for centuries in skin moisturizing and cooking. In 1999, an NGO had the idea of producing Marula oil in higher quality so it could be sold to the pharmaceutical industry. It formed a women's cooperative, the Eudanfan Women's Cooperative (EWC), to set up an export activity. By 2008, the EWC had over 5000 women in 22 groups producing Marula oil from wild trees. These products are sold to The Body Shop, Marula Natural Products of South Africa, and Distell, among others. This laid the basis for a French company, Aldivia, to launch an R&D effort in partnership with PhytoTrade, a fair-trading sponsor of EWC, and Natural Products of South Africa that led to the "Ubuntu" proprietary process to manufacture solvent-free cosmetics. In 2006, Aldivia and South African partners took out a patent on the process, and today, sales of the Marula-based products command a price four times that of other cosmetics. The EWC has branched out into other export product lines as well. In 2010, they began to market "ondjove" cooking oil and other food oils at the Windhoek Tourism Expo in June 2010. As a consequence, incomes of women producing the Marula were reported to have risen dramatically.

Source: WTO/OECD (2011).

Research attempting to find more generalized relationships between Aid for Trade and trade performance is relatively sparse. Koniger, et al. (2011) examined how far trade costs (i.e. shipping a container) had been brought down in developing countries by Aid for Trade and related facilitation and distinguished LDCs from non-LDCs. In contrast to other developing countries, this study detected no significant relationship between lower Aid for Trade and lower trade costs for LDCs. They interpreted this as resulting from the inherent difficulties of lowering trade costs in LDCs; and since more Aid for Trade was required to lower costs, they inferred a strong case for greater efforts and higher funding of Aid for Trade.

To look at the poorest countries, the WTO/OECD (2013) analysis separated the sample into three groups based on 1995 incomes in the World Bank classification categories, including low-income countries and IDA-eligible countries.[26] While these two categories do not precisely match the current definition of LDCs, they subsume many LDCs for which data were available, along with other low-income countries. Here too the coefficients for bilateral Aid for Trade proved statistically significant and positive. In the two subsamples – one for the low-income countries and the other for IDA – the range of return varied from US$ 2.7 to US$ 19 for US$ 1 invested in Aid for Trade. The average for all developing countries was US$ 8.

The study also highlighted a cautionary aspect that has emerged clearly in the wider literature. The context and supporting environment for Aid for Trade is crucial to its success. For example, countries in conflict face enormous disadvantages in trying to expand exports, and Aid for Trade has a low probability of success in these environments; the coefficients for conflict countries in the regression estimates were several times larger and more negative than those for Aid for Trade, underscoring the importance of peace and security for trade. In relatively tranquil countries, the effectiveness of government management is a crucial determinant of success. In countries with relatively effective governments, bilateral Aid for Trade had a significantly positive impact on exports, but virtually no effect in countries with ineffective public sectors. This point is made in various ways in several Aid for Trade studies (see OECD 2013a).

Does Aid for Trade also promote LDC participation in global value chains?

Several elements of policy determine participation in GVCs: regional trade agreements; investment barriers to multinational corporations; quality of infrastructure; speed and flexibility of movement of physical goods and information; effectiveness of legal and regulatory systems; efficiency of services; and the capacity of domestic firms (often SMEs) to contribute to the supply chain (OECD, 2013b). Other factors include border administration, market access barriers, and transport logistics (WEF, 2013). These issues have been perennial targets of Aid for Trade.

While WTO case stories provide a fund of revealing anecdotes,[27] few studies have attempted to establish a systematic link between Aid for Trade and participation in GVCs. The report for the 4th WTO Global

[26] IDA stands for International Development Association, the concessionary window of the World Bank Group.

[27] See WTO/OECD (2011), chapter 5.

Review of Aid for Trade examined whether it had facilitated increased participation of developing countries in value chains, using exports of parts and components as a measure. While the study did not discuss LDCs per se, its econometric analysis found a positive and significant correlation between Aid for Trade and increased exports of parts and components. In fact, the results were somewhat stronger than for exports overall. A 10% increase in Aid for Trade to all developing countries is associated with a 0.5% increase in exports of parts and components - though the initial base was smaller, especially for LDCs in the sample, as noted earlier.

