



**Committee on Trade and Development
Dedicated Session**

**CHALLENGES AND OPPORTUNITIES EXPERIENCED BY SMALL ECONOMIES WHEN
LINKING INTO GLOBAL VALUE CHAINS IN TRADE IN GOODS AND SERVICES**

BACKGROUND NOTE BY THE SECRETARIAT¹

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¹ This document has been prepared under the Secretariat's own responsibility and is without prejudice to the positions of Members or to their rights and obligations under the WTO.

1 INTRODUCTION

1.1. This background paper has been prepared in response to a Ministerial decision of 7 December 2013 taken at the WTO's Ninth Ministerial Conference (MC9) in Bali.² The decision on the Work Programme on Small Economies instructed the WTO Secretariat to provide a factual analysis, for discussion among Members in the Committee on Trade and Development's Dedicated Session, on the challenges and opportunities experienced by small economies when linking into global value chains in trade in goods and services. The Bali Decision follows others taken at previous Ministerial Conferences and the WTO's General Council³, all of which relate to paragraph 35 of the Doha Ministerial Declaration of 2001, which states that a work programme, under the auspices of the General Council, "is to frame responses to the trade-related issues identified for the fuller integration of small, vulnerable economies into the multilateral trading system, and not to create a sub-category of WTO Members".⁴ Such a Work Programme was agreed in 2002.⁵

1.2. This paper focuses on the most recent decision by Ministers to examine the challenges and opportunities faced by small economies in linking into global value chains (GVCs). It seeks to further inform discussion at the Committee on Trade and Development's Dedicated Session on Small Economies and describes some of the challenges they face, or experiences they have had, with linking into GVCs in trade in goods and services. In order to narrow the scope of the research, the paper focuses on those countries which qualify as "small economies" as per the text in the Doha Round's Revised Draft Modalities for Agriculture (TN/AG/W/4/Rev.4). The latter 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 non-agricultural market access (NAMA) trade does not exceed 0.10%; and (c) of world agricultural trade does not exceed 0.40%.

1.3. While Annex I of the Agriculture Draft Modalities text lists 45 countries as meeting the above criteria, this paper examines the 32 countries which have been actively engaged in the Small Economies' Work Programme (Table 1).⁶ The list does not include countries in WTO accession proceedings or LDCs (with the exception of Vanuatu, which is to graduate from least developed country (LDC) status in 2017).

Table 1. Small economies included in the analysis

ISO3	Country name	ISO3	Country name	ISO3	Country name
Africa		Caribbean		Central and South America	
CPV	Cabo Verde	ATG	Antigua and Barbuda	BLZ	Belize
MUS	Mauritius	BRB	Barbados	ECU	Ecuador
SYC	Seychelles, Rep. of	CUB	Cuba	SLV	El Salvador
Asia/Pacific		DMA	Dominica	GTM	Guatemala
BRN	Brunei Darussalam	DOM	Dominican Republic	GUY	Guyana
FJI	Fiji	GRD	Grenada	HND	Honduras
MDV	Maldives	JAM	Jamaica	NIC	Nicaragua
PNG	Papua New Guinea	KNA	Saint Kitts and Nevis	PAN	Panama
WSM	Samoa	LCA	Saint Lucia	PRY	Paraguay
LKA	Sri Lanka	VCT	Saint Vincent and the Grenadines	SUR	Suriname
TON	Tonga	TTO	Trinidad and Tobago		
VUT	Vanuatu ⁷				

1.4. In a review of current research, small-sized countries are frequently referred to using a variety of terms. UNCTAD refers to them as Small Island Developing States (SIDS), the WTO as Small Economies or Small, Vulnerable Economies (SVEs) and the World Bank often uses the term "small island states". The lists of countries which the three organizations use in their research are

² Document WT/MIN(13)/33, WT/L/908.

³ Documents WT/L/844, WT/COMTD/SE/6, paragraph 41 of WT/MIN(05)/DEC and paragraph 1(d) in the 1 August 2004 General Council Decision in document WT/L/579.

⁴ Document WT/L/447.

⁵ Paragraph 35 of document WT/MIN(01)/DEC/1.

⁶ Other countries which qualify as small economies and which are interested in obtaining such data, even though they are not included in the data sets prepared for this paper, should contact the Secretariat.

⁷ Vanuatu has been included in the list (unlike other LDCs) since it is slated for graduation in 2017.

often quite similar. So are the distinguishing characteristics of these countries: many have a small market size, narrow resource base and small or restrictive economies of scale; many too are islands and are situated in remote locations. Moreover, many of these countries are also highly vulnerable to natural disasters. For the purpose of this paper, the terms SIDS and SVEs will be used interchangeably, as will the term small economy.

1.5. Roughly half of the countries which qualify as SIDS are referred to as small economies in the WTO. Whereas UNCTAD focuses more on states in the Pacific, the WTO's list includes non-island states, many of them located in Central America. Much of the analysis produced by both organizations is highly relevant to the further study of small economies and their relationship to GVCs.

1.1 Structure of the paper

1.6. This background note looks at various aspects of GVCs and the involvement of small economies. Section 2 describes some of the main opportunities and challenges which small economies face when trying to connect to value chains. The discussion places particular emphasis on the natural constraints of size and physical remoteness to markets, which characterize many small economies. Analysing a number of statistical indicators and responses to Aid-for-Trade questionnaires, the section highlights the fact that trade costs related to transport infrastructure and trade facilitation, standards compliance, access to finance and labour skills, constitute some of the major barriers to integrate into GVCs for suppliers from small economies.

1.7. Section 3 examines the integration of small economies in goods and services value chains. In the case of goods value chains, the section analyses the integration of small economies in the agrifood, seafood and textiles and apparel sectors, and discusses how small economies have used some of their distinct advantages in these value chains. Section 3 further elaborates on value chains in services, discussing the importance of the tourism sector for small economies. It points to the potential of information technology (IT) and business process outsourcing for remote small economies.

1.8. Section 4 provides an overview of foreign direct investment (FDI) flows to small economies. It shows that firms in small economies with foreign ownership participation tend to be more integrated into a value chain than a domestically-owned firm and discusses how increased flows of FDI can actually help small economies gain a foothold in a value chain.

1.9. The involvement of small and medium-sized enterprises (SMEs) in value chains is discussed in section 5. Here, particular challenges concern accessing sufficient amounts of financing, improving the skills of the work force and having access to national support institutions. The section also discusses the different types of strategies which small firms in small economies could deploy to defend themselves against larger firms, and how these strategies actually differ from one sector to another.

1.10. Section 6 discusses the role of logistics and trade facilitation as key determinants for GVC participation. It also shows that, in comparison to other countries, small economies have a lower maritime shipping connectivity and that air transport is of particular importance to small economies that are remote and dependent on tourism.

1.11. Finally, in section 7 on trade policy experiences, the paper looks back some 40 years to examine how our understanding of value chains has evolved and what policy options are available to small economies. Challenges with upgrading and diversification are discussed, as well as the role of imports for export competitiveness and whether a company in a small economy should place a greater emphasis on producing more volume rather than higher levels of value.

1.2 The inter-connectedness of regional and global production processes

1.12. One of the most important changes in the nature of international trade has been the growing inter-connectedness of production processes across many countries, with each country specializing in a particular stage of a good's production. In the trade literature, these processes are referred to as global supply chains, global value chains, international production networks, vertical specialization, offshore outsourcing and production fragmentation. For the sake of clarity, this

paper will refer to "global value chains" or GVCs with the recognition that internationalized supply chains may often be regional, rather than global (WTO, 2013).

1.13. Many developing countries and small economies alike are trying to support domestic firms to link to GVCs. They are also trying to attract foreign firms and improve border procedures to facilitate trade flows. While some studies urge governments to further reform their trade policies and streamline border clearance measures, they also emphasize that inducing the long-term participation of firms in these competitive value chains can be very challenging. This is true especially since GVCs in today's world are highly dynamic. They place strict demands on participating firms and are increasingly consolidated around a small number of strong global suppliers.

1.14. An OECD study, "Connecting local producers in developing countries to regional and global value chains," finds that regardless of a firm's position in the value chain, minimum quality, cost, and reliability requirements must be consistently met in order to participate in the chain on an ongoing basis (Bamber, P. *et al.* 2014). It finds also that the capacity of firms to consistently meet some of these requirements is affected by the local institutional context in which they operate. These local-level aspects of value chains include "the skill level of the available human capital, the establishment of local standards systems, specific infrastructure policies and the degree of industry institutionalization".

1.15. Joining a GVC, however, does not always translate into positive development gains from trade. Concerns exist that GVCs can increase inequality or have other adverse effects. Therefore, policies to integrate into GVCs should include economic, social and environmental dimensions which could help to reduce such potentially negative impacts of GVC participation (Kaplinsky, 2005). In this regard, a focus on trade and investment policy alone is not sufficient to connect developing countries to GVCs and simultaneously facilitate development gains for the domestic economy. In order to coherently support development goals, some studies also call for more sustained efforts to be undertaken to help countries mainstream GVC trade into their broader national economic development agenda (Bamber, P. *et al.* 2014).

1.16. The fragmentation of production processes associated with the rise of GVCs allows firms in developing countries to participate in international trade without developing the full range of vertical capabilities across the value chain. By opening up access to new and often higher value markets, participation in GVCs can offer smaller and emerging economies an opportunity to add more value within their local industries, expand employment and raise incomes. But this also requires efforts at the national level to mainstream GVC trade into economic development, build greater internal capacity and generate more linkages with the local economy (Bamber, P. *et al.* 2014).

1.17. GVCs may be comprised of only two countries, a region or a global network. A typical GVC which produces an end-product for final consumption may involve activities across several sectors and industries, from mining and mineral extraction to agriculture, and from manufacturing industrial products to services. The growing importance of GVCs has led to the realization that the way international trade has traditionally been accounted for may no longer be sufficient to determine the level of value which each country can add in a given production process. According to a recent UNCTAD paper, "a growing body of work exists aimed at netting out the 'double-counting' effect of GVCs on global trade, determining value-added in trade, and mapping how value-added moves between countries along GVCs before final consumption of end-products" (UNCTAD, 2013a). This process is further complicated because many goods might be both final and intermediate depending on the context. Trade in value-added, therefore, is increasingly being estimated by using international or global input-output (I-O) tables which combine national I-O matrices with trade flows of intermediate and final goods and services. These help depict international production structures and allow for the tracing of "value chains" for each final good or service sold in the countries concerned (WTO, 2013).

2 OPPORTUNITIES AND CHALLENGES FOR JOINING GLOBAL VALUE CHAINS

2.1 What are the opportunities that GVCs can offer small economies?

2.1. The rise of GVCs offers developing countries, especially small economies, opportunities to integrate better into the international trading system and to advance their economic development. Countries can specialize in tasks or stages within the value chain, which helps them to industrialize faster. At the same time, activities might be re-located more quickly as easier entry and exit into value chains also implies fiercer competition among countries (Baldwin, 2011).

2.2. Integration into GVCs can help small economies diversify their production and export structure away from natural resources or primary agricultural commodities to manufacturing and services, where labour productivity and wages are higher (WTO, 2014). Typical sectors for an initial integration are apparel and clothing in manufacturing and call centres and IT business process outsourcing in services. Structural change can also be facilitated by the fact that certain tasks or skillsets can be exploited by different GVCs.

2.3. Furthermore, a main benefit from integration into GVCs is employment creation. The creation of new jobs does not only result in static gains by reducing underemployment but also allows for dynamic gains such as improved skills and employability of the labour force and better governance due to a reduction of people employed by the informal sector. However, successful integration into GVCs makes small economies also vulnerable to negative effects, at least in the short term, from potential GVC disintegration due to the decreasing competitiveness of domestic firms or due to the re-location of production by foreign investors.

2.4. Besides structural change and employment creation, developing countries can achieve dynamic gains from increased trade integration and FDI, which often accompany GVC integration (WTO, 2014). Both trade and FDI can lead to technology and knowledge transfers to domestic firms. This transfer can occur either through the technology embodied in imported inputs or through spillovers from foreign affiliates to their domestic suppliers and other firms. Similarly, the relationship and communication with trade and investment partners helps firms enhance their capabilities to adapt technology to local conditions, lowers information costs regarding product requirements in foreign markets and can build a positive reputation which facilitates the search for further investment and trade partners.

2.5. Small economies, which do not have the endowments to create economies of scale in a broad range of activities, can benefit from GVCs by specializing in specific tasks or products. Integration might be easier in services than manufacturing. In particular, transportation costs of manufacturing products tend to be high for small economies as several of them are islands and remote from potential trading partners. Besides economic development, GVCs can spread international best practices in social and environmental efforts through the use of standards linked to corporate social responsibility (UNCTAD, 2014d).

2.2 What are the challenges for small economies to integrate into GVCs?

2.6. Developing countries that are interested in having their firms join GVCs face two interlinked challenges. First, they need to establish policies and a business environment that allow domestic firms to improve their productivity to the point that they are able to integrate into GVCs either through exports or by supplying foreign affiliates located in their market. Second, developing countries compete amongst each other in their efforts to attract FDI through investment promotion and related policies.

2.7. According to UNCTAD (2013a), determinants for investment and GVC activities can be broadly grouped into horizontal determinants that are the same across sectors or production stages, and determinants that tend to be sector or stage-specific.

2.8. Horizontal determinants relate to political and economic stability, the business environment, market size, infrastructure and the policy framework. These determinants often "make or break" investment decisions. Results from Aid-for-Trade questionnaires of firms operating in five different value chains show that these firms share a number of major obstacles when trying to connect to value chains. In particular, suppliers from developing countries and lead firms highlight

transportation costs and related infrastructure, access to (trade) finance, customs procedures, labour skills, inadequate standards infrastructure and the regulatory and business environment as major obstacles to the participation of developing country suppliers in GVCs (OECD/WTO, 2013).

2.9. Beyond these necessary horizontal conditions for GVC integration, different stages and sectors are characterised by specific requirements to be met by potential suppliers and their host countries. In the case of knowledge creation stages such as research and development (R&D) and design, specific determinants to GVC integration include a developed national innovation system, skilled labour force, sound R&D and innovation policy as well as an intellectual property rights regime. In agrifood value chains, the ability of firms to comply with standards, including sanitary and phytosanitary (SPS) measures, as well as the availability of standards infrastructure for testing and certification, are key to GVC integration (Cattaneo, 2013). In information and communication technology (ICT) value chains, technological and language skills and the regulations of telecommunication providers are GVC-specific determinants (Lanz, 2013).

Box 1. Determinants of GVC participation

Recent research conducted by the OECD analyses the structural and policy determinants for a developing country's manufacturing companies to engage in value chains. Using the OECD/WTO Trade in Value-Added (TiVA) Database, GVC participation is measured in terms of backward linkages (foreign inputs used for export production) and forward linkages (inputs exported to foreign partners for their export production). The analysis presents four main findings regarding structural determinants of GVC participation:

Market size: the larger the size of the domestic market, the lower the backward engagement of a country, and the higher the forward engagement. The intuition is that countries with a larger market can draw on a wider array of domestic intermediates both in terms of purchases and sales.

Level of development: the higher the per capita income, the higher is the aggregate forward and backward engagement. Developed countries tend to source more from abroad and sell a higher share of their gross exports as intermediate products.

Industrial structure: the higher the share of the manufacturing sector in the Gross Domestic Product (GDP) the higher the backward engagement, and the lower the forward engagement.

Location: GVC activity is organised around large manufacturing hubs—the larger the distance to the main manufacturing hubs in Europe, North America and the Asian/Pacific region, the lower the backward engagement, suggesting that there is a premium to locating close to large 'headquarter' economies.

The study also finds evidence for a significant role that an appropriate trade policy can have, in particular:

Low import tariffs, both at home and faced in export markets, and engagement in regional trading agreements (RTAs) can all facilitate backward and forward GVC engagement.

Inward FDI openness tends to have a significant association with both backward and forward integration.

Logistics performance, including trade facilitation, intellectual property protection, the quality of infrastructure, as well as the quality of institutions are estimated to have strong impacts on GVC integration.

Source: Kowalski *et al.* (2015).

2.10. Kowalski *et al.* (2015) find that the structural and policy determinants of GVC participation can differ significantly by sector and by the development level of countries. For instance, policy determinants such as import tariffs, tariffs faced in export markets and revealed FDI openness seem to be of lesser importance in the case of low-income countries compared to middle- and high- income countries.

2.11. Due to their small size and remoteness, small economies might find it particularly difficult to integrate into GVCs. Even though GVCs make it easier for small economies to specialize in specific stages of production, the lack of economies of scale can still constitute a problem for certain manufacturing activities. Furthermore, the small size of the home market reduces the scope to benefit from horizontal, i.e. market-seeking, FDI.

2.12. The problem of size is aggravated if a small economy is remote from major markets or hubs of production networks. Closeness to a big market such as the United States (US), the European Union (EU) or China will attract production that is subsequently exported to these markets. Similarly, closeness to a production hub, facilitates the integration into the value chain. Kowalski *et al.* (2015) show that countries that are more distant to manufacturing hubs in Europe, North America and Asia/Pacific are less integrated in GVCs in terms of backward linkages.⁸ Examples of relatively small economies that have benefitted from closeness to big markets are the Baltic States and other countries in Eastern Europe, Singapore and Cambodia in Asia or Costa Rica in Central America.

2.13. Once an economy has integrated into GVCs, it faces policy challenges related to upgrading. Upgrading in GVCs means that firms move to conducting higher value-added activities resulting in an increased domestic value-added-capture within GVCs. Firms can upgrade by improving processes (process upgrading), by producing new or improved products (product upgrading) or by embarking on new functions within or outside a given GVCs (functional upgrading). Upgrading can also occur through so-called intersectoral upgrading, where acquired capabilities are used to produce new products or engage in new activities pertaining to different GVCs (WTO, 2014). The challenges and experiences of small economies with GVC upgrading will be touched upon throughout this note and are covered in more detail in Section 7 on trade policy experiences.

2.14. After this, more general discussion on challenges for small economies to integrate into GVCs, indicators and survey results will be discussed. These refer to the framework conditions and problems of small economies. Table 2 provides a set of framework conditions that are relevant for countries to integrate into GVCs. In particular, it groups several indicators under five different headings: trade costs, transportation infrastructure, communications infrastructure, legal institutions and the business environment.⁹

2.15. According to indicators in the World Bank's "Doing Business – Trading Across Borders," trade costs are lower in small economies than for the average WTO Member. For all five indicators, the average small economy performs better than the average WTO economy. For instance, in small economies, exporting a container requires, on average, 5.8 documents, takes 16.6 days and costs US\$1,056 compared to 6.0 documents, 19.8 days and US\$1,444 for the average WTO Member, respectively. Second, trade costs in small economies differ among regions. For instance, the costs to export a container amount to US\$1,781 in the Caribbean economies compared to only US\$1,014 in Asian/Pacific small economies. Interestingly, even though the costs to export and import are higher in Caribbean small economies than in Asian/Pacific small economies, it takes eight days less to export in the Caribbean.

2.16. Available data on transport infrastructure reveal that small economies in Central and South America have a lower quality of air, port and road infrastructure compared to the average WTO country. Furthermore, the number of broadband internet subscribers and internet users is lower in small economies compared to the WTO average. While the Caribbean small economies have, on average, a better communications infrastructure than the average WTO Member, Central and South American as well as Asian/Pacific small economies lag behind other countries in terms of broadband infrastructure and internet usage.

2.17. Table 2 also shows that in terms of legal institutions small economies display heterogeneity. Small economies in Central and South America as well in Africa have, on average, weaker legal rights than small economies in both the Caribbean and Asia/Pacific, as well as the average LDC country.

2.18. The ease of doing business ranking provides a summary measure across ten topics related to the business environment. According to this measure, doing business is more difficult in Central and South American small economies, compared to small economies in other regions. Regional averages for the ease of access to loans and the protection of intellectual property can only be calculated for Central and South America and the three African small economies. While the access

⁸ Backward linkages capture the use of intermediate inputs in production. International backward linkages in value-added data are measured through the share of foreign value-added in gross exports.

⁹ Certain indicators were not included due to lack of data for small economies. For instance, in the case of the World Bank Logistic Performance Index (LPI) and the OECD Trade Facilitation Indicators, data are available for 17 and 21 small economies, respectively.

to loans is slightly easier compared to the WTO average, the protection of IP is slightly lower than in the average WTO country.

Table 2. Framework conditions in small economies, WTO Members and LDCs, 2014

	Small Economies					WTO Members	LDCs
	All	C. and S. America	Caribbean	Africa	Asia/Pacific		
<i>Trade costs</i>							
Cost to export (US\$/container)	1,038	1,218	998	835	939	1,475	1,979
Cost to import (US\$/container)	1,339	1,367	1,781	770	966	1,792	2,483
Documents to export (number)	5.8	6.1	5.1	5.3	6.5	5.9	7.6
Documents to import (number)	6.7	6.2	7.2	5.7	7.3	7.0	8.8
Time to export (days)	16.5	17.9	12.5	15.3	20.3	19.6	31.7
Time to import (days)	17.5	18.5	13.3	15.3	22.4	21.6	35.8
<i>Transport infrastructure (quality)</i>							
Air transport, 1-7 (best)*	n.a.	4.16	n.a.	4.58	n.a.	4.40	3.15
Port infrastructure, 1-7 (best)*	n.a.	4.10	n.a.	4.61	n.a.	4.18	2.97
Roads, 1-7 (best)*	n.a.	3.73	n.a.	4.35	n.a.	4.07	3.02
<i>Communications infrastructure (2013)</i>							
Fixed broadband Internet subscribers (per 100 people)	7.1	4.1	12.4	9.9	2.1	11.2	0.5
Internet users (per 100 people)	38.6	29.8	52.1	42.3	29.5	43.6	9.0
Mobile cellular subscriptions (per 100 people)	108.8	114.6	110.6	123.6	91.5	110.2	59.6
<i>Legal institutions</i>							
Strength of legal rights index (0=weak to 12=strong)	4.8	4.1	5.7	3.3	5.3	5.2	4.8
Procedures to enforce a contract (number)	40	39	42	36	39	37	40
Time required to enforce a contract (days)	723	868	712	620	593	625	713
<i>Business environment</i>							
Ease of doing business index	97.0	106.7	96.3	78.3	92.8	87.8	148.7
Time required to start a business (days)	26	30	16	18	37	22	29
Ease of access to loans, 1-7 (best)*	n.a.	3.01	n.a.	2.99	n.a.	2.89	2.34
Intellectual property protection, 1-7 (best)*	n.a.	3.29	n.a.	3.74	n.a.	3.85	3.04

Source: World Bank World Development Indicators; *World Economic Forum (WEF).

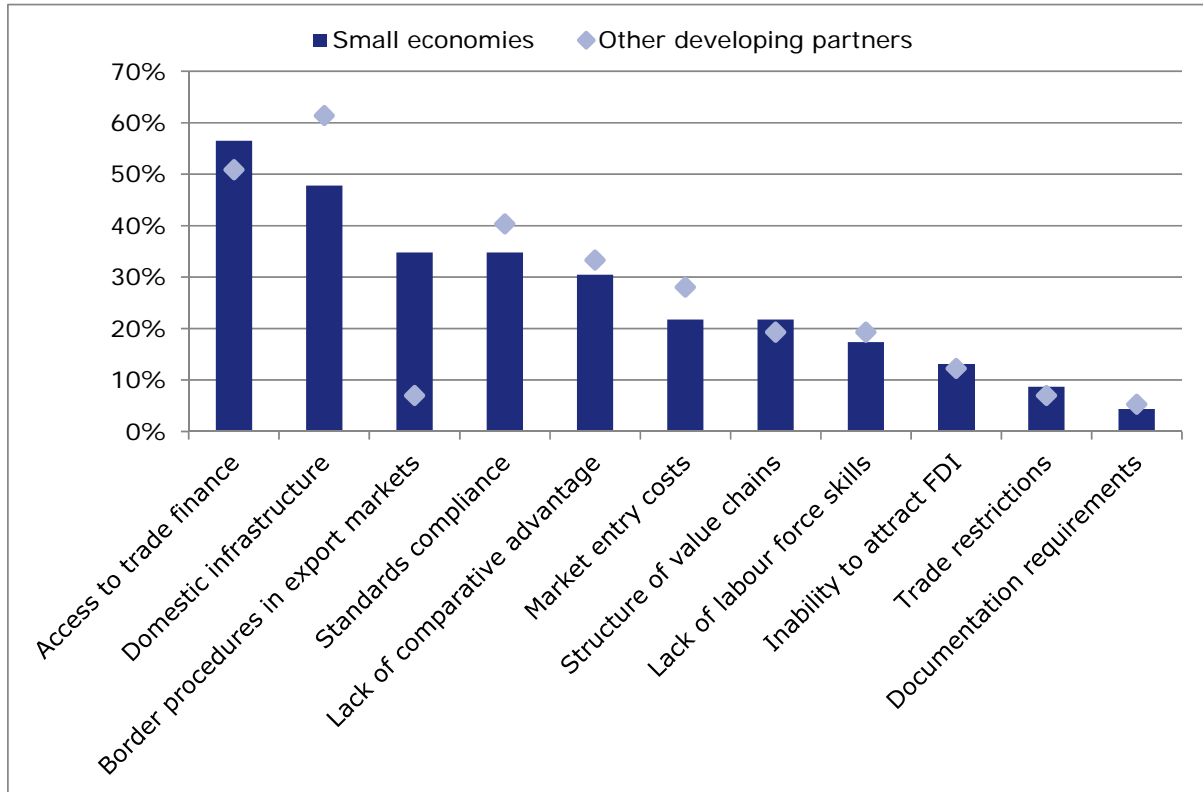
Note: Indicators represent simple averages across countries. Depending on the availability of data, averages are based on 31 to 32 small economies (10 in Central and South America, 10 to 11 in the Caribbean, 3 in Africa and 8 in Asia/Pacific), 156 to 158 WTO Members and 46 to 48 LDCs. *For the indicators from the WEF data availability allowed only calculating averages for C. and S. American (10) and African (3) small economies, WTO Members (137) and LDCs (30).

2.19. As part of the Fourth Global Review of Aid for Trade in 2013, the OECD and the WTO jointly surveyed the public and the private sectors on their views regarding the barriers that developing country firms face when connecting to value chains. From the public sector, 80 partner countries participated, 23 of which are small economies. The private sector questionnaire surveyed lead firms and suppliers from developing countries operating in such value chains as agrifood, ICT, textiles and apparel, tourism, and transport and logistics. Out of 455 suppliers, 103 suppliers indicated that they have their head office in a small economy.

2.20. Figure 1 shows that the public sector in small economies regards access to trade finance and domestic infrastructure as the two main obstacles to the participation of their firms in value chains. These two issues were mentioned by 57% (13 out of 23) and 48% (11 out of 23) of small economies, respectively. According to the survey, small economies and other developing

economies face similar obstacles. Noteworthy differences are that other developing economies see domestic infrastructure as being the main obstacle. Meanwhile, border procedures in export markets are perceived as an obstacle by small economies but not by other developing economies.

Figure 1. Public sector: Main obstacles for a greater participation of their firms in value chains

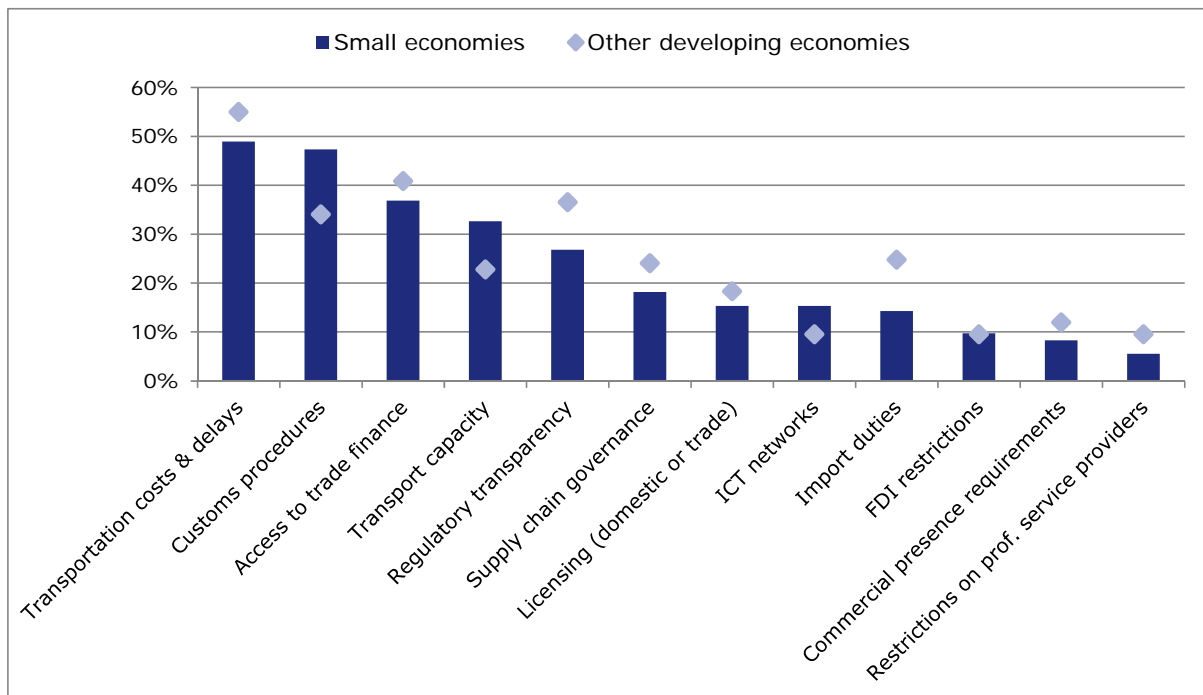


Source: OECD/WTO Questionnaire 2013.

