

# Out of the trap

Supporting the least developed countries

Edited by Patrick Guillaumont



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## Preface

The purpose of a previous book, *Caught in a Trap*, was to examine the rationale of the category of the Least Developed Countries (LDCs), created in 1971 by the United Nations. The purpose of this present book *Out of the Trap* is to look for the development impact of country membership in the category and related international support measures.

### Reminding the origin and the rationale of the category

The category of LDCs was created to identify developing countries that, for structural reasons, justified special treatment from the international community. Since the beginning, the LDCs have been identified on the basis of three criteria: per capita income or product, education or human capital, and economic structure. The definition of these three criteria has evolved over time (see *Caught in a Trap* and an updated summary of their evolution in appendix A1). Anyway, the idea has been to identify those poor countries facing handicaps to their economic growth that were structural and independent of their present will. Poor countries so identified were more than others likely to stay poor. They were seen as caught in a poverty trap. The category of LDCs in its institutional context reflected the thesis of a low-level equilibrium that was at the heart of the early theory of (under) development.

The specifics of LDCs and their differences from other developing countries were covered in the previous book. That book stressed not only their lowest level of average income, but also their lowest average growth between 1970 and 2000, their lowest level of human capital (education, health) and their stronger economic vulnerability. LDCs have thus been progressively

defined as poor countries facing low human capital and strong structural economic vulnerability.

### **The complementarity of the handicaps and the criteria**

The identification of LDCs was based on a significant hypothesis, insufficiently highlighted. To be included on the list of LDCs, a country had to meet the three criteria with no possibility of substitution between them. The underlying hypothesis was that, if a low-income country faced only one of the two kinds of structural handicaps, it could overcome the other one: it was not caught in a trap. Econometric analysis for the previous book showed the mutual reinforcement of the two types of obstacles in limiting the rate of growth. The hypothesis of complementarity between the two categories of barriers to growth thus gained some consistency.

This underlying theory incorporated the widely accepted idea that human capital has an essential role in economic growth, besides other factors whose identification was more difficult and thus more debatable. While the choice of the index of human capital as a criterion for LDC identification (as well as for the econometric test) did not raise major problems, the choice of the index to reflect handicaps due to economic structure changed significantly over time: the share of manufacturing value added in GDP was initially retained in 1971, followed in 1991 by an economic diversification index, then in 2000 by an economic vulnerability index, which itself underwent various modifications.

### **The category of LDCs—From economic growth to sustainable development**

One of the changes in the definition of the index of economic vulnerability, in 2012, seems to have modified the meaning given to the category. The amendment was to introduce a new component in the index, representing the share of the population living in low coastal areas below an altitude of 5 meters), with the view to capture the risk associated with climate change and sea level rise. Although limited and partial, this new component of the vulnerability index appeared valid enough to present LDCs as poor countries facing significant obstacles to their *sustainable development* and not only to their economic growth (CDP, UNDESA 2015). If this vision were to be strengthened, it would involve an adaptation of the vulnerability criterion.

Moreover, a new meaning of the LDCs might lead to reconsidering the hypothesis of complementarity between structural obstacles and thus the inclusion criteria. It is remarkable that in many recent official documents of the United Nations, the reference to LDCs is often associated with poor and vulnerable countries. The recent emphasis in international discussions on climate vulnerability and political fragility indeed pushes for expanding the concept of structural vulnerability. Such expansion could require reconsidering the concept of LDCs and the corresponding perimeter of the category (Guillaumont 2018b).

### From inclusion to graduation

A striking feature of the category's evolution came in 1991, when 20 years after its creation the exit conditions were defined—the so-called graduation rules. The way the graduation criteria have been defined, very carefully indeed, has somewhat weakened the scope of the complementarity hypothesis. If one takes for granted that the two categories of structural handicaps to growth are complementary, it would have been enough for one of the two handicaps to be lifted so that the country could be seen as able to get out of the category. But the rule was cautiously established that, to graduate, the country must cease to fill not one but two of the three inclusion criteria. This reason contributed, with others, to slow graduation from the list of LDCs. Accordingly, the number of LDCs—25 initially and 45 in 1991—at the time graduation conditions were established, increased to 49 in 2009 and began to decline in 2011 to 47 in 2018.

### The puzzle of the category effectiveness

The evolution of this number illustrates the major issue this book seeks to address. The category of the least developed countries was created to legitimize a special treatment from the international community to help them to move out of the trap. It was therefore intended to reduce the number of LDCs. But the increase in number until recently does not mean the category has been ineffective or useless. Until 1991, the inclusion of new LDCs without graduation prospects was on request, and only after that date were inclusion and graduation on the basis of objective criteria. And because of the asymmetry between inclusion and graduation criteria, LDCs could improve their situation without becoming eligible for exiting from the list. Above all, LDCs by definition face structural obstacles to growth that special treatment can compensate for only in part, and still be effective.

Such is the puzzle of the effectiveness of international measures focused on LDCs. These measures are specific to LDCs, which more than others are assumed to face structural handicaps. The impact of the measures and the impact of handicaps should then be disentangled. The relative weight of these two categories of impact could even evolve over time. It is possible that the handicaps are gradually reduced and the measures gradually strengthened. If that were the case, the effectiveness of the category's membership should appear more clearly now than in the past.

*Out of the Trap* assesses the effectiveness of the measures to help LDCs move out of the category. It supplements *Caught in a Trap*, completed almost a decade ago, and thus has 10 more years before a diagnosis of support measures. Starting our research on LDCs we thought the logic of the category had been underestimated and the effectiveness overestimated. We now have better estimates of both, dampening such an opposition.

### The new international environment for LDCs

The evolution of the international environment could have changed both the impact of the category and its perception. Between the adoption by the United Nations of the



Millennium Development Goals (MDGs) in 2000 and the Sustainable Development Goals (SDGs) in 2015 the recognition of specific needs of LDCs has progressed. While the MDGs referred only 3 times to the category of LDCs (United Nations General Assembly 2000), the SDGs referred to them 43 times (United Nations General Assembly 2015). Indeed, the progressive recognition of the special situation of LDCs in the context of the universality of SDGs has increased the category's visibility (Guillaumont 2018a).

On the agreed measures for the development of LDCs, progress is also evident in the United Nations Conferences on the Least Developed Countries: in Paris in 1981, in Brussels in 1991 and 2001 and in Istanbul in 2011 (see appendix A2 for a summary of the issues addressed by the final reports of the four conferences). The Istanbul Conference, which adopted the Istanbul Program of Action—coming after the program of action adopted 10 years earlier—proposed a strong mobilization in favour of LDCs. Over time the measures proposed for supporting them have been gradually strengthened, and they gradually produced their effects.

Moreover, during the past 15 years, global economic conditions have experienced real instability—with an upward trend in the prices of primary commodities in the first decade of the millennium, but also severe financial and economic crises in developed countries. This instability in the global economy adds to the difficulty of estimating the impact of the measures in favour of LDCs, particularly for countries exporting primary products, with the price of fuels very unstable.

### Three set of measures

Three set of international support measures, assessed in this book, have been implemented or proposed. They are clearly summarized in the *Handbook on the Least Developed Country Category* prepared by the Secretariat of the CDP, UNDESA. Support measures and special treatment related to trade include preferential market access given through duty free-quota free access such as the Everything but Arms provided by the EU to LDCs or through special rules for LDCs in the nonreciprocal Generalized System of Preferences. They also include special and differential treatment (more flexibility) related to World Trade Organization obligations and support measures for capacity-building in trade, such as the Integrated Framework for Trade-related Assistance to Least Developed Countries, enhanced a decade ago.

A second set of measures is related to official development assistance (ODA). But these measures appear at the bilateral level more as a target or a goal than as an outcome. At the multilateral level, they appear as special windows or rules of allocation for LDCs, and rules for international comparisons of the ODA.

Third are other forms of support by the UN system to LDCs for travel to the UN or for contributions to the UN ordinary budget or peacekeeping operations.

Complicating the puzzle of the category's effectiveness is the diversity of these support measures linked to category membership, to heterogeneity in how compulsory they

are, and to time frames. To address this difficulty, the book mixes analyses of global impact with an examination of the specific impact of the main groups of measures, more easily captured as such “intermediate variables” as aid or trade.

### Outline of the book

The book has eight chapters in four parts.

The first part is dedicated to the overall performance of the least developed countries. A first chapter examines whether an impact of the category on the results they obtained for growth, poverty reduction, and structural transformation can be assessed. A second chapter tries to assess the “performance” of the LDCs through their policy indicators and to answer whether a policy performance weaker than that of other developing countries may be partly responsible for the observed results.

The second part is devoted to foreign aid received by LDCs. A chapter examines the overall flow of assistance to LDCs, compared with the international objectives. Did membership in the category have an impact on the amounts of aid received? Was aid particularly effective in LDCs? Another chapter focuses on multilateral assistance to LDCs and looks for its specifics.

The third part is dedicated to the support provided to LDCs through trade. A chapter assesses trade measures by the international community for LDCs, beyond market access. Another chapter estimates to what extent these measures as well as the market access could have slowed or even reversed the marginalization of non-oil exporting LDCs in world trade over nearly half a century.

The fourth part deals with two major challenges that LDCs face today. The first is that of their graduation, recognized as a goal since the Istanbul Conference. The history of graduation, in its various phases (criteria, decision process, implementation) informs limits of the category’s effectiveness and consistency, as well as some ways to enhance consistency. A last chapter examines the place of LDCs in global governance: Has the category of LDCs proven effective in institutional terms?

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# Main conclusions and recommendations





## Main conclusions and recommendations

*Out of the Trap* assesses the impact of the Least Developed Countries category membership on the development of these countries. It is a companion of *Caught in a Trap*, which assessed the rationale for the category and the way member countries are identified. Assessing the impact of LDC status is difficult because there is no adequate control group. Countries benefitting from support measures linked to LDC status are also countries suffering most from structural handicaps. And not only has the perimeter of the category changed over time, so have the strength and coverage of the support measures, and their effect may have been progressive, or even delayed.

In the last quarter century, opinions on LDCs issues have themselves been evolving. When the project for these twin books was launched, the rationale for the category was paradoxically underestimated, and its effectiveness overestimated. Since that time the category's legitimacy has been enhanced, as have the support measures.

This book's eight chapters examine the effectiveness of international support measures to LDCs. Their conclusions are summarized here, underlining that the future effectiveness of the support measures is linked to the consistency of the category, still to be enhanced.

### **Economic growth, poverty reduction and structural transformation in the least developed countries: The puzzle of the impact of category membership**

The analysis in chapter 1 does not reject the hypothesis that LDCs were initially caught in a low-income trap: The structural handicaps of LDCs did reduce their economic growth, but more over 1975–2000 than over 1975–2011, suggesting some structural change since the beginning of the millennium.

Since the mid-1990s and accelerating in the 2000s, economic growth in LDCs improved after two decades of low growth, holding out hope that escape from the trap was possible. On average, LDCs are now growing as fast as other developing countries. But convergence in income growth does not mean convergence in income level, which requires faster GDP per capita growth in countries with lower incomes.

During the nearly five decades since the LDC category was established, LDCs have reduced poverty and implemented structural changes, as reflected in improvements in the two indicators of structural handicaps used to identify LDCs: the Economic Vulnerability Index and, even more clearly, the Human Assets Index. But the gap between LDCs and other developing countries has narrowed little, suggesting that LDCs continue to face more severe obstacles to growth. The gap in economic vulnerability has even been widening recently. Poverty reduction, while substantial, has been slower in LDCs than in other developing countries, due both to slower growth of income per capita and to a weaker response of poverty to economic growth.

Structural transformation, as reflected by the change in the economy's sectoral composition, has largely occurred through an increase in the service sector's share of the economy (to about half) and a decline in agriculture's, with little change in industry's. Average productivity growth in LDCs seems to have come mainly from within-sector changes, particularly in agriculture, rather than from a sectoral shift in the labour force.

Oil resources seems to explain only a small share of the improvement in LDCs. Changes in the terms of trade reduced economic growth in both LDCs and other developing countries before 2000 and increased it over 2000–15. The contribution of changes in the terms of trade was larger in LDCs than in other developing countries, so that improvements narrowed the growth gap between LDCs and other developing countries. Moreover, LDCs were relatively more protected from the global economic crisis of 2007–09 than were more developed countries—partly because they are less integrated into the global economy—and they experienced a smaller decline in external capital flows (remittances, development assistance and foreign direct investment).

It is likely that the persistence and reinforcement of external support contributed to the improvements in LDCs. But the analysis here could not rigorously measure the impact of that support on the overall performance of LDCs in economic growth, poverty reduction and structural transformation. The reason: countries benefitting from these support measures are at the same time facing specific structural handicaps (by definition). It was not possible to disentangle the impact of the handicaps, which vary among LDCs, from that of the support measures to overcome them.

The analytical methods (including regression discontinuity design) did not reveal a causal effect of LDC status on economic growth in the short run. But the overall long period trend improvement makes likely that support measures had a positive impact, although progressive or delayed. The following chapters consider the support measures separately, along with their country-specific application, which allows for better assessment.

### **Policy performance: Is it weaker in the least developed countries?**

Developing country economic policies and institutional quality are a major factor of economic growth. Countries lagging the furthest behind—the LDCs—seemed also to be those suffering from the poorest policy performance among groups of developing countries. Chapter 2 questions how performance is used, arguing that it is often defined too simply, and then wrongly. A more appropriate definition controls for the structural factors featuring LDCs—income per capita, economic vulnerability and human capital—given that they are likely to be inversely related with performance.

The chapter presents the results of an econometric analysis of cross-section and panel data that strongly support this assumption. Specifically, once human capital and economic vulnerability as well as the level of income per capita were taken into account, the gap in policy performance between LDCs and non-LDCs—measured either by the World Bank governance indicators or by specific policy outcomes—became insignificant. Even so, it does not seem that the policy performance of LDCs, as captured by these adjusted measures, significantly improved during the last two decades compared with other developing countries so that it could be the main explanation of the growth gap reversal.

That the economic vulnerability and governance indicators are inversely related, especially after controlling for income per capita, provides a strong case for augmenting the performance-based allocation mechanisms of the multilateral development banks with appropriate measures of structural vulnerability.

### **Global aid flows to the least developed countries: What effectiveness of the aid target?**

The level of aid LDCs receive as a share of their GDP is significantly higher on average than in other developing countries. Their aid per capita is also higher, but to less extent since their GDP per capita is lower. The level they receive per poor person is no longer clearly higher, since the percentage of poor people (the headcount poverty ratio) is higher.

From the beginning of the LDC category, development assistance has been seen as a major tool to support the LDC effort to move out of the trap. The legitimacy of giving priority to LDCs in aid allocations is well established, relying both on equity reasons (equalizing opportunities by addressing the structural handicaps featuring the category) and on effectiveness reasons (marginally higher in more vulnerable countries). This legitimacy has been formally recognized by the international community through specific ODA targets for LDCs (as a percent of gross national income), as well as by the UN General Assembly invitation to use LDCs identification criteria as criteria for aid allocations.<sup>1</sup>

However, the actual flows of official development assistance (ODA) to LDCs have remained far below the targets, and the allocation between countries far from what it

would have been according to the LDCs identification criteria. This does not mean that ODA to LDCs has been ineffective in supporting the LDCs development, but it suggests that reaching the targets could have resulted in faster growth and development. With a higher level and a better design of ODA to LDCs, a larger number of them could have graduated from the category and seen their following needs of assistance declining. The remaining LDCs could then have received more aid on average (for a global level of aid to LDCs) and become better prepared for graduation.