Using a forward-looking approach, ITC (2013) used a simulation model to analyse the impact of Aid for Trade.[28] The study looked at the effects of policy actions to be supported with Aid for Trade that would reduce transport times by increasing the efficiency of customs and logistics. They asked the question: what would happen to income and trade in the five LDC regional subgroups if they were able to improve their customs and border management and logistics to the point where associated delays in transit and at the border could be reduced by half. They simulated growth for 10 years on an assumption of new policies in place in 2015. These calculations suggested that reducing transit and border times by half would add some 6.5% annually to the GDP of LDCs GDP in 2025. There would be a substantial boost to exports, with an average 25% increase across the five LDC subregions, and the greatest increase in Central and Eastern Africa. While such simulations need to be interpreted with caution, they do point to the importance of effective action on the transit and trade facilitation agenda.

Conclusions and policy options

LDCs are exporting more…and participating in GVCs

This review has presented evidence that trade has played an important role in helping LDCs improve their economic performance in recent decades. The collective growth rate of their exports has hovered around 7% annually, and has contributed to better economic performance than they experienced in the 1980s and 1990s. Far from being shut out of world markets, LDCs have increased their share of world exports. This marks a reversal of a downward trend until the late 1990s, and all three regional categories of LDCs have benefited.

Moreover, there is some evidence that developing countries are beginning to participate in GVCs. The methods reviewed here point generally to non-trivial participation, but information is scarce about what types of value chain are most common in LDC trade. It seems reasonable to conjecture that semi-processed mineral and agricultural commodities and undifferentiated manufactures represent more of their participation than is the case in other developing countries, but further evidence is necessary. Many questions remain: do LDCs participate predominantly in GVCs where market power is concentrated in lead firms, which determine product standards and prices throughout the chain? Do LDCs more often than other developing countries find themselves producing undifferentiated low-technology products sold in extremely competitive markets within the value chain, and so miss opportunities to capture value added? Compelling studies on these points are virtually non-existent.[29]

Three other discernible elements of trade performance prompt caution. The first is that the terms of trade during the period studied were extremely favourable to the African LDCs; it is an open question whether raw material prices will long continue to be buoyant. The Asian and Island LDCs managed to keep export volumes up despite suffering terms of trade losses since 2000. Beyond this, since 2000, the average real annual export growth of LDCs has not kept pace with all developing countries.

The second is the persistent reliance on a few - mainly commodity - exports, confirmed by the indices of market concentration. Moreover, this phenomenon does not appear to be diminishing: for the group of

[28] ITC used the GTAP Computable General Equilibrium based on 2007 trade data, which divides the world into 10 regions and 22 sectors. LDCs are divided into five subgroups, though the level of aggregation required the omission of Haiti, Lesotho, the Pacific Islands and Yemen.

[29] One of the few is Frederick Mayer and William Milberg (2013). 'Aid for Trade in a world of global value chains: chain power, the distribution of rents and implications for the form of aid' Capturing the gains Working Paper 34 Durham: Duke University.

LDCs as a whole, nearly half experience some increased portfolio concentration. This implies that the commodity- dependent LDCs, particularly in Africa, remain vulnerable to terms of trade shocks.

Third is the fact that a wide disparity in country-level performance is perceptible behind the average performance. Some countries – in fact the majority -- did very well over this period. Others clearly fell behind. The most consistent characteristic of those that fared most poorly was the presence of civil conflict.

Aid for Trade has played a positive role, but austerity in rich countries is a threat

Aid for Trade generally increased in tandem with overall official development assistance, though austerity in the high-income countries has caused a sharp levelling-off from past trend increases in official development assistance since the Great Recession of 2008/9, and the same pattern has applied to aid to LDCs. Moreover, there is evidence that within aggregate aid commitments to Africa, flows have rotated to the larger, more politically salient, countries, particularly in the wake of the Arab spring, at the expense of smaller and poorer countries. Aid for Trade has fared somewhat better than this aggregate pattern would suggest.

Evidence is robust that Aid for Trade has been effective in helping developing countries generally and LDCs in particular, to expand their exports. In other respects too, the experience of LDCs parallels other developing countries. A supportive policy environment – with stable macro policies, well-respected property rights, and an effective legal system, as well as social peace – is crucial to the success of Aid for Trade.

Policy implications for donors and LDCs

These conclusions have implications for donor countries and for LDCs. For donors, the discernible importance of global and regional value chains does not warrant a substantial change in Aid for Trade strategy. If anything, the emergence of GVCs simply makes Aid for Trade more urgent. The growing potential of GVCs confers greater importance on making borders and transits more efficient, reducing trade costs, and providing investment funds for infrastructure, while encouraging greater efforts to reduce ill-conceived regulation that hobbles competition in transport and other service markets. As this discussion has shown, Aid for Trade is usually a good investment, and is rewarded with better export performance. For donor countries to curtail overall amounts in the name of austerity at home has an impact on the 36% of the world's poor that live in LDCs on incomes below US$ 1.25 per day.