Note: Based on answers from government officials from 23 small economies and 57 other developing partner countries.

2.21. Figure 2 and Figure 3 show respectively the difficulties and supply-side constraints that developing country suppliers face when connecting to value chains. Results should be interpreted with caution as the sample of firms is rather small, as is the number of small economies and sectors the firms pertain to.

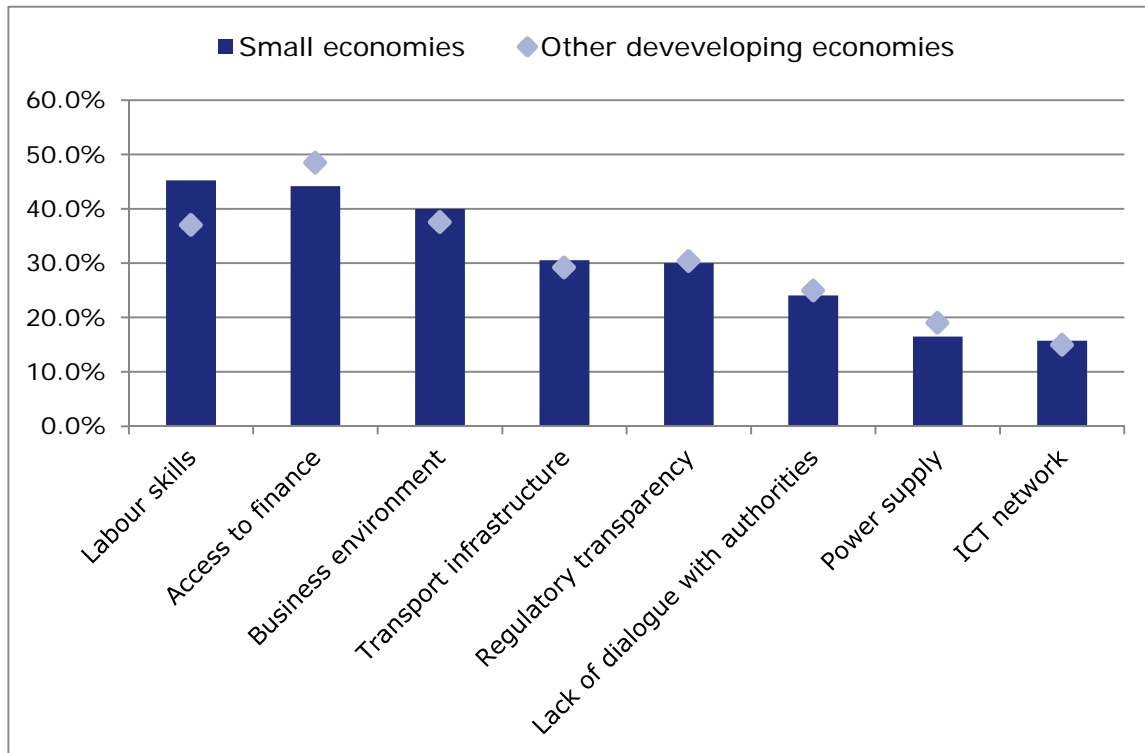
2.22. Figure 2 shows that transport costs and trade facilitation constitute the main difficulties for suppliers from small economies. In particular, 49% and 47% of suppliers regard transportation costs and delays and customs procedures as some of the key difficulties they encounter when trying to connect to value chains. Access to trade finance and inadequate transport capacity are further obstacles highlighted by suppliers from small economies.

Figure 2. Private sector: Difficulties to connect to value chains

Source: OECD/WTO Questionnaire 2013.

Note: Results are based on answers from 98 suppliers from small economies and from 355 suppliers of other developing economies. The sectoral allocation of suppliers from small economies is as follows: agrifood (26), information and communication technology (5), textiles and apparel (16), tourism (41), and transport and logistics (10). Shares are calculated based on the sectors for which the respective issue could be selected as an answer, e.g. access to trade finance and customs procedures were no answer possibilities for tourism suppliers.

2.23. Figure 3 shows that the lack of labour skills, access to finance and the business environment are the three main national supply-side constraints facing firms from small economies. In contrast, hard infrastructure such as ICT networks and power supply appear to be minor issues. An exception is inadequate transport infrastructure, which is mentioned as a constraint by 30% of suppliers from small economies.

Figure 3. Private sector: Main national supply-side constraints to connect to value chains

Source: OECD/WTO Questionnaire 2013.

Note: Based on answers of 95 suppliers from small economies and of 357 suppliers of other developing economies. The sectoral allocation of suppliers from small economies is as follows: agrifood (25), information and communication technology (5), textiles and apparel (14), tourism (41), and transport and logistics (10). Shares are calculated based on the sectors for which the respective issue could be selected as an answer, i.e. power supply and lack of dialogue were no answer possibilities for logistics and tourism suppliers, respectively.

2.24. The results show that to a large extent, the public and private sector views regarding barriers to GVC integration for small economy firms coincide. Access to (trade) finance, transport infrastructure and related trade costs were most often mentioned. Further barriers highlighted include standards compliance and the business environment. While relatively few public officials consider labour skills as a major obstacle, it is mentioned by about 45% of the responding firms as a main national supply-side constraint.

2.25. Results from the Aid-for-Trade monitoring exercise complement the information from the different indicators presented in Table 2. The results from the monitoring exercise underscore the need to improve transport infrastructure and improve customs procedures to lower trade costs. Furthermore, while the firms participating in the monitoring exercise do not prioritise ICT infrastructure development, indicators of internet usage further suggest that small economies, particularly in Central and South America as well as in Asia/Pacific, lag behind in this area.

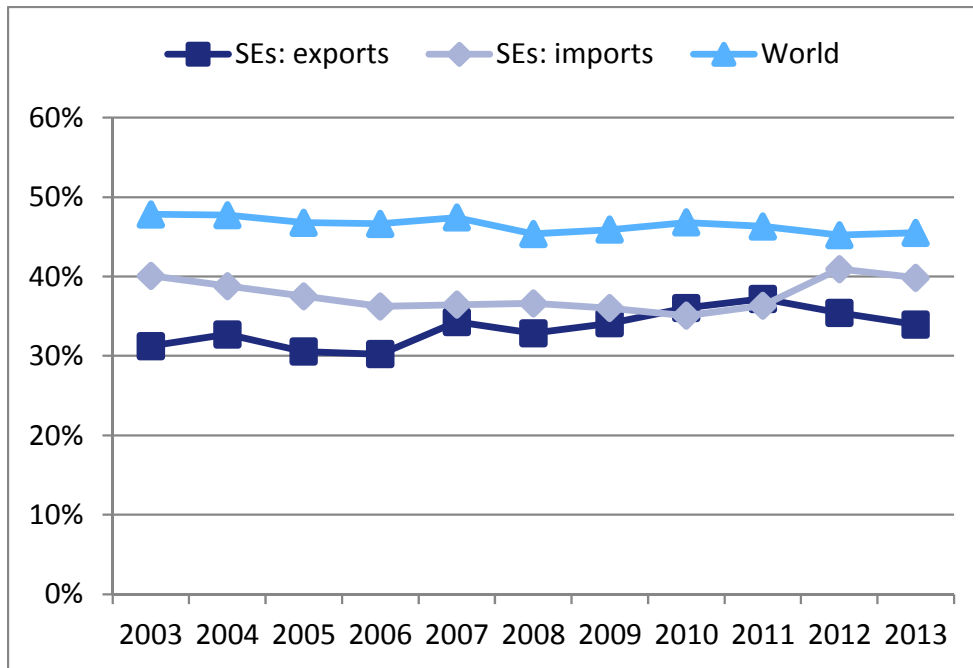
3 EVIDENCE OF THE INTEGRATION OF SMALL ECONOMIES IN GLOBAL VALUE CHAINS

3.1. This section assesses the level of integration of small economies into GVCs for different sectors of major importance for small economies using goods and services trade data and case stories.¹⁰ In the case of goods, the section covers agrifood, seafood and textiles, while for services it covers tourism and IT and business process offshoring.

¹⁰ In the case of goods trade data, the analysis uses the BACI trade database from the French research institute CEPII, which provides bilateral exports at the 6-digit level of the HS 2002 product classification. BACI is based on the UN Comtrade database but uses reconciliation and estimation techniques to increase data coverage and consistency. The dataset and the methodology used is described in Gaulier and Zignago (2010).

3.2. Integration into GVCs is often analysed using data on trade in intermediate goods. Figure 4 shows that in 2013 non-fuel intermediate goods constituted 34% and 40% of small economies' exports and imports, respectively. Trade in intermediate goods is relatively more important at the world level, where it accounted for 46% of total trade in 2013. This lower share of intermediate exports and imports indicates on the one hand, the relatively lower integration of small economies into GVCs, and, on the other, the product and sector specialization of small economies.

Figure 4. Share of non-fuel intermediates in exports and imports of small economies



Source: CEPII BACI trade database.

3.1 Goods value chains

3.1.1 Agrifood

3.3. Agrifood products are among the main export products of developing countries and small economies in particular. The integration and upgrading within agrifood GVCs can help economic development and poverty alleviation. The agrifood value chain has experienced significant changes over the last decades due to population growth, urbanization, changing diets, ICT and structural transformation in retail markets (Cattaneo, 2013).

3.4. Modern agrifood value chains are buyer-driven chains where large retailers or food manufacturers constitute the lead firms. These lead firms typically operate either in regional or global markets and vertically coordinate the value chain, also ensuring that products meet food safety and other standards. To reduce transaction costs, buyers tend to limit the number of their suppliers, which results in fierce competition among potential suppliers (Bamper *et al.*, 2014).

3.5. Firms from developing countries face a number of horizontal and sector-specific challenges when trying to integrate into agrifood chains markets (Cattaneo, 2013). The most important sector-specific obstacles to participation in agrifood chains are compliance with a myriad of public and private food standards, which become particularly important in the case of upgrading into packaging and processing. According to Bamper *et al.* (2014), the competitiveness of developing countries in agrifood GVCs depends on five broad factors, i.e. availability of both low-cost labour and skilled labour; local SPS standards and their implementation; transportation infrastructure and services; industry maturity; and access to finance.

3.6. Small economies face particular challenges to integrate and upgrade in value chains due to their vulnerability to exogenous demand and supply shocks, their vulnerability to market access

conditions and the prevalence of small-scale farmers. Box 2 illustrates these challenges and opportunities for the Fijian taro crop value chain and Jamaican hot pepper.

Box 2. Agriculture and food value chains in the Caribbean and the Pacific Islands

Taro crop – Fiji

Taro is a tropical root crop whose corm represents an important element of the diet in Pacific Islands Countries (PICs). The production and subsequently exports of Taro in Fiji increased as a result of the taro leaf blight that damaged the successful Samoan taro industry in 1993. The Fiji island Taveuni subsequently has become the main producer of taro accounting for about 70% of Fiji's taro exports. Out of the current 2,000 taro farmers on Taveuni, 750 are fully commercial. Export agents compete to buy the crop, which is then shipped to Fiji's capital Suva, where about six independent exporters re-grade and wash the corms prior to shipment in refrigerated containers to New Zealand or by air to Australia. New Zealand is the biggest export market accounting for 65% of Fiji's Taro exports, followed by Australia with 30% and smaller amounts to the US and other destinations. Exports are driven by the diaspora of PICs, in particular of Samoan origin.

The case of the taro value chain illustrates the vulnerability of small islands to exogenous demand or supply shocks. In the case of Taro, Samoa experienced a negative supply shock due to a blight, while Fiji benefitted from the resulting positive shock of increased demand from New Zealand.

However, the Fiji taro value chain faces three major challenges that need to be addressed to counter falling exports. First, due to deforestation and industrial production, soil fertility has declined resulting in lower productivity and higher production costs. To counter the decline in productivity, two grower organizations, with financial and technical support from Australian Centre for International Agricultural Research (ACIAR), Organic Matters Foundation (OMF), Australian Agency for International Development (AusAid), Caritas Australia, Secretariat of the Pacific Community (SPC), United Nations Development Programme (UNDP) and the Fiji Ministry of Agriculture, have started adopting sustainable farming practices.

A second challenge is the value chain's vulnerability to market access conditions. For instance, Australia, which has its own small taro industry, requires, in contrast to other countries, that the taro corm be devitalised in Fiji prior to exporting it to Australia. This costly devitalisation process increases the perishability of the corm making air transport necessary and has hampered market expansion in Australia for almost two decades. Such SPS measures are a particular problem for small economies as they tend to be more dependent on agricultural products.

A third challenge relates to the threat of biological disasters and climate change. While taro leaf blight (TLB) devastated the Samoan taro industry, the disease has not yet been discovered in Fiji, even though higher minimum night temperatures increase the susceptibility to the disease. As a response to this threat, a breeding programme to develop TLB resistance for Fijian taro has been started.

Hot pepper – Jamaica

This case study provides an example of a vertically integrated hot pepper value chain through the Grace Agro Processors Division (GAPD) of GK Foods and Services LTD, a wholly-owned subsidiary of the Food Division of the Grace Kennedy Group (GK). GK is a Jamaican food and financial services conglomerate with establishments in the Caribbean, North America and Europe. GK's food brand "Grace" has a strong recognition among the Caribbean diaspora and its food processing and distribution accounts for about two thirds of GK's revenue.

The production of finished pepper sauces requires the mechanical crushing of peppers into pepper mash, the addition of salt and a period of fermentation in a container. The resulting hot pepper mash can be traded internationally before being processed into sauces by adding vinegar and other ingredients.

In the 1990s and 2000s, GK produced hot pepper sauces mostly through arm's length contracting arrangements. GAPD established its hot pepper value chain in 2009 when it started contracting

farms to produce hot peppers to be processed at Southern Fruits and Food Processors Ltd into pepper mash and then into Grace pepper sauce.

In 2012, GAPD vertically integrated the processing of fresh peppers by opening a new agri-processing plant in Hounslow, Jamaica. The fresh peppers are supplied by more than 50 farmers that are contracted by GADP. These contracts cover the supply of inputs for farming at discounted prices and deferred payment by GAPD. Farmers receive technical assistance and information on the quantities and prices of peppers to be delivered, delivery schedules, and procurements standards such as maximum pesticide levels and ripeness. The mash produced by GAPD's plant is then processed into GK labelled products through co-packing arrangements with other processing Jamaican firms. These Jamaican processing firms also acquire the mash to produce their own products.

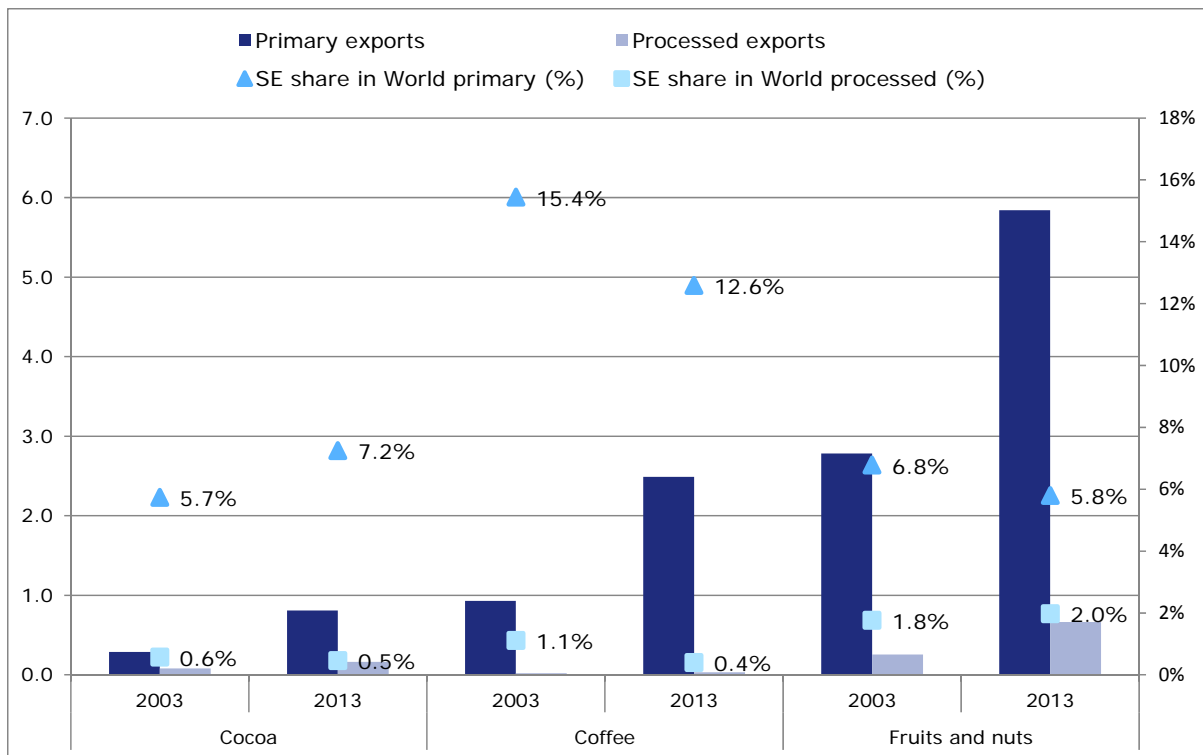
GK sells its products, including its pepper products, to over 40 countries either through its network of independent distributors or through its subsidiaries in the countries Jamaica, Canada, Belize and the United Kingdom (UK). Foreign demand has mostly been from the Caribbean diaspora but GK is progressively moving into mainstream markets where it faces competition from global brands such as Heinz.

The hot pepper case study provides an example of how to include small-scale farmers in the value chain, whilst ensuring that the value chain remains competitive and sustainable. Small-scale farmers are included in the value chain through contract farming, which consists of forward agreements between the farmers and the buying firm. Since small-scale farmers typically have limited access to finance, in forward agreements, the customer provides the farmer with farming inputs as a form of credit in kind. Furthermore, forward agreements help the buyer to keep control over the inputs used, the farming method and the quality of the agricultural products.

The two case studies further point to the potential importance of niche markets for small economies. The Diaspora living in developed countries constituted a main target of the taro and hot pepper sauce exports. Other possibilities to establish niche markets include the focus on high quality products with unique characteristics or the exploitation of seasonality. For instance, Tonga supplies squash (pumpkin) to Japan and watermelon to New Zealand when local production is unavailable in these countries.

Source: Mc Gregor, A. and K. Stice (2014); Westlake, M. J. (2014a), Westlake, M. J. (2014b).

3.7. Figure 5 illustrates the positioning of small economies in agrifood GVCs through exports of primary and processed products of cocoa, coffee and fruits and nuts. Among the three product groups, exports of fruits and nuts are highest in value reaching almost US\$5.8 billion for primary products and US\$0.7 billion for processed products in 2013. Figure 5 shows that small economies are positioned at the initial stages of the agrifood value chain. For all three product groups, small economies display a substantially higher share in world exports of primary products compared to processed products. For instance, in 2013, small economies accounted for 12.6% of world exports of primary coffee but only for 0.4% of processed coffee. Furthermore, comparing 2003 and 2014 reveals that in terms of processed exports, small economies could only gain market share in fruits and nuts.

Figure 5. Selected agrifood exports of small economies by processing stage (US\$ billion)

Source: CEPII BACI database.

Note: The Broad Economic Categories (BEC) classification is used to distinguish between primary (BEC 111, 112, 21) and processed (BEC 121, 122, 22) agrifood products. The products are defined following the HS 2002 product classification: Cocoa – HS chapter 18; Coffee – HS chapter 09; Fruits and nuts – HS chapter 08 and HS headings 2006, 2007, 2008 and 2009.

3.8. Table 3 provides more detail for small economies at the regional level. Exports of fruits and nuts are the most important among the three product groups, accounting for almost 5% of small economies' exports compared to 1.8% and 0.7% in the case of coffee and cocoa, respectively. Coffee and fruits and nuts are of particular importance for small economies in Central and Latin America where they account for 3.1% and 7.6% of exports, respectively. Tables 1 to 3 of the Annex provide country level detail for the three product groups.

3.9. Revealed comparative advantage (RCA) values substantially higher than one indicate that small economies have a comparative advantage in all three product groups.¹¹ However, this comparative advantage stems mainly from specialization in primary as compared to processed exports. Nevertheless, small economies, in particular in the Caribbean and Central and South America, still have a comparative advantage in processed coffee and fruit products. However, the gap in export competitiveness in primary versus processed agrifood products points to untapped export potential in the latter and to upgrading challenges in agrifood value chains.

¹¹ The indicator RCA measures the export specialization of a country relative to the world. It is calculated as the ratio of the share of a product in a country's merchandise exports divided by the share of the product in world merchandise exports. An RCA measure larger than one indicates that the country has a revealed comparative advantage in a particular product.

Table 3. Agrifood exports of small economy groupings by processing stage

	Total (primary+processed)					Primary			Processed		
	US\$ (mill.)	Share in group exports (%)	Share in WLD product exports (%)	RCA	Growth p.a. (03-13; %)	US\$ (mill.)	Prim. share (%)	RCA	US\$ (mill.)	Proc. share (%)	RCA
Cocoa											
Small economies	972.1	0.7	2.1	2.7	10.1	808.4	83.2	9.4	163.7	16.8	0.6
Africa	0.2	0.0	0.0	0.0	13.7	0.0	0.0	0.0	0.2	100.0	0.0
Asia/Pacific	136.2	0.5	0.3	1.8	6.7	128.8	94.5	6.9	7.4	5.5	0.1
Caribbean	215.6	0.7	0.5	2.8	8.2	192.5	89.3	10.6	23.0	10.7	0.4
C. and S. America	620.1	0.8	1.3	3.1	11.8	487.0	78.5	10.3	133.1	21.5	0.9
Coffee											
Small economies	2,523.8	1.8	8.9	11.5	10.3	2,489.5	98.6	16.3	34.3	1.4	0.5
Africa	0.3	0.0	0.0	0.1	19.5	0.2	63.3	0.0	0.1	36.7	0.1
Asia/Pacific	148.5	0.5	0.5	3.1	3.4	147.4	99.2	4.5	1.1	0.8	0.1
Caribbean	47.1	0.2	0.2	1.0	-2.5	33.4	71.0	1.0	13.6	29.0	1.0
C. and S. America	2,327.9	3.1	8.2	19.4	11.5	2,308.5	99.2	27.5	19.4	0.8	0.5
Fruits and nuts											
Small economies	6,508.0	4.7	4.8	6.3	7.9	5,841.8	89.8	7.5	666.2	10.2	2.6
Africa	11.0	0.3	0.0	0.4	15.5	9.9	90.5	0.5	1.0	9.5	0.2
Asia/Pacific	169.8	0.6	0.1	0.8	9.9	122.7	72.3	0.7	47.0	27.7	0.8
Caribbean	597.6	2.1	0.4	2.7	7.0	516.2	86.4	3.1	81.4	13.6	1.5
C. and S. America	5,729.6	7.6	4.3	10.0	7.9	5,192.9	90.6	12.1	536.7	9.4	3.8

Source: CEPII BACI database.

Note: The BEC classification is used to distinguish between primary (BEC 111, 112, 21) and processed (BEC 121, 122, 22) agrifood products. The products are defined following the HS 2002 product classification: Cocoa – HS chapter 18; Coffee – HS chapter 09; Fruits and nuts – HS chapter 08 and HS headings 2006, 2007, 2008 and 2009. See footnote 11 for a definition of RCA.

3.10. Upgrading within GVCs can be facilitated when SMEs collaborate with larger institutions, which can provide technical support and assistance. For instance, Box 3 illustrates collaborative efforts between Trinidad and Tobago and the European Business Chamber, to help develop business plans and upgrade farms and agro-processing operations.

Box 3. Tobago Good Foods Project – Trinidad and Tobago and the European Business Chamber

As many as 12 agricultural producers active in fruit growing, dairy goat farming, bee keeping, nature reserve maintenance, cocoa and coconut production and herbs and spice production were included in this project to develop business plans and upgrade farms and agro-processing operations. This Aid-for-Trade project was planned by the European Business Chamber in Trinidad and Tobago and provided farmers with technical expertise to increase exports, facilitate partnerships and attract investment. The project which began in January 2014 is scheduled to be implemented over a three to five-year period and specifically helps farmers with developing viable business plans and upgrading their farm and agro-processing operations. The project aims to improve the quality of the products on offer by introducing food safety measures and technology to enhance productivity and innovation. It has already led to an increase in employment opportunities and a diversification of exports.

Source: OECD/WTO Aid-for-Trade Case Stories (2015), "European Business Chamber in Trinidad and Tobago".

3.11. Small economies face not only challenges related to upgrading their production but also with respect to integrating small and medium-sized agricultural producers into international value

chains. Small producers typically face difficulties related to skills, access to finance and value chain linkages with buyers and suppliers. Box 4 illustrates these difficulties by describing the lessons from development interventions in Latin America which were targeted at integrating small and medium-sized producers into agrifood value chains.

Box 4. Lessons from interventions in agrifood value chains in Latin America

Bamper and Fernandez-Stark (2014) provide an assessment of interventions of five Inter-American Development Bank (IDB) multilateral investment fund projects in agrifood value chains. Their assessment is based on a "holistic" model for overcoming competitiveness constraints faced by small and medium-sized producers. This model for intervention encompasses four pillars: (i) access to markets; (ii) access to training; (iii) access to finance; and (iv) collaboration and cooperation building.

Improving access to markets refers to establishing value chain linkages between producers and buyers. Matching initiatives of producers and buyers can be undertaken at the national level or also at the international level, either directly or through intermediary exporters. Since rural education levels in many developing countries are low, training to producers should cover awareness-building regarding the need of training, technical training as well as the development of business and social skills. Access to finance is a main problem for small producers, which often do not have access to formal finance channels, thereby preventing productivity increasing investment. Access to finance can be facilitated through direct financing or contract guarantees from the buyers or through coordinated efforts by the executing agency, other funding institutions and banks to create effective financial instruments for small producers.

Coordination and collaboration building should focus on horizontal coordination among producers facilitating the formation of producer groups or associations that will allow achieving economies of scale and upgrading. Vertical coordination and collaboration with other chain actors such as suppliers, producers, intermediaries, buyers, finance institutions, export promotion agencies and other public agencies is important for upgrading of value chains. Development interventions also need to consider the economic, social and environmental sustainability of projects.

Table 4 provides an overview of the five development projects targeted at integrating small and medium-sized producers into agrifood value chains. One of the initiatives focused on increasing the competitiveness of coffee producers in Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua. The intervention focused on providing technical assistance for the cultivation of high quality coffee and on establishing links with foreign buyers.

Table 4. Value chain initiatives agrifood sectors by the IDB Multilateral Investment Fund

Geographic Coverage	Targeted Product	Number of beneficiaries	Targeted stage of the value chain	Executing agency	Project duration and end date	Funding (US\$)	
						Inter-American Development Bank	Counterpart
Central America	Coffee	6 000	Production	Technoserve	54 months, 2008	3,000,000	1,615,450
Paraguay	Stevia	2 500	Production, R&D	CAPASTE	36 months, 2012	1,269,400	1,364,470
Peru	Organic cacao	200	Production	Naranjillo Cooperative	27 months, 2008	100,000 (+87,307)	67,000 (+127,000)
Peru	Organic fruit and vegetables	415 (100 certified)	Production, packing	IDMA (National NGO)	33 months, 2011	397,990	264,930
Nicaragua and Honduras	Honey	542	Production	Swisscontact (International NGO)	36 months, 2012	982,026	448,700 (+200000)

While the project initially included 3,000 beneficiaries (mostly experienced coffee growers organized in ten cooperatives), it was expanded to include 6,000 beneficiaries in 2008, the last year of the project. The technical assistance regarding cultivation consisted of training to grow speciality coffee and in administrative and technical support to help producers obtain the certification required by foreign buyers. The creation of linkages between coffee producers and

international buyers was central to the success of the initiative. International buyers selected and sponsored ten cooperatives. Once the coffee reached the threshold quality required, buyers purchased the coffee.

The success of the project was facilitated by the fact that the beneficiaries were already experienced coffee growers and organized in cooperatives, which had access to credit and constituted a network among coffee producers. In contrast, the lack of coordination with other large donor initiatives limited the potential impact of the project.

Bamper and Fernandez-Stark (2014) draw four key lessons from their assessment of the five interventions. First, a market based-approach is essential to any intervention. This involves a clear market analysis and information on certification requirements and business plans. Second, small and medium-sized producers are heterogeneous in their capabilities and their potential to participate in value chains. Interventions need to take this into account when designing and implementing interventions. Third, development agencies need to assess the implementation requirements before they embark on a project. For example, they have to ensure that they will have the local experience and trust of small producers, seek collaboration with other agencies where feasible and ensure that small producers are integrated sustainably in the chain once the project is finished.