### **Multilateral assistance to the least developed countries: To what extent is it specific?**

The LDC category has been useful to gather political support within intergovernmental negotiations as witnessed by the references to their special situation in numerous development agendas and outcomes, including the 2030 Agenda for sustainable development. It can also be argued that, thanks to the creation of the category and political support over the years, the overall share of multilateral ODA received by LDCs is significantly higher than what would otherwise have been the case.

With their activities, UN organizations make significant contributions in various degrees to the development efforts in many LDCs. But while the UN entities recognize the LDC category, such recognition does not translate into a consistent application of priorities and budget allocation, and variations are large in the type and level of LDC specific assistance. While the mandate of some specialized agencies may not closely relate to LDCs, this is a concern for UN agencies whose primary objective and mission is to promote sustainable development. Overall, it is essential that UN organizations go beyond the mere recognition of the LDC category and provide access to meaningful LDC-specific support measures. Too often, assistance is based on UN organizations' own criteria, which may not be related to the LDC status.

There is also a need to articulate more tailored, national and international responses for each LDC—to make support measures more effective and more targeted to country needs.

The total multilateral resources allocated through UN channels is lower than that allocated through international financial institutions. Although the non-recognition of the LDC category by these institutions does not translate into an absence of activities or funds disbursed to LDCs, the lack of formal LDC-specific support may result in some LDCs being consistently left out as beneficiaries.

To equitably address the specific issues facing LDCs due to their structural handicaps, multilateral ODA, channelled either through the United Nations or the multilateral financial institutions, should take into account the UN General Assembly resolution on a smooth transition from the LDC category inviting development partners to consider the LDC indicators—gross national income, the human assets index and the economic vulnerability index—as part of their criteria for allocating ODA, as the

European Union has already done. While this resolution applies to all development partners, it matters particularly for multilateral institutions and among them the UN organizations, which could take the lead in addressing the LDC concerns. Applying the criteria would allow differentiating LDCs according to the severity of their handicaps as well as addressing the specific concerns of graduating LDCs.

### **Trade-related measures for the LDCs: What has been done?**

Trade promotes development, so it should be considered an instrument and not a goal. Yet, the special measures—developed in parallel with the strategy to support trade by LDCs—are not adequate or sufficient to make trade a strong instrument and means of development. As already recognized by the Doha Round, special and differential treatment (SDT) measures need to be more precise, effective and operational. But negotiations have been painfully slow, while the Monitoring Mechanism has yet to produce concrete results. And the space for SDTs for developing countries and LDCs seems to be closing fast, with the expectation that all WTO members will eventually abide by the same set of rules.

Chapter 5 indicates several challenges related to the use and effectiveness of the available set of SDTs for LDCs. However imperfect the current SDT provisions, they have a role in removing some of the obstacles LDCs face in increasing and diversifying their exports. But LDCs need to have a more active position and to get better acquainted with the measures developed for their benefit, including formulating requests for specific capacity building assistance programmes. Only through accessing and using these measures will LDCs be able to identify problems and formulate specific demands for change and improvement.

Part of the lack of effectiveness of the SDTs is that LDCs are not fully aware of them—and even when aware cannot productively use them due to communication and coordination failures at the country level. LDCs need to correct these problems and take more ownership of these provisions. Another part has to do with the way some of these measures have been designed (not necessarily tailored to the conditions in most LDCs). The “add-ons” they carry (such as stringent rule of origin and other requirements) and the lack of policy coherence at the global level mitigate the contribution that some measures could bring to LDCs.

Enlightened international cooperation is needed to address these shortcomings. The assessment of the Enhanced Integrated Framework and of the associated Diagnostic Trade Integration Studies, while underlining the potential of such a support to LDCs, return forcefully to the difficulty of promoting trade as an engine of sustainable development in LDCs and on the specific modalities supporting trade in these countries.



### **Trade marginalization of LDCs and its reversal: What impact of international support?**

Since the start, special and differential treatment (SDT) has been an important vehicle supposed to help these countries develop faster including by increasing their participation in world trade, an objective re-iterated in the four UN LDC conferences and related programmes of action, particularly the Istanbul programme of action. The evolution of the LDC export share in world trade, and that of the diversification of their exports, reflects the evolution of their trade costs relative to the trade costs of other developing countries. These trade costs, increased by the structural factors inherent to the LDC category, are expected to be lowered by the special and differential treatment given to LDCs, particularly through market access, and can vary according to the individual policies of exporter LDCs.

On overall trade performance, the export share of LDCs in world exports, following a long period of decline, started to rise around 2000, first and significantly for oil exporters, then for other LDCs, mainly those exporting minerals. But for most LDCs, neither oil exporters nor mineral exporters, there has not been a clear reversal of decline, only stagnation. Moreover other than oil exporters, LDCs do not appear less diversified than other developing countries.

Does LDC membership matter for trade performance? On average over 1995–2014, LDCs export around 30 percent less than other developing countries. Controlling for trade costs, the impact of membership in the LDC category has been stable and significantly negative over the period, notably towards the United States and the European Union even after the Everything But Arms (EBA) and African Growth and Opportunity Act (AGOA) agreements. Nor has there been a noticeable catching up of exports to the United States or especially to China. Still controlling for trade costs, LDC exports to China at the end of the period were no longer significantly different from those of other developing countries.

The European Union and United States, the two most important markets for LDC exports among grantors of nonreciprocal preferences, have been progressively engaging in a multitude of regional trade agreements with developing countries, many since the early 1990s. Already for 2012 estimates covering all regional trade agreements by the European Union and United States show a strong erosion of preferences. For the European Union the average (trade-weighted) adjusted preferences for LDCs are cut in half and stand at 3 percent. For the United States the adjusted preferential margin was a negative (–1.3 percent), meaning that the LDCs were discriminated against for products they sell in the US market.

This absence of special and differential treatment is compounded by two other measures in the policies of grantor countries. First, with the exception of a simplification of technical requirements in the apparel sector (in 2001 for AGOA beneficiaries and in 2011 for EBA beneficiaries), developed countries made no effort to simplify their

rules of origin requirements for LDCs until the December 2015 decision that a product originating in an LDC will qualify for preferential treatment so long as nonoriginating materials do not exceed 75 percent of the final value of the product. Second, there is little specific information on how nontariff measures affect LDC exports, beyond case-study evidence that sanitary and phytosanitary regulations in the United States and European Union are inhibiting developing country exports. But since the 2008 crisis, over 6,000 measures collected for the Global Trade Alert database show that close to 500 distorted LDC exports are estimated to have reduced LDC exports by \$265 billion over 2009–13, equivalent to 31 percent of the total value of LDC exports.

Other important factors undermine progress in LDC trade performance, particularly deficient hard and soft infrastructure and related LDC policies. These internal factors may be influenced by the structural features of LDCs (income, human capital and economic vulnerability), but they can also be improved with the help of the international community. The Aid for Trade initiative launched in 2005 and the Trade Facilitation Agreement of 2013—while not exclusively directed towards LDCs—are both largely targeted towards improving their supply capacities and trade performance. Three main factors have been identified.

First, the lack of appropriate domestic institutions may well be a binding constraint to exporting in LDCs with a comparative advantage in agricultural products. Second, poor performance in logistics markets has been systematically found to be the main driver of cross-country differences in trade costs, justifying the allocation of AFT funding on hard and soft infrastructure. For example, it is estimated that an improvement in customs management by individual LDC group members to the group frontier could reduce trade costs for imports needed for exports by 2 percent for LDCs and 3 percent for landlocked LDCs. Third, spending on trade performance optimization has positive effects on exports at the intensive margin (expanded volumes) and at the extensive margin (new products and new partners). Greater emphasis on TPO (Trade promotion organizations) activities should help improve the trade performance of LDCs.

### **Graduation from the category of least developed countries: Rationale, achievement and prospects**

The LDC category was created to help countries develop more quickly, so that they can leave the category. But the graduation of LDCs has been successively forgotten, feared and desired. During the first 20 years of the category, from 1971 to 1991, no graduation rules were established. During the following 20 years, countries mainly saw graduating as a risk to be postponed. In 2011 at the 4th UN Conference on LDCs in Istanbul, making half of the LDCs meeting graduation criteria became a goal by 2020, an ambitious, though unreachable target designed in the Istanbul Plan of Action.

The LDCs' graduation has been slow and recent. This stems from two main factors, besides the countries' own resistance. One has been LDCs' long-lasting growth

lag, which has reversed somewhat since the mid-1990s. The other major one has been the strong asymmetry between inclusion and graduation criteria. To avoid any risk of reversibility, precautionary conditions had been set up before the Committee on Development Policy recommended an LDC for graduation. Criteria had to be met not at one but at two successive triennial reviews, with margins set up between the inclusion and graduation thresholds of the criteria indicators. (Two criteria had to cease to be met, while three complementary criteria were needed for inclusion). Moreover, an additional three-year period was set up after graduation has been decided but before it became effective.

As a result, in 2018, 31 of the 47 LDCs were no longer meeting the inclusion criteria without being graduated (that is, only 16 of the 47 LDCs still met the inclusion criteria). While the Plan of Action's goal was that half the 48 LDCs would meet the graduation criteria in 2020, there will be only fewer than a fifth. They will include two countries already graduated (Equatorial Guinea and Samoa), five countries set to graduate (Vanuatu in 2020, Angola in 2021, Bhutan in 2023, Solomon Islands and São Tomé and Príncipe in 2024). For two countries (Tuvalu and Kiribati) the recommendation of the committee has not been endorsed by the ECOSOC, which has deferred its decision to 2021. Most countries graduated have been recommended for graduation or are likely to be, from 2007 to 2020, are small island developing states (9 of 14), all still vulnerable.

This asymmetry between inclusion and graduation criteria has weakened the category's consistency and calls for changes in the criteria for graduation and inclusion. Several proposals have been presented, the simplest relying on identifying LDCs from two instead of three criteria, with the economic vulnerability and human assets criteria merged into a structural handicaps index. It would take each into account, and could be designed so that it would still reflect the interaction between the two kinds of structural handicaps. This new index could be used for inclusion and graduation or only for graduation.

The various studies conducted before or after graduation and reviewed in chapter 7 do not show a significant negative effect of graduation for the few graduated countries. They do not show them being at risk of falling back into the category. The pace of development that led them to graduation does not appear to slow down, despite significant remaining vulnerability.

Is this a paradox? All the chapters try to show the positive effect that LDC membership has or could have on the development of countries through the special measures they receive. One might then expect that exiting the category would have a symmetrically negative impact. But the effect of the special support measures is highest when the country is "least" developed, or far from graduation and most needing those measures. And smooth transition strategies have eased the change in status by means such as the continuation of some special measures or access to new sources of finance. The international context, supporting the economic growth of several LDCs close to the income

threshold, probably has also made the transition easier. This can of course change due to exogenous shocks, particularly commodity prices. And graduation, by alleviating the LDC structural handicaps (in the case of the few graduated countries, poverty reduction and human capital improvement), also involves some structural transformation of the economy likely to sustain its development.

The limited number of graduations in the period covered by the Istanbul Plan of Action should be an incentive to implement and reinforce the support measures progressively adopted and agreed on in Istanbul. These measures are not just for potentially graduating countries, but for all LDCs. The major issue is the effect of support measures for the countries included on the LDC list, even more than the effect of graduating from the list.

### **Least developed countries and global economic governance**

LDCs have benefited from trade and finance initiatives by the international community. The chapters show that the actual implementation and permanence of these measures—and to some extent their effectiveness—remained below expectations. This contradicts resolutions and commitments agreed on by the development partners of LDCs during global conferences and the four UN conferences on LDCs. Part of the explanation may be the lack of representation of LDCs in global governance. No LDCs participate directly in the G7 or G20. The two most important global organizations for LDCs—the IMF and the World Bank—are precisely those where power is linked to contributions. Indeed, the LDC situation appears to be more positive at the WTO, but systematic attempts to reach consensus there favour countries able to be represented on a continuous basis, while the treatment of disputes favours those in a position to implement credible retaliatory measures. At the Conference of Parties 21 the issues of financing, essential for LDCs, have been largely put aside, to avoid compromising adoption of the Paris Agreement by consensus.

The lack of LDC representation in major international institutions helps explain the mistrust that LDC leaders feel towards them. It is not fair to advocate strengthening democracy in the poorest countries while refusing them the opportunity to participate in decisions that concern them at a global level. Increasing the involvement of LDCs in the international architecture is, however, a difficult task that does not currently appear to be a priority for the international community. Can LDCs hope to participate in meetings at G20 summits? Will their participation in the Bretton Woods institutions be decoupled from their quotas and wealth? The extension of global governance to areas such as the environment and social policy should be an opportunity to think about the participation of LDCs.

The legitimacy of their participation and that of the international support measures depends on the rationale of the category, and of the identification criteria on which it relies. While several support measures can be designed according to the criteria, making

the graduation smoother, participation in global governance still needs to refer to the category. This can be managed whatever the speed reducing the number of LDCs. Graduations from the list are likely to enhance the consistency of the category, and making a better place for LDCs in global governance will also accelerate graduation.

### **Revisiting the category and its criteria to enhance its consistency and effectiveness**

The Least Developed Countries remain poor countries facing the most severe structural handicaps to sustainable development, so a better design of the category and its criteria can help reinforce their rationale and legitimacy. Barely more than a third of LDCs still meet the criteria for inclusion in the category and fewer than a fifth meet the preliminary criteria for graduation. So around half the LDCs meet neither the inclusion nor the graduation criteria.

The category obviously needs to be refreshed to become both more consistent and more effective. The challenge is still supporting genuine LDCs in their effort to move out of the trap. The 5th UN Conference on LDCs to be held in 2021, half a century after the creation of the category, is a good opportunity to implement such a reform. As the category is narrowed and made more consistent, its criteria can be used more broadly to design policy measures such as development assistance allowing a progressive treatment, as already suggested by *Caught in a Trap*.

### **Note**

- 1 General Assembly Resolution A/RES/67/221 (paragraph 23) on “Smooth transition for countries graduating from the list of least developed countries” adopted on 21 December 2012.

# Impact on growth and policy performance



# Economic growth, poverty reduction and structural transformation in the least developed countries: The puzzle of the impact of category membership

**Have the least developed countries been locked into a low-income trap over the past half century?**

## *The rationale of the category*

To understand the evolution of the least developed countries (LDC) over the past 50 years—beginning even before the creation of the LDC category—it is important to understand what being in this category has meant (see the companion volume *Caught in a Trap*, Guillaumont 2009a). The LDC category was intended to identify poor countries facing severe structural handicaps to economic growth and consequently facing a greater risk of staying poor. The LDC category reflected the theory, though without explicitly referencing it, of the low-level equilibrium trap that early development economics had highlighted. Do the countries identified as least developed appear, in retrospect, to have faced such a situation?

## *Evidence of a trap: Comparing the least developed countries with formerly low-income countries*

That the LDCs have remained low-income countries over a long period is often presented as evidence of the low-level equilibrium trap. Examining country income per capita in 2015 relative to its level in 1965 for LDCs and for other low-income countries that have ever been low income can reveal whether the LDCs, as a group, have failed to escape from a low level of income. That analysis shows that while a majority of LDCs remained low income over 1965–2015, almost all the other ever-low-income developing countries were no longer low



income by 2015 (figure 1.1). Thus, the probability of escaping the low-income trap was much lower for the LDCs.