A second implication is that the current rotation of aid away from the smaller poorer countries could undercut the growth opportunities of LDCs. Directing aid towards countries undergoing political transitions, often strained by civil strife, may serve a worthwhile political purpose, but risks diminishing the availability of Aid for Trade in countries that could use it effectively. A final implication emerges from the country case studies, and underlines the importance of the Paris Principles. Governments that succeed in using Aid for Trade well are typically those that take ownership for the results, invest in the process, fight corruption effectively, and prod donors to help them channel assistance into high-return activities.

LDCs also have to play their part to promote the effective use of Aid for Trade. A central priority is to establish a climate conducive to efficient implementation of public investment that in turn encourages a private investment response. Any destabilizing macroeconomic policies, corruption in programme administration or discretionary and unclear rules of business are antithetical to effective use of Aid for Trade to catalyse rapid growth. Many LDCs have taken these long-standing admonitions of the development community to heart, and are making considerable progress. But the clustering of LDCs in the bottom quintile of many governance measures underscores the fact that there is still more to do.

A companion priority is to continue the relentless pursuit of lowering trade costs. The transit and trade facilitation agenda now under discussion in WTO is one important step in this direction. It would be a mistake for LDC negotiators to hold hostage an agreement in which all participants win, just to seek a few more dollars in development assistance; for most countries, the resources to implement these programmes are already available. Irrespective of any WTO agreement, lowering trade costs in every country is a way to improve competitiveness and to make better use of trade to drive growth. Finally, it is important to focus squarely on reducing policy-barriers to competition in the economy, whether at borders or in impeding

entry to service sectors. LDCs generally have higher border barriers and restrictions on services trade than other developing countries, and these are frequently sources of monopoly rents and inefficiencies. It would cost little to change this, and the benefits would often be a boost to growth.

The common agenda for governments and donors is set out in box 2. Some form of these measures can be found in virtually all of the diagnostic trade integration studies, but each has to be tailored and prioritized to the local conditions, capacities, and political economy. The agenda is long, but corresponds to the challenge – using trade to improve the standards of living of one-third of the world's poor.

Box 2. Towards a policy agenda

LDC governments might adapt several policies to their local conditions and, with donor support, enact measures to encourage efficient imports, greater exports and integration with global value chains. This agenda, adapted from Bhattacharya and Moazzem (2013), could include:

Measures for building productive capacity

- Promote domestic and foreign investment in backward and forward linkage sectors of GVCs by addressing deficiencies in the investment climate, so as to encourage investment in upstream and downstream goods and services.

Measures for trade-related infrastructure

- Promote more pro-competitive regulation to encourage efficient use of existing infrastructure, including lowering policy barriers to entry and to competition, particularly in trucking and air transport.
- Invest in better connectivity for landlocked countries with nearby ports (sea and air) for international trade as well as better road and rail connectivity within the country.
- Invest in expanded access and increased reliability of electric power, including for activities operating in GVCs and for SMEs, coupled with efficiency pricing to ensure an adequate investment rate and universal access.

Measures to create access to inputs and logistics for agriculture

- Encourage private investment in agricultural product value chains: support better access to quality inputs, enhanced use of modern technologies in farming and harvesting, and improved storage and packaging facilities.
- Generate public attention to better extension services, education about post-harvest management, pest and disease control, and quality assurance, and provide support for certification, and access to information about international markets and buyers.

Measures to strengthen trade and industrial policies

- Reduce disincentives to participation in GVCs and exports by lowering border barriers, and reduce incentives to corruption by simplifying complex tariff systems.
- Ratify duty-free, quota-free access of LDCs to markets of developed and large-market developing countries.
- Boost regional coordination to overcome disadvantages of being land locked and remote, by developing cross-border multi-modal transport connectivity and trade facilitation.
- Introduce calibrated pro-competitive regulatory reforms to open up key service sectors, especially in telecommunications, transport and energy, so as to attract private investment, including FDI.
- Streamline investment regimes, including by setting up one-stop investment services; take measures to reduce business start-up costs and excessive licenses.
- Secure mutual recognition of standards and sanitary and phytosanitary measures and compliance practices with major export destinations and regional trading partners, along with providing technical and financial support for improvements and for compliance among GVCs in LDCs.

Measures for social upgrading

- Strengthen national policies related to working conditions, including work-place safety and security, and decent wages and livelihood.
- Provide better universal access to quality education, particularly for low-income groups, by ensuring adequate teacher pay, decent school facilities and results-based compensation'.

Appendix: Defining the least developed countries

What are the least developed countries?