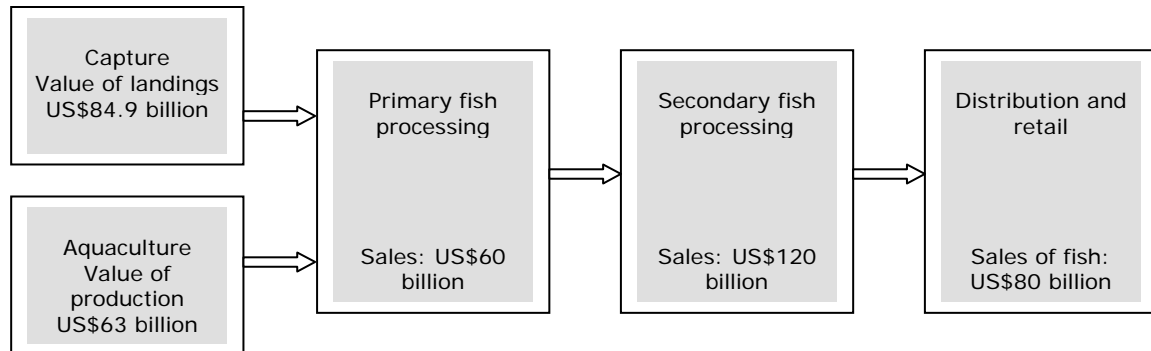
Fourth, interventions should have a holistic view and address the four pillars of access to training, access to markets, access to finance and the building of coordination and collaboration among producers and other actors in the chain. According to Bamper and Fernandez-Stark (2014), the five projects lacked such a holistic value chain approach and therefore missed applying a market-oriented perspective with a view to improving producer's competitiveness.

Source: Fernandez-Stark, K. and Bamber, P. (2012); Fernandez-Stark, K. and P. Bamber (2014).

3.1.2 Seafood

3.12. Seafood value chains are similar to the agrifood value chains in that both have experienced profound changes in the last decades. Large retailers have emerged as lead firms and have increased their influence through procurement conditions, often involving private standards and labels. Technology improvements such as GPS, satellite monitoring or genetically modified organisms have increased the productivity of wild fishing and boosted aquaculture production.

3.13. Figure 6 shows a typical seafood value chain (OECD, 2010). Harvesting in the form of wild fish capture covers activities such as catching, gutting, storing (cool, ice, freeze) and landing in the port. Harvesting in the form of aquaculture covers the production of brood stock and juveniles and subsequent on-growth in pens before the fish are harvested. Fish processors typically buy the fish from harvesting or fish farms and engage in primary processing activities such as filleting or preserving activities such as freezing, curing (drying, salting smoking and freeze drying) or vacuum packaging. Secondary activities include canning or other value-added activities to create ready to eat products. In the distribution of fish products, large retailers have become more important. The growing importance of large retailers makes the fish value chain more buyer-driven, which is changing the nature of procurement and has led to the proliferation of private standards and labels.

Figure 6. The seafood value chain

Source: OECD (2010), based on FAO and Glitnir Bank.

3.14. The seafood value chain is similar to the agrifood value chain regarding the value distribution along the chain. Primary sectors receive a relatively lower share of the retail value of highly processed products and a higher share in less processed and fresh products (Gudmundsson *et al.*, 2008). Ownership of the seafood value chain does not, however, necessarily improve the livelihoods of fishermen and fishing companies. Sound management of fisheries is crucial to allow fishermen to benefit from higher export prices and to guarantee a sustainable fish stock.

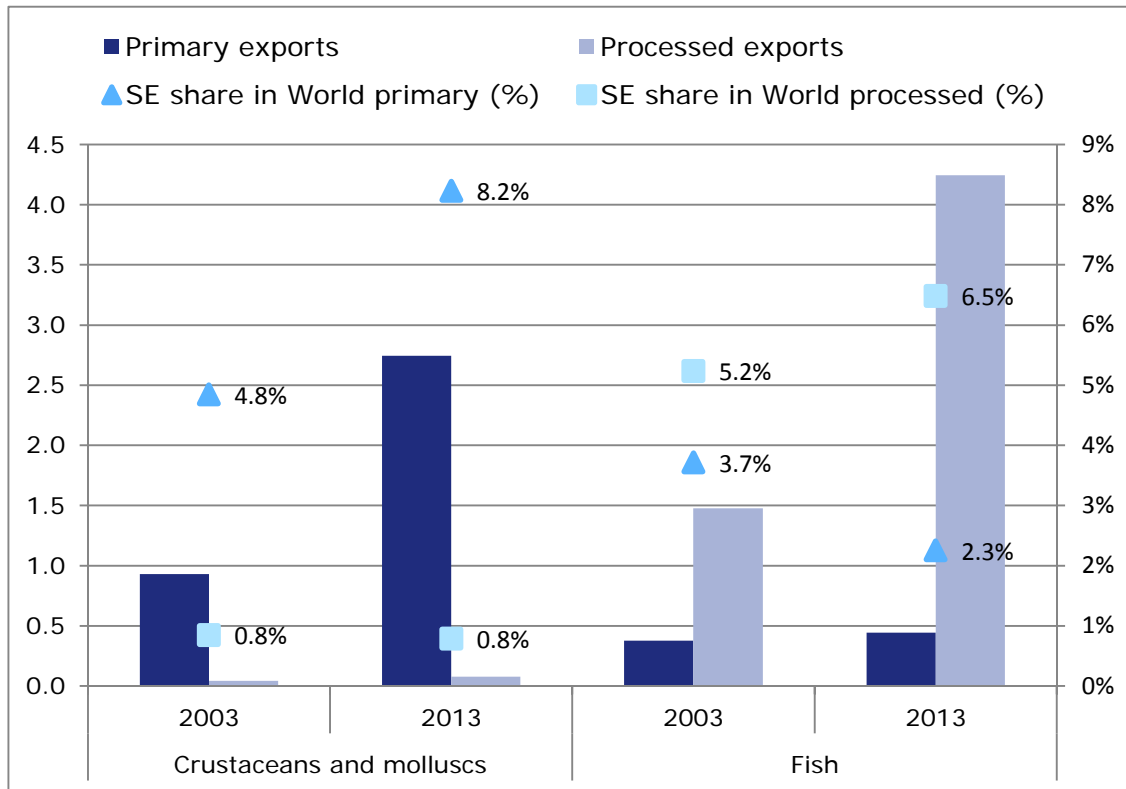
3.15. Developing countries have experienced significant growth in both the production and consumption of seafood (OECD, 2010). Aquaculture has been of particular importance to boost the share of developing countries in fish production thanks to developing countries' lower labour costs and more appropriate natural conditions. Furthermore, developing countries have tried to attract FDI in aquaculture to create employment and expand as well as upgrade their aquaculture production.

3.16. When analysing the seafood value chain it is vital to distinguish between large-scale and small-scale fishery. The small-scale sector is considered to account for 90% of fishery employment and is particularly relevant in developing countries. According to a Food and Agriculture Organization of the United Nations (FAO) study on value chain dynamics in small-scale fisheries (Bjorndal *et al.*, 2014), small-scale fishers and fish farmers receive relatively less value compared to processors and retailers. One way to support the viability of small-scale fishery in small economies is through the creation of linkages with the tourism value chain.

3.17. Figure 7 shows the evolution of primary and processed crustacean (e.g., shrimps, crabs) and fish products for small economies. Small economies have intensified their production of processed fish products. While small economies exported below half a billion US\$ of primary fish products in both 2003 and 2013, their exports of processed fish almost tripled from below US\$1.5 billion in 2003 to US\$4.2 billion in 2013. This increase also reflects an increasing positioning of small economies at processing stages in fish value chains, as their share in world trade of processed fish increased from 5.2% in 2003 to 6.5% in 2013.

3.18. The situation is the opposite for crustacean and mollusc products. Small economies have almost tripled their primary exports from US\$0.9 billion in 2003 to US\$2.7 billion in 2013, so that their world market share increased from 4.8% to 8.1%. In contrast, processed crustacean and mollusc exports accounted for only 0.8% of respective world exports in both 2003 and 2013, even though exports doubled from close to US\$0.4 billion to just below US\$0.8 billion.¹²

¹² It should be noted that, while frozen fish products are classified as processed products, frozen crustacean and mollusc products are classified as primary products.

Figure 7. Crustaceans and fish exports of small economies by processing stage

Source: CEPII BACI database.

Note: The BEC classification is used to distinguish between primary (BEC 112) and processed (BEC 121 and 122) fish and crustacean products of HS chapters 03 and 16. Ornamental fish, corals and fish fats and oils are not included as they are not categorized as food.

3.19. Table 5 reveals differences in specialization patterns of small economies. Small economies in Central and South America specialize in both crustaceans and fish exports, which together account for more than 3% of their exports. Central and South American small economies have a strong comparative advantage in exports of crustaceans as indicated by a revealed comparative advantage measure of 14.5 and a world market share of 6.1%. Annex Table 5 shows that Ecuador is by far the biggest exporter among the small economies in the region followed by Honduras and Nicaragua.

3.20. Whereas crustaceans and fish are of similar importance for small economies in Central and South America as well as in the Caribbean, the three small economies in Africa (Mauritius, Cabo Verde, and Seychelles, Rep. of) and in Asia/Pacific are more dependent on fish exports. In the three African islands, fish exports of US\$1,076 million, most of which are in processed form, account for 30% of the countries' overall exports. In the Asian/Pacific region, small economies differ in their dependence on fish exports. Fish account for 91% of country exports in the Maldives, 68% in Vanuatu, 19% in Fiji, 11% in Tonga, 2% in Sri Lanka and less than 1% in Papua New Guinea and Brunei Darussalam.

Table 5. Crustacean and fish exports of small economy groupings by processing stage

	Total (primary+processed)					Primary			Processed		
	US\$ (mill.)	Share in group exports (%)	Share in WLD product exports (%)	RCA	Growth p.a. (03-13; %)	US\$ (mill.)	Prim. share (%)	RCA	US\$ (mill.)	Proc. share (%)	RCA
Crustaceans and molluscs											
Small economies	2,819.8	2.1	6.5	8.4	11.2	2,742.8	97.3	10.6	77.0	2.7	1.0
Africa	5.5	0.2	0.0	0.6	-9.6	5.4	98.2	0.8	0.1	1.8	0.1
Asia/Pacific	90.3	0.3	0.2	1.3	0.2	85.6	94.8	1.5	4.7	5.2	0.3
Caribbean	73.7	0.3	0.2	1.1	-1.3	73.2	99.2	1.3	0.6	0.8	0.0
C. and S. America	2,650.2	3.5	6.1	14.5	12.9	2,578.5	97.3	18.2	71.7	2.7	1.7
Fish											
Small economies	4,698.6	3.4	5.5	7.1	9.7	444.9	9.5	2.9	4,253.7	90.5	8.4
Africa	1,075.8	30.1	1.3	62.7	9.6	7.2	0.7	1.8	1,068.6	99.3	81.1
Asia/Pacific	1,145.8	3.9	1.3	8.1	10.3	152.3	13.3	4.6	993.5	86.7	9.1
Caribbean	61.1	0.2	0.1	0.4	-0.3	46.1	75.4	1.4	15.1	24.6	0.1
C. and S. America	2,415.8	3.2	2.8	6.7	10.0	239.4	9.9	2.9	2,176.5	90.1	7.8

Source: CEPII BACI database.

Note: The BEC classification is used to distinguish between primary (BEC 112) and processed (BEC 121 and 122) fish and crustacean products of HS chapters 03 and 16. Ornamental fish, corals and fish fats and oils are not included as they are not categorized as food. See footnote 11 for a definition of RCA.

3.21. In the Maldives, exports of fish, most of which is tuna, account for 91% of the islands' exports. Box 5 describes the participation of the Maldives in the fish value chain illustrating the importance of upgrading the harvesting and processing technology as well as the need for fishery management to ensure a sustainable fish stock.

Box 5. Fisheries value chains in the Maldives

Alongside tourism, the fish industry in the Maldives plays an important role in the country's economy. The fish industry represented about 5-6% of Maldives' GDP in 2009, with tuna constituting about 70-90% of the total harvest exported. Wild-caught skipjack tuna and wild-caught yellowfin tuna are the two main fish caught in the Maldives. Skipjack contributes 60% to 70% of the total fish catch, and yellowfin tuna makes up around 17% of the total fish harvested. In general, the annual fish harvest has increased from 118,115 tonnes in 1998 to 185,980 tonnes in 2005. However, in 2008 this figure decreased by about 30%, with 133,076 tonnes of fish caught.

Skipjack tuna is mostly exported to Thailand (frozen), Germany (canned) and the UK (canned), and a significant portion of dried or smoked skipjack is also exported to Sri Lanka. Yellowfin tuna is mainly exported as frozen loins, steak and fresh to Japan, the US, the UK, France and Germany. However, due to an increase in price and demand for yellowfin tuna in the fresh fish markets of Japan, Europe and America, a market shift has occurred from the skipjack to the yellowfin tuna industry.

There are two major companies in the Maldives that specialize in exporting tuna, the state-owned Maldives Industrial Fisheries Company (MIFCO) and the private enterprise Horizon Fish Ltd. There are also 11 EU certified yellowfin processing factories in the country. This illustrates that both domestic and foreign investment are important for the tuna value chain in the Maldives.

In recent efforts to upgrade its operations, the fish industry in the Maldives has acquired more modern and larger vessels. The modern vessels are equipped with satellite navigation systems, hydraulic line haulers, fish finders, sonar and other technological equipment. The vessels can also provide crew accommodation, thus resulting in longer fishing trips lasting 2-3 days as opposed to

single day trips in the past.

The tuna fish industry has few regulations to control harvest, and such regulations can be indirect, with restrictions limiting the number of agents involved in the processing sector. More recently in 2010, a programme was introduced to encourage small and medium-sized enterprises to purchase skipjack tuna for processing in the post-harvesting sector. As a result, 35 firms are now registered with the Ministry of Fisheries and Agriculture. In relation to yellowfin tuna, processors have to pay a royalty charge on harvest tonnage increasing their processing cost.

The industry is seasonal with the fishes mostly being caught around April and November at the onset and offset of the Northwest monsoon season. Employment for the tuna industry is, therefore, periodic. Despite the fish industry employing around 20% of the total workforce in the Maldives, it still does not ensure fishermen and processor agents permanent employment all year round.

Concerns have also been raised as to whether stocks of tuna may be declining. Given the Maldives' dependence on tuna exports, a lower tuna harvest would likely have negative socio-economic consequences. However, efforts to ensure the sustainability of stocks are being undertaken. For instance, the traditional pole and line method is now being used to catch skipjack tuna, whereby the fish are caught one by one. Furthermore, the Maldives has been certified by the Marine Stewardship Council and recognized by the World Wide Fund for nature organization (WWF) for its fishing methods.

The tuna fish industry is an inherent source of GDP in the Maldives that faces continuous challenges related to sustainability of fish stocks and economic upgrading. Sustainable fishing methods and recently implemented regulations and programmes are aimed at enhancing the sustainability and the productivity of the value chain.

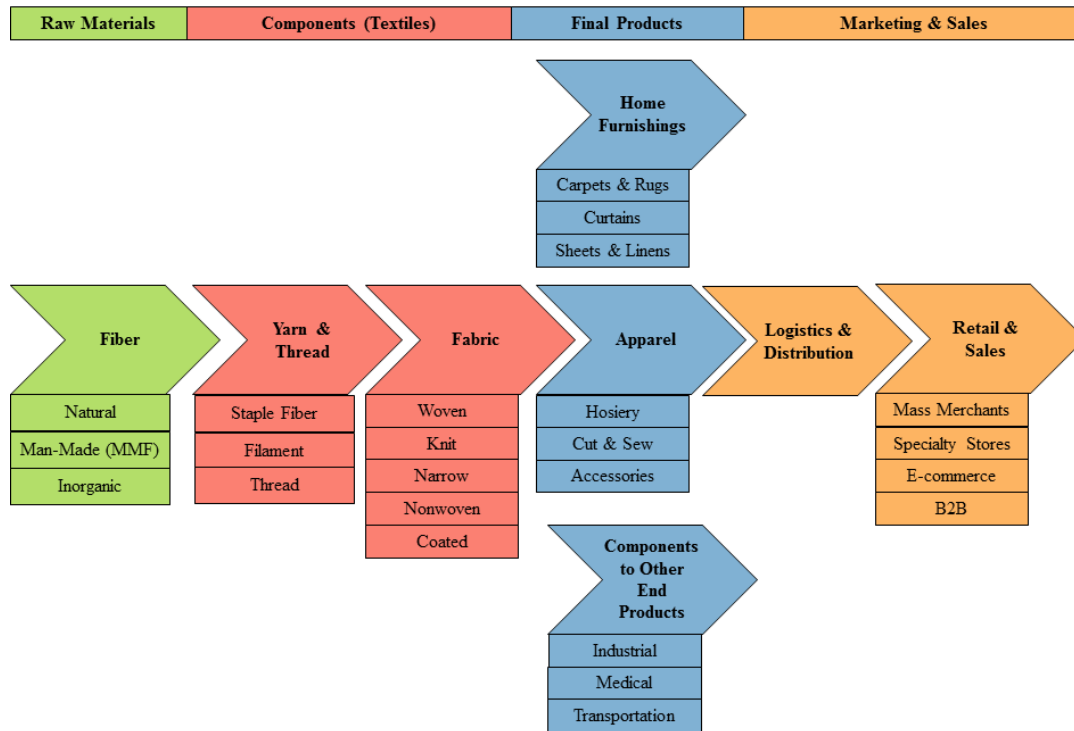
Source: Gordon, D. V. and S. Hussain (2012).

3.1.3 Textiles and apparel

3.22. The textile and apparel value chain has served many developing countries as a starting point for export-led development. This is mainly due to its labour-intensive production. The value chain is buyer-driven, where the respective lead firms are positioned downstream in the chain, i.e. close to the consumer (Gereffi, 1999). Lead firms, such as retailers, brand manufacturers or brand marketers typically control high-value-added activities such as R&D, design, marketing and distribution and outsource manufacturing activities to suppliers.

3.23. Figure 8 provides an illustration of the textile and apparel value chain and its four main stages. Raw materials in the form of natural (cotton, silk) or synthetic fibres constitute inputs to the production of textile components, i.e. yarn and fabric. These textile inputs are then used to manufacture apparel or other final products for home furnishing or industry. Once the product has been made, distribution and sales services bring it to the final consumer.

Figure 8. Illustration of the textile and apparel value chain

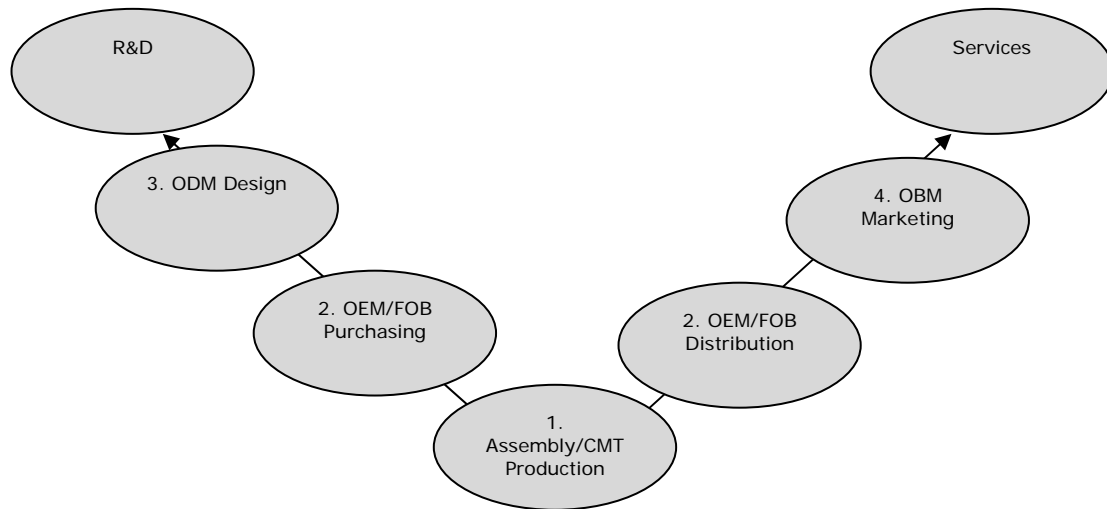


Source: Frederick *et al.* (2014).

Note: In English only

3.24. Figure 9 shows the "smiley curve" or the functional capabilities and related upgrading paths in apparel value chains. While the smiley curve, including its shortcomings, is discussed in greater detail in Section 7, Figure 9 illustrates that at the lower end of value-added the "assembly" of apparel involves low-skilled, labour-intensive activities such as cutting, making (sewing) and trimming (CMT). Under the so-called CMT arrangements, the supplier produces the apparel using the textile inputs (yarn and fabric) and the product specifications provided by the lead firm. In the case of original equipment manufacturing (OEM), the apparel producer takes on additional manufacturing and logistics functions such as the purchase or production of textile inputs and inbound or outbound logistics services.

3.25. As an original design manufacturer (ODM), the apparel producer becomes further responsible for design and product development, often in collaboration with the lead firm. In the case of original brand manufacturing (OBM), the supplier overtakes responsibilities regarding branding and marketing. Thereby, the supplier may either act in close collaboration with the lead firm or sell the product independently on domestic or regional markets. The latter would mark the transition from an apparel supplier to becoming a lead firm.

Figure 9. Value-added stages in the apparel value chain

Source: Gereffi *et al.* (2011).

3.26. Textile and apparel value chains are of major importance for several small economies, particularly in Central America and the Caribbean, but also in the Asia/Pacific region. Small economies differ in their position in the textile and apparel value chain. Sri Lanka is at the stage of an OEM and ODM focus. Building on strong linkages with global buyers (Gap, Victoria's Secret and Nike), Sri Lankan firms have been able to upgrade by adding design to their functional portfolio and by producing more complex niche products such as women's underwear, intimate apparel and sportswear (Gereffi and Frederick, 2010; Gereffi *et al.*, 2011b).

3.27. Small economies in the Caribbean and Central America, meanwhile, tend to conduct CMT functions. Box 6 describes in more detail the positioning and participation of Nicaragua in regional and global textiles and apparel GVCs.

Box 6. Nicaragua and apparel GVCs

The apparel industry in Nicaragua plays an important role in the country's economy, accounting for 36.8% of its GDP in 2008. Nicaragua mainly participates in the initial CMT stage of the apparel value chain, with apparel manufacturers focusing on trousers, such as denim jeans, twill trousers and t-shirts. This means that Nicaragua is essentially involved in assembly production, with employees receiving training ranging from two weeks to three months. Training normally takes place in-house and includes an ability test, which examines manual dexterity, basic reading, writing and arithmetic skills. However, over the years, training has been reduced considerably since many factories are increasingly recruiting more experienced personnel.

With Nicaragua's openness to foreign investment, the apparel industry is mostly foreign owned with key investors coming from Korea and the US, and others from El Salvador, Honduras, Mexico and Chinese Taipei. When Nicaragua began to stabilize politically in the mid-1990s, many foreign investors particularly from Asia were attracted to the country due to its cheap labour force and its close proximity to the US. Growth began to accelerate in 2006 after the implementation of the Dominican Republic – Central American Free Trade Agreement (CAFTA – DR). This helped boost trade with the US and resulted in 89% of Nicaraguan apparel exported to the US in 2009. CAFTA-DR guarantees preferential access to the US market for a certain quantity of apparel sewn in Nicaragua, giving the country an important competitive advantage over its regional neighbours (Gereffi *et al.*, 2011). Nicaragua receives Tariff Preference Levels (TPLs) under the CAFTA-DR since Nicaragua's textile industry is underdeveloped in relation to other CAFTA-DR members. Such preferences temporarily exempt the country from complying with the CAFTA requirement that imported textiles must originate in the US. As a result, Nicaragua is able to source fabric from inexpensive suppliers in Asia, thus allowing them to gain substantial ground in specific segments such as woven cotton trousers.

Since the implementation of CAFTA, Nicaragua has seen a growth in exports from 2% in 1995 to 15% in 2009. However, despite such an increase, Nicaragua has had limited success moving up the apparel value chain. Due to the economic crisis and an economic slowdown in the US, exports in 2009 fell back to their 2006 levels. Furthermore, it is important to note that the apparel value chain faces challenges when it comes to upgrading. Since most of the factories are foreign-owned, most of these firms follow business models where relatively high-value upstream and downstream activities are conducted in the Asian headquarters. As a result, Nicaragua will most likely face difficulties with upgrading further in the value chain.

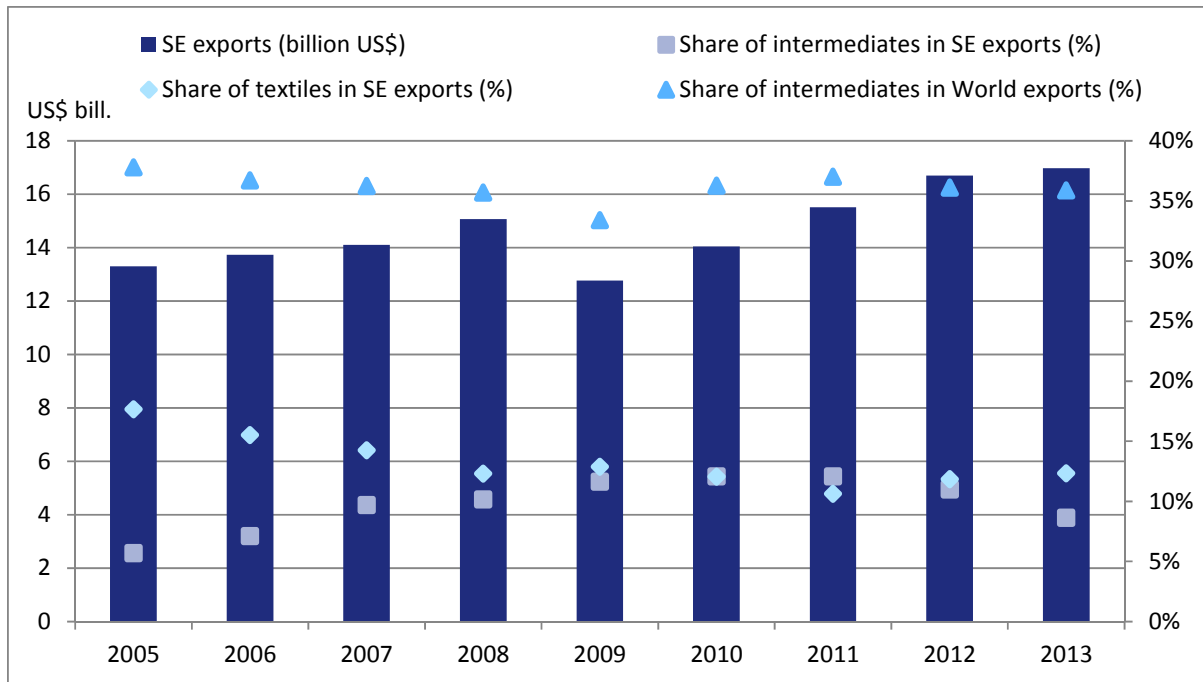
There are other implications due to the expiration of the TPLs under CAFTA-DR in December 2014, which is said to have caused a contraction in the country's apparel manufacturing sector. However, implications will vary depending on the type of apparel (Gereffi *et al.*, 2014). For instance, a significant contraction of the knit sector is expected, since a large percentage of Nicaragua's knit garments enter the US under the preferential regime. Many of the apparel firms are subsidiaries of large knitwear manufacturers based in Asia and these companies may shift their orders to other factories located in their global production network. In terms of the woven garments, production is said to depend on whether Nicaragua is able to sustain the production of woven fabric and the degree to which other regional suppliers of denim and khaki such as the US, Mexico and Guatemala are cost-competitive with Asian suppliers. Consequently, if there is a contraction for both types of garments, this may cause buyers to shift their business elsewhere in order to minimize disruption costs. However the consequences of TPL expiration remain unclear. There is a possibility that a new preference scheme will replace the past regime. Two options have been proposed – the Feinstein and Hagan bills. The Feinstein bill would extend TPL preferences for knit products and the Hagan bill is limited to woven apparel, meaning that knit garments containing fabric not originating from the US would not qualify for duty-free access to the US. The Feinstein bill would be more preferential as the knitted industry is much more important to Nicaragua in terms of exports and employment. For instance, knitted apparel manufacturers are the largest employers in the country's apparel industry. Therefore, if the TPLs are not extended, manufacturers will need to work with buyers to develop supply chains that comply with the yarn-forward rule of origin.

It is true that the global apparel value chain has been facilitated by openness to foreign investment and TPLs under CAFTA-DR. Both have contributed significantly to Nicaragua's economy. However, challenges still remain ahead concerning upgrading within the GVC and the expiration of the TPLs. Developments in the near future for the apparel value chain depend on whether such TPL agreements get extended and whether the foreign owned firms seek production in other factories in their global production network.

Source: Frederick *et al.* (2014); Fernandez-Stark *et al.* (2011).

3.28. Figure 10 provides a first indication of the importance of textiles for small economies' exports and of the latter's positioning in the textile and apparel value chain. Exports of textiles amounted to almost US\$17 billion in 2013, corresponding to 12% of total small economies' exports. The export share of textiles decreased in the years 2005 to 2007. This was likely due to the phasing out of quotas under the WTO Agreement on Textiles and Clothing (ATC). Exports have remained relatively constant since then.