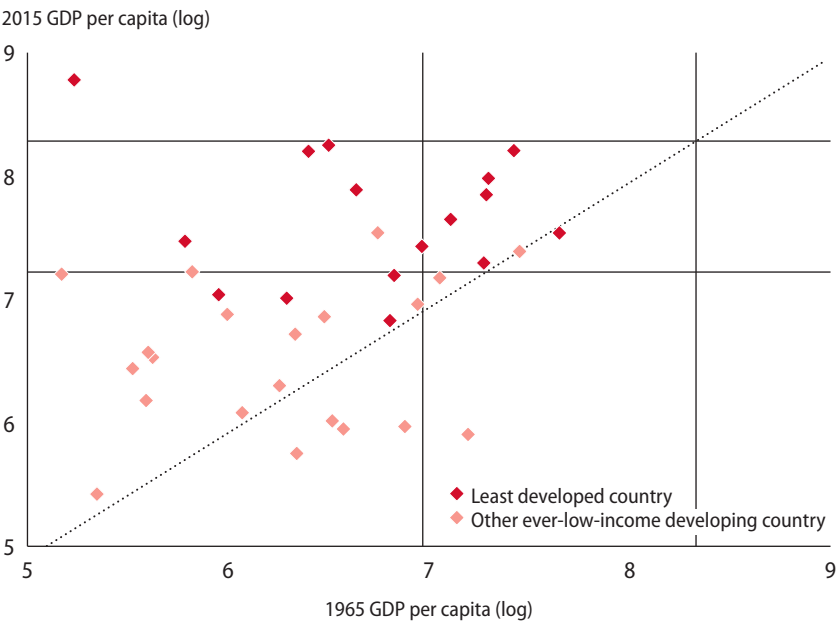
Has this probability changed in recent years? Conducting the same analysis for 2000 and 2015 shows that most of the LDCs that were low income in 2000 were still low income in 2015 but that a majority of them had increased their GDP per capita by 2015 (countries above the diagonal; figure 1.2). Moreover, all of the relatively small number of countries experiencing a decline in GDP per capita (countries below the diagonal) are LDCs (plus Zimbabwe, which has been found eligible for inclusion on the LDC list several times but has always declined).

*Is the trap specific to the least developed countries? Looking for other thresholds*

If extra points are assigned to the countries in figure 1.1 that were not initially low income, these countries did not appear to have been stuck in a “middle-income trap”. All of them increased their level of per capita income, even if few of them reached the high-income threshold (figure 1.3).

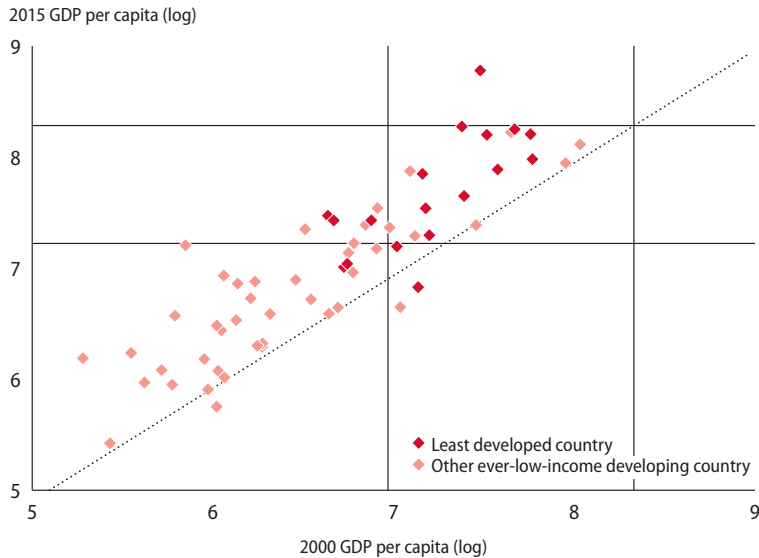
However, this analysis presents only a static image of a potential middle-income trap, as it refers to a 50-year old base. So another analysis compared a country’s annual rate of growth based on the previous year’s level of income per capita, estimated using

FIGURE 1.1  
**Comparison of GDP per capita in 1965 and 2015 for least developed countries and other ever-low-income developing countries**



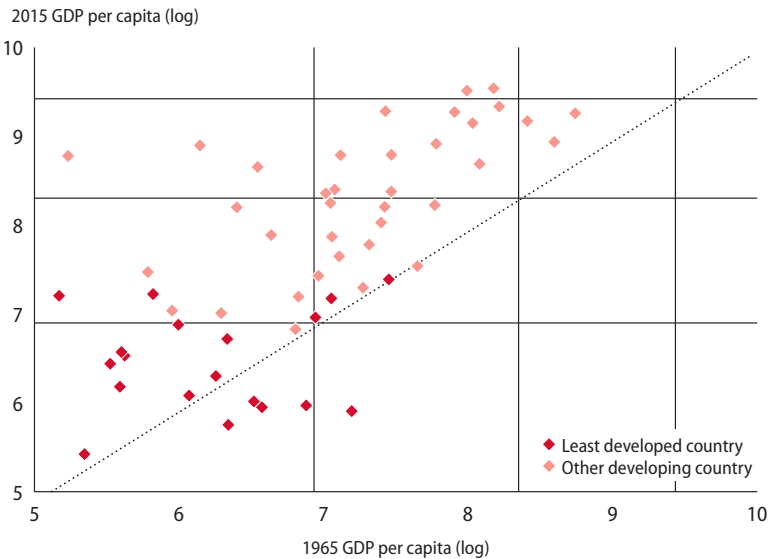
Note: The two vertical and horizontal lines correspond to the low-income (upper) threshold and the lower-middle income (upper) threshold.  
Source: Authors’ analysis based on data from World Bank (2017).

FIGURE 1.2  
**Comparison of GDP per capita in 2000 and 2015 for least developed countries and other ever-low-income developing countries**



Note: The two vertical and horizontal lines correspond to the low-income (upper) threshold and the lower-middle income (upper) threshold.  
Source: Authors' analysis of data from World Bank (2017).

FIGURE 1.3  
**Comparison of GDP per capita in 1965 and 2015 for least developed countries and all other developing countries**



Note: The three vertical and horizontal lines correspond to the low income (upper) threshold, the lower-middle income (upper) threshold and the higher-middle income (upper) threshold.  
Source: Authors' analysis of data from World Bank (2017).

panel data for all countries and all years from 1960 to 2010. The estimate does not give very robust results, whether year or country fixed effects are included or not. Nonetheless, the analysis clearly shows a slowdown in convergence toward a still low level of per capita income of \$400–\$650 and then more rapid growth in GDP per capita beyond that until a level close to the high-income threshold is reached (figure 1.4). This figure thus suggests the presence of a low-income trap more than a middle-income trap.

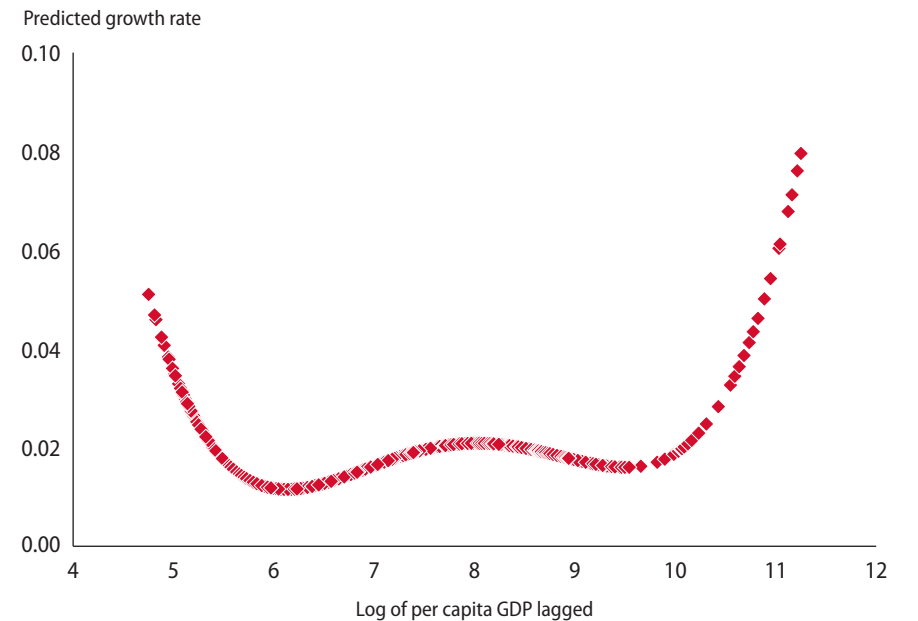
These analyses indicate that the likelihood that economic growth slows or stops at a certain level of income has been greater for LDCs than for other developing countries. But factors specific to each country also play a role, and these are not fully captured by the criteria used to identify LDCs.

*What impact have structural handicaps had, and did that change?*

*Caught in a Trap* (Guillaumont 2009a) presented econometric evidence in support of the hypothesis that the two categories of structural handicaps used—along with income per capita—to define the LDC category (human capital, captured by the Human Assets Index or HAI, and economic vulnerability, captured by the Economic Vulnerability Index or EVI) reinforced one another to slow and possibly block economic growth. The relationship was estimated for 1975–2000 (table 1.1), which is close to the initial estimates, and for the longer period 1975–2011 (table 1.2).

FIGURE 1.4

**Relationship between per capita GDP and year-on-year economic growth for all developing countries, 1960–2016**



Source: Authors' analysis of data from World Bank (2017).

TABLE 1.1

**Growth effect of the structural handicaps affecting the least developed countries, 1975–2000 (GDP per capita growth rate)**

| Variable                           | (1)                 | (2)                 | (3)                 | (4)                 | (5)                 |
|------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Log GDP per capita 1975            | –1.430***<br>(3.49) | –1.563***<br>(3.67) | –0.662*<br>(1.90)   | –0.987***<br>(2.65) | –1.302***<br>(3.21) |
| 100-Human Assets Index (HAI)       | –0.080***<br>(4.56) | –0.071***<br>(3.69) |                     |                     |                     |
| Economic Vulnerability Index (EVI) | –0.046**<br>(2.64)  | –0.035*<br>(1.78)   |                     |                     |                     |
| Least developed countries (LDCs)   |                     | –0.882<br>(1.12)    | –2.374***<br>(3.39) |                     | –1.371*<br>(1.81)   |
| Log 100-HAI                        |                     |                     |                     | –2.254***<br>(3.78) | –1.930***<br>(3.15) |
| Log EVI                            |                     |                     |                     | –1.991***<br>(2.88) | –1.371*<br>(1.80)   |
| Constant                           | 17.095***<br>(4.44) | 17.541***<br>(4.54) | 6.750**<br>(2.46)   | 23.801***<br>(4.19) | 23.154***<br>(4.13) |
| Number of countries                | 77                  | 77                  | 77                  | 77                  | 77                  |
| Number of LDCs                     | 29                  | 29                  | 29                  | 29                  | 29                  |
| R-square                           | 0.273               | 0.286               | 0.142               | 0.222               | 0.256               |

\*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ .

Note: Numbers in parentheses are  $t$ -statistics.

Source: Authors' analysis of data from World Bank World Development Indicators and FERDI.

TABLE 1.2

**Growth effect of the structural handicaps affecting the least developed countries, 1975–2011 (GDP per capita growth rate)**

| Variable                           | (1)                 | (2)                 | (3)              | (4)                 | (5)                 |
|------------------------------------|---------------------|---------------------|------------------|---------------------|---------------------|
| Log GDP per capita 1975            | –1.342***<br>(2.76) | –1.314**<br>(2.50)  | –0.131<br>(0.34) | –0.842*<br>(1.91)   | –0.936*<br>(1.85)   |
| 100-Human Assets Index (HAI)       | –0.078***<br>(3.66) | –0.079***<br>(3.53) |                  |                     |                     |
| Economic Vulnerability Index (EVI) | –0.032*<br>(1.73)   | –0.034<br>(1.53)    |                  |                     |                     |
| Least developed countries (LDCs)   |                     | 0.129<br>(0.15)     | –1.005<br>(1.29) |                     | –0.335<br>(0.39)    |
| Log 100-HAI                        |                     |                     |                  | –1.795***<br>(2.83) | –1.753***<br>(2.71) |
| Log EVI                            |                     |                     |                  | –1.212<br>(1.66)    | –1.054<br>(1.26)    |
| Constant                           | 16.261***<br>(3.55) | 16.112***<br>(3.41) | 3.150<br>(1.02)  | 18.676***<br>(2.95) | 18.780***<br>(2.95) |
| Number of countries                | 84                  | 84                  | 84               | 84                  | 84                  |
| Number of LDCs                     | 35                  | 35                  | 35               | 35                  | 35                  |
| R-square                           | 0.167               | 0.167               | 0.031            | 0.117               | 0.119               |

\*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ .

Note: Numbers in parentheses are  $t$ -statistics.

Source: Authors' analysis of data from World Bank World Development Indicators and FERDI.

The estimations show a more significant impact of the structural handicaps on growth for 1975–2000 than for 1975–2011, in particular for the HAI. In addition, a supplemental dummy variable corresponding to LDC membership has a significant negative impact only for the shorter 1975–2000 period. Moreover, once the EVI variable is converted to logs to capture the interaction of the two structural handicaps, it is significant only for the shorter period.

The estimated average growth rate of the LDCs and of all ever-low-income developing countries during the observation period can also be compared with the observed growth rates for both groups. In both periods and for both groups, the gap between the estimated growth rates is roughly the same as the gap between the observed growth rates (table 1.3).

That the estimated and observed average growth rates, as well as the gaps between the two groups of countries, are of similar size indicates the relevance of the “LDC model”. However, as the period covered lengthens, the growth rates rise significantly while the growth gap between the two groups of countries—though still considerable—narrows. Does that suggest a progressive impact of the support provided to LDCs or an improvement in their policies?

**Interpreting economic growth in the least developed countries during the 2000s**

This section explores the extent to which the LDCs have been able to escape the low-income trap since 2000. The analysis presented above suggests that there may have been a growth change over 2000–15. To determine whether that is attributable to changes in the external environment or to changes in LDC policies, growth trends in LDCs are compared with those of comparable developing countries.

TABLE 1.3  
**Comparison of estimated and observed average growth rates of least developed countries and other ever-low-income developing countries, 1975–2000 and 1975–2011**

| Country group                              | 1975–2000 |                        | 1975–2011 |                        |
|--|-----------|------------------------|-----------|------------------------|
|  | Average   | Number of observations | Average   | Number of observations |
| Observed growth rate                       |           |                        |           |                        |
| Current least developed countries          | 0.17      | 35                     | 1.30      | 35                     |
| Other ever-low-income developing countries | 1.18      | 13                     | 1.73      | 13                     |
| Estimated growth rate <sup>a</sup>         |           |                        |           |                        |
| Current least developed countries          | 0.47      | 35                     | 1.37      | 35                     |
| Other ever-low-income developing countries | 1.30      | 13                     | 1.88      | 13                     |

a. Estimated from the equation: Growth rate = Constant + a \* Initial GDP per capita + b \* log EVI + \* log (100–HAI) of tables 1.1 and 1.2.  
Source: Authors’ analysis based on data from World Bank (2017).