Forty-eight countries are currently designated by the United Nations as least developed countries (LDCs).

These are: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.

The list of LDCs is reviewed every three years by the United Nations Economic and Social Council (ECOSOC), in the light of recommendations by the Committee for Development Policy (CDP). The following three criteria were used by the CDP in the latest review of the list, in March 2012:

- A per capita income criterion, based on a three-year average estimate of the gross national income (GNI) per capita, with a threshold of US$ 992 for possible cases of addition to the list, and a threshold of US$ 1,190 for graduation from LDC status;

- A human assets criterion, involving a composite index (the Human Assets Index) based on indicators of: (i) nutrition (percentage of the population that is undernourished); (ii) health (child mortality ratio); (iii) school enrolment (gross secondary school enrolment ratio); and (iv) literacy (adult literacy ratio); and

- An economic vulnerability criterion, involving a composite index (the Economic Vulnerability Index) based on indicators of: (i) natural shocks (index of instability of agricultural production; share of the population victim of natural disasters); (ii) trade-related shocks (index of instability of exports of goods and services); (iii) physical exposure to shocks (share of the population living in low-lying areas); (iv) economic exposure to shocks (share of agriculture, forestry and fisheries in GDP; index of merchandise export concentration); (v) smallness (population in logarithm); and (vi) remoteness (index of remoteness).

For all three criteria, different thresholds are used for identifying cases of addition to the list of LDCs, and cases of graduation from it. A country will qualify to be added to the list if it meets the addition thresholds on all three criteria and does not have a population greater than 75 million. Qualification for addition to the list will effectively lead to LDC status only if the government of the relevant country accepts this status. A country will normally qualify for graduation from LDC status if it has met graduation thresholds under at least two of the three criteria in at least two consecutive triennial reviews of the list. However, if the GNI per capita of an LDC has risen to a level at least double the graduation threshold, the country will be deemed eligible for graduation regardless of its performance under the other two criteria.

Source: UNCTAD, 2012, The Least Developed Country Report 2012.

References

Amiti, M. and J. Konings (2007), Trade Liberalization, Intermediate Inputs and Productivity: Evidence from Indonesia, American Economic Review, American Economic Association, vol. 97(5), pp. 1611-38, December.

Arvis, J-F, G. Raballand and J-F Marteau (2010), The Cost of Being Landlocked: Logistics Costs and Supply Chain Reliability, Washington: World Bank.

Basnett, Yurendra, Jakob Engel and others (2012) Increasing the effectiveness of Aid for Trade: the circumstances under which it works best Overseas Development Institute Working Paper 353. August 2012.

Bhattacharya, Debapriya and Khondaker Golam Moazzem (2013) Participation of the LDCs in the global value chain: trends, determinants, and challenges. Geneva: ITC Mimeo.

Borchert, Ingo, Bashur Gootiiz, Arti Grover and Aaditya Mattoo, 2012 Landlocked or Policy Locked? How Services Trade Protection Deepens Economic Isolation Policy Research Working Paper 5942. Washington: World Bank.

Brenton, P. and I. Gilson (2013) Diagnostic Trade Integration Studies and their Updates under the Enhanced Integrated Framework – A Retrospective October. Washington: World Bank Mimeo.

Brenton, P. and E. Von Euxkull, Brenton and Von Euxkull 2009 Brenton, P. and E. von Uexkull (2009), 'Product specific technical assistance for exports – has it been effective?', The Journal of International Trade & Economic Development: An International and Comparative Review, 18(2), 235-254.

Cadot, Olivier, Ana Fernandes, Julien Gourdon, and Aaditya Mattoo (2011) 'Impact evaluation of trade assistance: paving the way in O. Cadot, A. Fernandes, J. Gourdon, and A. Mattoo (eds) Where to Spend the Next Million? Applying Impact Evaluation to Trade Assistance Washington: World Bank Centre for Economic Policy Research.

Cadot, Olivier and Richard Newfarmer 2011 Does it work? Aid for Trade through the evaluation prism Trade Negotiation Insights Vol. 7. No. 10 Geneva: International Center for Trade and Sustainable Development.

Djankov, et al. 2010 Djankov, Simeon, Caroline Freund, and Cong S. Pham. Trading on Time The Review of Economics and Statistics, February 2010, 92(1): 166–173.

Estevadeordal, A. and A. M. Taylor (2009), Is the Washington consensus dead?: Growth, openness, and the Great Liberalization, 1970s-2000s, IDB Publications, No. 9298, Inter American Development Bank.