3.29. The share of intermediates in exports of small economies has fluctuated around 10% in recent years. This indicates that small economies tend to produce mostly final apparel products. This low share of intermediates contrasts with the respective share at the world level, which is 35%. Hence, in comparison to the rest of the world, small economies tend to be specialised in the assembly stages of apparel production while other countries tend to produce more intermediate textiles such as yarn and fabrics.

Figure 10. Textiles exports of small economies and share of intermediates

Source: CEPII BACI database.

Note: The BEC classification is used to distinguish between intermediate and final textile products. Textiles and textile products correspond to Section XI (chapters 50-63) of the HS 2002 product classification.

3.30. Table 6 provides more detail at the regional level for both exports and imports of textiles. South and Central American small economies are the main traders in textiles, accounting for US\$10 billion out of US\$17 billion of exports and US\$8 billion out of US\$12.5 billion of imports in 2013. Textiles are of major importance for small economies in Africa, Asia, and South and Central America as shown by the relatively high shares of textiles in merchandise exports and a measure of revealed comparative advantage substantially higher than one.

3.31. Table 6 confirms that small economies are positioned at the assembly stage of the chain as between 67% and 82% of their imported textiles are intermediate inputs while only 3% to 13% of textile exports constitute intermediates. While both export and imports of textiles have increased between 2003 and 2013, the relative importance of textiles has actually diminished for small economies. In 2003, textiles accounted for 22% of exports and 10% of imports of small economies, while in 2013 these shares went down to 12% for exports and 6% for imports, respectively.

Table 6. Export and imports of textiles and textile products by small economy region

2013	Exports				Imports			
	US\$ (bill.)	Share in group total (%)	RCA	Intermediates (%)	US\$ (bill.)	Share in group total (%)	RCA	Intermediates (%)
Small economies	16.98	12%	3.01	9%	12.52	6%	1.53	70%
Africa	1.00	28%	6.80	13%	0.49	7%	1.70	77%
Asia/Pacific	5.05	17%	4.16	6%	2.46	7%	1.74	82%
Caribbean	0.92	3%	0.78	3%	1.50	4%	1.01	69%
Central and South America	10.01	13%	3.24	10%	8.08	7%	1.62	67%
2003								
Small economies	11.27	22%	3.71	5%	7.83	10%	1.79	68%
Africa	1.08	46%	7.89	6%	0.50	15%	2.59	89%
Asia/Pacific	3.53	28%	4.77	6%	2.00	17%	2.93	88%
Caribbean	2.46	17%	2.90	1%	1.88	11%	1.82	53%
Central and South America	4.19	19%	3.20	7%	3.45	8%	1.41	63%

Source: CEPII BACI database.

Note: The BEC classification is used to distinguish between intermediate and final textile products. Textiles and textile products correspond to HS section XI (chapters 50-63) of the HS 2002 product classification. See footnote 11 for a definition of RCA.

3.32. Table 7 illustrates the geographical participation of small economies in the textile value chain by providing the shares of imports and export markets for selected textile products and the aggregate textile section. The selected textile products are quite homogenous in the sense that the HS chapters 61 (Knitted or crocheted apparel) and 62 (Apparel, not knitted or crocheted) consist almost entirely of final products while the other product chapters consist almost entirely of raw or intermediate inputs. Two main messages are worth highlighting.

3.33. First, low shares of intra-regional imports in intermediate textile products such as cotton, man-made filaments and staple fibres, or knitted or crocheted fabrics point to limited regional integration of textile value chains. For example, South and Central American small economies import 70% of cotton intermediates from North America, 19% from Asia and only 10% from other economies in South and Central America. Imports of intra-regional knitted or crocheted fabrics are higher with 24%, but still lower than respective imports from North America (35%) and from Asia (41%).

3.34. Second, Europe and North America constitute the main markets for exports of final products (HS 61 and HS 62) obtaining between 75% and 97% of apparel exports. While small economies in Africa and in Asia/Pacific export more apparel to Europe than to North America, small economies in the Caribbean and South and Central America almost exclusively deliver the North American market. For instance, for knitted or crocheted apparel (HS 61), the three African small economies export 70% to Europe, 5% to North America and 21% to Africa; and the Asian/Pacific small economies export 52% to Europe and 37% to North America. The Caribbean and South and Central America export 96% and 90% of knitted or crocheted apparel to North America.

Table 7. Imports and exports of textile products of small economies (by region) with partners

Small economies (by region)	HS-2dig.	Chapter	Imports (value and % by import region)							Exports (value and % by export region)						
			US\$ mill.	Africa	Asia	Caribbean	Europe	N. America	S. and C. America	US\$ mill.	Africa	Asia	Caribbean	Europe	N. America	S. and C. America
Africa	50 to 51	Silk and wool (raw, yarn, fabric)	32.6	6	65	0	29	0	0	20.9	56	14	0	28	2	0
	52	Cotton (raw, yarn, fabric)	199.6	24	73	0	3	0	1	57.8	72	11	0	17	0	0
	53	Vegetable textile fibres	2.5	0	32	0	66	1	0	0.4	21	27	0	53	0	0
	54 to 55	Man-made filaments and staple fibres	75.1	1	86	0	12	0	0	8.2	76	16	0	8	0	0
	60	Knitted or crocheted fabrics	18.4	2	76	0	22	0	0	31.9	87	12	0	1	0	0
	61	Knitted or crocheted apparel	30.6	18	53	0	26	0	1	478.2	21	2	0	70	5	0
	62	Apparel, not knitted or crocheted	59.3	10	73	0	16	1	0	387.0	14	3	0	30	48	2
	50 to 63	Textiles and textile products	489.1	14	71	0	14	0	0	995.2	25	4	0	47	21	1
Asia/Pacific	50 to 51	Silk and wool (raw, yarn, fabric)	29.8	0	82	0	17	0	0	0.7	2	77	0	19	0	0
	52	Cotton (raw, yarn, fabric)	591.5	0	97	0	2	0	0	46.7	3	84	1	4	2	0
	53	Vegetable textile fibres	21.1	0	96	0	3	1	0	96.6	3	39	0	30	20	1
	54 to 55	Man-made filaments and staple fibres	525.8	0	85	0	10	4	0	52.7	4	34	0	36	5	8
	60	Knitted or crocheted fabrics	531.0	0	84	0	16	0	0	39.8	3	85	0	6	3	0
	61	Knitted or crocheted apparel	167.2	0	95	0	3	1	0	2,527.9	0	7	0	52	37	1
	62	Apparel, not knitted or crocheted	195.8	0	94	0	3	2	0	2,142.0	0	9	0	43	43	1
	50 to 63	Textiles and textile products	2,471.9	0	88	0	9	2	0	5,044.5	1	11	0	46	38	1

Small economies (by region)	HS-2dig.	Chapter	Imports (value and % by import region)							Exports (value and % by export region)						
			US\$ mill.	Africa	Asia	Carib-bean	Europe	N. America	S. and C. America	US\$ mill.	Africa	Asia	Carib-bean	Europe	N. America	S. and C. America
Carib-bean	50 to 51	Silk and wool (raw, yarn, fabric)	24.9	0	73	0	19	8	0	0.5	73	0	0	9	16	1
	52	Cotton (raw, yarn, fabric)	430.5	0	17	0	3	76	4	2.6	0	13	1	34	6	45
	53	Vegetable textile fibres	3.5	0	43	0	11	26	19	3.2	0	0	0	10	82	8
	54 to 55	Man-made filaments and staple fibres	237.4	0	47	0	5	44	4	1.8	0	16	13	10	18	43
	60	Knitted or crocheted fabrics	96.3	0	28	0	4	65	3	0.7	0	7	1	2	73	19
	61	Knitted or crocheted apparel	154.3	0	67	1	12	14	6	406.1	0	1	0	1	96	1
	62	Apparel, not knitted or crocheted	191.0	0	32	1	15	46	6	351.4	0	1	1	7	90	1
	50 to 63	Textiles and textile products	1,495.6	0	33	0	9	53	5	922.4	0	1	1	4	93	1
S. and C. America	50 to 51	Silk and wool (raw, yarn, fabric)	30.6	0	35	0	10	44	12	2.9	2	6	0	58	7	27
	52	Cotton (raw, yarn, fabric)	1,694.2	0	19	0	1	70	10	244.6	0	4	6	4	16	71
	53	Vegetable textile fibres	9.3	1	56	3	15	12	13	15.0	0	47	1	43	7	1
	54 to 55	Man-made filaments and staple fibres	1,640.9	0	35	0	2	50	13	249.8	0	1	2	0	19	78
	60	Knitted or crocheted fabrics	1,219.3	0	41	0	0	35	24	242.1	0	1	1	0	4	94
	61	Knitted or crocheted apparel	1,375.9	0	45	0	4	16	35	6,647.5	0	1	0	2	90	7
	62	Apparel, not knitted or crocheted	1,053.8	1	47	0	7	21	24	2,186.4	0	1	0	1	86	11
	50 to 63	Textiles and textile products	8,077.4	0	35	0	3	41	20	10,012.2	0	1	0	2	81	16

Source: CEPII BACI database.

3.2 Services value chains

3.2.1 Tourism

3.35. Tourism is a sector of major importance for many developing countries and in particular for small economies. Figure 11 shows the direct contribution of tourism to GDP in small economies and the world for selected years. In 2013, tourism accounted, on average, for almost 9% of GDP across 30 small economies, which is three times as much as the world (3%). At the regional level, the average share of tourism in GDP was 16% in the three small economies in Africa, 14% in Asian/Pacific small economies, 8% in the Caribbean and only 4% in Central and South America.

3.36. Small economies differ in their dependency on tourism. Tourism constitutes 48% of GDP in the Maldives compared to only 1% in Papua New Guinea, Paraguay and Suriname. In Cuba, a prominent tourist destination, the share of tourism in GDP is only 3%, which reflects the diversification of Cuba's economy. The share of tourism in GDP differs not only across countries but also over time. In particular, the contribution of tourism to GDP is more volatile for small economies that are prominent tourist destinations. For example, in the Seychelles, Rep. of, the share of tourism in GDP was 19% in 2003, increased to 29% in 2008 and fell back to 21% in 2013.

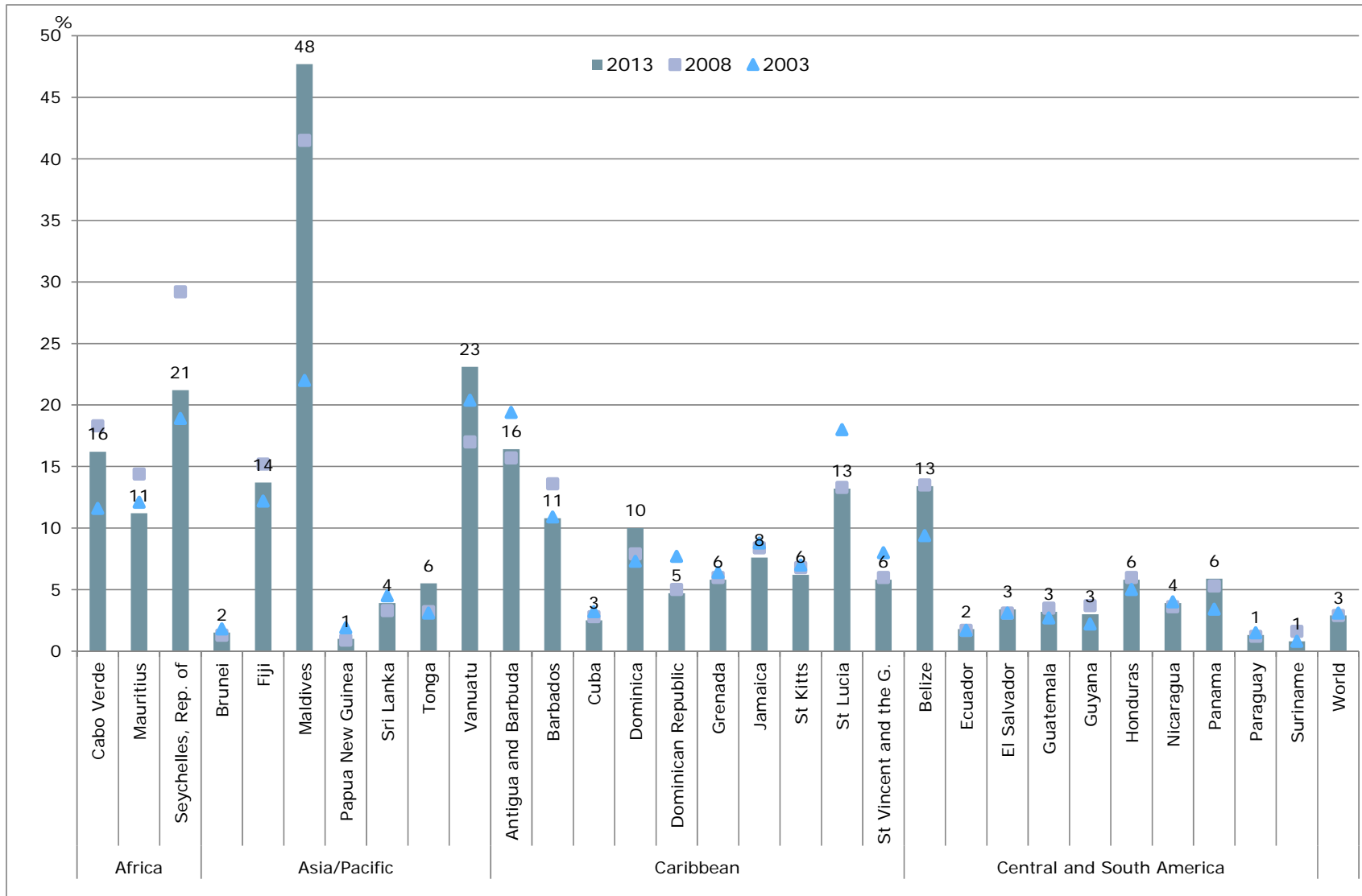
3.37. The tourism value chain consists of various international and national activities. In particular, core components of the tourism value chain include travel organization and booking, transportation, accommodation, food and beverage provision, handicrafts, excursions as well as cultural and natural assets (UNWTO, 2013). International linkages in the value chain are mostly related to travel organization and booking as well as international transportation. However, most of the activities in the tourism value chain take place in the destination country and are related to accommodation and food, as well as to the provision of other domestic goods and services for tourists.

3.38. Tourism has many backward linkages to other sectors in the domestic economy such as agriculture (e.g. food supply to hotels), construction, communications, utilities (e.g. supply of electricity and water to hotels) and conference and events management. Figure 12 takes into account the broader role that tourism plays for the national economy by showing both the direct and indirect contribution of travel and tourism to GDP in 2013. The indirect contribution to GDP covers capital investment, government spending and the backward linkages of tourism, i.e. the purchases of domestic goods and services by the travel and tourism sector as inputs to their final tourism output.

3.39. Figure 12 shows that the importance of tourism for small economies increases significantly if one takes into account domestic supply chain linkages, capital investment and government spending. In particular, while the direct contribution of travel and tourism to GDP is, on average, 9%, their total contribution (direct plus indirect) amounts to 24% of GDP for the average small economy. Moreover, for most small economies the indirect contribution is larger than the direct contribution. For instance, in Barbados, the activities of the travel and tourism sector directly contribute 11% to GDP, while its indirect contribution amounts to a quarter (25%) of Barbados' GDP.

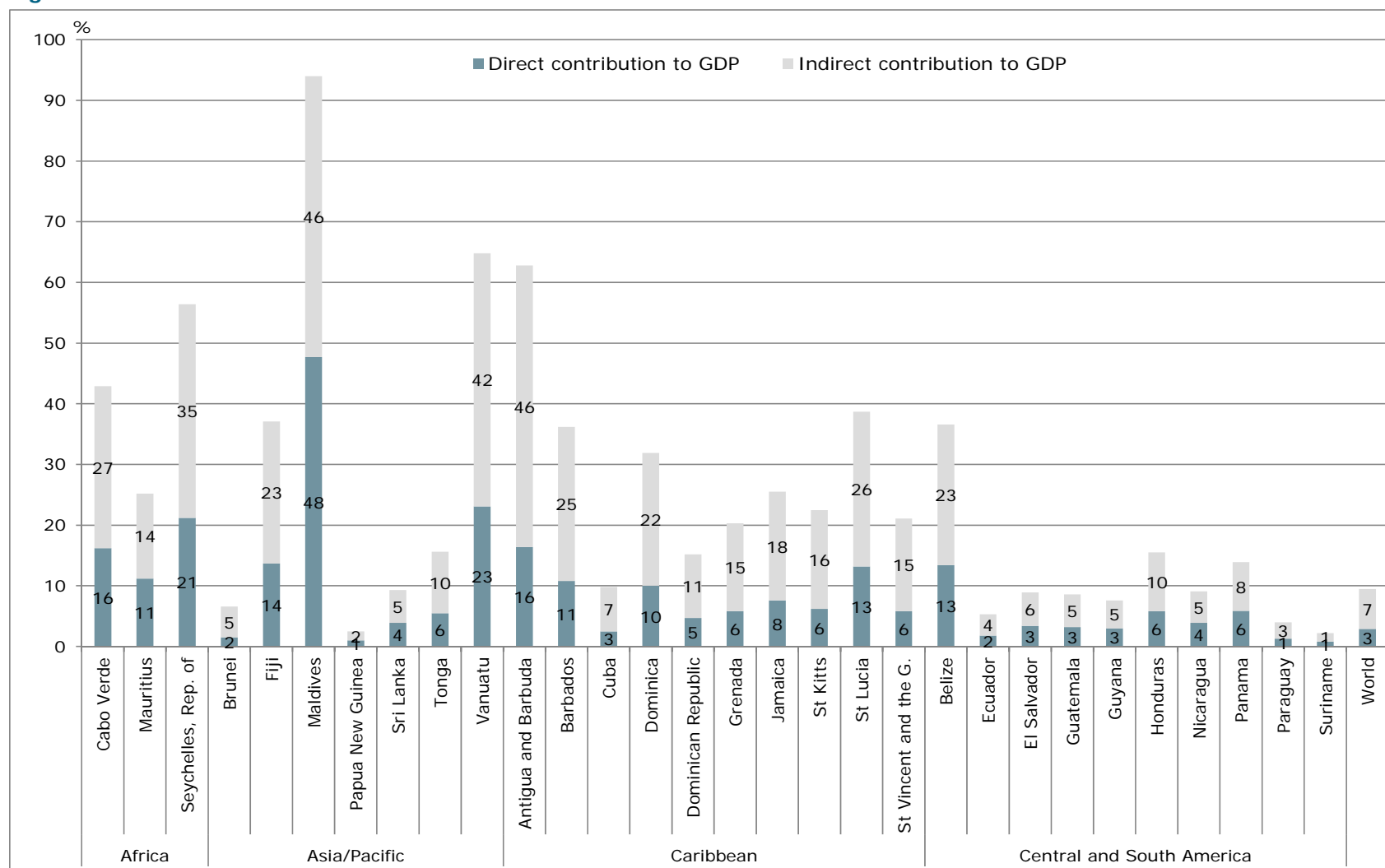
3.40. Hence, when the development of the tourism value chain results in the creation of backward linkages to other sectors, it can contribute to the economic diversification of small economies. If adequately integrated into national development plans, it can contribute to the growth of sectors such as agriculture, fishing and services. But if not properly planned and managed, tourism can also have negative social and environmental impacts, degrade the environment on which it is so dependent and cause damage to ecosystems.

Figure 11. Direct contribution of tourism to GDP in small economies and the world in 2003, 2008 and 2013



Source: World Travel & Tourism Council (WTTC).

Figure 12. Direct and indirect contribution of tourism to GDP in small economies and the world in 2013



Source: World Travel & Tourism Council (WTTC).

Note: The indirect contribution of travel and tourism to GDP includes capital investment, government spending in support of tourism activity, and backward linkages, i.e. purchases of domestic goods and services by the travel and tourism sectors as inputs to their final tourism output.

3.41. Data on travel exports, which covers both business and personal travel, provide a complementary picture on the importance of tourism for small economies. Table 6 of the Annex shows that all small economies, except Papua New Guinea and Cuba, have a revealed comparative advantage in the exports of travel services.¹³ Compared to other regions, travel exports are the highest for the ten small economies in the Caribbean amounting to US\$10,777 million, with the Dominican Republic, Cuba and Jamaica being the biggest exporters. In more detail, for all Caribbean small economies except Cuba, travel exports constituted between two thirds and 85% of total services exports in 2011.

3.42. Tourism can be a driver for development. It played an important role in the graduation from LDC status of Cabo Verde and the Maldives in 2007 and 2011, respectively (Honeck, 2012). Table 6 of the Annex shows that the Maldives experienced the fastest annual growth of travel exports (37%) between 2005 and 2011 and is the biggest exporter of tourism services among Asian/Pacific small economies. Furthermore, the Maldives is also the most specialised economy with travel exports accounting for 93.4% of its services exports. Similarly, for Cabo Verde, travel exports grew 20% per year between 2005 and 2011 amounting to 66% of its services exports in 2011.

3.43. Since tourism can enhance development, it is important to understand what kind of tourism can be beneficial for SMEs. For instance, an EU-funded project, which was implemented by the South Pacific Tourism Industry, initiated a project to organize workshops on how to improve awareness of the cruise ship industry in the Pacific region. Subsequently, the workshops had positive socio-economic results. This example is illustrated in Box 7.

Box 7. Sustainable growth and development of the cruise shipping sector in the Pacific

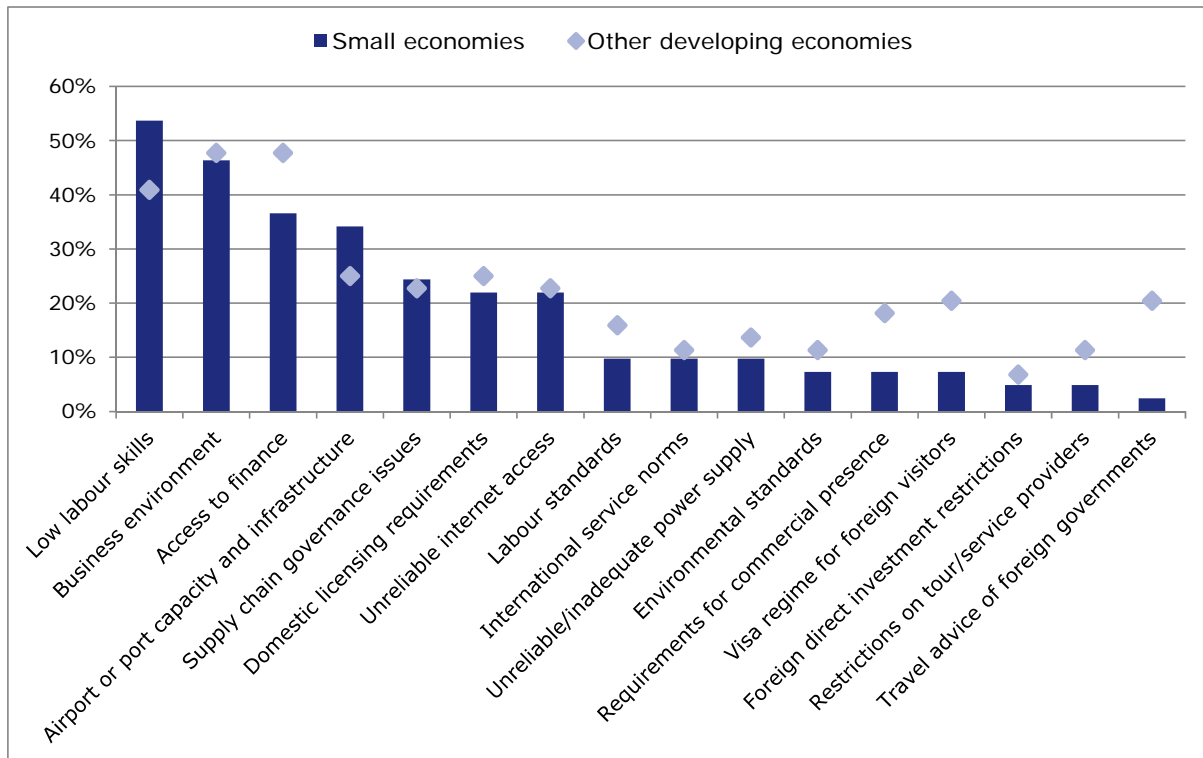
Funded by the EU and implemented by the South Pacific Tourism Organization, a main aim of this project was to organize Port Preparedness workshops in eight countries to raise awareness of four main components of the cruise ship industry: development of shore excursion activities for passengers; the importance of marine infrastructure and support services; addressing management issues; and establishing marketing and promotion activities for cruise ship destinations. Workshops were held in 2013 in Vanuatu, Samoa, Tonga, Cook Islands, Solomon Islands, Palau, Kiribati and the Marshall Islands and a main output was improved awareness of the Pacific region's potential as a cruise ship destination. As for officials in the region working with the cruise ship industry, there was an improved awareness and understanding of the specific needs of the international and regional cruise tourism market. The project resulted in several impacts, mainly increases in domestic and foreign investment, greater employment, especially amongst women, and an increase in consumer welfare.

Source: OECD/WTO Aid-for-Trade Case Stories (2015), "South Pacific Tourism Industry".

3.44. The development of the tourism value chain and the strengthening of backward linkages pose various challenges to developing countries. Figure 13 shows the main operational difficulties for developing country suppliers in tourism value chains. More than half of the 41 suppliers from small economies replying to the OECD/WTO questionnaire mentioned low labour skills as the main operational difficulty. The business environment constitutes the second most often mentioned difficulty with 46%. Furthermore, access to finance as well as airport or port capacity and infrastructure was mentioned by more than a third of suppliers from small economies.

3.45. In contrast, restrictions on tour operators and on FDI are only mentioned by a few firms as a difficulty. The top three operational difficulties are the same for the 44 suppliers from other developing countries. However, suppliers from other developing countries mentioned labour skills less often and access to finance as a main operational difficulty.

¹³ Revealed comparative advantage measures the export specialization of a country relative to the world. In particular, a country has a revealed comparative advantage in tourism, if the share of tourism in the country's services exports is higher than the share of tourism in world services exports.

Figure 13. Main operational difficulties for developing country suppliers in tourism value chains

Source: OECD/WTO Questionnaire 2013.

Note: Based on answers of 41 suppliers from small economies and 44 suppliers from other developing economies.

3.46. According to the OECD/WTO questionnaire, the inability to meet international hospitality standards, the lack of dialogue with authorities, the regulatory business environment and the inability to meet food quality and safety standards constitute the main difficulties for firms in the tourism sector to establish backward linkages (OECD/UNWTO/WTO, 2013). Lejárraga and Walkenhorst (2013) find that a sound business environment and a liberal trade regime are positively correlated with backward linkages of the tourism sector, which can thereby contribute to the diversification of the national economy.

3.47. Given the many linkages of tourism to other sectors of the economy such as infrastructure, handicraft or agriculture, tourism policy and also aid for trade targeted at tourism requires co-ordination across different ministries and implementing agencies (Jansen, 2013). Similarly, Honeck (2012) argues that if tourism seeks to alleviate poverty and to increase local employment, specific mechanisms have to be explicitly included in the planning of tourism policy. This also requires public-private sector cooperation and regulatory oversight.

3.48. However, while tourism can help small economies foster economic development, it also makes the countries vulnerable to demand side shocks as experienced during the financial and economic crisis from 2008 onwards. Furthermore, travel warnings in response to natural disasters, political unrest or terrorism can have detrimental effects on tourism (WTO, 2009). Fortunately, tourism has the capacity to recover relatively quickly after demand side shocks. For instance, employment in hotels and restaurants was less affected than in other industries during the 2009 economic crisis (UNWTO, 2013).