*Does a finding of economic growth among least developed countries depend on the sample, the period covered, or the terms of trade?*

*The overall change in growth trends and the concentration of growth in a few least developed countries.* After several decades of very low economic growth, growth for the LDCs as a group increased after the mid-1990s, especially since 2000, with a slowdown during the 2008–09 global economic crisis. The growth picture holds true whether looking at the rate of growth of the aggregate GDP of LDCs or at the average rates of GDP growth of LDCs (see box 1.1 for a discussion of aggregate and average growth rates).

Until the mid-1990s, LDCs grew much slower than other developing countries, both in per capita terms and in total GDP. The ratio of GDP per capita of LDCs to that of other developing countries fell from 15.5 percent in 1980 to 13.9 percent in 2000 for the simple average of countries' GDP per capita and from 28.5 percent to 23.7 percent for aggregate GDP per capita (table 1.4). The trend reversed after 2000, as the ratio rose from 13.9 percent to 16.0 percent in 2015 for the simple average and from 23.7 percent to 19.2 percent for the aggregate. However, if China and India, the two fastest growing developing countries, are removed from the analysis, the ratio increases from 2000 to 2015.

The growth gap between LDCs and all other developing countries seems to have narrowed since the mid-1990s, with the LDCs growing at least as fast as other developing countries based on the simple average of per capita economic growth rates (figure 1.5). From 1980 to 2015, the average per capita growth rate of other developing countries varied between 0 and 0.04, with a weak upward trend, while that of LDCs varied between –0.03 to 0.05, with a stronger upward trend. Since the mid-1990s, the average total GDP growth rate of LDCs has surpassed that of the other developing countries (figure 1.6). The higher population growth rate in LDCs explains their higher relative performance on total GDP growth compared with per capita growth.

The group of all other developing countries may not be the best comparator group for LDC growth (see box 1.2 for a discussion of comparator groups). When the sample of developing countries is restricted to other developing countries that have been classified as low income at least once, the average economic growth rate of LDCs exceeds that of other ever-low-income developing countries only between 2003 and 2009 (or only in 2004 and 2008 for GDP per capita) regardless of whether China is left out of the sample.

Over 1980–2000, GDP growth rates were significantly weaker in LDCs than in other developing countries, as is clear from figures 1.5 and 1.6. The picture is less clear after 2000 and depends on which construction of the growth rate is used (see box 1.1) and the composition of the two groups compared (see box 1.2). Table 1.5 presents per capita and total GDP growth rates for different LDC groups (rows 1–3) and for different developing country groups (rows 7 and 8) for 1980–2000 and 2000–15.

BOX 1.1

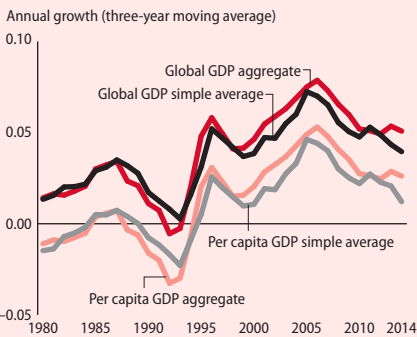
**Four views on the GDP growth of the least developed countries: Aggregate or average? Total or per capita?**

Most often, the GDP growth rate used for the group of least developed countries (LDCs) (or a comparable group of low-income countries) is the rate of growth of aggregate GDP of the group, and the GDP per capita growth rate is the rate of growth of the aggregate GDP per capita of the group. Aggregate GDP or per capita GDP gives an overall picture of the evolution of the set of countries identified as LDCs, as if they were a single country, even though the size of LDCs varies widely. In this measure, the impact of the smallest countries' growth, whether very high or very low, is negligible. So, for an analysis of the performance of the LDCs, it seems preferable to consider each country separately and to calculate the simple average of the countries' growth rates.

The rate of growth of aggregate GDP corresponds to an average of the growth rates of countries weighted by their relative initial level of GDP. That is not the case for the rate of growth of aggregate GDP per capita. Should the average GDP per capita growth be weighted, it would be by the population size, which is not the same as aggregate GDP per capita growth. A

population-weighted average would again mean that the growth contribution of very small LDCs would be negligible (for example, Bangladesh is 10,000 times more populous than Tuvalu and 1,000 times more populous than São Tomé and Príncipe). While the trends in growth rates are similar, the simple average of growth rates is higher than the aggregate growth rate over 1987–93 but lower over 1995–2016, meaning a higher growth rate in smaller LDCs over 1987–93 and a lower one over 1995–2016 (see box figure). The figure also shows that aggregate GDP growth rate fluctuations are dampened compared to fluctuations of the average of growth rates.

**Annual economic growth rates in least developed countries, by four definitions, 1980–2014**



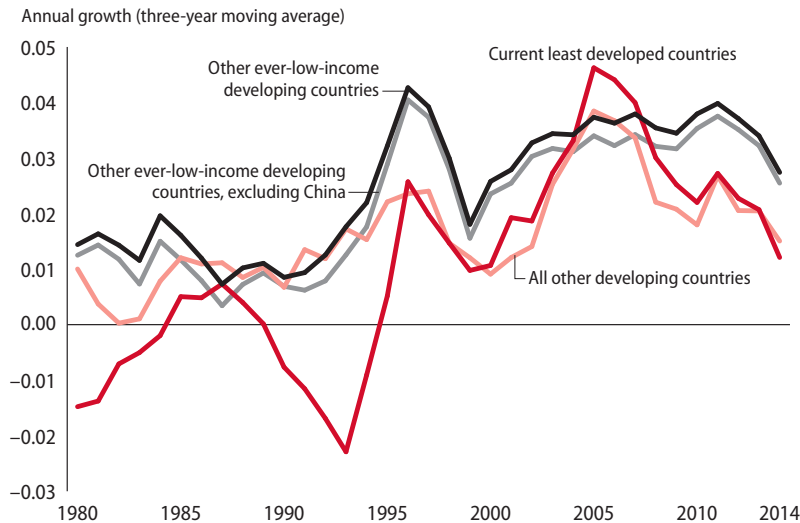
Source: Authors' analysis of data from United Nations national accounts (<https://unstats.un.org/unsd/nationalaccount/>).

TABLE 1.4  
**Ratio of per capita GDP in LDCs to that of other developing countries**

| Ratio of per capita GDP                 | 1980  | 1990  | 2000  | 2015  |
|---|-------|-------|-------|-------|
| Simple average                          | 15.50 | 14.66 | 13.90 | 16.02 |
| Aggregate                               | 28.47 | 25.61 | 23.71 | 19.23 |
| Simple average, without China and India | 15.14 | 14.34 | 13.62 | 15.85 |
| Aggregate, without China and India      | 13.44 | 13.56 | 14.85 | 17.21 |

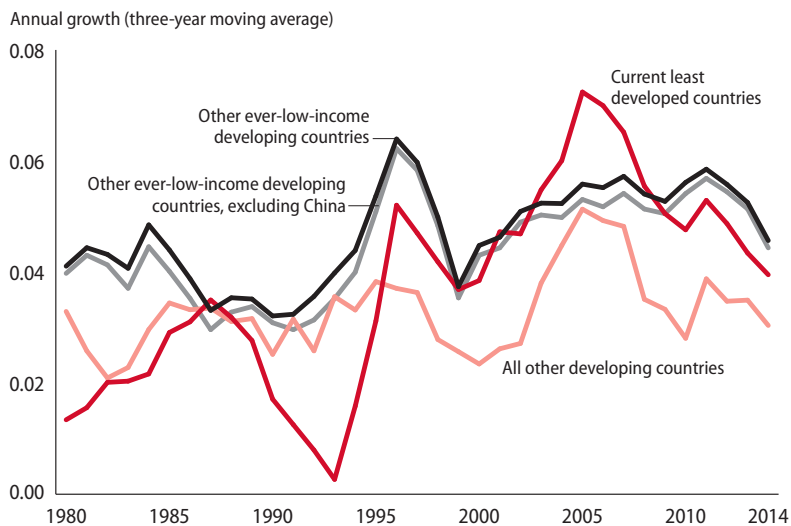
Source: Authors' analysis of data from United Nations national accounts (<https://unstats.un.org/unsd/nationalaccount/>).

FIGURE 1.5  
**Evolution of GDP per capita growth in least developed countries and other developing countries, 1980–2014**



Source: Authors' analysis of data from United Nations national accounts (<https://unstats.un.org/unsd/nationalaccount/>).

FIGURE 1.6  
**Evolution of total GDP growth in least developed countries and other developing countries, 1980–2014**



Source: Authors' analysis of data from United Nations national accounts (<https://unstats.un.org/unsd/nationalaccount/>).



BOX 1.2

**What least developed country (LDC) group and comparator group should be used to assess the growth of LDCs?**

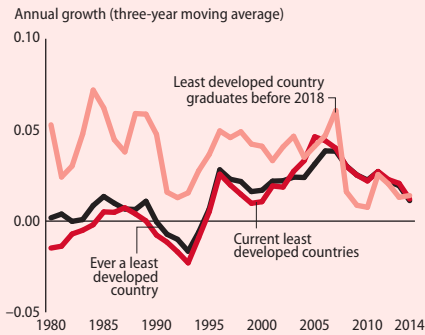
Interpreting differences in the rate of economic growth between LDCs and other developing countries depends on the composition of the groups being compared. Since the list of LDC countries changes over time, ranging from the 25 countries on the original list in 1971 to 50 countries in 2003, using the current list would be misleading. But which countries should be included in comparisons? The initial list is too narrow to represent the evolution of the LDC group. Including all 52 countries that have ever been an LDC is one option. But a more meaningful list is the current list of 47 countries, with the five former LDCs that graduated in 2017 considered separately. The figure below shows the evolution of the economic growth rate for different sets of LDCs.

An equally important decision is how to define an appropriate comparator group. The commonly used comparator group is all other countries classified as “developing” by the United Nations (all the other low- and middle-income countries). But that is a very heterogeneous group. The group of other low-income countries was a relevant comparator until 2000, when there were 14, or 2006, when there were 11 low-income

countries (excluding Eastern Europe and Central Asia) that were not also LDCs (this was the group used in Guillaumont 2009a). But that grouping is no longer useful since it has included only three countries since 2017.

What remains meaningful is to compare LDCs with either the whole set of other (non-LDC) developing countries or the subset of non-LDC developing countries that are or ever were low income (22 countries). As these countries have not been identified as LDCs, they can be assumed not to face the high structural handicaps that distinguish LDCs, an assertion supported by the fact that most of them have become middle-income countries.

**Average per capita GDP growth rates in least developed countries, by least developed country group composition, 1980–2014**



Source: Authors’ analysis of data from United Nations national accounts (<https://unstats.un.org/unsd/nationalaccount/>).

For 2000–15:

- When average growth rates of total GDP and per capita GDP are used, growth is higher in LDCs than in all other developing country groups.
- But when the comparator group is other developing countries that have ever been low income, growth is higher in that group than in the LDCs.
- And when aggregate GDP and per capita GDP growth rates are used instead of averages, LDC growth is lower than that of either group of other developing countries.

The greater improvement in growth rates observed for LDCs than for other developing country groups over 2000–15 is due to better results over 2004–07, following 10

TABLE 1.5  
Economic growth in least developed countries and other developing countries, by group composition and oil-exporting status, 1980–2000 and 2000–15 (percent)

| Country group                                | Row | Group composition    | 1980–2000        |         |                       |         | 2000–15          |         |                       |         |
|--|-----|----------------------|------------------|---------|-----------------------|---------|------------------|---------|-----------------------|---------|
|  |     |                      | Total GDP growth |         | Per capita GDP growth |         | Total GDP growth |         | Per capita GDP growth |         |
|  |     |                      | Aggregate        | Average | Aggregate             | Average | Aggregate        | Average | Aggregate             | Average |
| Least developed countries (LDCs)             | 1   | Current (45)         | 2.73             | 2.85    | 0.66                  | 0.28    | 5.32             | 5.19    | 3.33                  | 2.65    |
|  | 2   | Ever (50)            | 2.87             | 3.23    | 0.80                  | 0.65    | 5.36             | 5.17    | 3.36                  | 2.65    |
|  | 3   | Graduated (5)        | 8.39             | 7.03    | 5.46                  | 4.38    | 6.10             | 4.98    | 3.73                  | 2.74    |
| Non-oil-exporting LDCs                       | 4   | Current (40)         | 2.35             | 2.61    | 0.49                  | 0.15    | 6.69             | 4.95    | 4.17                  | 2.41    |
|  | 5   | Ever (44)            | 2.53             | 2.93    | 0.66                  | 0.49    | 6.60             | 4.87    | 4.09                  | 2.42    |
|  | 6   | Graduated (4)        | 7.91             | 6.20    | 5.26                  | 3.99    | 4.66             | 4.12    | 2.96                  | 2.48    |
| Other developing countries                   | 7   | Ever low income (20) | 7.18             | 3.47    | 5.26                  | 1.15    | 8.65             | 5.25    | 7.35                  | 3.46    |
|  | 8   | All (75)             | 3.63             | 2.95    | 1.78                  | 1.05    | 6.18             | 3.86    | 4.85                  | 2.38    |
|  | 9   | Ever low income (14) | 7.91             | 3.55    | 6.01                  | 1.29    | 9.21             | 5.27    | 8.02                  | 3.69    |
| Non-oil-exporting other developing countries | 10  | All (56)             | 3.75             | 2.98    | 1.97                  | 1.24    | 6.56             | 3.94    | 5.33                  | 2.60    |

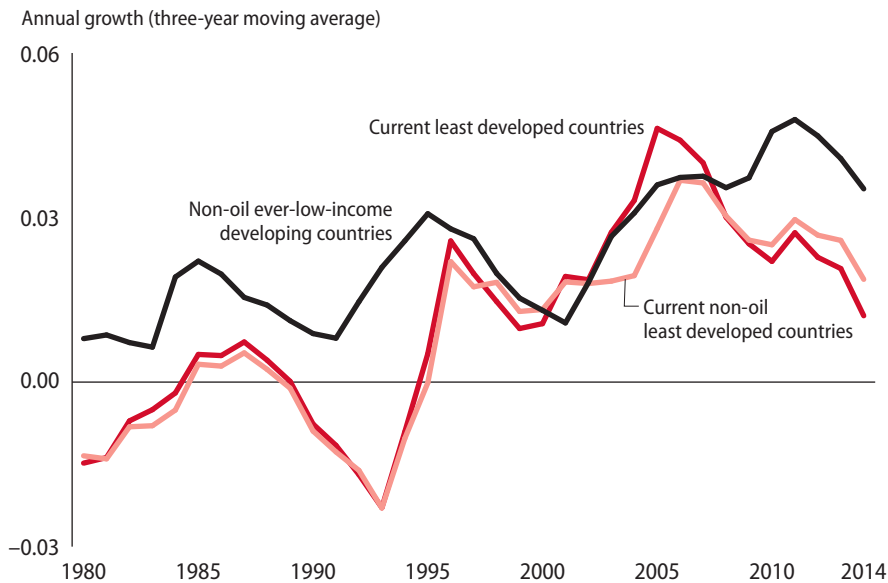
Note: Oil-exporting countries are Angola, Chad, Sudan, Timor-Leste and Yemen (LDCs); Equatorial Guinea (graduated LDCs); Cameroon, Republic of Congo, Egypt, Indonesia, and Nigeria (for other developing countries ever low income); Algeria, Belize, Bolivia, Colombia, Ecuador, Gabon, Iran, Iraq, Libya, Seychelles, Syria, Tunisia and Venezuela (for all other developing countries). South Sudan (LDC) is not included due to a lack of data.  
Source: Authors' analysis of data from United Nations national accounts (<https://unstats.un.org/unsd/nationalaccount/>).

years (1996–2005) during which the growth gap narrowed between LDCs and all other developing countries and between LDCs and other ever-low-income developing countries. Since 2008, the gap in average GDP per capita growth between LDCs and other developing countries has stayed lower while it widened again compared with other ever-low-income developing countries.