Fernandes, Ana, Caroline Freund, Martha Denisse Pierola, and Tolga Cebeci 2013, Exporter Behavior, Country Size and Stage of Development' Mimeo, October. Washington: World Bank.

Fernandes, Ana and Robert Kirk (2013) Tariffs and trade in Zimbabwe Washington: World Bank. Mimeo, October.

Flood, L. and M. Savini (2012) A Flat Tax For Rwanda. London: International Growth Centre. Mimeo.

Geriffi, Gary, Humphrey, 2005 Gereffi, G., J. Humphrey and T. Sturgeon (2005), The governance of global value chains. Review of International Political Economy, 12:1 February.

Kimura, F., Y. Takahashi and K. Hayakawa (2007). Fragmentation and parts and components trade: Comparison between East Asia and Europe. The North American Journal of Economics and Finance, Vol. 18(1): 23-40.

ITC Staff Paper (2013) The participation of LDCs in value chains: Current trends and future prospects' Geneva: International Trade Centre. Mimeo.

Hummels, 2001 Hummels, David. (2001) Time as a Trade Barrier. Purdue University GTAP Working Paper No. 18.

ICTSD (2011) Aid for Trade on the ground: Early findings from the country case studies. Information Note 20, July, Geneva: International Centre for Trade and Sustainable Development.

ICTSD (2012) Aid for Trade and the least developed countries: Recent trends and impacts on the ground: early findings from the country case studies. Information Note, October. Geneva: International Centre for Trade and Sustainable Development.

Königer, Jens, M. Busse, and R. Hoekstra (2001). The impact of Aid for Trade facilitation on the costs of trading. Proceedings of the German Development Economics Conference, Berlin 2011, No. 48.

Lederman, D. and W. Maloney, 2010. Does what you export matter? In Search of Empirical Guidance for Industrial Policies. Paper prepared in the Chief Economist's Office, Washington: World Bank. Mimeo.

Mayer, Frederick and William Milberg (2013). Aid for Trade in a world of global value chains: chain power, the distribution of rents and implications for the form of aid. Capturing the gains: Working Paper 34 Durham: Duke University.

Melitz, M. (2003), The impact of trade on intra-industry reallocations and aggregate industry productivity, Econometrica, 71, 1695-1725.

Miroudot, S., R. Lanz and A. Ragoussis (2009). Trade in intermediate goods and services, OECD Trade Policy Working Papers, No. 93. Paris: OECD.

Newfarmer, Richard and Christian Ugarte (2013). Aid for Trade: through the evaluation prism, background prepared for the WTO/OECD (2013) study.

Nicita, Alejandro, Miho Shirotori, Bolormaa Tumurchudur Klok (2013). Survival analysis of the exports of least developed countries: the role of comparative advantage. Policy Issues in International Trade and Commodities Study Series No. 54. Geneva: UNCTAD.

OECD, (2013a) Aid for Trade and development results: a management framework. Paris: OECD.

OECD (2013b) Interconnected economies: benefiting from global value chains [Report on global value chains DSTI/IND(2013)2 Draft 14 February]. Paris: OECD

Saana Consulting 2012 Medium-term review of the EIF – Final report. 15 November, Geneva: EIF.

UNCTAD, 2011, The Least Developed Country Report, 2011. Geneva: UNCTAD.

UNCTAD, 2012, The Least Developed Country Report, 2012. Geneva: UNCTAD.

USAID (2010). From Aid to Trade: Delivering Results: A Cross Country Evaluation of USAID Trade Capacity Building. Washington: USAID November.

Volpe, Volpe Martincus, Christian and Carballo, Jerónimo, (2008) Is export promotion effective in developing countries? Firm-level evidence on the intensive and the extensive margins of exports, Journal of International Economics, Elsevier, vol. 76(1), pages 89-106.

World Bank, (2013) African Pulse April. Washington: World Bank.

World Economic Forum, (2012) World Economic Forum (2013) Enabling trade valuing growth opportunities (in collaboration with Bain & Company and the World Bank) Geneva: WEF.

WTO/OECD, (2011) Aid for Trade at a glance, 2011: Showing results. Paris: OECD.

WTO/OECD, (2013) Aid for Trade at a glance, 2013: Connecting to value chains. Paris: OECD.

WTO (2013) World Trade Report 2013 Factors Shaping the Future of World Trade Geneva: World Trade Organization.

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Street address
International Trade Centre
54-56 Rue de Montbrillant
1202 Geneva, Switzerland

P: +41 22 730 0111
F: +41 22 733 4439
E: itcreg@intracen.org
www.intracen.org

Postal address
International Trade Centre
Palais des Nations
1211 Geneva 10, Switzerland