3.49. Christian *et al.* identify four upgrading trajectories of countries in the tourism value chain. Firstly, FDI can help upgrade the size and quality of hotel infrastructure. FDI was a main driver of tourism growth in small economies during 2003-2008 (UNCTAD, 2013a). Hence, a transparent and predictable FDI regime can help attract investors to develop tourism infrastructure. Secondly, tour operators can functionally upgrade their services from being local guides and excursion operators

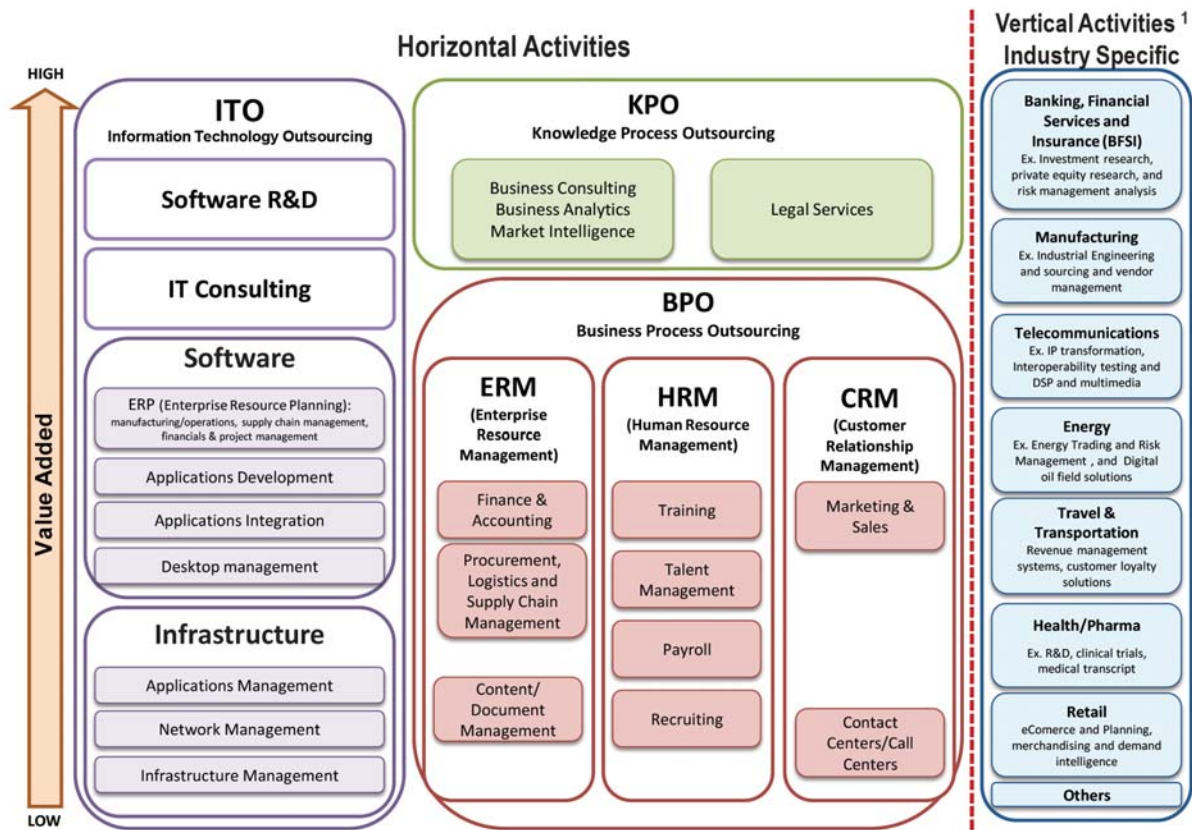
to becoming local or national organizers for an incoming agent. Thirdly, the use of IT technology allows internet-based marketing and the use of online reservation systems.

3.50. Fourthly, countries can deepen or expand tourism products as well as diversify to new markets. For instance, the Seychelles, Rep. of, has been diversifying away from its traditional developed country markets towards visitors from Asia, while Mauritius has focused its efforts on becoming a destination for medical tourism (UNCTAD, 2013a).

3.2.2 IT and business process outsourcing

3.51. Figure 14 shows the large variety of services that companies can potentially offshore and which are then typically supplied cross-border, i.e. Mode 1 in GATS terminology. They include services related to information technology outsourcing (ITO), business process outsourcing (BPO), or knowledge process outsourcing (KPO). Small economies might seek to enter services offshoring through the activities that correspond to their infrastructure capacities, cost structure and skills of the local labour force.

Figure 14. Offshore services



Source: Gereffi *et al.* (2011b).

Note: In English only.

¹ Vertical Activities, Industry Specific: Each industry has its own value chain. Within each of these chains, there are associated services that can be offshored. This diagram captures the industries with the highest demand for offshore services. This graphical depiction of vertical activities does not imply value levels. Each industry may include ITO, BPO, and advanced activities.

3.52. Only few small economies have been relatively successful in developing an IT and BPO sector. Table 6 of the Annex shows that computer and information services account for only 1.7% of small economies exports while other business services account for 7.3%. Among the 32 small economies, Sri Lanka, Mauritius and Jamaica are the three biggest exporters of computer and information services.

3.53. Jamaica has a locational advantage as a "nearshore" investment location to North America, operating in the same time zone and sharing English as a main language. Supported by the government, the ICT sector grew significantly in the last decade (UNCTAD, 2013). In particular, thanks to government support, Jamaica experienced large FDI inflows into its telecommunications infrastructure, including the development of the IT-focused Montego Bay Free Zone. Similarly, Central American countries such as the Dominican Republic, El Salvador and Guatemala are trying to position themselves as "nearshore" platforms for offshore services to the Hispanic market in the US (Fernandez-Stark *et al.*, 2011).

3.54. Table 8 illustrates offshore services in the Dominican Republic, El Salvador and Guatemala, where the three respective countries have entered the GVC by catering primarily for the US Hispanic market through their call services. Since entering the value chain, there has also been an increase in industry employment from 2006 to 2010, and all countries envisage further expansion. Guatemala and the Dominican Republic have since upgraded within BPO services and provide their clients with both Spanish and English-speaking call centres, finance and accounting services, human resources outsourcing and supply chain management. Both countries seek to maintain global standards for call centres and the number of training institutes has increased.

3.55. English has become an important focus for the call centres since the centres mostly accommodate customers in the US. Training in English has, therefore, become an important aspect of training as have programmes to improve customer service. Incorporating English and offering courses on customer services within the call centres provides an example of key developments in the value chain by responding to further needs of the US clientele. A large firm, Transactel, in Guatemala is now seeking to imitate the Indian corporate-university model, by creating an in-house university, which provides business related courses to its employees. Once countries have entered the value chain, there are many different trajectories for industries to expand and upgrade (Fernandez Stark *et al.*, 2011).

Table 8. The offshore services industry selected Central American small economies

Entry Point		Dominican Republic	El Salvador	Guatemala
Highest Value Activity in 2010		Call centre, Spanish speaking	Call centre, Spanish speaking	Call centre, Spanish speaking
Industry Employment		BPO, finance & accounting, HRO	Contact centre	BPO, finance & accounting
	2006	18,000	4,700	
	2008	22,000	6,800	6,500
	2010	25,000	9,000	9,000
Number of Offshore Centres in 2010		65	38	50

Source: Fernandez-Stark *et al.* (2011)

3.56. Sri Lanka has made good progress in following India's path to position itself as an offshore destination for IT and BPO services. Box 8 describes in more detail the situation of the IT and business process outsourcing sector in Sri Lanka.

Box 8. IT and business process outsourcing in Sri Lanka

Sri Lanka has been able to successfully establish itself as an offshore destination for IT software services and business process outsourcing. Colombo, Sri Lanka's capital is already recognised as a prime outsourcing destination. In a ranking of the top 100 outsourcing cities, Colombo is placed at rank 19. Only four other cities of the 32 small economies are included in the ranking. In contrast to Colombo, Managua (Nicaragua), Port Louis (Mauritius), Guatemala City (Guatemala) and Asunción (Paraguay) take lower positions in the ranking, i.e. 87th, 89th, 92nd and 94th, respectively. Furthermore, Sri Lanka ranked 21st in a ranking of the top 50 services offshoring countries. Other small economies included in the ranking are Jamaica (33), Panama (34) and Mauritius (36). The British National Outsourcing Association (NOA) named Sri Lanka as the "Outsourcing Destination of the Year" in 2013.

The Sri Lankan Investment Board highlights knowledge services, which include IT software development, KPO/BPO, IT enabled services and IT training centres, as potential key growth sectors for Sri Lanka. Sri Lanka focuses on developing niche competencies and aims to become a centre of excellence (COE).

There are over 300 IT and BPO companies that operate in Sri Lanka, mostly small and medium companies and a few large global players. Among the leading global IT-BPO companies operating in Sri Lanka are HSBC, WNS Global Services, Aviva, Microsoft, Motorola, Industrial & Financial Systems (IFS), Amba Research, RR Donnelley, Quattro, Virtusa, eCollge, Valista, Millennium Information Technology and Innodata Isogen.

Sri Lanka has developed an export-oriented software industry. The software services sector focuses on Telecommunications, Banking Financial Services and Insurance (BFSI) and Software Testing. In 2010, the sector consisted of 147 companies, 60% of which were domestically owned, 29% of which were foreign owned and 11% were joint ventures. While domestically owned companies are typically SMEs, the foreign owned and joint venture companies are larger in size and account for the bulk of exports. Table 6 of the Annex shows that Sri Lanka's exports in computer and information services grew by 28% per year between 2005 and 2011 amounting to US\$355 million or 12% of services exports in 2011. Furthermore, Sri Lanka is the only small economy that has a revealed comparative advantage in computer and information services exports.

Given the small size of the domestic market, the internationalization of its activities is an important factor for the development and growth of the sector. The diffusion of mobile telephony and rapid growth of mobile broadband as well as government-led rural infrastructure development programmes are other drivers of domestic demand for software applications.

The BPO sector in Sri Lanka focuses on financial and accounting services, investment research, engineering services, call centre services and UK based legal services. In particular, the financial and accounting services sector has shown a notable growth. Colombo now has the world's largest pool of UK qualified English-speaking accounting professionals outside the UK itself. Compared to computer and information services, export growth in other business services has been relatively modest at 6% per year but still accounts for 9% of total services exports.

As the Sri Lankan government has identified the IT-BPO sector as a priority growth sector for economic development, it provides financial incentives to promote investments. For instance, tax holidays range from five to 12 years and grants are provided for Training, Consulting expertise, Marketing, Quality enhancements (CMMi, COPC, ISO etc.) and for a host of other developmental activities.

Besides financial support, low-labour costs, an English-speaking and a skilled labour force have been further success factors for the development of the IT software and BPO industry. Schooling up to secondary level is free and widespread, leading to the country's high 91% literacy rate. Graduate and postgraduate education is provided by the 15 state universities and numerous private universities and educational institutions, many of which award degrees from international universities.

However, while Colombo is already a well-recognised services offshore location, Sri Lanka currently lacks so-called tier-two offshoring locations. And other cities are significantly behind Colombo in terms of both skilled labour and ICT infrastructure.

Source: UNCTAD (2012); Slasscom (2015); Board of Investment of Sri Lanka (2015); Outsource (2013).

3.57. The results of the Aid for Trade at a Glance study (OECD/WTO, 2013) describe the main obstacles and challenges that developing country suppliers face when trying to integrate into ICT value chains. While some constraints in the ICT sector are common to other sectors such as access to finance as well as the business and the regulatory environment, certain constraints are more particular to ICT value chains. For instance, the lack of ICT skills has been highlighted as a major constraint by developing country suppliers. IT offshoring requires skills such as software engineering, database administration or programming. Furthermore, an advanced ICT infrastructure and sound telecommunications regulations are key for a cost-effective and high-quality delivery of IT and BPO services.

3.58. In the past, the remoteness of several small economies has hampered their connectivity to telecommunications networks. However, thanks to technological advances and increased demand, a number of projects have built submarine cables to deliver high-speed bandwidth connections to isolated communities thereby supporting socio-economic development. For instance, the

Interchange Cable Network linking Vanuatu to Fiji has generated several positive socio-economic impacts in Vanuatu, allowing it to become the most competitive ICT/Telecommunications hub in the South Pacific region. A more detailed description of such developments is illustrated in Box 9.

Box 9. Connecting Vanuatu to the World

The Interchange Cable Network linking Vanuatu to Fiji and thereby to the rest of the world is a submarine cable project that has already helped Vanuatu reduce the price of broadband internet by some 70%. Prices are to decrease even further as Vanuatu adds more customers through redundant cables linking New Caledonia, Solomon Islands and Papua New Guinea. The island will thereby further secure its position as the most competitive ICT/Telecommunications hub of the South Pacific.

The US\$30 million project to lay the 1,259 kilometer cable is a public-private partnership between the local telecoms company, Interchange Vanuatu Limited, the Government of Vanuatu and other stakeholders. Not only are telecoms services soon expected to contribute about 5% of Vanuatu's GDP, the cable will help boost other ICT dependent services such as agriculture, trade, tourism and finance. The new cable and telecommunications infrastructure has already had several positive impacts for Vanuatu's economy, including an increase in domestic and foreign investment, more employment and a higher level of consumer welfare, especially in regard to access to information and other audio-visual services.

Source: OECD/WTO Aid-for-Trade Case Stories (2015), "Prime Minister's Office via trade development Division, Ministry of Tourism, trade, Commerce and Ni-Vanuatu Business, Vanuatu".

3.59. Bamper *et al.* (2014) describe several factors that affect the competitiveness of developing countries in several GVCs, including in offshore services. They regard the skills and the cost of human capital as the most important factor for competitiveness in offshore services. The skills of the labour force are determined by the education level, language skills, cultural affinity and internationally recognized qualifications. Sound regulation, also in relation to data protection, is another factor that can, for instance, determine investment decisions in more sensitive areas related to accounting or finance. Furthermore, ICT infrastructure, in particular broadband internet, and competition in telecommunications are fundamental when providing competitive offshore services through ICT networks.

3.60. Trade policy for IT and BPO matters mostly in the GATS context. In the context of BPO of professional services such as accounting, engineering or lawyering, qualification requirements and the recognition of foreign qualifications are an important determinant for the ability of developing countries to export such services to developed countries. Furthermore, commitments regarding commercial presence (Mode 3) of small economies could very well influence investment decisions of foreign companies. The liberalization and regulation of telecommunications markets ensure competition and competitive pricing of ICT services.

4 THE ROLE OF FOREIGN DIRECT INVESTMENT IN GLOBAL VALUE CHAINS

4.1. FDI flows to developing countries represented more than half of global FDI in 2013. While flows to developed countries increased by 9% to US\$566 billion – representing 39% of global flows - those to developing economies reached a new high of US\$778 billion, or 54% of total FDI (Table 9). As much as US\$108 billion was invested in transition economies. Consequently, developing and transition economies now constitute half of the top 20 destinations ranked by FDI inflows (UNCTAD, 2014d).

4.2. Besides inflows, FDI outflows from developing countries also reached record levels in 2013, as transnational corporations from developing economies increasingly acquired foreign affiliates from developed countries located either in their home markets or in their regions. Together, developing and transition economies invested US\$553 billion, or 39% of global FDI outflows, compared with only 12% at the beginning of the 2000s (UNCTAD, 2014d).

4.3. UNCTAD's report also shows that FDI inflows to SIDS declined by 16% to US\$5.7 billion in 2013. This curtailed a two-year period where inflows had been increasing. FDI in small island states went mainly to the mineral extraction sector and related processing activities. Smaller inflows went to the business, finance and tourism sectors. The report found that tourism and

related services were attracting increasing interest by foreign investors. Manufacturing industries such as those in the apparel and processed fish sectors had been important sectors for attracting FDI recently but both noted declines in 2013.

Table 9. FDI flows by region, 2011-2013, (US\$ billion and percentage of World FDI)

Region	FDI Inflows			FDI outflows		
	2011	2012	2013	2011	2012	2013
World	1700	1330	1452	1712	1347	1411
Developed economies	880	517	566	1216	853	857
European Union	490	216	246	585	238	250
North America	263	204	250	439	422	381
Developing economies	725	729	778	423	440	454
Africa	48	55	57	7	12	12
Asia	431	415	426	304	302	326
East and South-East Asia	333	334	347	270	274	293
South Asia	44	32	36	13	9	2
West Asia	53	48	44	22	19	31
Latin America and the Caribbean	244	256	292	111	124	115
..Oceania	2	3	3	1	2	1
Transition economies	95	84	108	73	54	99
Structurally weak, vulnerable and small economies^a	58	58	57	12	10	9
LDCs	22	24	28	4	4	5
LLDCs	36	34	30	6	3	4
SIDS	6	7	6	2	2	1
<i>Memorandum: percentage share in world FDI flows</i>						
Developed economies	51.8	38.8	39.0	71.0	63.3	60.8
European Union	28.8	16.2	17.0	34.2	17.7	17.8
North America	15.5	15.3	17.2	25.6	31.4	27.0
Developing economies	42.6	54.8	53.6	24.7	32.7	32.2
Africa	2.8	4.1	3.9	0.4	0.9	0.9
Asia	25.3	31.2	29.4	17.8	22.4	23.1
East and South-East Asia	19.6	25.1	23.9	15.8	20.3	20.7
South Asia	2.6	2.4	2.4	0.8	0.7	0.2
West Asia	3.1	3.6	3.0	1.3	1.4	2.2
Latin America and the Caribbean	14.3	19.2	20.1	6.5	9.2	8.1
..Oceania	0.1	0.2	0.2	0.1	0.1	0.1
Transition economies	5.6	6.3	7.4	4.3	4.0	7.0
Structurally weak, vulnerable and small economies^a	3.4	4.4	3.9	0.7	0.7	0.7
LDCs	1.3	1.8	1.9	0.3	0.3	0.3
LLDCs	2.1	2.5	2.0	0.4	0.2	0.3
SIDS	0.4	0.5	0.4	0.1	0.2	0.1

Source: Global Investment Trends Monitor, UNCTAD, September 2014.

4.4. UNCTAD notes that Trinidad and Tobago alone accounted for 26% of the total FDI stocks in SIDS in 2013. This large influx is attributed mainly to the presence of large oil and gas resources, and Trinidad and Tobago's geographic proximity to North America and the rest of the Caribbean, both important markets for its sales of liquefied natural gas.

4.5. The Bahamas, which enjoys the highest GDP per capita among SIDS, accounted for 19% of total FDI stock whereas Jamaica, which has metal mineral deposits and is the second most populated SIDS after Papua New Guinea, received 14%. The report found that among the ten largest host countries of FDI stock to SIDS, three are rich in mineral deposits (Papua New Guinea, Trinidad and Tobago, and Jamaica), four concentrate the bulk of SIDS' population (Papua New Guinea, Jamaica, Trinidad and Tobago and Mauritius), and some offer fiscal advantages (Bahamas, Barbados, Mauritius and Seychelles, Rep. of). At the bottom of the ranking of countries attracting FDI in the period under review were six Pacific states, which are some of the smallest and most remote islands in the world (UNCTAD 2014c). Many SIDS, however, especially those in the Pacific, possess valuable renewable and non-renewable natural resources in their vast exclusive economic zones (EEZs). Some are able to secure revenues from the issuance of marine and fishing licences.

4.6. While natural resources attract the most FDI in small economies, other sectors also interest foreign investors, mainly tourism, financial services and offshore business services. The report found that tourism and related activities had become an increasingly important economic sector for many small island states, especially those located in the Caribbean. Many of the infrastructure needs in the region, such as air and sea ports, are in place and many of the countries in the region benefit from an improved North American economy and the recent increases in the number of tourists. By contrast, tourism makes a much lower contribution to national income in many African and Pacific SIDS mainly because of poor physical infrastructure, the great distances potential tourists have to travel and weak aviation, sea and communication links. There are some exceptions, however, and UNCTAD's report does note that Cabo Verde, the Cook Islands, Fiji, the Maldives, Samoa, Seychelles, Rep. of, and Vanuatu have also recorded recent increases in tourist revenues and associated investment.

4.7. One sector which has attracted investors to small economies is the establishment of offshore financial centres. UNCTAD's report notes that a number of these centres in the Caribbean (located in Antigua and Barbuda, Barbados, Saint Kitts and Nevis, The Bahamas), the Pacific (Vanuatu, Nauru), or the Indian Ocean (Mauritius, Seychelles, Rep. of) – have become hosts of offshore financial centres (OFCs). Such centres typically benefit from a variety of incentives including reduced taxes for financial institutions and traders as well foreigners seeking tax advantages. Some small states have also extended privileges and incentives to multinational actors. Those countries offering such incentives view these services as a source of growth and economic diversification which can also result in positive effects on other activities, including tourism, hotels and restaurants, telecommunications and transport.

4.8. The study remarks that countries which offer such advantages could actually place tax havens under the scrutiny of countries affected by such services. Therefore, international efforts to tackle tax avoidance by international business and wealthy individuals may start to erode FDI-attraction advantages for those SIDS involved in offering such services. Recent research on private wealth flows found that developed markets such as Switzerland and the UK lost US\$135 million and US\$300 million, respectively in 2014 because of increased efforts and regulations to fight tax evasion whereas as much as US\$1.3 trillion of offshore wealth drained away from Panama and the Caribbean. In this case, the proximity to major markets, where regulations are being enforced more rigorously than in the past, was actually seen as a major factor contributing to the reduction of wealth being managed in the region (Swissinfo, 2 February 2015).

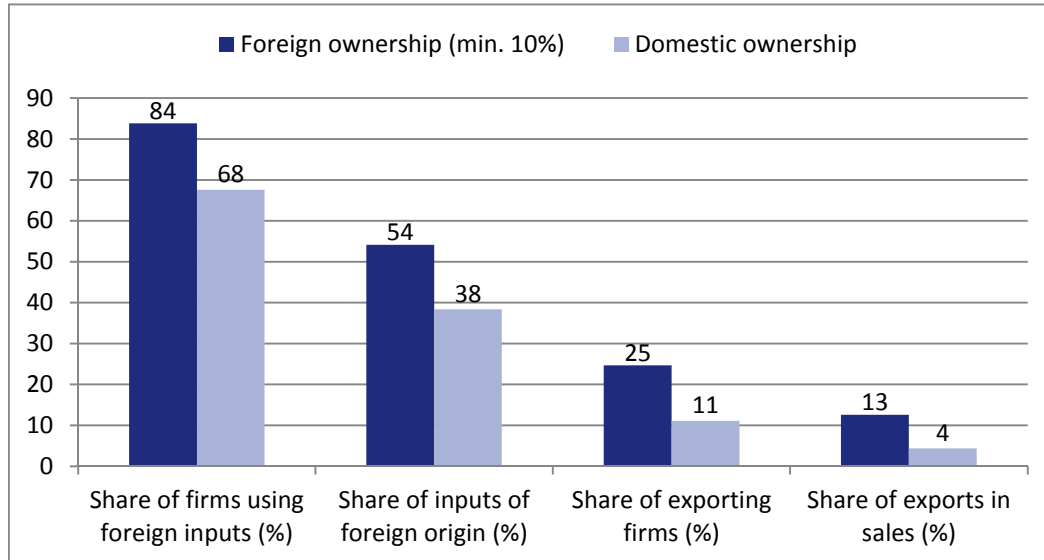
4.9. FDI continues flowing into the Caribbean, however, by businesses seeking to take advantage of off-shoring possibilities to establish call centres and to set up sites engaged in office administration services. Here location and close proximity to the US (see Section 3 for more details) is seen to be as much as an advantage as the fact that many small states in the region use English as a first language. Jamaica is a main beneficiary of investment in this sector as is Trinidad and Tobago. While many of these services have not yet attracted large levels of investment, they are considered as important sources of job creation and export earnings. They can also help stimulate technology transfer in the long term and create conditions to future enhanced activities.

4.10. Other opportunities important for SIDS trying to attract increased flows of FDI include transport-related services for freighters and cruise ships. This sector is particularly promising in the Caribbean with the soon to be completed expansion of the Panama Canal and the ongoing construction of the Nicaraguan canal. The Caribbean region is well positioned to take advantage of these large infrastructure projects and signs are that transport-related activities in Caribbean ports will increase as shipping traffic intensifies. UNCTAD cites the planned expansion of Jamaica's existing container terminal, airports and roads and the signing by Jamaica's Government of a framework agreement with China Harbour Engineering Co Ltd. to develop a future US\$1.5 billion trans-shipment and logistic hub. The latter would also help provide a key gateway for Jamaica to link into more global supply chains.

4.11. FDI can be a door-opener for firms to join GVCs. Figure 15 shows that firms in small economies with at least 10% of foreign ownership tend to be more integrated in GVCs than domestically-owned firms. On average, 84% of manufacturing firms with foreign participation source 54% of inputs from abroad for their production. Such backward linkages are lower for purely domestically-owned firms, with 68% of firms using foreign inputs in their production with

the average share of foreign inputs being 38%. Firms with foreign ownership participation are also more likely to export and tend to export a higher share of their sales compared to entirely domestically-owned firms.

Figure 15. Trade participation and ownership of firms in small economies



Source: World Bank, World Enterprise Surveys.

Note: Indicators are computed as simple average across 26 small economies.

4.12. Much of the research (e.g. Reed, 2007) conducted to date has found that FDI represents an important additional source of investment capital and is a potentially critical contributor to growth and development for SIDS. Furthermore, flows of FDI may actually embody further growth factors, including technology, know-how and managerial expertise. Reed (2007) claims, therefore, that FDI can be an important contributor to the growth process in developing countries and especially in small economies because it can accelerate "the transfer, acquisition and absorption of new technologies and enhance the stock of human capital in recipient countries".

Box 10. Foreign direct investment

FDI is a key element in international economic integration. FDI creates direct, stable and long-lasting links between economies. It encourages the transfer of technology and know-how between countries, and allows the host economy to promote its products more widely in international markets. Finally, FDI is an additional source of funding for investment and, under the right policy environment it can be an important vehicle for enterprise development.

FDI is defined as investment by a resident entity in one economy that reflects the objective of obtaining a lasting interest in an enterprise resident in another economy. The lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the direct investor on the management of the enterprise. The ownership of at least 10% of the voting power, representing the influence by the investor, is the basic criterion used. Hence, control by the foreign investor (ownership of more than 50% of the voting power) is not required. Inward stocks are all direct investments held by non-residents in the reporting economy; outward stocks are the investments of the reporting economy held abroad.

Source: OECD/WTO (2013).

4.13. While FDI can certainly help SIDS to grow and develop, questions about how and why investors make decisions to invest in one country and not in another are not obvious. Dunning (1977) developed a comprehensive economic theory to explain the existence, activities and strategies of multinationals through the synthesis of macro- and micro-economic determinants of FDI flows. In his framework, firms decide to engage in international production and become

multinational companies based on three sources of advantage related to ownership, location and internalization (OLI). Box 11 describes these three advantages in more detail.

Box 11. Sources of advantage of FDI and international production

According to Dunning (1977), firms engage in FDI and international production to exploit advantages related to ownership, location or internalization.

Ownership advantage refers to the need for multinationals to possess firm-specific competitive advantages over domestic firms in serving particular markets. These advantages include both tangible and intangible sources of advantage and arise from the monopoly control of the assets by multinationals, often reflecting the factor endowments and characteristics of their home countries.

Location advantages relate to the profitable exploitation of a firm's ownership advantage from firm-specific assets in host countries. Hence, the firm's decision to actually locate at least some part of its activities in a particular host country is influenced by the actual and perceived competitive advantages of that country. These include: the availability of low-cost raw materials, particularly natural resources; intermediate inputs and low-cost labour; high quality human capital, including local research and development facilities; a large domestic market requiring proximity of production; a mix of clusters of producers and suppliers; good quality infrastructure; favourable government policies, including political stability; and a favourable "business culture".

The internalization advantage is the advantage of a company producing on its own rather than through an independent supplier or through a partnership arrangement such as a licensing agreement or a joint venture. The greater the net benefits of internalizing cross-border intermediate product markets, the more likely a firm will prefer to engage in foreign production itself rather than license the right to do so (Dunning, 2000).

Source: Dunning (1997); (2000).

4.14. Dunning's approach provides a useful framework for the analysis of FDI flows and the international production strategies of multinationals. Although he argues that the possession of the advantages explained above are a necessary pre-condition for FDI to take place, Read believes they remain insufficient, given potential financial and managerial resource constraints as well as high-level strategic objectives. For him, capital flows also embody advanced technology, superior know-how and accrued managerial expertise in a complementary "package". These additional characteristics could also be expected to generate additional growth effects in host economies over and above pure capital through positive spill-overs. FDI in developing countries and especially in SIDS may, therefore, have greater growth effects than similar investment flows to industrialized countries.

4.15. Read also discusses a country's openness to trade as playing a role in attracting FDI. He states that since one of the salient economic characteristics of small states in general is their openness to trade, SIDS are likely to be relatively favourable locations for inflows of FDI. He remarks that while small states are generally highly open in a structural sense, the policy stance of their individual governments towards trade, and by implication FDI, may still vary. This suggests that the policy stance of SIDS towards trade and FDI inflows remains critically important.

4.16. Much has been written to date on the various limitations small economies face when trying to attract FDI or even when trying to enter GVCs. For example, a recent paper on FDI in SIDS (UNCTAD, 2014) explains that smaller markets imply that much economic activity cannot reach the minimum efficient scale of production, resulting in high unit costs. The small size of an economy also translates into a high dependence on trade for the development of some activities, both on imports – for the supply of raw materials and intermediate products – and on exports – for the sale of the output. The paper finds that a strong reliance on trade, added to the limited room for economic and export diversification due to size, exposes small economies and SIDS to high risks of exogenous shocks.

4.17. While FDI is important for small economies interested in joining value chains, the distance to markets and the small size of the local market can dissuade investors. Even if they did decide to produce for local consumption and export any surplus production, the remote locations of some of these small states could prove to be a further deterrent. This is exacerbated when local production

is more dependent on imported goods. The same UNCTAD report explains that small economies are less attractive to market-seeking FDI and to FDI aimed at the export of goods, with the exception of raw materials. In addition, with the liberalization of markets and the reduction of tariff barriers, high transport costs have become a far more restrictive barrier to trade than tariffs. Higher costs for moving goods can make small economies much less attractive to FDI that is dependent on the trade of goods, in particular to global production networks which rely on intra-firm trade.

4.18. These constraints are reduced when it comes to trade in services such as retailing, tourism, IT and BPO, telecommunications and energy. In the case of efficiency-seeking FDI, the development of ICT has opened up opportunities in areas such as call centres, data entry and processing centres, and back offices (such as purchases, logistics, accounting, claims and payment processing). However, many of these sectors require a skilled labour force and access to telecommunication and information networks.¹⁴ A more in-depth discussion of the role of tourism and IT and BPO for small economies is provided in Section 3.4.1.