Convergence in per capita income growth does not mean that there has been convergence in per capita income levels, which would require higher per capita growth rates in countries with lower initial income per capita, as for the LDCs. The temporary growth convergence observed may result from a change in growth trends in just a few LDCs, such as oil exporters.<sup>1</sup> LDC oil exporters Afghanistan, Cambodia, Chad, Equatorial Guinea, and Myanmar had average annual per capita GDP growth rates of 8 percent or more over 2001–07, before the global economic crisis (UN national accounts data).

To determine whether oil-exporting LDCs are the source of the improvement observed during the early 2000s, oil-exporting countries were removed from the LDC group and from the group of other ever-low-income developing countries (see table 1.5, lines 4–6 and 9–10; figures 1.7 and 1.8). It turns out that the (aggregate or average) growth rates of non-oil-exporting LDCs, which were clearly lower than that of all LDCs before the mid-1990s, were no longer lower during 2000–15, so that the relative

FIGURE 1.7  
**GDP per capita growth in least developed countries and other developing countries, by oil-exporting status, 1980–2014**

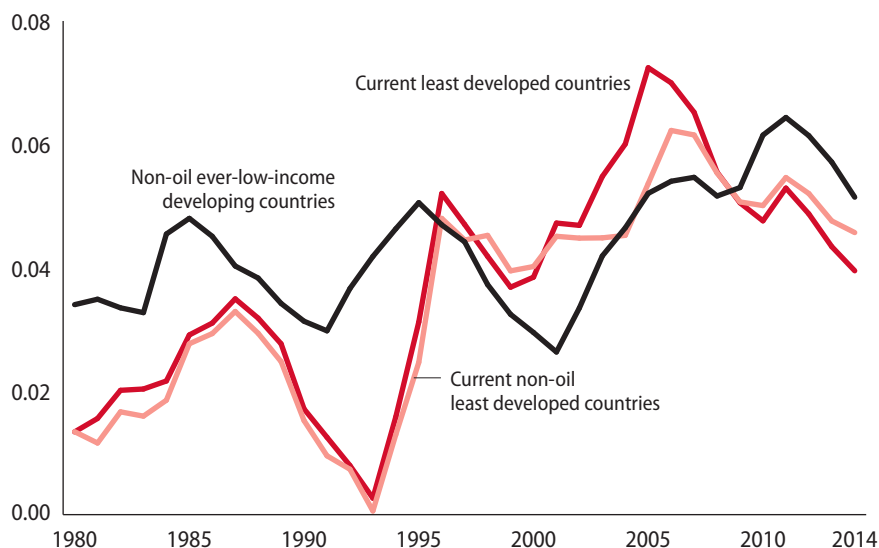


Source: Authors' analysis of data from United Nations national accounts (<https://unstats.un.org/unsd/nationalaccount/>).

FIGURE 1.8

### Total GDP growth in least developed countries and other developing countries, by oil-exporting status, 1980–2014

Annual growth (three-year moving average)



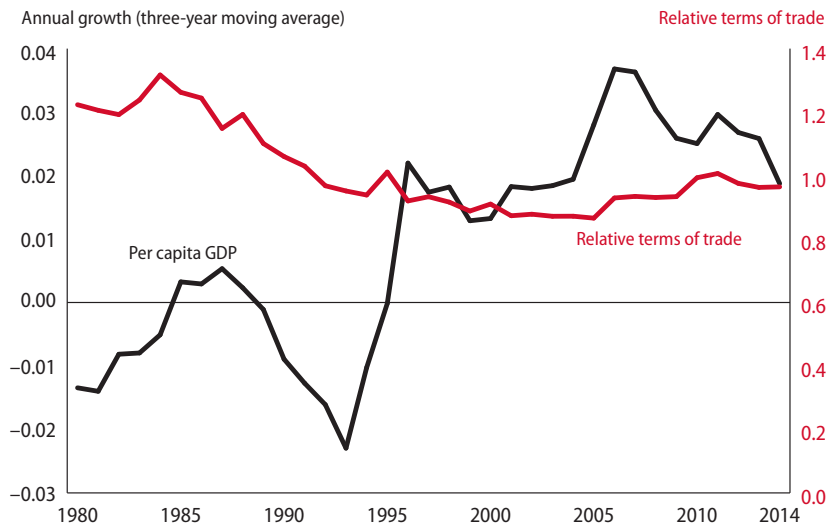
Source: Authors' analysis of data from United Nations national accounts (<https://unstats.un.org/unsd/nationalaccount/>).

growth results observed for LDCs do not change significantly. Growth in non-oil LDCs even exceeded that of other developing countries over 1996–2008 for total GDP but only over 2005–07 for per capita GDP.

*Does the evolution of the terms of trade reveal a special sensitivity of the least developed countries?* Thus, in examining the evolution of average growth in LDCs, comparisons should exclude oil-exporters. Could the relative improvement of economic growth in LDCs since 2000 reflect the impact (somewhat delayed) of international support measures for LDCs, along with improvements in their policies?

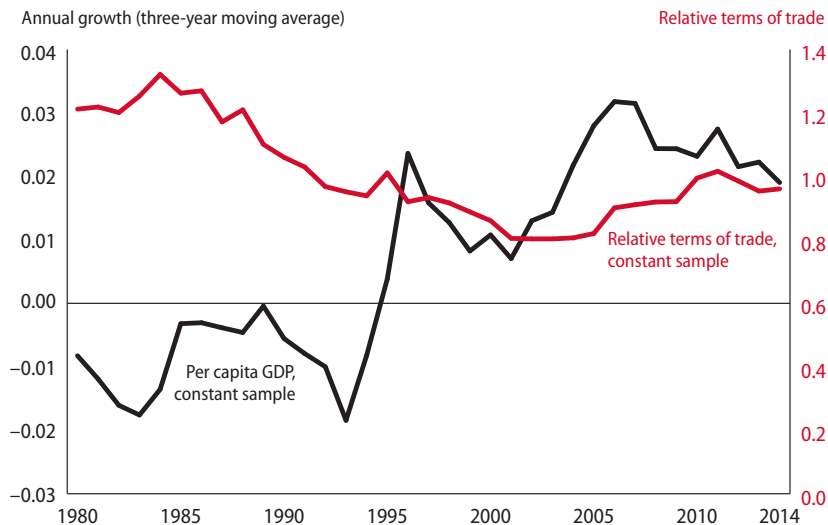
Foreign trade is important to the economies of many LDCs, and thus growth in LDCs may be especially sensitive to instability in international prices and changes in the terms of trade. What matters for growth in the medium term is not so much changes in terms of trade themselves as resultant changes in relative terms of trade (the ratio of the terms of trade in each year to the average over all years in the analysis). A comparison of per capita GDP growth over time of the non-oil-exporting LDCs with changes in the relative terms of trade in these countries reveals some similarities in their evolution but without clear correlation (figures 1.9 and 1.10). Busts more than booms appear to correspond to shocks in the terms of trade. However the results may be influenced by the composition of the sample, which was limited by the availability of data

FIGURE 1.9  
**Evolution in average annual per capita GDP growth and relative terms of trade in non-oil exporting least developed countries, 1980–2014**



Note: The number of LDCs ranges from 29 to 39 over the period. The relative terms of trade is the ratio of the terms of trade in each year to the average over all years in the analysis.  
Source: Authors' analysis of data from United Nations national accounts (<https://unstats.un.org/unsd/nationalaccount/>).

FIGURE 1.10  
**Evolution in average annual per capita GDP growth and relative terms of trade in non-oil exporting least developed countries, holding country list constant, 1980–2014**



Note: Constant LDCs include the 27 countries that were LDCs throughout the period of analysis. The relative terms of trade is the ratio of the terms of trade in each year to the average over all years in the analysis.  
Source: Authors' analysis of data from United Nations national accounts (<https://unstats.un.org/unsd/nationalaccount/>).

on the terms of trade (UNCTADstat). It could also be that the dependency on terms of trade has weakened since 2000 in response to structural transformation, but a more quantitative analysis is needed to determine whether that is the case.

There are several quantitative methods for assessing the impact of the terms of trade on economic growth (see box 1.3). This section presents the results based on accounting methods and based on econometric estimation.

The analyses clearly show that without the changes in terms of trade, economic growth would have been higher in both LDCs and other developing countries over 1980–2000 (table 1.6). This negative effect is more pronounced in LDCs than in other developing countries and resulted in a slight widening of the growth gap between the two groups of countries. But for the period 2000–15, the terms of trade changes contributed to a significant improvement in GDP growth rates in both groups of countries. These results are consistent with the trend in terms of trade shown in figures 1.9

#### BOX 1.3

### **How to measure the impact of the terms of trade on economic growth in least developed countries**

Most of the least developed countries (LDCs) are price-takers on the world market, so changes in the terms of trade can be considered an exogenous factor in economic growth. While the impact is likely to depend on the ratio of exports to GDP, that ratio depends on both exogenous factors (such as population size and remoteness) and policy choices.

The impact of the terms of trade on economic growth can be measured using a country by country accounting measurement or cross-country econometric estimation.

The accounting method calculates for each country the direct impact of the terms of trade change on GDP by multiplying the value of exports by the change in the terms of trade. The change in the terms of trade can be measured by its absolute value or by the difference between the change in the export price index and the import price index.

The econometric estimation over a multiyear period regresses the average rate

of growth on the change in the terms of trade, either unweighted or weighted by the export to GDP ratio, though weighting results in better estimates.

If the terms of trade are unweighted, the contribution of changes in the terms of trade is given by the following equation: Growth of per capita GDP =  $b(\text{ToT growth})$  + fixed effects + constant, for the periods 1980–2000 and 2000–15. Annual GDP per capita growth net of the effect of changes in the terms of trade is thus computed as the difference between annual GDP per capita growth and the contribution of changes in the terms of trade to the annual GDP per capita growth.

The same estimation was run with changes in the terms of trade weighted by the natural rate of exports (obtained by regressing exports on structural factors—log of initial GDP, log of average population, mining endowment, remoteness and landlocked dummy variable—so that the terms of trade impact can be assumed to be exogenous). For each method, the effect of changes in the terms of trade is computed for all the countries for which data are available and for a constant sample to allow comparison across time.

TABLE 1.6

**Effect of changes in the terms of trade on constant GDP per capita growth in non-oil exporting least developed countries and in other ever-low-income developing countries, 1980–2000 and 2000–15**

| Estimation method and sample              | 1980–2000                 |  | 2000–15                   |  |
|---|---------------------------|--|---------------------------|--|
|   | Least developed countries | Other ever-low-income developing countries | Least developed countries | Other ever-low-income developing countries |
| Average trend in terms of trade (TOT)     |                           |  |                           |  |
| All                                       | –1.982                    | –0.319                                     | 1.008                     | 0.890                                      |
| Same sample                               | –1.997                    | –0.446                                     | 1.658                     | 0.163                                      |
| Average trend in per capita GDP           |                           |  |                           |  |
| All                                       | –0.008                    | 1.569                                      | 2.728                     | 3.689                                      |
| Same sample                               | 0.290                     | 1.365                                      | 2.405                     | 3.600                                      |
| TOT impact on GDP: accounting method (1)  |                           |  |                           |  |
| All                                       | –0.473                    | –0.084                                     | 0.229                     | 0.928                                      |
| Same sample                               | –0.294                    | –0.107                                     | 0.447                     | 0.373                                      |
| TOT impact on GDP: accounting method (2)  |                           |  |                           |  |
| All                                       | –0.465                    | –0.181                                     | 0.159                     | 0.601                                      |
| Same sample                               | –0.341                    | –0.221                                     | 0.294                     | 0.253                                      |
| TOT impact on GDP: econometric method (3) |                           |  |                           |  |
| All                                       | –0.935                    | –0.151                                     | 0.476                     | 0.420                                      |
| Same sample                               | –0.942                    | –0.211                                     | 0.783                     | 0.077                                      |
| TOT impact on GDP: econometric method (4) |                           |  |                           |  |
| All                                       | –2.630                    | –0.588                                     | 2.184                     | 0.214                                      |
| Same sample                               | –2.610                    | –0.420                                     | 1.328                     | 1.173                                      |
| Number of countries                       |                           |  |                           |  |
| All                                       | 29                        | 10   | 39                        | 15   |
| Same sample                               | 27                        | 9  | 27                        | 9  |

Note: (1) The difference between changes in the export price index and changes in the import price index multiplied by the export level. (2) The changes in TOT times export level. (3) Constant economic growth rate = Constant +  $b \cdot (\text{tot growth})$  + fixed effects for periods 1980–2000 and 2000–15. (4) Model (3) is augmented by weighting the TOT by the natural rate of exports obtained by regressing exports on the log of initial GDP, the log of average population, mining endowment, remoteness and a dummy variable for landlocked countries.

Source: Authors' analysis of data from United Nations National Accounts and World Bank (2017).

and 1.10. For the case of econometric analysis of the constant sample (the most relevant conditions in terms of impact and comparison over periods), the positive impact of changes in the terms of trade in that period is larger in LDCs than in other developing countries, suggesting that favorable changes in the terms of trade narrowed the growth gap between LDCs and other developing countries.

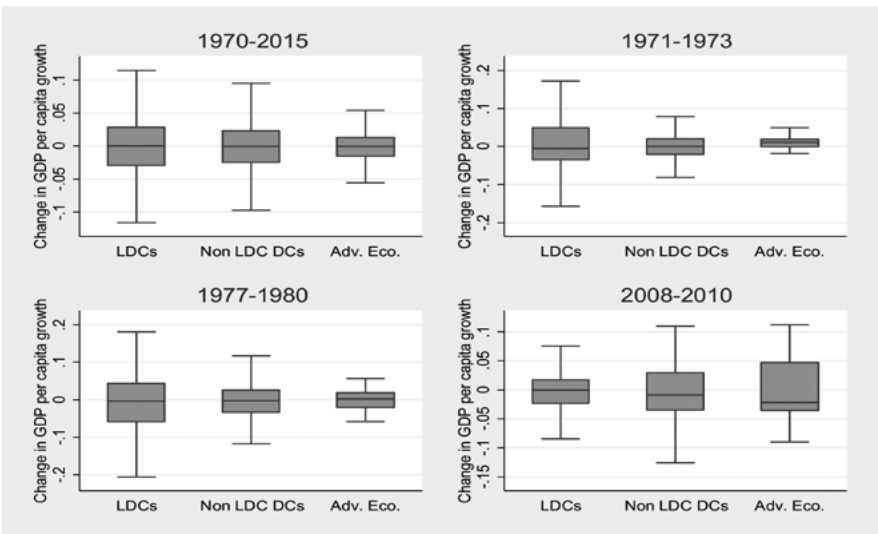
*The impact of the global financial crisis: Resilience of the least developed countries*

In contrast to other economic crises affecting the LDCs, which have been idiosyncratic shocks, the 2008–09 financial and economic crisis was global and affected all groups of countries. The LDCs, despite high vulnerability levels, seem to have been less affected by the global crisis than other countries. Although the global crisis has substantially slowed growth in LDCs, other low- and middle-income countries were more severely hurt (see figures 1.5 and 1.6).