4.19. The small size of SIDS means that development and the environment are closely interrelated and interdependent. There is usually great competition for land and water resources among tourism, agriculture and other land uses (such as mining, in resource-rich countries), and the overdevelopment of any of these sectors could be detrimental to another sector. The challenge for SIDS is to ensure that FDI and its use for economic development do not cause any permanent harm to the sustainable use of land, water and marine resources.

4.20. Kolstad and E. Villanger (2004) examined efforts to promote investment in small states, and especially in the Caribbean. They find that the chances of states increasing FDI flows – both domestic and foreign - to their countries are higher in states that are open to international trade and also to those which pursue regional trade arrangements. Since investment is higher in countries whose domestic markets are larger and more advanced, regional integration to expand what is considered the domestic market is therefore deemed to be beneficial. Other factors which help attract investment to the region is political stability, attention to governance and inclusive and participatory policies.

5 CHALLENGES AND OPPORTUNITIES FOR SMALL AND MEDIUM-SIZED ENTERPRISES

5.1. Most commercial activity in small economies is conducted by SMEs. As is the case in other developing countries, SMEs in small economies are the main source of employment and they make a significant contribution to GDP. While business studies and economic research has long acknowledged the significant role SMEs play in developed economies or in larger emerging markets, it is relatively recent that academics have focussed on the role that SMEs play in small economies or even very small island states. This is surprising since most of the economies in the world are relatively small when measured by GDP. And some are considered to be very small since their GDP is less than the annual revenue of a mid-sized company in a large developed economy such as the US or Japan (Akhter and Pounder, 2008).

¹⁴ Global Investment Trends Monitor, September 2014, UNCTAD.

Box 12. What is an SME?

The term "SME" encompasses a broad spectrum of definitions which vary between country and region. While international organizations and financial institutions use their own guidelines for defining an SME, almost all definitions are based on some combination of the number of employees, turnover and assets (see Table 10).

Table 10: Criterion used by listed institutions for defining "SME"

Institutions	Maximum No. of Employees	Maximum Revenue or turnover (US\$)	Maximum Assets (US\$)
World Bank	300	15,000,000	15,000,000
Inter-American Development Bank	100	3,000,000	None
African Development Bank	50	None	None
Asian Development Bank	50	None	None
UNDP	200	None	None

Source: ITC and WTO research.

5.2. Firms operating in small economies are said to face two major obstacles in regard to the global integration of markets: first they lack financial and managerial resources to compete with corporations from large developed or developing economies; and second, they operate in small markets where the limited size prevents them from exploiting the necessary economies of scale. As may be recalled, similar concerns were raised in the previous section dealing with FDI flows to small economies. Some researchers believe that the challenges which SMEs face in small economies, especially in regard to countering international competition, can be mitigated through the use of certain measures, as previously elaborated.

5.1 Regional integration

5.3. Regional integration can help small economies achieve economies of scale and increase the size of the available market. Akhter and Pounder (2008) cite the Caribbean Community (CARICOM) with its 15 member states, as providing a good example of how to ensure such market expansion. Another effort is to go a step further and deepen such integration with the single regional market known as the Caribbean Single Market Economy. The latter seeks to eliminate barriers to the intra-regional movement of goods and services, to harmonize standards and to put in place other regional market integration enhancing measures. Such efforts are needed to expand the consumer base for an SME operating in the Caribbean. For example, with the CARICOM regional market at its doorstep, Barbados has effectively increased its potential market size by more than 40 times, or from some 300,000 consumers to more than 13 million (Akhter, 2008).

5.4. A recent OECD study (Kowalski *et al.*, 2015) discusses developing country participation in GVCs and finds that business survival rates seem to be linked to higher levels of intra-regional trade. It suggests that regional integration can be a way of learning by doing and serves as good preparation for competing in global markets.

5.2 SME business strategies

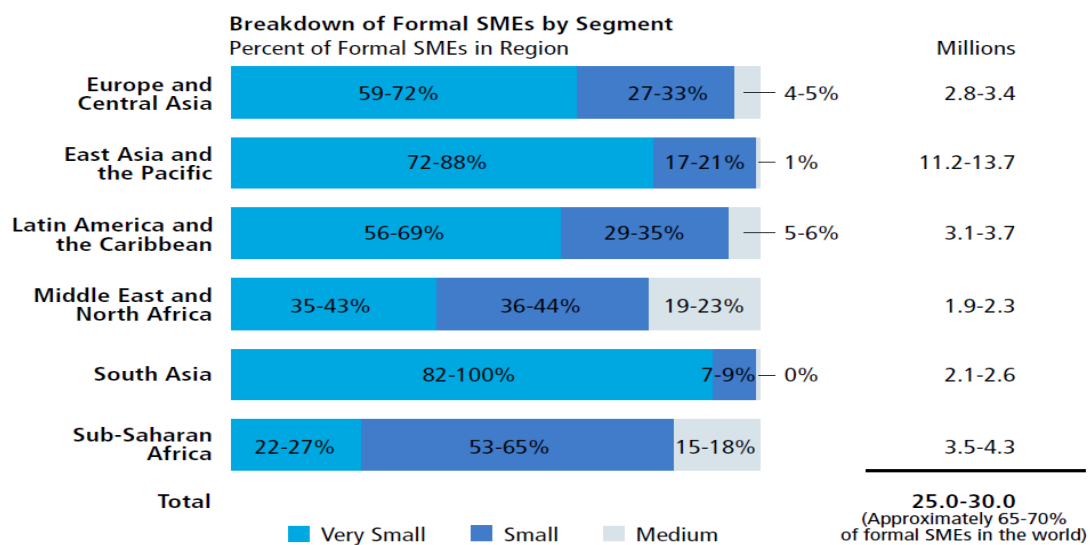
5.5. While regional integration is considered a policy objective which could help make it easier for SMEs to operate in small economies, business owners too have to apply specific strategies if they want their businesses to survive. For example, when faced with increased foreign competition, strategies are needed to counter the growing number of imported products from countries with lower labour costs and larger economies of scale. Not only do SMEs in small economies face price pressures from increased global competition, they gradually also face pressure from consumers who expect better services, lower prices and better quality goods. It is not surprising then that many small business owners facing increased competition in regard to certain products believe that there is little future for manufacturing them in small economies.

5.6. Specific research carried out in Barbados in 2008 (Akhter and Pounder, 2008) showed how various SMEs in different economic sectors were affected by globalization and generally higher levels of competition. For firms in the craft sector, the greater exposure did not have much of an

impact. The same was true for the construction materials sector. In the retail and maritime sectors, however, there was even a favourable impact with some firms seeing their market positions improve mainly because of the domestic consolidation of firms or because it was now also possible for some firms to expand into foreign markets.

5.7. Already in the late 1990s, researchers had found that much of the success of SMEs depended on a strategic response which enabled them to exploit opportunities and neutralize threats due to globalization. Dawar and Frost (1999) developed a framework of strategic responses that a small company could use to compete against considerably larger firms. They identified four groups of strategies: dodgers, defenders, contenders and extenders. "Dodgers focus on capitalizing specific links in the local value chain where their assets are still valuable. Defenders leverage their assets in local segments where multinationals are weak. Contenders upgrade capabilities and resources and compete with multinationals globally in niche markets. Extenders expand into global markets similar to their home base, exploiting competencies they have developed at home."

Figure 16. Breakdown of formal SMEs by region



Source: IFC (2013).

5.8. While Akhter's and Pounder's research focused on interviewing SME owners and operators in Barbados, their findings are also relevant to SMEs in other small island states in the Caribbean and elsewhere. Their research found that SMEs active in the food sector followed mostly dodger and defender strategies. These firms used their good relationships with retailers and focused on assisting them and offering a variety of services that actually created entry barriers for other SMEs. They also relied on customer loyalty, brand building, new product development and sales promotion. One of the food businesses used the extender strategy to start some international involvements with foreign businesses.

5.9. In the garments sectors, the researchers said firms used dodger and defender strategies, with emphasis on leveraging relationships. These same firms extended some of the value chain activities into neighbouring countries and formed strategic alliances with foreign firms. For these SMEs, the major threat came from imports from highly competitive countries with lower labour costs and highly developed production capabilities. While these same companies saw their future in manufacturing as limited, they considered a future in distribution of textiles and clothing as promising.

5.10. Firms in the chemicals, crafts, and maritime sectors followed mostly defender strategies, building on new product development, managing customer relationships and moving up value chains. Some firms in these sectors also extended their business internationally by capitalizing on their competencies.

5.11. SMEs active in packaging, plastics, solar heating, after-market retail and construction materials were found to have followed both defender and extender strategies. These firms focused

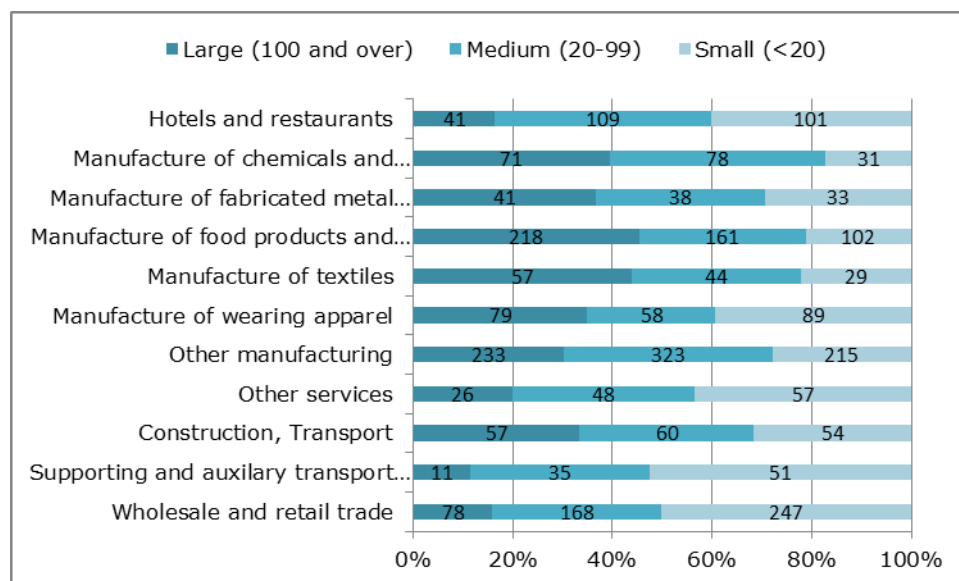
on producing quality products in small batches for local markets, solidifying relationships and extending their business through exporting, mainly to other markets in the Caribbean region. One firm obtained a certification from the International Standards Organization and another responded to the challenges of economic globalization by implementing a series of strategic actions that focused on meeting the specific needs of its customer segments, improving customer service and data-based marketing, and expanding internationally.

5.3 Diversification into services and SME internationalization

5.12. A main conclusion in the research referred to above was that as manufacturing and processing became less feasible in the garments and food processing sectors, affected SMEs could contemplate moving into distribution services of similar products. Other services include financial, educational, tourism and health services (Akhter and Pounder, 2008). Given the increasing role of services in the economic development of developing countries, policy makers will have to assess various options and identify the reforms that will lead to the right conditions for the development of a competitive domestic services sector and for the efficient trading of services across borders (Kowalski, 2015).

5.13. A better understanding of where SME exporters are concentrated and in which sectors they are active, may provide insights into the types of activities in which SMEs engage. Data on the companies of African, Caribbean and Pacific (ACP) countries reveal that sectors such as wholesale and retail trade, auxiliary transport activities, hotels and restaurants, and other services, comprise a large proportion of small and medium-sized enterprises. Meanwhile, the manufacture of textiles, food products and beverages, and chemical and chemical products, relies more on large companies (Figure 17). Thus, there appears to be a tendency for SMEs to gravitate towards the delivery of services.

Figure 17. Sector breakdown of small-, medium- and large-sized companies from the African, Caribbean and Pacific (ACP) group of countries



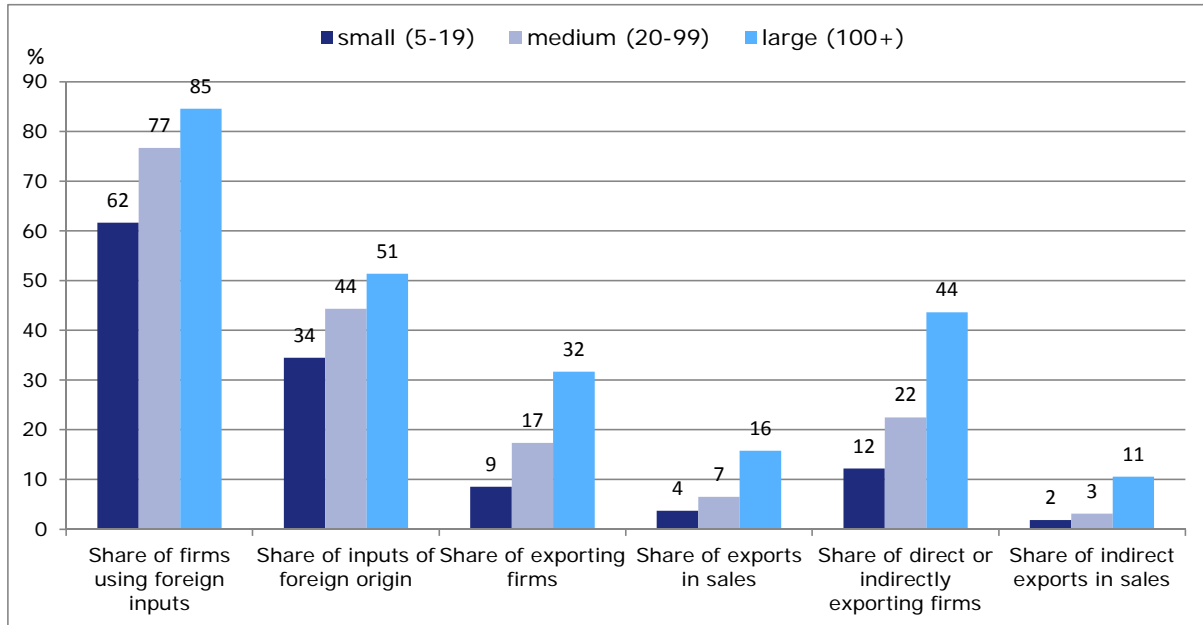
Source: ITC (2014).

5.14. When successful SMEs increase their domestic market share to a point where they become the main supplier of a given product, they often start to look to other markets located across their borders or in their region as an additional place to do business. This so-called "internationalization" of an SME's activities can be carried out in different ways: through exporting directly; exporting with the help of independent, foreign agents; using subsidiaries to carry out this function; or establishing production facilities in the said export market.¹⁵

¹⁵ The stages described here are the essential features of the Uppsala model (U-model; Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977).

5.15. Figure 18 compares the internationalization of small, medium and large firms in 26 small economies. In line with existing research, it shows that participation in international trade increases with firm size. For example, on average, 62% of small firms use inputs of foreign origin compared to 77% of medium firms and 85% of large firms; and only 9% of small firms export directly compared to 17% and 32% of medium and large firms, respectively.

Figure 18. The internationalization of firms in small economies by firm size



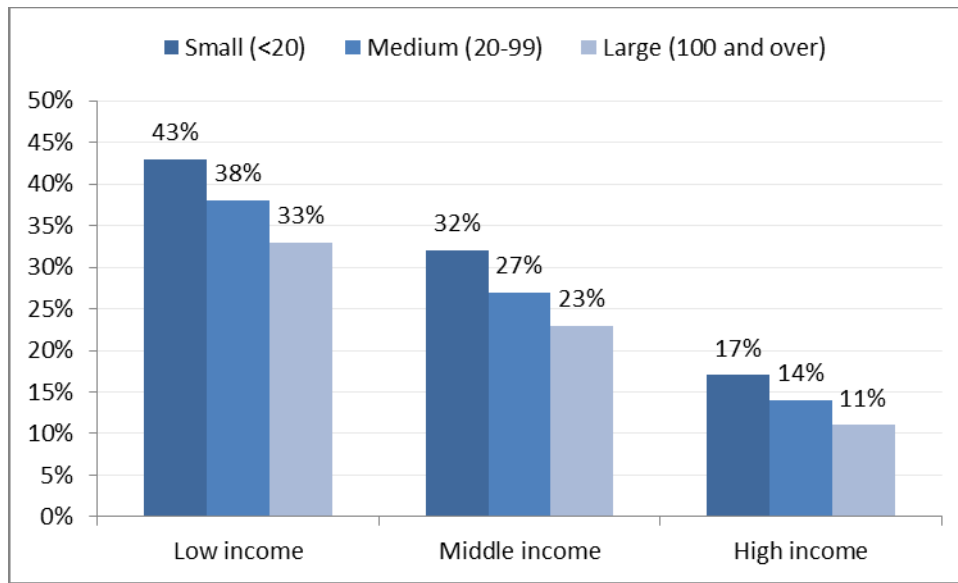
Source: World Bank Enterprise Surveys.

Note: Indicators are calculated as simple averages of 26 small economies.

5.4 Challenges for SMEs to gain footholds in export markets

5.16. This section takes a closer look at some of the reasons why SMEs have difficulties gaining footholds in key export markets. Some of the challenges such as distance to export markets, small size and low levels of FDI have already been alluded to in some detail, but other difficulties exist. They contribute not only to lower survival rates observed for some SME exporters, especially in their first year of doing business, but also to the hardships such firms face in accessing the necessary levels of financing required to launch and sustain a business. Access to long-term finance, and not just the smaller loans which many banks provide to newer SMEs, has been perceived as a major obstacle to the growth and development of SMEs in low- and middle-income countries (International Finance Corporation, 2010). Figure 19 shows the percentage of firms, by firm size and country income group, which regard access to finance as a major obstacle to securing sales abroad. The situation seems particularly acute for SMEs in developing countries. For example, the WTO's World Trade Report 2012 showed that banks serving SMEs in non-OECD countries reached only about 20% of formal micro enterprises and SMEs. In sub-Saharan Africa, this number was even lower, at 5%.

Figure 19. Percentage of firms viewing access to finance as a major obstacle by firm size and country income



Source: IFC (2010).

5.17. Accessing trade finance is another area where SMEs in developing countries, including small economies, face potential obstacles. The OECD has found that many SME managers fortunate enough to secure export business opportunities, lack an understanding of relevant trade financing instruments. As a result, while they may start to benefit from exports, their chances of participating in GVCs in the longer term are diminished. While many buyers are allowed one or several months to pay their suppliers, this delay – however short - can create serious financial burdens for SMEs which need to ensure adequate cash flows to pay salaries and buy the necessary inputs to produce more goods.

Box 13. Accessing affordable trade finance, an ongoing challenge for SMEs

Experts have reported on the increasing difficulties faced by low-income countries to access trade finance on affordable terms. Part of these difficulties existed prior to the financial crisis. "Structural" constraints range from the lack of know-how in local banks to mistrust, resulting in traders having to set aside large collateral requirements for a loan in addition to high fees. These problems in accessing affordable trade finance may have worsened somewhat since the 2009 financial crisis. The downsizing of some key global financial industry players since 2009 has certainly contributed to this situation. Capital for lending in low-income countries has become scarcer and the selectivity of risks greater, so negative expectations regarding the cost of doing business in poorly- (or non-) rated countries translated into higher costs for traders locally, or simply in less finance being available. Several global banks have been reducing their network of "correspondent banks" in these countries, thereby limiting the scope of local banks to find suitable counterparties internationally.¹⁶ Emerging countries' banks, while generally gaining market shares, have not filled the gap, because of the "start-up" cost of doing business.

Source: WTO (2014).

5.18. Still other challenges confronting SMEs and their operators revolve around acquiring relevant market information concerning prices in export markets, currency fluctuations, consumer preferences and conformity with non-tariff measures. The latter has been examined in detail in a 2013 WTO Secretariat background paper on how such measures in the areas of agricultural and manufactured goods affect small economy exports.¹⁷

¹⁶ According to BIS (2014), global banks play a very important role in the market for trade finance. They "appear to account for a quarter to a third of the global supply of bank-intermediated trade finance, with local and regional banks providing the remainder". In 2011, such banks provided US\$2 trillion of the estimated US\$6.5-8 trillion of bank-intermediated, short-term trade finance recorded.

¹⁷ WT/COMTD/SE/W/28 – Further examination of the effects of non-tariff measures on the exports of small economies – Background note by the Secretariat.

5.19. In regard to how SMEs can improve their access to market information, there is the possibility of working with and through national and regional institutions, such as Chambers of Commerce and diplomatic missions abroad. Such contacts can help exporters establish footholds in foreign markets and provide business owners with key information as to the market and regulatory changes taking place. Another way for SMEs to present a stronger position is through associations of SMEs which export a similar line of product or which would like to create a stronger image for the exports of a region.

Box 14. The Pacific Agreement on Closer Economic Relations (PACER) and the 14 Pacific Island Countries (PICs)

The cost of doing business in PICs is amongst the highest in the world. According to the World Bank, higher prices for everything from electricity to transportation, has contributed to generally lower levels of FDI and has limited the participation of PICs in international trade. The parties to the PACER Agreement recognized these limitations and agreed to tackle regulatory measures related to customs procedures, SPS measures, technical regulations, standards and conformity assessment procedures. In a survey, a number of small suppliers in the Pacific confirmed that conformity assessment costs were one of the main reasons they were not exporting more goods to New Zealand and Australia. In many cases, the costs incurred exceeded the narrow profit margins, making it economically unattractive for them to export. By providing assistance, Australia and New Zealand hope that countries in the region can better meet the various technical requirements. PICs should also be able to meet specific supply-side constraints which have prevented them from taking advantage not only of the PACER regional trade agreement but of preferences offered to the region's LDCs under the duty-free quota-free (DFQF) scheme. This additional assistance to help PICs overcome regulatory issues should also improve the attractiveness of PICs to foreign investors and enhance the competitiveness of their firms. One key element of the PACER plus assistance programme is its services component to help the region reduce the cost of supplying services and to improve the skills levels of service providers. This includes PACER countries removing restrictions on the movement of natural persons, as in mode four of the General Agreement on Trade in Services.

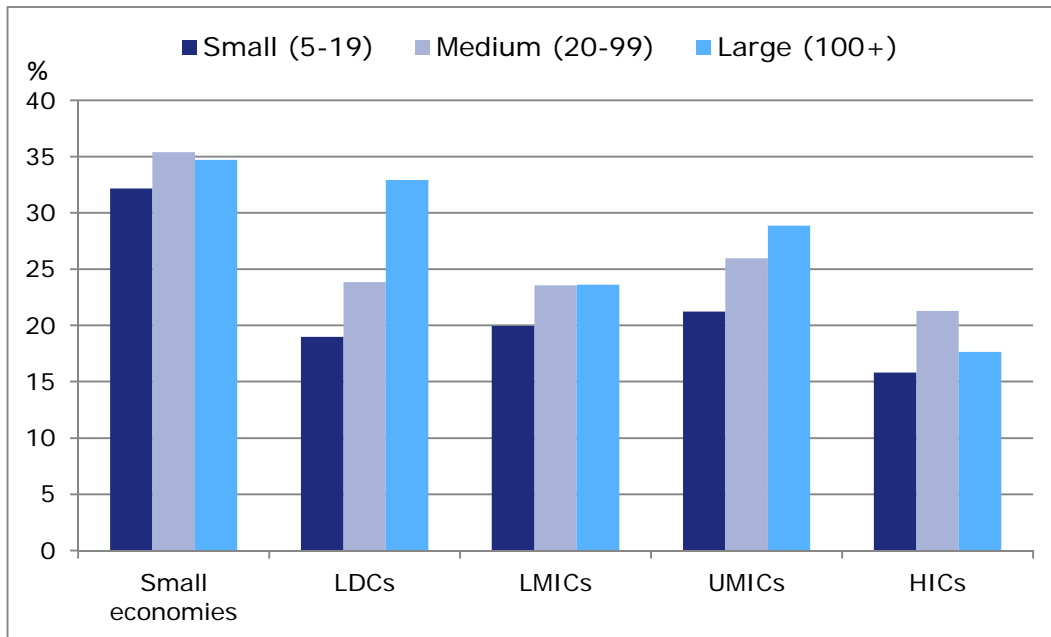
Source: OECD/WTO Aid-for-Trade Case Stories (2015), "Office of the Chief trade Advisor for Pacific Island Countries, Vanuatu".

5.20. Two final areas to mention in this section concern difficulties SMEs have in keeping up with technological changes and skills shortages. In regard to ICT, many small economies still face challenges with establishing sustained access to the internet. In those countries where internet access is facilitated through broadband connections, costs of going on line have decreased (see case story on Vanuatu and its submarine connection to Fiji). However, other issues arise mainly in regard to the creation and maintenance of websites to show and eventually sell goods on line. These issues and others related to internet payment schemes and the final delivery of products ordered online were also examined in depth in a WTO Secretariat background paper in April 2013 concerning SMEs and ICT in developing countries.¹⁸

5.21. As concerns SMEs having access to a skilled workforce, this has been consistently identified as one of the areas constituting a barrier to the internationalization of SMEs (Figure 20). Much has been written about the need for workers to adapt not only to the new technological trends, but to the changing demands in export markets and also to the variations in consumer demand. Hiring skilled workers is costly as is training existing workers to move up to a higher skills set. This is one of the reasons often cited as to why SMEs lose competitiveness over time (Cedefop, 2012). It can also be seen as a reason why some SMEs are not able to move up in GVCs, since this requires a skilled labour force. Even though many SMEs in small economies and in developing countries in general engage in activities and value chains which are not skill intensive, the higher these businesses move up the value chains, the more attention they will have to pay to ensure their workers have the necessary skills.

¹⁸ (WT/COMTD/W/193) – Electronic commerce, development and small and medium-sized businesses. Background note by the Secretariat.

Figure 20. Share of firms by income group identifying an inadequately educated workforce as a major constraint to their operations



Source: World Bank Enterprise Surveys.

Note: Indicators for country groups are calculated as simple averages across countries and are based on 26 small economies, 36 LDCs, 26 lower middle-income countries (LMICs), 33 upper middle income countries (UMICs) and 17 high-income countries (HICs).

6 THE ROLE OF LOGISTICS AND TRADE FACILITATION

6.1. While the emergence of GVCs may have mitigated size-related difficulties for small economies, the fact that many small economies are islands or remote from major markets still represents a major challenge. High costs, and the fact that air and sea transport are sometimes the only options for the movement of goods and people, constrain the ability of small economies to expand their economies through the trade of goods and to take part in global patterns of specialization.

6.2. Many value chains in manufacturing take the form of regional networks or hub-and-spoke structures where remoteness from the hub can hamper value chain participation. Examples of regional networks include electronics in Asia, the automotive industry in the EU or apparel manufacturing in Mexico and Central American countries.

6.3. Trade in manufacturing is more regional than trade in services (WTO, 2014) and distance to production hubs is a stronger impediment to GVC integration in manufacturing as compared to services (OECD, 2014). While remoteness from manufacturing hubs can hamper the establishment of backward linkages, logistic performance and the quality of infrastructure are among the policy factors that have the strongest positive impact on developing countries' GVC integration (OECD, 2014). Similarly, Lanz and Piermartini (2015) find that countries with better transport infrastructure and trade facilitation tend to specialize in value chain products.

6.4. In several value chains, time-related trade costs are of particular relevance. These costs relate to two, often intertwined, dimensions of time, namely the ability to deliver quickly (speed) and the ability to deliver on time (predictability and punctuality). The ability to make fast deliveries is very important in value chains mainly because of demand fluctuations (e.g. apparel), perishability of products (e.g. agriculture and food) or rapid technological change (e.g. electronics). The ability to deliver on time is crucial in GVCs characterised by high inventory costs or just-in-time production, where further processing or assembly depends on the punctual arrival of intermediate inputs (e.g. automotive). Various studies have highlighted the importance of transport infrastructure and/or time in sectors such as textiles (Nordas and Piermartini, 2004;

Evans and Harrigan, 2005), agricultural products (Djankov *et al.*, 2010), or automotive goods (Hummels and Schaur, 2013).

6.5. Hummels and Schaur (2013) estimate the value of time costs by assessing a firm's choice between fast and expensive air transport and cheap, slow maritime transport. In particular, they estimate that each day in transit is equivalent to an *ad valorem* tariff of 0.6% to 2.1% and that parts and components have a 60% higher time sensitivity than other goods. Similarly, Hummels and Schaur (2010) show that businesses are more likely to choose air transport when faced with volatile consumer demand. Djankov *et al.* (2010) analyse the importance of the time required to export as measured by the number of days it takes to transport a container of product from the factory gate to the ship. They estimate that each additional day reduces exports by at least 1% and that the incidence of time is larger on time-sensitive goods in manufacturing and in perishable agricultural products.

6.6. Time does not only affect the mode of transport but also the location of production in GVCs. Time-sensitive products are more likely to be shipped by air and tend to be produced closer to the source of intermediate or final demand. For example, Evans and Harrigan (2005) use data on retail demand to show that the production of time-sensitive US apparel imports has shifted to nearby countries. Small economies in Central America are, therefore, benefitting from their proximity to the US markets as seen by their specialization in apparel products.