The box and whisker plot in figure 1.11 shows annual changes in economic growth for LDCs, other developing countries and advanced economies over 1970–2015 and for the major economic crisis periods of 1973, 1979 and 2009. The box plots split the data into quartiles. The horizontal line in the box demarcates the second quartile or median of the data set. The vertical line (whisker) below the box goes from the first quartile (25th percentile) to the smallest non-outlier (lower adjacent value) in the data set, and the whisker above the box goes from the third quartile (75th percentile) to the largest non-outlier (upper adjacent value). Among developing countries, non-LDCs were the most adversely affected by the 2009 crisis. More than half the LDCs experienced insignificant change in per capita GDP growth rates from 2008 to 2009, while more

FIGURE 1.11

**Box plot of the annual change in GDP per capita growth rates in LDCs, other developing countries and advanced economies**



Note: The box plot splits the dataset into quartiles. The horizontal line in the box demarcates the second quartile or median of the data set. The vertical line below the box (whisker) goes from the first quartile (25th percentile) to the smallest non-outlier (lower adjacent value) in the data set, and the whisker above the box goes from the third quartile (75th percentile) to the largest non-outlier (upper adjacent value).

Source: Authors' analysis of data from United Nations National Accounts and World Bank (2017).



than half of the other developing countries and the advanced economies experienced a contraction in economic growth.

Therefore, for most LDCs, 2009 does not stand out as an extraordinarily bad year; the crises in the 1970s had more severe effects for all but a third of the LDCs (see figure 1.11). In contrast, for most advanced economies, 2009 ranks among the worst 20 percent of all years in the period in terms of reductions in GDP per capita growth (Berg et al. 2011; Audiguier 2012).

Even at the peak of the 2009 crisis, LDCs as a group showed greater resilience than expected, and their average growth rate remained fairly high by historical standards. The mechanisms that led to more severe economic crises elsewhere partly explain the lower impact in LDCs. The drivers of the crisis were mainly declines in external demand and capital flows. The crisis in external demand was less severe in the LDCs because they were less integrated into the global economy, and even though capital flows declined, foreign direct investment was still higher than in 2000.

Moreover, the LDCs had benefited from the economic boom before the crisis (see figures 1.9 and 1.10), so their economies were somewhat more protected from the larger adverse impacts of the crisis. The boom had made it possible for the LDCs to build up their international reserves and reduce the current account deficit, fiscal deficit, public debt and inflation rate. This situation encouraged some domestic policy responses, such as countercyclical public expenditures, to offset the negative effects of the crisis. In addition, there was little change in the external resources going to LDCs. Indeed, official development assistance was not drastically cut despite the budget pressures in donor countries (see figure A1.2.1 in appendix A1.2, available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>). And because migrant remittances received in LDCs were already low before the crisis, although higher than in other developing countries, the general decline in remittance flows during the global crisis did not have a significant impact in LDCs (see figure A1.2.2 in appendix A1.2, available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>).

### **Assessing the impact of category membership: An elusive counterfactual**

This section looks at how international support to the LDCs has affected their growth—in other words, how has being designated an LDC affected the growth trajectory of these countries? Several methods can be used to assess the impact of category membership on economic growth. The focus here is on quantitative approaches rather than subjective approaches (see box 1.4).

One approach is to review measures by the international community uniquely designed to support the LDCs and to examine their impact. There have been numerous measures, of varying relevance and importance. They arise from bilateral and multilateral decisions discussed every 10 years during the UN Conference on the LDCs and integrated into Substantive Programmes of Action. The *Handbook on the Least Developed*

## BOX 1.4

**How countries perceive the impact of being categorized as a least developed country: A paradox**

A subjective approach would be to consider how developing countries themselves perceive the benefits and costs of being categorized as a least developed country (LDC). That exercise leads to contradictory results if the recent behaviour of countries is taken as revealing their perceptions. Before the South Sudan, the last two countries found eligible for inclusion as an LDC by the UN Committee of Development Policy refused to be included (Papua New Guinea

and Zimbabwe). In contrast, most countries recommended for graduation have resisted being removed from the list (Equatorial Guinea, Kiribati, Maldives, Samoa, Tuvalu, Vanuatu, and to a lesser extent Cabo Verde). Does this mean that the perceived benefits of inclusion are weaker than the perceived loss of benefits linked to graduation? Countries may be underestimating the benefits of inclusion and overestimating the losses from graduation. It may simply mean that any move to or from the category has a cost, actual or perceived, because of the uncertainty of the outcome. In any case, each country's circumstance are different, whereas this analysis requires a general assessment.

*Country Category: Inclusion, Graduation and Special Support Measures*, contains a concise yet comprehensive survey of these measures (UNCDP and UNDESA 2015, chap. 2). They concern mainly preferential trade access and development assistance, as well as special treatment by multilateral institutions, in particular the United Nations and the World Trade Organization. While the following chapters explore the impact of specific measures, this chapter examines the impact of the entire set of measures.

***The issue: Disentangling the impacts of category and handicaps***

Assessing the impact of the set of support measures for LDCs on their development requires a counterfactual. The evolution of the LDCs (their rate of economic growth) needs to be compared to that of other countries in a similar situation, but not receiving the benefits of LDC categorization. It is difficult to find such countries. The LDCs are identified by specific structural features besides low income (low human capital and high economic vulnerability). There is no clear “control group” to which they can be compared with similar handicaps and initial income but not benefiting from the LDC support measures (not “treated”), since the countries benefiting from special measures are the countries suffering from special handicaps.

*Limitations of a difference in difference approach.* One way to overcome the difficulty of identifying a counterfactual is to compare the difference in the rate of growth of countries before and after being included in the LDC category with the difference in the rate of growth of other developing countries over the same periods (to capture the effect of changes in the world economy). And the same could be done for graduating countries, before and after graduation.

For an impact assessment focused on the rate of growth, this difference in difference analysis would not be very informative, however, because the sample of observed countries is very small—at least for the last quarter century—and there are numerous factors that likely explain the change in the rate of economic growth in each country included (or graduated) beyond LDC status and the world economic situation. However, such analysis is useful as a first and rough approximation of the impact of specific measures linked to LDC status or specific variables such as aid (chapter 3) or trade (chapter 6), for which the impact of “other factors” might be less important.

*What the usual growth regressions cannot say.* Consider a growth regression on the impact of the two main structural handicaps of LDCs (along with the initial level of income, for the convergence factor), as presented above and including a dummy variable for LDC category membership. The coefficient of this variable could not be expected to reflect the impact of LDC status (the impact of the set of special measures) since the status is itself the result of slow growth and development (reverse causality).

The econometric results presented in *Caught in a Trap* (Guillaumont 2009a) and reiterated above illustrate this chicken and egg problem, while at the same time supporting the relevance of the criteria: finding that the LDC dummy variable is not significant suggests that the structural handicaps faced by the LDCs were adequately reflected by the variables Human Assets Index (HAI) and the Economic Vulnerability Index (EVI). The results could not indicate that the special measures had no significant effect on growth during the period. The results could also be interpreted as the outcome of two opposing effects: a possible negative effect due to other, unidentified handicaps not identified through HAI or EVI, and a possible positive effect due to the special measures that benefit LDCs. Tables 1.1 and 1.2 earlier show a loss of significance of the negative coefficient on the LDC dummy variable when the period of observation is lengthened, suggesting a possible recent or progressive impact of support and policy measures.

Findings on the impact of LDC status are likely to be biased in naïve regression models that do not establish a proper counterfactual. What is a better way to disentangle the ambiguous effects of handicaps and the support measures taken to address them?

*Looking for simple control groups: The case of “discordant countries.”* Are there similar countries to LDCs that differ only in that one group benefits from the LDC status and the other does not? Neither the group of all other developing countries, nor even the narrower group of ever-low-income developing countries (used above to assess the lag in LDCs growth) are relevant control group since they do not share the defining characteristics of LDCs. Low-income countries that have been found eligible for inclusion but that declined are not a suitable groups because there are too few of them and their reasons for refusal reflected particular government priorities. Similarly, the low-income non-LDCs meeting the LDC graduation criteria cannot be used as a control group for

LDCs meeting the graduation criteria but not graduating because both groups are too small. In addition, that would create selection bias because the LDCs found eligible to graduate but not graduating are the good performers in the LDC category.

A more appropriate and slightly larger group of comparable countries are those that were referred to as “discordant” countries in *Caught in a Trap* (Guillaumont 2009a). These countries, both LDCs and non-LDCs, meet neither the inclusion nor the graduation criteria and as such are in a rather similar situation: those that are LDCs benefit from the LDC status, while the others do not. There were 14 discordant LDCs and 8 discordant non-LDCs in 2006, 18 and 7 in 2009, 20 and 7 in 2012, 23 and 8 in 2015, and 19 and 1 in 2018 (see chapter 7). However a problem of selection bias, although less acute, may remain, since the discordant LDC countries are relatively better performers, for reasons that are not necessarily linked to their LDC status. Thus, any higher rates of growth may not be evidence of the impact of LDC status. The three-year average per capita economic growth rates of discordant LDCs during 1991–2015 were on average higher than growth rates in the discordant non-LDCs in the three years beginning in 1997, 2000, 2006 and 2009 and lower in the three years beginning in 1991, 1994, 2003, 2012 and 2015 (table 1.7).

### *Lessons from a regression discontinuity design*

Are there other methods for assessing the impact of LDC membership? One method often recommended when a randomized control trial cannot be set up is propensity score matching. That method is not relevant here because it requires a large number of observations to create the matching group and because the correlates of the LDCs can be found only in the shrinking group of non-LDCs discordant countries, as seen above.

Another methodological contender is the regression discontinuity design. This econometric method looks for the difference between members and non-members who are at the border of the criteria thresholds. Intuitively speaking, regression discontinuity design is akin to local randomization. Since being classified as an LDC depends on whether a country is above or below a given threshold, it is reasonable to assume that countries just below a given threshold in a given year are statistically indistinguishable from those just above it (in both observable and, more important, unobservable characteristics). The further away (in either direction) a country is from the threshold value, the less valid is the mimicking of a randomized control trial. Regression discontinuity design thus allows for assessing the impact of being categorized as a LDC while solving the endogeneity problem that plagues other econometric assessments of LDC status (see box 1.5 for the regression discontinuity design used for LDC membership).

The data used in this analysis are from the triennial LDC review by the UN Committee for Development Policy and include per capita gross national income (GNI), EVI and HAI. These data are not comparable over time because of changes in the definition of the indicators. (Retrospective HAI and EVI results from FERDI are a good alternative since the definition is kept constant and they are available annually. However, only

TABLE 1.7  
**Per capita economic growth rates in “discordant” least developed countries and in other “discordant” developing countries, 1991–2015 (three-year averages)**

| Year | Discordant least developed countries |                     | Other discordant developing countries |                     |
|------|--------------------------------------|---------------------|---------------------------------------|---------------------|
|      | Growth rate (%)                      | Number of countries | Growth rate (%)                       | Number of countries |
| 1991 | 1.04                                 | 11                  | 4.10                                  | 4                   |
| 1994 | 2.11                                 | 11                  | 4.44                                  | 5                   |
| 1997 | 4.06                                 | 12                  | 1.92                                  | 9                   |
| 2000 | 4.68                                 | 11                  | 0.09                                  | 11                  |
| 2003 | 4.18                                 | 9                   | 4.28                                  | 19                  |
| 2006 | 4.88                                 | 14                  | 3.06                                  | 8                   |
| 2009 | 2.93                                 | 18                  | 2.75                                  | 7                   |
| 2012 | 1.26                                 | 20                  | 2.80                                  | 7                   |
| 2015 | 1.68                                 | 23                  | 2.51                                  | 8                   |

Note: Discordant countries are those that meet neither the inclusion nor the graduation criteria for least developed countries. The economic growth rate is the average of the growth rate of the displayed year and those of the two following years.  
Source: Authors’ analysis of data from United Nations National Accounts.

the UN Committee for Development Policy review data can be used for the regression discontinuity design analysis.)

Due to structural breaks in the LDC criteria, the sample was split into two periods: 1971–90 and 1991–2015. In the first period, the forcing variables were per capita GDP, the literacy rate and the share of manufacturing value added in GDP. In the second period, they were population size, per capita GDP, Augmented Physical Quality of Life Index (APQLI) and the Economic Diversification Index.

Of the 1971–90 forcing variables, the thresholds for GDP were adjusted several times to world growth, while the manufacturing cutoff remained fixed at 10 percent and the literacy rate cutoff at 20 percent. If all three criteria are fulfilled, a country can request LDC status.

Equations (1) and (2) in appendix A1.3 (available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>) are simultaneously estimated through two-stage least squares using annual data over 1971–90. The LDC dummy variable is instrumented using  $Tit$ , which is equal to one if all three criteria are met. There is a slight change after 1981, when the literacy criterion no longer had to be met. Moreover, no measure was provided in the first period to determine whether a LDC ceased to be least developed. Although this had little effect on the results, it is taken into account by defining  $Tit = 1$  if  $Tit-1 = 1$ . Note that the system is just identified, as the number of excluded instruments equals the number of endogenous regressors. The results show that the local average treatment effect (the coefficient associated with LDC status) is not statistically different from zero, and there is no

## BOX 1.5

**Regression discontinuity design applied to the impact of classification as a least developed country**

Regression discontinuity design (RDD) exploits the pseudo-randomization generated by being either just above or just below the various inclusion thresholds. Implementation of RDD is based on the principle that treatment status is determined by whether a forcing or assignment variable for a given individual lies to one side or the other of a threshold or cutoff value.

The first paper to estimate the treatment effect in a non-experimental setting using regression discontinuity design examined the impact of merit awards on future academic outcomes (Thistlethwaite and Campbell 1960). Since the 1990s, the number of economics studies using RDD to assess programme and policy effects has grown rapidly. RDD's first "modern" application in economics was an estimate of the effect of class size on scholastic achievement (Angrist

and Lavy 1999). RDD was used recently to evaluate the impact on variables also determined by multiple forcing variables, Gavi's impact on vaccination (Dykstra et al. 2015) and the impact of controlled foreign company legislation on real investments abroad (Egger and Wamser 2015). The RDD approach is now a standard technique in social science research. Formal treatment of identification through RDD is provided by Hahn et al. (2001), whereas excellent surveys are available in Imbens and Lemieux (2008) and Lee and Lemieux (2010).

RDD seemed a good candidate to estimate the impact of LDC status on economic performance indicators in general and economic growth in particular because inclusion in the category is based on simultaneously meeting four threshold conditions related to population, GNI per capita, Human Asset Index and Economic Vulnerability Index. Appendix A1.3 (available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>) provides detailed explanations of the implementation of the RDD to the LDC category.

evidence that being categorized as an LDC improved economic growth during the 1971–90 period (see table A1.1.1 in appendix A1.1, available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>). When the forcing variables are aggregated into a single variable, the results remain unchanged (see table A1.1.2 in appendix A1.1, available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>). The local average effects obtained are not statistically different from zero whatever the order of the polynomial (see tables A1.1.3 and A1.1.4 in appendix A1.1, available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>). Moreover, the choice of different bandwidths does not affect the results.