6.7. Table 2 in Section 2 provides an overview of indicators related to transport logistics and trade facilitation for small economies. According to the World Bank indicators measuring the cost, documents and time to trade, trade costs are lower in small economies than for the average WTO Member. They also differ among regions. However, these indicators only measure the trade costs related to inland transport and to customs procedures and do not capture distance-related trade costs. In terms of transport infrastructure, small economies in Central and South America have a lower quality of air, port and road infrastructure compared to the average WTO Member.

6.8. Trade facilitation reform can help small economies to diversify their export structure. Beverelli *et al.* (2015) find that improvements in trade facilitation increase the number of products and the number of markets served by exporting countries. Improvements in trade facilitation can also lower monetary and time-related trade costs and can facilitate the integration of small economies in GVCs. Box 15 describes a customs clearance initiative in Central America where new customs procedures, border clearance equipment and network infrastructure has helped channel goods more efficiently within the region.

Box 15. Central American – SIECA – Customs Clearance Public Sector

New customs procedures, border clearance equipment and network infrastructure for Central America helped to reduce trade costs for merchandise goods and accelerated clearance times from several hours to just minutes. The project began in 2011 and quickly recorded increases in the number of documents processed as well as the volume of goods cleared in the region. For example, the value of electronically channelled transactions using FAUCA, a document established by the General Treaty on Central American Economic Integration, increased from slightly more than US\$1 billion in 2011 (about 13% of the value of interregional exports registered in Central America) to US\$4.4 billion in 2013, accounting for about 51% of the value of interregional exports. The goods clearance system for the region has helped to reduce both ship dwelling times and road hauler waiting times, and has led to reductions of both customs clearance times as well as costs to clear goods. Furthermore, it has resulted in an increase in both the region's exports and imports while augmenting domestic and foreign investment as well as the number of women employed as customs clearance agents.

Source: OECD/WTO Aid-for-Trade Case Studies (2014), "Secretariat for Central American Economic Integration".

6.9. Similarly, Box 16 provides a further example of the beneficial consequences of improving road connectivity and road infrastructure between Belize and the rest of Central America's Mesoamerican trade network hub.

Box 16. Improving road connectivity in Belize and to the Mesoamerican trade network hub

Improving road connectivity between Belize and the rest of Central America's Mesoamerican trade network hub is the main aim of this 31-kilometer long road improvement project. The road will help improve transportation facilities between Belmopan, the capital, and Belize's western Cayo District and is expected to provide a huge boost to the country's inland tourism industry. Also to benefit from the new infrastructure project is the highly productive agricultural sector and certain petroleum production sites. Increases in the number of trucks and buses supporting the growing tourism sectors, petroleum and agricultural sectors had caused significant deterioration of the road and is a main reason behind Belize's high road fatality rate. Implemented over a five year period, the road renewal project is expected to save users some US\$53 million in the course of the next 20 years. Included in this are reduced trade costs for transporting merchandise goods and for services-related industries such as tourism and a reduction of prices for consumer goods. The project has already led to a vast improvement in the region's infrastructure including roads, bridges and airports, has generated employment opportunities, mainly for women, and has helped to reduce rates of absolute poverty in the country.

Source: OECD/WTO Aid-for-Trade Case Stories (2015), "Directorate for Trade, Ministry of Trade, Investment and Promotion, Private Sector Development and Consumer Protection, Belize".

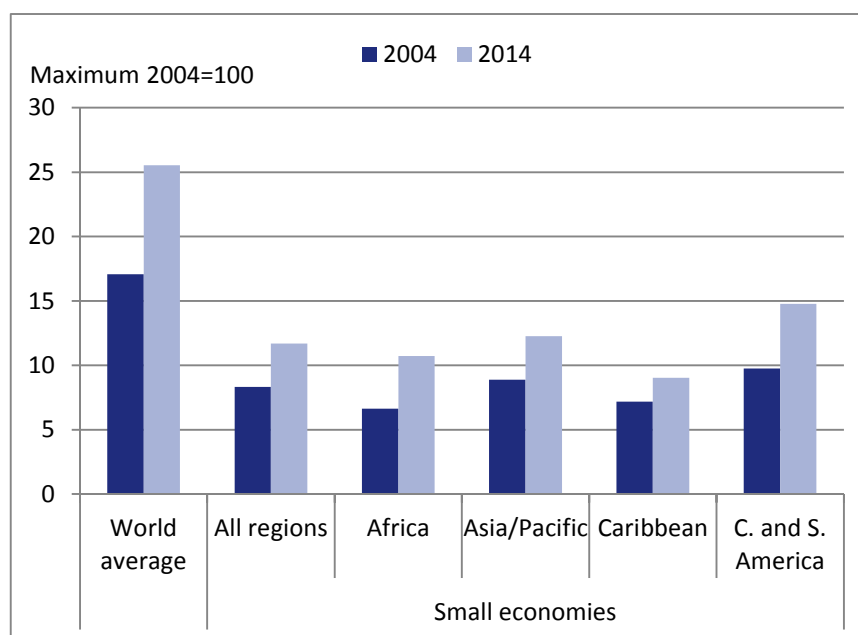
6.10. Maritime transport costs pose a real challenge for small economies. Out of the 32 small economies studied in this report, 29 fall under the UN categorization of SIDS, which share common characteristics such as smallness, sea-lockedness and remoteness. These countries face relatively high transport costs because small trade volumes need to travel long and indirect routes to reach distant markets (UNCTAD, 2014b). Relatively low cargo volumes limit the ability of small economies to benefit from economies of scale. Meanwhile, shipping imbalances, i.e. higher import volumes than export volumes, drive up cost.

6.11. The remote location of several small economies further hampers their access to global shipping networks. Several small economies, in particular Pacific islands, are relatively far from the global East-West container shipping corridor located in the Northern Hemisphere that carries 85% of global containerized trade. While Caribbean small economies are directly located on the corridor, Pacific SIDS can connect to the main corridor through the hub ports of Singapore; Hong Kong, China; and Busan. Furthermore, inadequate services regarding inter-island domestic shipping result in economic and social challenges for these islands (UNCTAD, 2014a).

6.12. Expenditures on international transport tend to be higher in SIDS as compared to the world average. Whereas transport costs for the average country correspond to 8.1% of import value, the relative transport cost expenditure of the average SIDS country is 2% higher (UNCTAD, 2014b). Among the small economies, transport costs are particularly high for the Seychelles, Rep. of, Barbados and Jamaica.

6.13. The UNCTAD Liner shipping connectivity index (LSCI) measures the shipping connectivity of countries based on five components related to the deployment of container ships: (a) the number of ships; (b) the total container-carrying capacity of those ships; (c) the maximum vessel size; (d) the number of services; and (e) the number of companies that deploy container ships on services from and to a country's ports.

6.14. Figure 21 shows that small economies have a lower shipping connectivity compared to the world average. Small economies had an average LSCI of 11.7 in 2014 (out of a maximum of 100), which represents less than the half of the index value of 25.5 for the World average. Small economies in all regions have, however, improved their connectivity between 2004 and 2014, with small economies in Central and South America being the best connected in terms of shipping.

Figure 21. Liner shipping connectivity index for small economies by region, 2004 and 2014

Source: UNCTADstat.

Note: The regional aggregates of the liner shipping connectivity index are calculated using simple averages of 154 countries for the World average and of 31 countries in the case of small economies. The indicator is not available for Paraguay as it is landlocked.

6.15. Table 11 ranks the top and bottom five small economies in terms of the LSCI in 2014. Sri Lanka had the best shipping connectivity in 2014, followed by Panama, the Dominican Republic, Jamaica and Ecuador. Three of the top five performers are small economies in the Caribbean. Despite their geographic proximity, four of the bottom five small economies (Dominica, Saint Kitts and Nevis, Saint Vincent and the Grenadines and Antigua and Barbuda) are also Caribbean islands.

Table 11. Liner shipping connectivity index 2014: Top and bottom five small economies

Top five	2004	2014	Bottom five	2004	2014
Sri Lanka	34.68	53.04	Dominica	2.33	1.59
Panama	32.05	43.65	Saint Kitts and Nevis	5.49	2.35
Dominican Republic	12.45	26.29	Tonga	3.81	3.58
Jamaica	21.32	24.55	St. Vincent and the Grenadines	3.56	3.85
Ecuador	11.84	21.80	Antigua and Barbuda	2.33	4.07

Source: UNCTADstat.

6.16. For example, Table 12 illustrates how the Dominican Republic is served by 122 ships from 21 companies, whereas Dominica is only served by five ships from two companies. Furthermore, while the Dominican Republic accommodates ships up to a vessel size of 6,750 TEU, Dominica accommodates ships with a size of only 430 TEU (UNCTAD, 2014b). Besides remoteness and smallness, such differences in shipping connectivity can also be explained by port characteristics and the regulatory framework for liner shipping.

Table 12. Container-ship fleet deployment for small economies, May 2014

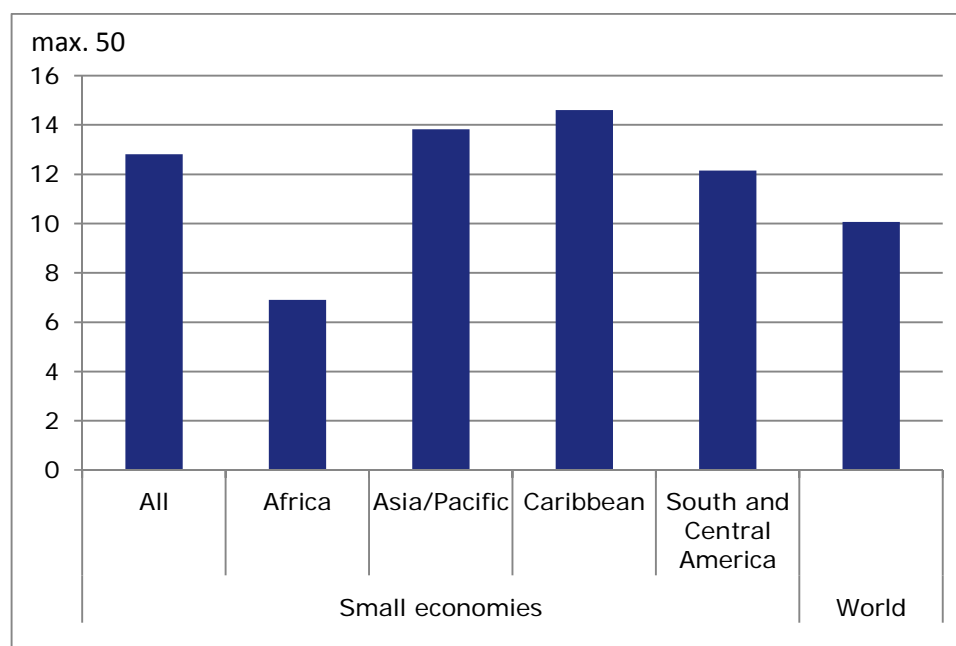
Country	Number of Ships	TEU carrying capacity	Largest ship (TEU)	Number of companies	Number of services
Antigua and Barbuda	11	6880	1250	3	6
Barbados	15	10504	1250	6	9
Cabo Verde	4	4027	1325	3	5
Dominica	5	1494	430	2	3
Dominican Republic	122	397375	6750	21	55
Fiji	23	42993	2758	8	18
Grenada	10	6182	1284	5	6
Jamaica	109	355837	6750	15	41
Maldives	5	12871	2765	3	2
Mauritius	40	124005	6712	7	12
Papua New Guinea	29	34646	2546	8	21
Saint Kitts and Nevis	5	2864	660	3	3
Saint Lucia	14	10188	1284	5	7
Saint Vincent and the Grenadines	9	4988	1122	4	6
Samoa	7	7229	1304	4	11
Seychelles, Rep. of	10	21723	2764	3	8
Tonga	6	5049	1043	3	12
Trinidad and Tobago	52	110424	5089	13	25
Vanuatu	11	12143	2082	4	8
Average rest of the World	166	749001	7076	20	90

Source: UNCTAD (2014b).

6.17. Besides maritime transport, air transport is of particular importance to small economies because of their remoteness and because of their dependence on tourism. The existence of flight connections and the level of flight prices influence tourist numbers. Tourism arrivals by air are particularly high for the Caribbean islands and the three African small economies, Mauritius, Seychelles, Rep. of, and Cabo Verde (UNCTAD, 2014a). In the Caribbean, intra-Caribbean tourism has increased thanks to regional air carriers such as Leeward Island Air Transport.

6.18. Tourism and freight transport by air are mutually supportive as the majority of air cargo actually is shipped in the belly of passenger aircrafts. In terms of policy, air travel is governed by bilateral Air Services Agreements (ASAs). In the GATS, air transport is covered by a specific annex that excludes the largest part of air transport services such as traffic rights and traffic-related services.

6.19. The WTO Air Liberalization Index (ALI) is an index measuring the openness of the bilateral ASAs ranging from 0 (very restrictive) to 50 (very open). Figure 22 shows the WTO ALI for small economies groupings as compared to the world. On average, small economies have a more liberal air services regime compared to the world. This is the case for the average small economy in Asia/Pacific, Caribbean and Central and South America but not for the three small economies in Africa.

Figure 22. WTO Air Liberalization Index (ALI), 0-50, 2011

Source: WTO Secretariat.

6.20. Table 13 shows the five most open and five most restricted small economies in terms of air services. Antigua and Barbuda has the most open regime, followed by Tonga and Samoa. In contrast, Belize, Seychelles, Rep. of, Mauritius and Fiji have the most restrictive regimes. Table 13 further shows the weighted ALI (WALI), where the ALIs of the different bilateral ASAs are averaged using the passenger traffic covered by the respective agreement as weight. In the case of Fiji, the weighted ALI (WALI) suggests a more open regime than the standard ALI, which indicates that a large number of passengers fly to Fiji under relatively liberal bilateral ASAs.

Table 13. Air Liberalization Index (ALI): Top 5 and bottom 5 small economies

Top 5			Bottom 5		
	ALI	WALI		ALI	WALI
Antigua and Barbuda	38.0	38.0	Cuba	7.8	4.4
Tonga	29.0	31.4	Fiji	7.7	16.0
Samoa	21.4	29.3	Mauritius	7.2	10.5
El Salvador	20.5	27.8	Seychelles, Rep. of	4.5	2.6
Grenada	18.0	26.0	Belize	4.0	4.0

Source: WTO Secretariat.

7 TRADE POLICY EXPERIENCES

7.1. This report has thus far provided a focused discussion of some of the evidence of integration of small economies in GVCs and their various experiences, especially in the agrifood, seafood and the textiles and clothing value chains. Some services value chains have also been examined in the tourism and information technology sectors. In order to complement the research so far, this section will take a closer look at how the understanding about value chains has evolved and what small economies can do to secure either a greater share of the production process of a value chain or retain more value in their respective markets.

7.2. More than 20 years ago, an often cited "global value chains" typology was developed by Gary Gereffi. It separated value chains into two major types: the first was buyer driven; the second, production driven. Production driven value chains are run by global companies which coordinate the backward and forward linkages described earlier in this report. Such value chains are usually run by capital and technology-intensive industries active in automobile and aircraft manufacturing and industries related to computer assembly and heavy machinery. Buyer-driven

value chains, on the other hand, refer to activities in which large retailers and branded manufacturers play the pivotal roles in setting up decentralized production networks in a variety of exporting countries.

7.3. For small economies it is typically the buyer-driven type which provides access to a value chain. Buyer-driven chains usually exist in more labour-intensive consumer goods industries such as the garments, footwear, toys, housewares and consumer electronics sectors and are more prevalent in developing countries and in small economies.

7.4. The ways of thinking about value chains has evolved since the mid-1990s and has expanded to include characteristics such as the level of complexity of inter-firm transactions, the extent to which information can be codified, and finally the degree of capability of the supply base in relation to the requirements of the transaction (Gereffi *et al.*, 2005).

7.5. These levels are described in the WTO's World Trade Report 2014 and are alluded to as evolving elements which are subject to change. They may evolve, especially in regard to technological advances and domestic, regional or international regulations. This requires companies, especially those which wish to continue to dominate a particular production component, to manage various types of knowledge and know-how particular to that production sector.

7.6. Many suppliers in developing countries produce for lead firms in GVCs. This can be a direct or indirect transaction and may go through specific distribution channels in the destination market. Lead firms are not directly involved in the manufacturing of particular products but do concentrate on downstream and upstream processes such as logistics, finance, design and marketing, areas which are generally more skill intensive (Fernandez-Stark *et al.*, 2011). Already a decade ago, researchers focused on how gains are distributed between parties in a GVC-based business relationship and found that much has to do with the relative bargaining power of each (Gereffi *et al.*, 2005). This can depend on how unique and desirable the supplier is and whether or not a lead firm can do without its services or whether or not its contribution can be performed elsewhere in another country at a lower price or can be automated or codified. The WTO's World Trade Report 2014 summarizes it this way: often lead firms possess rare capabilities while suppliers further down the chain stand in increasingly fierce competition with each other to supply these firms. This leads to a large gain capture for the lead firms.

7.7. Nearly 25 years ago, Stan Shih who owned an IT business proposed "the smiling curve," (briefly discussed earlier in Section 3) to show the distribution of value-added through the product life cycle. The curve shows that upstream activities, such as research and development, and downstream ones such as marketing and distribution, are characterized by higher value-added creation than manufacturing or assembly activities (Dedrick and Kraemer, 1998).

7.8. Since then, the smiling curve (also known as the "smiley curve") which portrays unit value and not volume, has changed under the forces of increased globalization of manufacturing activities. It has deepened and there are now lower-levels of value-added in the middle stages of the value chain. Much of this is due to offshoring to less expensive production sites, increased competition and competitiveness gains amongst countries offering similar production capabilities and the IT revolution, which further reduces coordination costs (Baldwin, 2012).

7.9. Upgrading scenarios are by no means easy for small economies. Diversification along the value chain is much more difficult because of small size. Even small, industrialized economies have tended to specialize in just a small part of the overall chain where a large share of what they export includes a large proportion of imported components. Any further diversification in the gamut of export products would, therefore, also require more imports.

7.10. While productivity gains may be realized with the initial shift in labour from agriculture to manufacturing and services, the gains are no longer as large as they were in the past, especially not since the 1970s when such trends began. Recent research (Escaith, 2013; Kowalski *et al.*, 2015) argues that the volume of the activity may matter as much as the domestic value-added share or the level of sophistication. In particular, upgrading can also be achieved by doing more of the same where margins may be small but where volumes are high.

7.11. In business, small margins can be more than compensated by high volumes. For example, a large assembly company may only create US\$20 worth of value-added per smartphone assembled in its factories in China, but it makes millions of them. Conversely, "a start-up in Silicon Valley may make a lot of money with one patent, but not invent anything else after that" (Escaith, 2013). Hence, important benefits can be derived from specializing in less sophisticated assembly activities according to comparative advantages and performing these on a large scale.

7.12. Escaith (2013) also argues that while the smiley curve addresses apparent production costs, it does not consider the underlying investments and the risks attached to them. For a firm in a small economy, gains are probably higher at the intensive margin (doing more of what you know) than trying to "capture" other parts of the GVC such as research and development tasks, which can be both risky and expensive.

7.13. In small economies, smaller businesses usually have knowledge of local clients, tastes and needs but can find themselves in weaker positions when they try to integrate or upgrade in a value chain. In the research literature, this has been referred to as "high road" to competitiveness, contrasting with the "low road", which is typical of firms which compete by squeezing wages and profit margins rather than by improving productivity, wages, and profits. The key difference between the high and the low road to competitiveness is often explained by the different capabilities of firms to "upgrade" or the capacity of a firm to innovate to increase the value-added of its products and processes (Humphrey & Schmitz, 2002).

7.14. Upgrading over time has been shown to be closely linked to innovation. Enterprises may achieve this by entering higher unit value market niches or new sectors, or by undertaking new productive functions. Humphrey and Schmitz identified four types of upgrading: (i) process upgrading or transforming inputs into outputs more efficiently by reorganizing the production system or introducing superior technology; (ii) product upgrading by moving into more sophisticated product lines in terms of increased unit values; (iii) functional upgrading by acquiring new, superior functions in the chain, such as design or marketing or abandoning existing low-value added functions to focus on higher-value added activities and; (iv) inter-sectoral upgrading by applying the competence acquired in a particular function to move into a new sector. For instance, in Chinese Taipei, the competence gained in producing TVs was used to make monitors and then eventually computers (Guerrieri & Pietrobelli, 2004; Humphrey & Schmitz, 2002b).

7.15. It has also been shown that companies in small economies which are located near each other or in industrial clusters actually have a better chance of upgrading. This has also been found to be true for businesses in larger developing and developed countries because together, companies (especially SMEs) are able to overcome such obstacles as lack of trained workers, inadequate technology and availability of key data to remain informed of market developments. It also facilitates access to credit to expand a business, upgrade equipment or to engage in export activities (Gereffi, G. *et al.* 2001).

7.16. Chinese Taipei; Singapore; and Hong Kong, China are good examples of how to achieve production expertise and marketing know-how. There are many SMEs in these economies which co-exist in designated business areas. The high quality products they produce are offered at competitive prices and enable them to enter established markets and to compete with products made by larger companies with more money, more employees and greater economies of scale. Already in the late 1990s, J. E. Stiglitz wrote that the success of these East Asian countries resulted from a mix of domestic policies they developed to create competitive markets, promote exports, education and technology and encourage more collaboration between government and industry and among firms.

7.17. An UNCTAD study conducted in 2013 pointed to similar policies which developing countries and small economies used effectively to engage in and upgrade along GVCs. It said developing countries could build productive capacities including through technology dissemination and skill building, thereby opening up opportunities for longer-term industrial upgrading. According to UNCTAD, however, reaping the potential benefits of GVCs is not automatic. Therefore, industrial and government policies play a role as does a supporting development strategy. This is all the more important given the dynamic nature of GVCs and the fact that value chains can move quite easily to other international production networks (UNCTAD, 2013b).

7.18. The study also identified distinct GVC development paths which are based primarily on prevalent trade and investment patterns. To begin the GVC integration process, increased FDI should flow to those sectors of an economy with domestic productive capacity. This can help move these activities to intermediate goods and services which help not only to replace some imports but to stimulate exports. Greater levels of FDI into those sectors which are already integrated in GVCs can also result in some countries increasing their exports of higher value-added products and services or in capturing a greater share of value chain segments and higher technology segments.

7.19. There is also the path of competition in GVCs where companies with stronger levels of domestic productive capacity compete successfully to export high value-added products. The study states that such companies tend to attract buyers interested in integrating domestic operators in international production networks.

7.20. Furthermore, there are companies which have shifted their production processes to industries requiring more inputs or which have converted their export capacity to one specializing in particular tasks that are part of GVCs. Finally, there is leap-frogging in GVCs. This is when there has been a rapid development of domestic productive capacity for exports competing successfully at high-value-added levels. Here, the study says FDI has stimulated both trade integration and domestic productive capacity.

7.21. Another policy issue arising from advances in ICT and the international fragmentation of production relates to the increasingly blurred borderline between goods and services (Lanz and Maurer, 2015). Firms today conduct both manufacturing and services activities as part of their business. They switch from being a producer of goods to being a producer of services. The splitting up of manufacturing production processes creates tasks that can be considered a service.

7.22. Statistical frameworks try to adapt to these changes in production. For instance, in the IMF's Balance of Payments Manual (BPM6) the item "goods for processing" has been reclassified as "manufacturing services on physical inputs owned by others", which will lead to shifts in the goods-services split of an economy's trade (Maurer *et al.*, 2015). This increasing blurriness raises challenges for trade policy as multilateral trade agreements, such as the GATT and the GATS, foresee distinct rules for goods and services trade. For example, Cernat and Kutlina-Dimitrova (2014) argue that domestic services embodied in traded goods increases the complexities of existing trade rules, such as in the area of customs valuation. There is little doubt that the subject of services components embodied in goods will constitute a new area of future research.

8 CONCLUSIONS

8.1. This background note presents an overview of both the challenges and opportunities small economies face when trying to integrate into GVCs. While it is not an exhaustive study of this subject, the report does delve into some important areas associated with value chains. And it does provide some new material and analysis in light of the special circumstances small economies face in regard to value chain integration.

8.2. The report discusses how GVCs offer small economies opportunities to better integrate into international trade and to advance their economic development. By specializing in specific tasks or stages within the value chain, small economies can, to a certain extent, mitigate their lack of economies of scale and realize economic benefits. GVCs can further help small economies diversify their export structure away from primary commodities towards manufacturing and services. However, this is by no means an automatic process.

8.3. In order to benefit as much as possible from goods and services value chains, sustained efforts are required to mainstream GVC trade into the broader national economic development agenda. This requires coordinating diverse elements involving transport and customs clearance issues and managing the general business and investment environment. It also requires a focus on building adequate port and air links as well as transportation and IT infrastructure. Still other issues include governance, rule of law, access to finance, labour policies related to training and skills building, and general national education levels.

8.4. Of the 32 small economies in the Asian/Pacific, African, Caribbean and Central and South American regions examined in this report, several have distinct advantages and are actively pursuing value addition in specific GVCs such as textiles, as well as in agrifood and seafood. The services sector provides other possibilities, especially services linked to call centres, tourism and business process offshoring. These are all areas where small economies have made significant inroads.

8.5. Small economies face two main constraints which affect their participation in GVCs. These constraints are their limited market size and their remoteness from major manufacturing hubs and consumer markets. Even though the fragmentation of production allows small economies to specialize in a few production stages, their small market size makes it difficult to attain efficient scales of production in manufacturing activities. This results in high unit costs. It also makes it harder for small economies to attract foreign investment for starting or expanding manufacturing activities. The situation is exacerbated if a small economy finds itself in a remote location where transportation costs and time delays play havoc with the delivery times demanded by many of the lead companies at the top of the value chains.

8.6. Size- and geographically-related disadvantages are less important for certain services such as tourism, finance or IT and business process outsourcing. Small economies are also more open to trade and have more liberal air transport regimes than the average developing country. Their small size also allows them to adapt faster than larger economies to rapidly changing market conditions.

8.7. Non-fuel intermediate goods constitute 34% of small economies' exports compared to 46% at the global level. This indicates a relatively lower participation of small economies in GVCs. However, this lower share of intermediate goods in exports also reflects the fact that small economies tend to participate in goods GVCs that are characterized by higher shares of final products such as agrifood, seafood and textiles.

8.8. Agrifood products are among the main export products of small economies with fruits and nuts, for instance, accounting for almost 5% of small economies' exports in 2013. Small economies are more integrated in the first stages of the agrifood chain and consequently more competitive in the exports of primary, as compared to processed products. For example, in 2013, small economies accounted for 12.6% of world exports of primary coffee and for only 0.4% of processed coffee. The gap in export competitiveness in primary versus processed agrifood exports points to untapped export potential and upgrading challenges in agrifood value chains. Amongst others, such challenges relate to exogenous demand and supply shocks, SPS standards, supplier-buyer linkages, the prevalence of small-scale farming, labour skills and access to finance.

8.9. Seafood value chains, which can be based on either capture or aquaculture, often take the form of small-scale fishery in developing countries. They are of major importance to many small economies that have access to the sea or are islands. Aquaculture has been a main driver of fish production in developing countries and continues to attract significant levels of FDI. Small economies increasingly participate in processing stages of fish value chains. Their share in world trade of processed fish increased from 5.2% in 2003 to 6.5% in 2013. While small economies in Africa and Asia/Pacific are more dependent on fish exports, small economies in the Caribbean, and particularly in Central and South America, are successful exporters of both fish and crustaceans such as shrimps. Besides upgrading the technology related to harvesting and processing, a major challenge in seafood value chains is the need for sound fishery management to ensure the sustainability of fish stocks.

8.10. With regard to the textiles and the apparel value chain, it is buyer-driven and has served several developing countries, including small economies, as a starting point for export-led development. Small economies in Central America and also Sri Lanka in Asia have successfully integrated into textile and apparel value chains. Small economies in Central America are positioned in the assembly stages of apparel production as 67% of their imported textiles are intermediate inputs and 90% of their exports constitute final apparel products. Small economies in Central America serve almost exclusively the North American market, while small economies in Africa and Asia/Pacific export the majority of their products to Europe.

8.11. In 2013, tourism accounted, on average for almost 9% of GDP across 30 small economies, which is three times as much as for the world. Small islands are particularly dependent on tourism. For instance, in the Maldives, tourism constitutes 48% of GDP and 93% of services exports. Tourism has many backward linkages to other sectors in the domestic economy and therefore plays an important role for employment creation and economic diversification in small economies. Tourist operators in small economies face challenges related to low labour skills, the general business environment, access to finance and travel infrastructure. Maximising the potential benefits from tourism requires sound policy planning, FDI, the establishments of backward linkages, and improvements in ICT and travel infrastructure. Tourism can also contribute to increased freight transport by air as air cargo is often shipped in the belly of passenger aircrafts.

8.12. IT and business process offshoring are other services which offer great potential to small economies as physical distance and economies of scale are of lesser relevance compared to manufacturing. So far, only a few small economies such as Sri Lanka, Mauritius and Jamaica have been relatively successful in developing IT and offshore business services. Success factors and challenges are a low-cost and skilled workforce, both in terms of IT and language skills, as well as a high-quality ICT infrastructure and related services.