In the second period (1991–2015), the forcing variables are population size, per capita GDP, APQLI and the Economic Diversification Index (EDI). The EDI was replaced after 2000 by the Economic Vulnerability Index (EVI) and the APQLI was replaced after 2003 by the Human Assets Index (HAI). The second period also features criteria for graduation, based on the same forcing variables. As explained in appendix A1.3 (available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>), the design is fuzzy rather than sharp, as the rules concerning

inclusion thresholds are not strictly adhered to. The LDC variable is again instrumented using the dummy variable *Tit*, which takes a value of one if a country meets the criteria for LDC status. Three-year periods are used, corresponding to UN Committee for Development Policy reviews. The results show no causal effect of LDC status on economic growth in the short run (see table A1.1.8 in appendix A1.1, available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>). Tables A1.1.3–A1.1.6 in appendix A1.1 (available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>) restrict the sample to observations around the cutoff point; results are also shown with an aggregated forcing variable (table A1.1.7) and for nonparametric estimation techniques (tables A1.1.8 and A1.1.9). None of the results find an impact of LDC status. As with the earlier period, the results do not change with the order of the polynomial or the bandwidth.

Does that mean that LDC category membership had no effect on economic growth? Probably not. The small sample size limits the relevance of the method, which fails to capture the effect of other exogenous variables that may affect LDCs and other developing countries differently, as shown above for the terms of trade. Returning to traditional econometric assessments can then be useful.

### **The pattern of least developed country growth: From structural handicaps to structural transformation**

Sixty years ago, as development economics was emerging as a discipline, François Perroux (1958) defined development as economic growth accompanied by structural change or as structural changes that enable sustainable growth that is widely distributed among the population (see Guillaumont 1985). Other works followed that were devoted to the structural changes that accompany economic growth (see, especially, Chenery and Syrquin 1975).

More recently, structural transformation has become a matter of increasing concern. Since the Istanbul Programme of Action in 2011, which charted the international community's vision and strategy for the sustainable development of LDCs for the following decade, the literature and meetings on this subject have multiplied, including a major report by the United Nations Conference on Trade and Development (UNCTAD 2014).

Structural transformation has multiple meanings, although all include the reallocation of labour from less to more productive activities. Definitions sometimes vary by the type of economy considered. And future transformation may not look like past or current transformations because the technological environment is changing so dramatically.

For LDCs, which are defined by their structural obstacles to growth, structural transformation first consists in the reduction of these obstacles. This section first reviews the extent to which LDCs have reduced the two types of structural handicaps (low human capital and high economic vulnerability) and then examines structural change in its most common meaning, which is the consequence or the correlate of the reduction in structural handicaps.

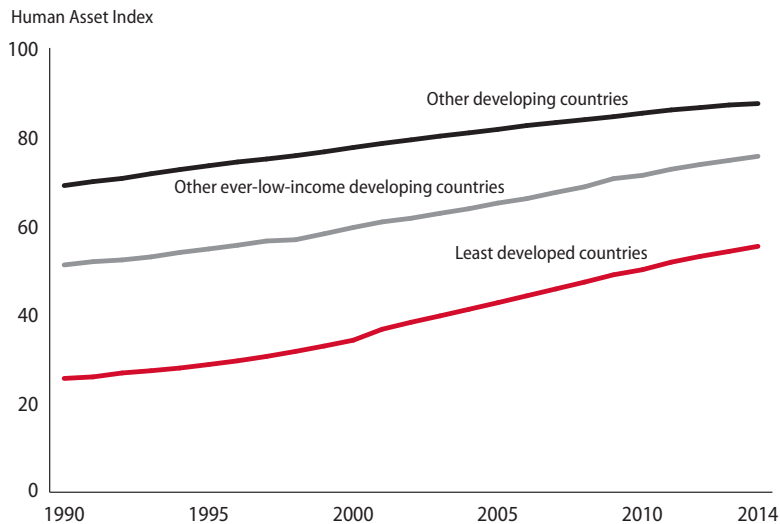


*Improvement in human capital and reduction in poverty: An impact beyond growth?*

*A large improvement in human assets but little reduction in the gap with other developing countries.* Human capital is central to people’s productivity. Low human capital or capacity is thus a key barrier to growth and development. The HAI incorporates factors that improve human productivity: education (adult literacy rate and gross secondary enrolment ratio) and health (under-five mortality and prevalence of undernourishment in the population). Thus, while taking into account the components of well-being, the HAI is concerned with capacity or capability (Sen 1997). HAI data indicate that LDCs have suffered much more than other developing countries from the lack of human assets over 1970–2014. Despite great improvements, the HAI levels of LDCs have not converged towards those of non-LDCs<sup>2</sup> (figure 1.12). While the HAI levels of LDCs have been rising, so have those of other developing countries, and the gap between the two groups has barely shifted, indicating that low human capital remains a continuing obstacle to growth in LDCs.

*Less income poverty reduction in the least developed countries: Far from Millennium Development Goal 1.* The LDCs have reduced poverty but not by as much as other developing countries. In 2011, the poverty headcount ratio was more than 30 percent in at least seven LDCs, whereas it was as high as 25 percent in only five other

FIGURE 1.12  
**Evolution of the Human Assets Index in least developed countries and in other developing countries, 1990–2014**



Note: The Human Asset Index is a composite index of education and health indicators used as an identification criterion for the least developed countries.  
Source: Authors’ analysis of data from FERDI.



developing countries (UNCTAD 2016). Moreover, over 1990–2011, the average poverty headcount ratio fell by less than a third in LDCs, from 66 percent to 45 percent, while it fell two-thirds in other developing countries, from 48 percent to 18 percent. The slow reduction in poverty in LDCs reflected a lower rate of growth in income per capita and a weaker response of poverty to economic growth (the growth elasticity of poverty).

The growth elasticity of poverty is significantly weaker in LDCs than in other developing countries, meaning that, all other things being equal, for a unit increase in income the poverty headcount ratio falls less in LDCs than in other developing countries.<sup>3</sup> In part, that reflects the fact that the impact of economic growth and inequality on poverty depends on their initial levels (Bourguignon 2003; Fosu 2015; Heltberg 2004; Klasen and Misselhorn 2006). Typically, the poverty impact of economic growth is negatively related to the initial poverty level (Guillaumont and Korachais 2008), and LDCs are characterized by their high poverty levels (see box 1.6).

Regressions of changes in income and inequality on changes in the poverty headcount ratio, estimated using World Bank PovcalNet data, find a significant negative relation between economic growth and poverty reduction, as expected. However, the negative coefficient of the variable “Income growth  $\times$  LDC,” which could suggest a stronger effect in LDCs than in other developing countries, is not significant (table 1.8).

### *The changing scope of economic vulnerability and fragility*

*Reduction in structural economic vulnerability.* The economic vulnerability of a poor country is the risk that natural and external shocks impede its economic development. Economic vulnerability is detrimental to development because it slows economic growth and poverty reduction. Vulnerability results from the size and frequency of exogenous shocks, the degree of exposure to shocks and the capacity to react to shocks (resilience).<sup>4</sup> The Economic Vulnerability Index (EVI) of structural economic vulnerability includes eight sub-components related to the size and frequency of exogenous shocks and the degree of exposure to shocks. A decline in the EVI can be seen as a structural change since the definition of the EVI remains the same.

At the 2012 LDC review, the UN Committee for Development Policy revised the weighting and the calculation of some components the EVI. The share of the population living in low elevation coastal zones was added as new component modifying the weight of the other components and three-year averages were used instead of annual data for the export concentration and share of agriculture indices. Other changes included calculation of remoteness from world markets, use of a broader index of victims of natural disasters (replacing the index of homelessness caused by natural disasters), and calculation of the instability indicators over 20 years instead of 15. The resultant changes in the official values of the EVI over time thus did not necessarily reflect actual changes in structural vulnerability. To capture such changes, FERDI estimated retrospective EVI

## BOX 1.6

**Assessing the impact of income growth on poverty: Methodology matters**

The results of econometric studies of the impact of economic growth on poverty differ one from another for at least four reasons related to methodology.

First, which poverty indicator should be used? The choice of poverty indicator can influence its growth elasticity. Researchers use the poverty headcount, the poverty gap, or the poverty gap squared, based on either the international poverty line (a threshold of \$1.90 for poverty and \$1.25 for extreme poverty in low-income countries and \$3.20 for lower-middle income countries) or the national poverty line. Some researchers prefer the poorest deciles or quintiles of household consumption expenditure. Results may also differ according to the measure of economic growth used as the explanatory variable, whether GDP per capita growth or household consumption growth from survey data. Household consumption growth may be more reliable, providing that the number of years between surveys is taken into account. The analysis in this chapter used the poverty headcount ratio; the poverty gap (the ratio by which the mean income of the poor falls below the poverty line, a measure of the intensity of poverty); and the poverty gap squared at the \$1.90 and \$3.20 international poverty lines.

Second, should the variation in the poverty indicator be measured in absolute or relative terms (or in logs)? When the variation is relative (or in logs), the coefficient obtained is the growth elasticity of poverty, while when the variation is absolute the coefficient is a semi-elasticity. Estimations were run for both absolute and relative variation, and the results show similar differences between groups of countries, but with higher coefficients for the semi-elasticities as expected due to the specification.

Third, which control variables should be included in the estimation? Many studies have included the initial level of poverty and an inequality indicator at its initial level and in its variation, in absolute or relative terms (the Gini coefficient is generally used). But other recent studies, as is done here, do not consider initial inequality as a relevant control variable (Cadot et al. 2016; Dollar, Kleineberg and Kraay 2002; Ligon and Sadoulet 2018; and Chuhan-Pole 2014).

Fourth, should the economic growth variable be instrumented? Most often it is not. The studies simply use ordinary least squares (OLS) or lag variables. As noticeable exceptions, Fosu (2015) uses two-step generalized method of moments, and Ligon and Sadoulet (2018) use two-stage least squares, instrumenting sectoral income by its average among neighbouring countries. This chapter uses two-step generalized method of moments (similar to the results obtained with simple OLS).

series with constant 2006–09 and 2012 definitions for 1990–2016 (Cariolle, Goujon and Guillaumont 2016). The rank correlation between the 2011 EVI values using the 2006–09 definition and the values using the 2012 definition is 84 percent, with significant differences for some countries.

The retrospective EVI measurements reveal a decreasing trend in structural economic vulnerability for the whole set of developing countries and for the LDCs as well, with a fairly stable gap between the two groups since 1990 (figure 1.13). The decline is slower for the retrospective EVI based on the 2012 definition than for the retrospective

TABLE 1.8

**Impact of income variation on change in the poverty ratio: Growth elasticities of poverty, 1980–2016**

| Variable                      | (1)                  | (2)                  | (3)                  | (4)                  | (5)                  | (6)                  |
|-------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                               | \$1.90 poverty line  |                      |                      | \$3.20 poverty line  |                      |                      |
|                               | Headcount            | Poverty gap          | Poverty gap square   | Headcount            | Poverty gap          | Poverty gap square   |
| Initial poverty               | −0.148***<br>(0.049) | −0.088*<br>(0.046)   | −0.155**<br>(0.078)  | −0.051*<br>(0.029)   | −0.099**<br>(0.049)  | −0.091**<br>(0.046)  |
| Income growth                 | −2.665***<br>(0.525) | −2.482***<br>(0.510) | −2.703***<br>(0.888) | −1.649***<br>(0.371) | −2.152***<br>(0.449) | −2.588***<br>(0.524) |
| Least Developed Country (LDC) | 0.355**<br>(0.153)   | 0.365<br>(0.283)     | 0.606<br>(0.451)     | 0.085*<br>(0.045)    | 0.197**<br>(0.097)   | 0.221**<br>(0.110)   |
| Income growth × LDC           | −1.257<br>(1.581)    | −3.451<br>(3.100)    | −5.079<br>(4.598)    | −0.141<br>(0.609)    | −0.399<br>(0.798)    | −0.679<br>(1.187)    |
| Year difference               | −0.017<br>(0.013)    | −0.034*<br>(0.020)   | −0.049<br>(0.032)    | −0.008<br>(0.005)    | −0.006<br>(0.008)    | −0.012<br>(0.010)    |
| Constant                      | 0.436***<br>(0.119)  | 0.312*<br>(0.159)    | 0.340<br>(0.242)     | 0.224**<br>(0.103)   | 0.261***<br>(0.101)  | 0.211**<br>(0.087)   |
| Observations                  | 513                  | 502                  | 482                  | 534                  | 533                  | 525                  |
| Number of countries           | 93                   | 93                   | 93                   | 93                   | 93                   | 93                   |

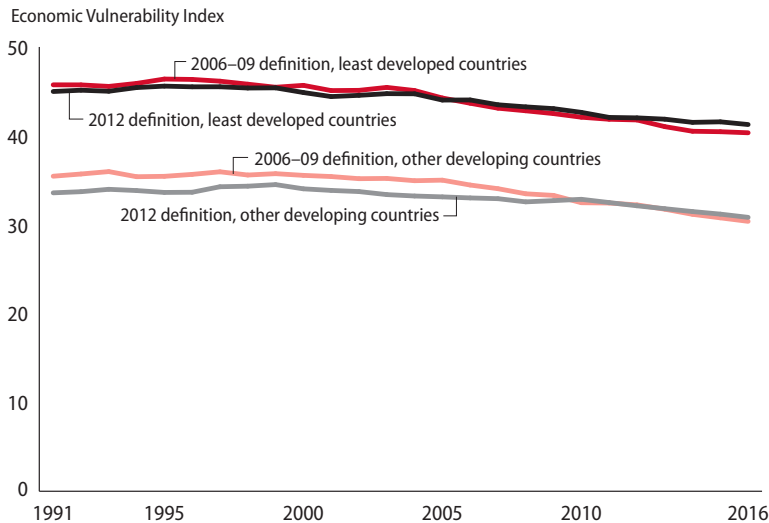
\*  $p<0.1$ ; \*\*  $p<0.05$ ; \*\*\*  $p<0.01$ .

Note: Based on Adams' method (2004). Estimates were obtained by regressing the difference between household surveys of the annual growth rate of the poverty measure on the time elapsed between surveys, the initial poverty rate, the annual growth rate of the real value of survey mean consumption expenditure and its interaction with the LDC dummy variable. Numbers in parentheses are standard errors, which have been corrected for heteroscedasticity. Source: Authors' analysis of data from the World Bank PovcalNet database (<http://iresearch.worldbank.org/PovcalNet/introduction.aspx>).

EVI based on the 2006–09 definition due to the transfer of half of the initial weight of the population component to the population share living in low-elevation coastal zones component. The gap between the two group indices is still significant. The decline in the LDCs' EVI appears to have occurred mainly in the 2000s. All components contributed to the decline of the EVI except for natural disasters and the export instability indices. The natural disasters index for the retrospective EVI (population affected) using the 2012 definition decreased in LDCs and increased in other developing countries, whereas that of 2006–09 definition (homeless population) shows a reverse trend. Even though the ex post instability index contributed to the decline of both series, its contribution is higher for LDCs when the 2006/2009 definition is used and higher for other developing countries when the 2012 definition is used (Cariolle, Goujon and Guillaumont 2016).