8.13. The report also examined the vital role FDI plays in value chains. FDI can lead to knowledge and technology transfer to domestic suppliers or other firms. FDI inflows can actually help small economies gain a foothold in a value chain. In small economies, firms with at least 10% foreign ownership participation tend to be more integrated into GVCs than domestically-owned firms. Firms with foreign ownership source a higher share of inputs from abroad and export a higher share of their output.

8.14. To a large extent investments go to small economies that have sizeable mineral deposits (oil and gas in Trinidad and Tobago for example), a large population (Papua New Guinea), or where incentives and fiscal advantages are on offer (Barbados).

8.15. Other than natural resources, FDI also appears to go to sectors such as tourism, financial services and offshore business services. The latter sector is an area of unexplored potential for small economies. The high value of call centres and other office administration services are important sources of employment, job creation and export earnings but are also areas which have not yet attracted large levels of investment. Other sectors attracting investment include transport-related services for freighters and cruise ships, especially in countries located near major shipping channels (Nicaragua) or tourist zones (the Caribbean or Pacific islands).

8.16. With regard to the challenges facing SMEs in small economies, it is evident that SMEs in small economies are able to participate less in international trade and GVCs compared to larger firms. Particular challenges that SMEs face when trying to participate in GVCs include access to finance, workforce skills, market information and a small market that prevents them from growing. However, there are options, such as using forward agreements between a lead firm and small-scale farmers (Box 2 provides an example for Jamaica) to help mitigate the problem of access to finance, and making more use of national trade support institutions to obtain key market information. Small economies can also gain in market size and in experience by joining other small economies through regional integration agreements such as CARICOM or the Pacific Island Countries Trade Agreement (PICTA). This could make it easier as well for larger companies or lead firms to organize production networks inside a region.

8.17. Different strategies were explored which small businesses could deploy to defend themselves against larger firms. While a certain strategy works better for the textile and garment sector, another is more effective in the area of food processing. A related area of research was how some small businesses realize that they cannot compete with larger entities in the textile and food sectors and how they decide to shift their business and become distributors of the same products they used to compete with.

8.18. Logistics and trade facilitation is a key determinant for participation in GVCs. Because of their smallness and remoteness, small economies face higher transport costs and have a lower maritime shipping connectivity compared to other countries. Air transport is, therefore, of particular importance to small economies, also because it is the main arrival mode for many tourists. Examples of customs reform and improvements in road connectivity for Central America

illustrate how trade facilitation initiatives can reduce trade costs, increase trade and generate employment.

8.19. Some trade policy experiences and further examples of upgrading in value chains were also examined. Possibilities for more efficient production practices, better technology and moving into higher value-added activities such as marketing and design were discussed. Clearly, there is strength through numbers and there are benefits of clustering. Small companies in industrial clusters have better chances of achieving upgrades in value chains than those which are isolated.

8.20. There are several challenges faced by small economies that point to an important role for WTO-related initiatives and policies, such as Aid for Trade and trade facilitation. Improvements in transport and ICT infrastructure, the upgrading of laboratories and testing facilities, training to improve the skills of workers, export promotion initiatives or matchmaking between suppliers and buyers typically require both private and public investment. The many case stories cited in the report serve as examples of Aid for Trade at work and how targeted assistance can indeed help governments take advantage of the opportunities which value chains offer.

8.21. Monetary and time-related transport costs are key determinants for integration into GVCs. The implementation of the WTO Trade Facilitation Agreement (TFA) and the related support through the WTO TFA Facility can help small economies lower these costs and thereby contribute to GVC integration.

8.22. Industrial and government policies and the role that they play in supporting development are also very important. Policies for integrating into, moving up and realizing additional gains from value chains are key factors given the dynamic nature of GVCs. But small economies, if supported with the right policies, can benefit from value chains in goods and services trade and realize positive economic gains, no matter how small their size or how far away they are from their nearest customer.

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ANNEX

TABLES

Annex Table 1. Cocoa exports of small economies by processing stage

	Total (primary + processed)					Primary			Processed		
	US\$ (mill.)	Share in grouping exports (%)	Share in WLD product exports (%)	RCA	Growth p.a. (03-13; %)	US\$ (mill.)	Primary share (%)	RCA	US\$ (mill.)	Processed share (%)	RCA
ATG	0.0	0.0	0.0	0.0	-3.5	0.0	0.0	0.0	0.0	100.0	0.0
BLZ	0.3	0.0	0.0	0.2	30.1	0.3	99.6	0.7	0.0	0.4	0.0
BRB	0.2	0.0	0.0	0.2	5.2	0.0	0.0	0.0	0.2	100.0	0.2
BRN	0.5	0.0	0.0	0.0	68.6	0.0	0.0	0.0	0.5	100.0	0.0
CUB	2.3	0.1	0.0	0.4	0.8	0.4	19.3	0.3	1.8	80.7	0.4
DMA	0.1	0.2	0.0	0.9	-13.0	0.0	5.2	0.2	0.1	94.8	1.2
DOM	197.1	2.7	0.4	10.4	8.6	186.0	94.4	41.0	11.1	5.6	0.8
ECU	577.3	2.2	1.2	8.3	11.8	475.6	82.4	28.7	101.7	17.6	1.9
FJI	0.2	0.0	0.0	0.1	7.3	0.0	19.6	0.1	0.2	80.4	0.1
GRD	2.1	5.0	0.0	19.1	-2.7	1.6	79.9	63.6	0.4	20.1	5.0
GTM	9.7	0.1	0.0	0.3	8.8	0.0	0.4	0.0	9.6	99.6	0.4
GUY	0.3	0.0	0.0	0.1	0.0	0.3	99.6	0.2	0.0	0.4	0.0
HND	10.9	0.1	0.0	0.5	12.4	0.5	4.9	0.1	10.3	95.1	0.6
JAM	4.1	0.2	0.0	0.9	7.9	1.9	46.6	1.7	2.2	53.4	0.6
LCA	0.1	0.2	0.0	0.7	15.9	0.1	100.0	2.8	0.0	0.0	0.0
LKA	6.8	0.1	0.0	0.3	18.8	0.1	1.4	0.0	6.7	98.6	0.3
MDV	0.0	0.0	0.0	0.0	-17.8	0.0	0.0	0.0	0.0	100.0	0.0
MUS	0.2	0.0	0.0	0.0	12.1	0.0	0.0	0.0	0.2	100.0	0.0
NIC	8.2	0.1	0.0	0.5	36.7	8.1	99.3	2.0	0.1	0.7	0.0
PAN	6.2	0.1	0.0	0.3	12.2	2.2	35.6	0.5	4.0	64.4	0.3
PNG	123.9	1.9	0.3	7.3	6.4	123.9	100.0	30.6	0.0	0.0	0.0
PRY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
SLV	7.4	0.1	0.0	0.5	6.1	0.0	0.6	0.0	7.4	99.4	0.7
SUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
SYC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
TON	0.0	0.0	0.0	0.2	-31.0	0.0	100.0	0.6	0.0	0.0	0.0
TTO	9.6	0.1	0.0	0.2	9.7	2.5	25.5	0.2	7.2	74.5	0.2
VUT	4.8	1.4	0.0	5.3	4.2	4.7	99.6	22.0	0.0	0.4	0.0
WSM	0.0	0.0	0.0	0.1	-1.8	0.0	0.0	0.0	0.0	100.0	0.1

Source: CEPII BACI database.

Note: The BEC classification is used to distinguish between primary (BEC 111, 112, 21) and processed (BEC 121, 122, 22) cocoa (HS chapter 18).

Annex Table 2. Coffee exports of small economies by processing stage

	Total (primary+processed)					Primary			Processed		
	US\$ (mill.)	Share in grouping exports (%)	Share in WLD product exports (%)	RCA	Growth p.a. (03-13; %)	US\$ (mill.)	Primary share (%)	RCA	US\$ (mill.)	Processed share (%)	RCA
BLZ	0.1	0.0	0.0	0.1	21.8	0.1	50.5	0.1	0.1	49.5	0.2
BRB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
BRN	0.2	0.0	0.0	0.0	19.5	0.1	67.4	0.0	0.1	32.6	0.0
CPV	0.2	0.1	0.0	0.8	17.8	0.2	95.5	1.2	0.0	4.5	0.1
CUB	5.2	0.2	0.0	1.3	-4.5	4.0	76.3	1.5	1.2	23.7	1.1
DMA	0.1	0.1	0.0	0.7	-18.0	0.1	100.0	1.0	0.0	0.0	0.0
DOM	19.7	0.3	0.1	1.7	1.9	9.6	48.9	1.2	10.1	51.1	2.9
ECU	31.7	0.1	0.1	0.8	8.5	30.1	95.2	1.0	1.5	4.8	0.1
FJI	0.1	0.0	0.0	0.0	-7.9	0.0	0.0	0.0	0.1	100.0	0.1
GTM	804.2	7.2	2.8	45.3	8.7	801.4	99.7	64.6	2.8	0.3	0.5
HND	865.1	10.8	3.1	67.8	15.5	858.0	99.2	96.3	7.0	0.8	1.8
JAM	22.0	1.3	0.1	7.9	-4.6	19.7	89.7	10.1	2.3	10.3	2.7
LCA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.1
LKA	0.5	0.0	0.0	0.0	-3.9	0.4	72.9	0.0	0.1	27.1	0.0
MUS	0.1	0.0	0.0	0.0	23.2	0.0	11.2	0.0	0.1	88.8	0.1
NIC	369.9	5.8	1.3	36.1	15.1	366.6	99.1	51.3	3.3	0.9	1.1
PAN	19.6	0.3	0.1	1.8	2.1	15.5	78.7	2.0	4.2	21.3	1.3
PNG	147.0	2.3	0.5	14.3	3.4	146.7	99.8	20.4	0.2	0.2	0.1
PRY	0.1	0.0	0.0	0.0	-2.0	0.1	85.2	0.0	0.0	14.8	0.0
SLV	237.2	4.2	0.8	26.3	8.2	236.7	99.8	37.5	0.5	0.2	0.2
SUR	0.0	0.0	0.0	0.0	-9.9	0.0	0.0	0.0	0.0	100.0	0.0
TON	0.7	5.2	0.0	32.4	0.0	0.1	10.0	4.6	0.6	90.0	96.7
TTO	0.1	0.0	0.0	0.0	1.8	0.0	19.2	0.0	0.1	80.8	0.0
VUT	0.1	0.0	0.0	0.2	53.5	0.1	66.7	0.2	0.0	33.3	0.2
WSM	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	100.0	0.3

Source: CEPII BACI database.

Note: The BEC classification is used to distinguish between primary (BEC 111, 112, 21) and processed (BEC 121, 122, 22) coffee (HS chapter 09). See footnote 11 for a definition of RCA.

Annex Table 3. Fruits and nuts exports of small economies by processing stage

	Total (primary+processed)					Primary			Processed		
	US\$ (mill.)	Share in grouping exports (%)	Share in WLD product exports (%)	RCA	Growth p.a. (03-13; %)	US\$ (mill.)	Primary share (%)	RCA	US\$ (mill.)	Processed share (%)	RCA
ATG	0.4	0.2	0.0	0.2	-5.4	0.2	48.2	0.1	0.2	51.8	0.5
BLZ	132.4	23.0	0.1	30.4	6.9	72.2	54.5	22.1	60.2	45.5	55.3
BRB	3.8	0.8	0.0	1.0	63.3	0.4	10.2	0.1	3.4	89.8	3.6
BRN	4.5	0.0	0.0	0.1	76.1	0.1	3.1	0.0	4.4	96.9	0.2
CPV	0.0	0.0	0.0	0.0	-2.3	0.0	95.1	0.0	0.0	4.9	0.0
CUB	25.7	1.1	0.0	1.4	-9.6	0.6	2.2	0.0	25.1	97.8	5.5
DMA	2.9	4.9	0.0	6.4	-8.7	2.8	94.5	8.1	0.2	5.5	1.4
DOM	506.0	7.0	0.4	9.2	12.8	484.9	95.8	11.8	21.1	4.2	1.5
ECU	3,305.5	12.5	2.5	16.5	8.0	3,065.1	92.7	20.4	240.4	7.3	4.8
FJI	9.6	0.9	0.0	1.2	5.3	1.1	11.2	0.2	8.5	88.8	4.2
GRD	0.5	1.2	0.0	1.5	4.0	0.5	98.0	2.0	0.0	2.0	0.1
GTM	1,238.0	11.1	0.9	14.7	13.4	1,141.0	92.2	18.0	97.0	7.8	4.6
GUY	5.7	0.3	0.0	0.4	5.8	3.3	58.2	0.3	2.4	41.8	0.7
HND	499.6	6.2	0.4	8.3	5.3	470.7	94.2	10.4	28.9	5.8	1.9
JAM	30.9	1.8	0.0	2.3	-1.6	14.6	47.4	1.5	16.2	52.6	4.9
KNA	0.0	0.0	0.0	0.0	-17.4	0.0	100.0	0.0	0.0	0.0	0.0
LCA	11.8	30.2	0.0	39.9	-6.0	10.6	90.3	48.1	1.1	9.7	15.5
LKA	151.4	1.5	0.1	1.9	10.0	119.4	78.9	2.0	32.0	21.1	1.6
MDV	0.0	0.0	0.0	0.0	-24.4	0.0	100.0	0.0	0.0	0.0	0.0
MUS	10.2	0.4	0.0	0.5	15.3	9.1	89.8	0.6	1.0	10.2	0.2
NIC	47.5	0.7	0.0	1.0	9.2	42.0	88.6	1.2	5.4	11.4	0.4
PAN	322.4	4.7	0.2	6.2	-1.4	316.5	98.2	8.1	5.9	1.8	0.5
PNG	0.0	0.0	0.0	0.0	-16.7	0.0	100.0	0.0	0.0	0.0	0.0
PRY	19.6	0.3	0.0	0.3	16.9	8.1	41.4	0.2	11.5	58.6	0.8
SLV	89.8	1.6	0.1	2.1	18.5	5.1	5.7	0.2	84.7	94.3	7.9
SUR	69.1	6.7	0.1	8.8	62.9	68.8	99.5	11.7	0.4	0.5	0.2
SYC	0.8	0.1	0.0	0.2	22.6	0.8	99.2	0.2	0.0	0.8	0.0
TON	1.2	9.3	0.0	12.2	7.2	1.1	95.5	15.6	0.1	4.5	2.2
TTO	14.2	0.1	0.0	0.1	33.5	0.3	2.1	0.0	13.9	97.9	0.4
VCT	1.4	2.9	0.0	3.9	-20.5	1.4	100.0	5.1	0.0	0.0	0.0
VUT	0.3	0.1	0.0	0.1	32.3	0.2	68.0	0.1	0.1	32.0	0.1
WSM	2.8	4.5	0.0	5.9	8.5	0.7	26.6	2.1	2.1	73.4	17.5

Source: CEPII BACI database.

Note: The BEC classification is used to distinguish between primary (BEC 111, 112, 21) and processed (BEC 121, 122, 22) fruits and nuts (HS chapter 08 and HS headings 2006, 2007, 2008 and 2009). See footnote 11 for a definition of RCA.

Annex Table 4. Crustacean and mollusc exports of small economies by processing stage

	Total (primary+processed)					Primary			Processed		
	US\$ (mill.)	Share in grouping exports (%)	Share in WLD product exports (%)	RCA	Growth p.a. (03-13; %)	US\$ (mill.)	Primary share (%)	RCA	US\$ (mill.)	Processed share (%)	RCA
ATG	0.3	0.1	0.0	0.6	-8.0	0.3	100.0	0.8	0.0	0.0	0.0
BLZ	54.1	9.4	0.1	38.7	0.2	54.1	100.0	50.1	0.0	0.0	0.0
BRB	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	100.0	0.0
BRN	3.1	0.0	0.0	0.1	17.4	3.0	96.1	0.1	0.1	3.9	0.0
CPV	1.3	1.0	0.0	4.0	16.2	1.3	100.0	5.2	0.0	0.0	0.0
CUB	48.8	2.0	0.1	8.2	-3.9	48.4	99.2	10.6	0.4	0.8	0.3
DOM	5.6	0.1	0.0	0.3	7.4	5.6	100.0	0.4	0.0	0.0	0.0
ECU	1,826.1	6.9	4.2	28.5	19.1	1,795.1	98.3	36.2	31.0	1.7	2.1
FJI	6.5	0.6	0.0	2.5	2.4	6.0	92.6	3.0	0.5	7.4	0.8
GRD	0.1	0.2	0.0	0.9	-13.2	0.0	49.7	0.6	0.0	50.3	2.1
GTM	80.9	0.7	0.2	3.0	14.5	75.1	92.9	3.6	5.8	7.1	0.9
GUY	63.0	3.6	0.1	14.7	4.5	62.8	99.8	18.9	0.1	0.2	0.1
HND	268.7	3.4	0.6	13.8	6.1	237.3	88.3	15.8	31.4	11.7	7.1
JAM	18.5	1.1	0.0	4.3	9.1	18.4	99.6	5.6	0.1	0.4	0.1
KNA	0.1	0.1	0.0	0.4	31.3	0.1	100.0	0.5	0.0	0.0	0.0
LKA	68.7	0.7	0.2	2.7	1.2	64.6	94.1	3.3	4.0	5.9	0.7
MDV	1.0	0.5	0.0	2.0	-11.6	1.0	99.3	2.6	0.0	0.7	0.1
MUS	2.1	0.1	0.0	0.3	0.3	2.0	96.9	0.4	0.1	3.1	0.0
NIC	243.2	3.8	0.6	15.6	12.6	240.3	98.8	19.9	2.9	1.2	0.8
PAN	87.2	1.3	0.2	5.2	2.3	87.1	99.9	6.7	0.1	0.1	0.0
PNG	8.3	0.1	0.0	0.5	-7.6	8.3	99.6	0.7	0.0	0.4	0.0
SLV	1.1	0.0	0.0	0.1	-24.8	1.0	88.0	0.1	0.1	12.0	0.0
SUR	25.8	2.5	0.1	10.3	-4.0	25.7	99.7	13.2	0.1	0.3	0.2
SYC	2.2	0.4	0.0	1.5	-16.3	2.1	98.2	1.9	0.0	1.8	0.1
TON	0.6	4.9	0.0	20.4	22.1	0.6	100.0	26.4	0.0	0.0	0.0
TTO	0.0	0.0	0.0	0.0	-8.3	0.0	100.0	0.0	0.0	0.0	0.0
VCT	0.4	0.8	0.0	3.3	0.0	0.4	96.0	4.1	0.0	4.0	0.6
VUT	2.0	0.6	0.0	2.3	34.6	2.0	100.0	3.0	0.0	0.0	0.0
WSM	0.1	0.1	0.0	0.4	0.0	0.1	97.9	0.5	0.0	2.1	0.0

Source: CEPII BACI database.

Note: The BEC classification is used to distinguish between primary (BEC 112) and processed (BEC 121 and 122) crustacean and mollusc products (HS chapters 03 and 16). Ornamental fish, corals and fish fats and oils are not included as they are not categorized as food. See footnote 11 for a definition of RCA.

Annex Table 5. Fish exports of small economies by processing stage

	Total (primary+processed)					Primary			Processed		
	US\$ (mill.)	Share in grouping exports (%)	Share in WLD product exports (%)	RCA	Growth p.a. (03-13; %)	US\$ (mill.)	Primary share (%)	RCA	US\$ (mill.)	Processed share (%)	RCA
ATG	0.9	0.4	0.0	0.9	3.4	0.0	0.3	0.0	0.9	99.7	1.1
BLZ	48.7	8.5	0.1	17.6	21.6	0.1	0.3	0.2	48.5	99.7	22.8
BRB	2.4	0.5	0.0	1.0	7.6	1.1	47.2	2.0	1.3	52.8	0.7
BRN	2.5	0.0	0.0	0.0	45.1	0.6	25.7	0.1	1.9	74.3	0.0
CPV	62.4	45.6	0.1	94.9	87.9	0.2	0.3	1.1	62.3	99.7	123.2
CUB	0.2	0.0	0.0	0.0	-24.9	0.2	100.0	0.1	0.0	0.0	0.0
DMA	0.0	0.0	0.0	0.0	-45.0	0.0	0.0	0.0	0.0	100.0	0.0
DOM	6.4	0.1	0.0	0.2	32.7	4.6	72.2	0.6	1.8	27.8	0.1
ECU	1,720.6	6.5	2.0	13.6	12.4	74.7	4.3	2.5	1,645.9	95.7	16.9
FJI	205.2	19.2	0.2	40.1	7.2	28.1	13.7	23.7	177.1	86.3	45.0
GRD	7.3	17.7	0.0	36.9	2.3	7.3	99.6	158.6	0.0	0.4	0.2
GTM	94.5	0.8	0.1	1.8	19.7	6.5	6.9	0.5	87.9	93.1	2.1
GUY	50.2	2.8	0.1	5.9	19.0	19.3	38.5	9.8	30.9	61.5	4.7
HND	83.8	1.0	0.1	2.2	11.9	6.4	7.6	0.7	77.4	92.4	2.6
JAM	1.7	0.1	0.0	0.2	1.5	0.0	2.3	0.0	1.7	97.7	0.3
KNA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
LKA	230.9	2.2	0.3	4.6	10.9	65.4	28.3	5.7	165.5	71.7	4.3
MDV	187.9	91.3	0.2	190.1	9.0	48.8	26.0	213.0	139.1	74.0	183.2
MUS	520.0	18.3	0.6	38.2	16.4	5.4	1.0	1.7	514.6	99.0	49.2
NIC	37.5	0.6	0.0	1.2	11.4	19.8	52.8	2.8	17.7	47.2	0.7
PAN	176.2	2.5	0.2	5.3	-4.8	87.6	49.7	11.4	88.6	50.3	3.5
PNG	276.8	4.3	0.3	8.9	7.9	5.9	2.1	0.8	270.9	97.9	11.4
PRY	0.0	0.0	0.0	0.0	-29.5	0.0	0.0	0.0	0.0	100.0	0.0
SLV	136.1	2.4	0.2	5.0	17.7	6.3	4.6	1.0	129.8	95.4	6.2
SUR	68.2	6.6	0.1	13.7	16.8	18.5	27.2	16.1	49.6	72.8	13.0
SYC	493.4	82.6	0.6	172.0	4.5	1.7	0.3	2.5	491.7	99.7	223.1

Source: CEPII BACI database.

Note: The BEC classification is used to distinguish between primary (BEC 112) and processed (BEC 121 and 122) fish (HS chapters 03 and 16). Ornamental fish, corals and fish fats and oils are not included as they are not categorized as food. See footnote 11 for a definition of RCA.

Annex Table 6. Services exports of small economies in selected services products, 2011

	Total		Travel				Computer and information				Other business			
	US\$ mill.	Growth p.a. (%)	US\$ mill.	% of Total	RCA	Growth p.a. (%)	US\$ mill.	% of Total	RCA	Growth p.a. (%)	US\$ mill.	% of Total	RCA	Growth p.a. (%)
	2011	05-11	2011				2011				2011			
Central & South America	14,795.8	9.8	6,213.6	42.0	1.7	10.3	51.4	0.4	0.1	11.8	487.1	3.3	0.1	-5.2
Panama	7,175.3	14.4	1,925.6	26.8	1.1	16.3	25.1	0.3	0.1	13.6	158.9	2.2	0.1	-7.6
Guatemala	2,151.6	9.9	1,350.2	62.8	2.5	9.3	6.6	0.3	0.1	-5.8	125.5	5.8	0.2	10.0
Ecuador	1,483.9	7.9	843.4	56.8	2.3	9.6	0.0	0.0	0.0	-	0.0	0.0	0.0	-
El Salvador	1,015.5	1.7	414.8	40.8	1.7	2.3	1.1	0.1	0.0	-	24.9	2.4	0.1	2.7
Honduras	990.2	6.4	636.7	64.3	2.6	5.4	9.4	0.9	0.2	105.7	24.0	2.4	0.1	10.0
Paraguay	602.4	-0.2	261.3	43.4	1.8	22.5	0.4	0.1	0.0	0.0	2.7	0.4	0.0	-50.5
Nicaragua	576.7	13.4	378.1	65.6	2.7	10.6	0.5	0.1	0.0	-	9.7	1.7	0.1	-
Belize	311.0	1.5	247.6	79.6	3.2	2.5	-	-	-	-	20.6	6.6	0.3	-6.2
Guyana	297.6	12.4	95.0	31.9	1.3	18.1	8.3	2.8	0.5	10.2	38.9	13.1	0.5	5.0
Suriname	191.5	0.8	60.9	31.8	1.3	5.3	0.6	0.3	0.1	-	82.0	42.8	1.6	3.4
Caribbean	21,390.8	4.9	10,776.8	50.4	2.0	2.1	66.4	0.7	0.1	3.8	314.4	3.4	0.1	10.8
Cuba	10,816.7	7.3	2,282.7	21.1	0.9	-0.3	-	-	-	-	-	-	-	-
Dominican Republic	5,313.3	5.4	4,436.1	83.5	3.4	3.9	27.9	0.5	0.1	10.4	132.8	2.5	0.1	19.9
Jamaica	2,587.4	2.0	2,012.5	77.8	3.1	4.5	38.5	1.5	0.3	1.9	51.8	2.0	0.1	32.4
Barbados	1,249.8	-2.2	997.7	79.8	3.2	-1.2	-	-	-	-	-	-	-	-
Antigua and Barbuda	469.4	0.6	311.8	66.4	2.7	0.1	0.0	0.0	0.0	-	23.0	4.9	0.2	-7.4
Saint Lucia	378.3	-2.3	320.6	84.7	3.4	-2.9	0.0	0.0	0.0	-100.0	28.3	7.5	0.3	21.6
Grenada	156.4	5.3	116.8	74.7	3.0	8.5	0.0	0.0	0.0	-	12.4	7.9	0.3	5.3
Saint Kitts and Nevis	141.6	-1.9	94.1	66.5	2.7	-4.1	0.0	0.0	0.0	-	24.0	16.9	0.6	4.7
Dominica	140.5	8.7	112.8	80.3	3.2	12.0	0.0	0.0	0.0	-	14.9	10.6	0.4	0.7
St. Vincent & the Grenadines	137.4	-2.1	91.7	66.7	2.7	-2.1	0.0	0.0	0.0	-	27.3	19.9	0.8	-1.1
Africa	4,267.6	11.6	2,143.8	50.2	2.0	10.4	62.9	1.7	0.3	24.5	908.1	21.3	0.8	22.2
Mauritius	3,237.0	12.4	1,484.5	45.9	1.9	9.3	62.7	1.9	0.3	24.4	875.7	27.1	1.0	22.0
Cabo Verde	560.2	14.1	368.3	65.7	2.7	20.2	0.2	0.0	0.0	50.9	2.9	0.5	0.0	1.3
Seychelles, Rep. of	470.4	5.2	291.0	61.9	2.5	7.2	-	-	-	-	29.5	6.3	0.2	33.7
Asia	8,327.5	13.7	3,815.6	53.6	2.2	18.4	358.1	7.4	1.3	26.8	747.5	14.6	0.6	8.8
Sri Lanka	3,061.9	12.4	830.3	27.1	1.1	11.6	355.0	11.6	2.0	27.5	265.8	8.7	0.3	6.0
Maldives	1,999.2	35.9	1,867.9	93.4	3.8	36.7	-	-	-	-	-	-	-	-
Brunei Darussalam	1,209.0	11.9	-	-	-	-	-	-	-	-	-	-	-	-
Fiji	1,066.6	4.2	724.3	67.9	2.7	6.9	2.1	0.2	0.0	-3.4	39.4	3.7	0.1	10.7

	Total		Travel				Computer and information				Other business			
	US\$ mill.	Growth p.a. (%)	US\$ mill.	% of Total	RCA	Growth p.a. (%)	US\$ mill.	% of Total	RCA	Growth p.a. (%)	US\$ mill.	% of Total	RCA	Growth p.a. (%)
	2011	05-11	2011				2011				2011			
Papua New Guinea	491.2	9.3	5.0	1.0	0.0	5.4	0.3	0.1	0.0	-15.5	412.6	84.0	3.2	11.4
Vanuatu	281.4	13.1	225.9	80.3	3.2	17.6	0.2	0.1	0.0	-	6.5	2.3	0.1	0.9
Samoa	171.1	7.2	134.1	78.4	3.2	9.3	0.6	0.4	0.1	19.4	16.2	9.5	0.4	-0.1
Tonga	47.2	8.3	28.1	59.5	2.4	11.2	0.1	0.2	0.0	67.6	7.0	14.9	0.6	18.4
Small economies	48,781.8	8.1	22,949.7	48.2	2.0	6.7	538.8	1.7	0.3	19.8	2,457.2	7.3	0.3	7.8

Source: WTO Trade in Services Database.

Note: "-" indicates that data are missing or that growth rates could not be calculated. The indicator RCA (revealed comparative advantage) measures the export specialization of a country relative to the world. It is calculated as the ratio of the share of a product in a country's services exports divided by the share of the product in world services exports. An RCA measure larger than one indicates that the country has a revealed comparative advantage in a particular product. The number of countries included in regional aggregates corresponds to the number of countries having data in both 2005 and 2011 and is as follows.