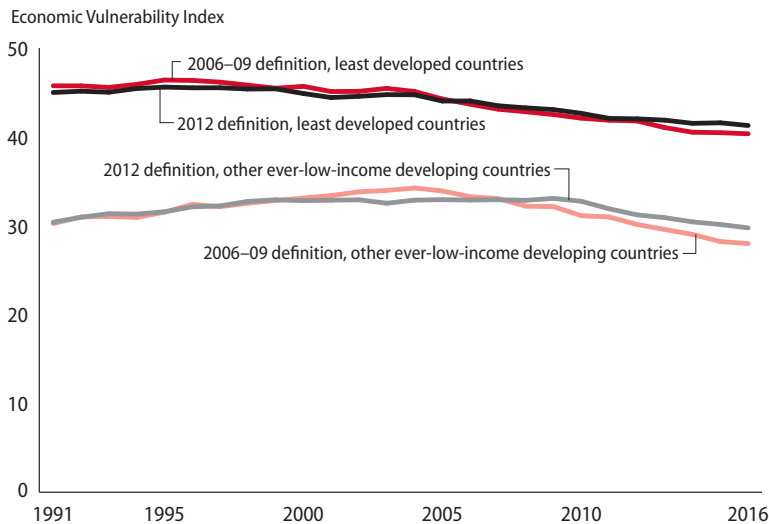
When the LDCs' EVI is compared with that of other developing countries that have ever been low income, the gap narrowed and then recently widened (figure 1.14). Until 2004 (for the 2006–09 definition), the EVI rose in the other group, whereas it declined

FIGURE 1.13  
**Evolution of the retrospective Economic Vulnerability Index in least developed countries and other developing countries, 1990–2016**



Note: Based on FERDI estimated retrospective EVI series with constant 2006–09 and 2012 definitions for 1990–2016 (Cariolle, Goujon and Guillaumont 2016).  
Source: Authors’ analysis of data from FERDI and Cariolle, Goujon and Guillaumont (2016).

FIGURE 1.14  
**Evolution of the retrospective Economic Vulnerability Index in least developed countries and in other ever-low-income developing countries, 1991–2016**



Note: Based on FERDI estimated retrospective EVI series with constant 2006–09 and 2012 definitions for 1990–2016 (Cariolle, Goujon and Guillaumont 2016).  
Source: Authors’ analysis of data from FERDI.

for both groups after 2004, though by less in the LDCs, thus accounting for the widening gap. This outcome is likely to be due, at least in part, to the impact of oil and other commodity prices rather than to a failure of support measures and domestic policy.

The retrospective EVI measurements based on the 2006–09 definition appear to be more relevant for measuring structural transformation than the retrospective measurements based on the 2012 definition because the presence of the population share living in low elevation coastal zones component reduces the relevance of the measurements using the 2012 definition. Indeed, using the 2012 definition reduces the exposure index values (a component of EVI) of developing countries, with a slightly stronger impact on LDCs than on other developing countries (Cariolle, Goujon and Guillaumont 2016). The impact of the design of the EVI on structural economic vulnerability is heterogeneous among LDCs. It increases the vulnerability of small island developing states and coastal LDCs, while reducing that of landlocked LDCs, a debatable outcome for countries with large dry areas, including Sahelian countries. However, the retrospective EVI measurements using the 2012 definition improve on those using the 2006–09 definition in four areas: the use of three-year rolling average for the export concentration and agricultural share indices; the variability included in the remoteness index calculation; extension of the natural disaster index from homelessness to a broader definition of victims; and extension of the calculation period from 15 years to 20 years for instability indices (although it might not be appropriate when the deterministic part of the trend is linear, as it is currently; see Feindouno 2019).

*Increasing state fragility.* It has been shown elsewhere (see, for example, Guillaumont 2009b) how much the LDC category overlaps the group of so-called fragile states, although the LDC category is structural, with a long-lasting membership, while the fragile state group is policy focused and changes over time. The share of LDCs classified as fragile has risen over time, from 29 (58 percent) in 2007 to 37 (79 percent) in 2018 (table 1.9). But this trend in the number of fragile state is not specific to LDCs. It has been increasing even more in other developing countries, so that fragile LDCs as a proportion of fragile states has been declining (from 76 percent in 2007 to 64 percent in 2018). Rather than suggesting an impact of support measures, this patterns shows that conflict is a frequent trap for LDCs, intensified by the specific structural characteristics of LDCs, in particular their vulnerability (see Kim and Sauter 2017). The decrease in vulnerability in LDCs has not been great enough to reduce the risk of conflict.

### *Structural transformation as a strategy or outcome?*

Structural transformation is commonly defined as the movement of workers from a less productive economic sector to a more productive one. As an economy develops, new, more productive sectors emerge, and workers move from traditional sectors to modern ones, increasing the economy's overall productivity. Structural transformation is often

TABLE 1.9

**Number of fragile states in least developed countries compared with other developing countries, 2007–18**

| Year | Total least developed countries (LDCs) | Total fragile states | Fragile LDCs | Other fragile developing countries | Fragile LDCs as percentage of total fragile states | Fragile LDCs as percentage of total LDCs | Other fragile developing countries as percentage of total developing countries |
|------|--|----------------------|--------------|------------------------------------|--|--|--|
| 2007 | 50                                     | 38                   | 29           | 9                                  | 76.3   | 58.0                                     | 11.4   |
| 2008 | 49                                     | 46                   | 34           | 12                                 | 73.9   | 69.4                                     | 15.0   |
| 2009 | 49                                     | 46                   | 34           | 12                                 | 73.9   | 69.4                                     | 15.0   |
| 2010 | 49                                     | 43                   | 30           | 13                                 | 69.8   | 61.2                                     | 16.3   |
| 2011 | 48                                     | 46                   | 30           | 16                                 | 65.2   | 62.5                                     | 19.8   |
| 2013 | 49                                     | 45                   | 29           | 16                                 | 64.4   | 59.2                                     | 20.0   |
| 2014 | 48                                     | 51                   | 33           | 18                                 | 64.7   | 68.8                                     | 22.2   |
| 2015 | 48                                     | 51                   | 33           | 18                                 | 64.7   | 68.8                                     | 22.2   |
| 2016 | 48                                     | 55                   | 37           | 18                                 | 67.3   | 77.1                                     | 22.2   |
| 2018 | 47                                     | 58                   | 37           | 21                                 | 63.8   | 78.7                                     | 25.6   |

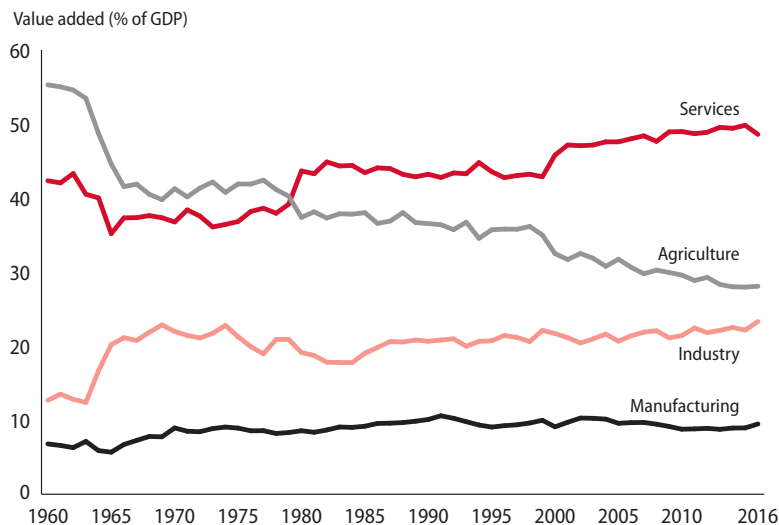
Source: Authors' analysis of data from OECD "State of Fragility" reports.

viewed as the reallocation of labour among the sectors of agriculture, industry and services (Duarte and Restuccia 2010; Haussman, Ricardo and Klinger 2006; Herrendorf, Rogerson and Valentinyi 2013; AfDB, OECD, UNDP and ECA 2013) or to higher productivity activities within them (Sumner 2017). Since the Istanbul Programme of Action in 2011, many official documents have described the economic progress of LDCs in terms of their structural transformation. One would expect that the pace of structural transformation has been accelerating since 2011.

*How has the sectoral composition of GDP and employment changed?* On average in LDCs, the services sector contributed about 50 percent to GDP in 2016 but less than 35 percent to employment. Agriculture's contribution to GDP remains high in many LDCs, at about 30 percent of total value added and more than 55 percent of employment (figures 1.15 and 1.16). Industry contributes around 20 percent of value added (less than 10 percent from manufacturing) and about 10 percent of employment.

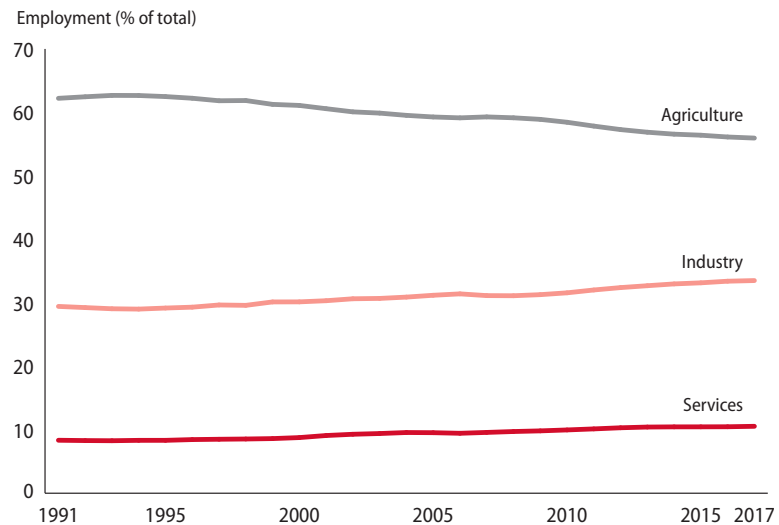
The share of the agricultural sector, though still high, has been declining since 1960, while the share of services has been rising. The industrial sector has been fairly stable since 1970, declining slightly over 1970–85, then rising very slowly, reaching 23 percent in 2016. The manufacturing sector's share is only half that of the industrial sector and has been declining slightly since 2003. The employment share of the industrial sector has been increasing slowly, reaching about 10 percent in 2016 (see figure 1.16). Clearly, structural transformation in the LDCs has not occurred because of any shift of labour

FIGURE 1.15  
**Evolution of value added in least developed countries, by sector, 1960–2016**



Note: The sample contains 66 countries: 43 least developed countries (LDCs), 19 other ever-low-income developing countries and 4 LDC graduates.  
Source: Authors’ analysis based on data from World Bank (2017).

FIGURE 1.16  
**Evolution of employment in least developed countries, by sector, 1991–2017**



Note: The sample contains 69 countries: 44 least developed countries (LDCs), 20 other ever-low-income developing countries and 5 LDC graduates.  
Source: Authors’ analysis based on data from World Bank (2017).

to manufacturing, except in few large countries such as Bangladesh (where manufacturing's contribution rose from 5 percent in 1960 to 18 percent in 2016), with a large domestic market and the possibility of scale economies.

Sectoral trends have been similar in LDCs and in other ever-low-income developing countries, but at different levels (see figures A1.2.3 and A1.2.4 in appendix A1.2, available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>). The average share of agriculture in other ever-low-income developing countries (nearly 20 percent for value added and about 40 percent for employment in 2016) is lower than in the LDCs. Industry's share is higher in ever-low-income developing countries (30 percent of value added) than in the LDCs (20 percent), as is manufacturing's share (17 percent compared with 10 percent), with about 20 percent of employment compared with 10 percent in the LDCs. The contribution of services to GDP has been similar, on the whole, between the two groups, increasing a little more in the LDCs over 1970–85 and a little less over 2000–15 and reaching a similar level in 2016 (around 50 percent), but with the employment share slightly higher in other ever-low-income developing countries (around 40 percent) than in the LDCs (32 percent).

The similar sectoral dynamics for agriculture and industry in the LDCs and in the ever-low-income developing countries, though at different levels, may suggest that agriculture could be a route to structural transformation in the LDCs. The high proportion of employment in agriculture, often viewed as reflecting a lack of structural change, can also be evidence of a strong need for greater innovation and an opportunity for creating a new and dynamic comparative advantage, depending on the evolution of productivity in the sector.

The comparison of sectoral shifts in LDSs with LDC graduates is not very meaningful because of the small number of graduates. It is worth noting, however, that following a large decline over 1960–85, agriculture's contribution to GDP in the LDC graduates is now around 5 percent, well below that in the LDCs and other developing countries. The share of manufacturing in GDP, at 5 percent, is even lower than in the LDCs. Clearly, in these small economies, manufacturing has not been the driver of their improved performance and graduation. Services have become the main contributor to GDP in the LDC graduates, reaching more than 66 percent in 2016, with a similar share of employment.

### *The evolution of productivity in the least developed countries*

Sectoral productivity is commonly measured as the ratio of sectoral value added to the labour force employed in the sector. It is a rough gauge indeed and does not measure physical productivity since it depends on relative prices. It is key in the assessment of structural transformation (UNCTAD 2014). Country productivity growth is commonly broken down into two components: the change in productivity within each sector and the movement of the labour force between sectors of unequal productivity



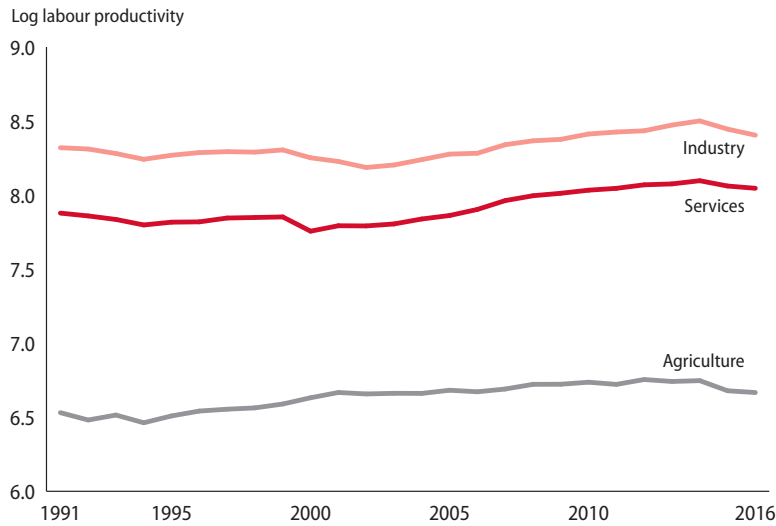
(De Vries, Timmer and De Vries 2013). The movement from a less productive sector (generally agriculture) to a more productive one (industry or services) is generally viewed as a major structural transformation for developing countries and is a goal of international support to the LDCs. But the productivity improvement within a sector may be important as well and reflects another kind of structural transformation, possibly a deep one. Moreover, a third component of productivity is often identified, reflecting the interaction between the other two. It is called between-dynamic change to distinguish it from the pure inter-sectoral component called between-static change (De Vries, Timmer and De Vries 2013).

In LDCs, productivity has been rising in all three main sectors, with productivity highest in the industrial sector, followed by services, with agriculture trailing (figure 1.17).<sup>5</sup>

To compare the impact of changes in productivity within and between sectors and to identify any impact of LDC support measures, an analysis was conducted for two successive 10-year periods, 1996–2006 and 2006–16, for the LDCs<sup>6</sup> and the ever-low-income developing countries. For both samples and periods and for both between-sector and within-sector productivity, the change in total productivity was positive, indicating a global improvement (see figure A1.2.5 in appendix A1.2). The within-sector change appears to be the main contributor to the productivity change observed for the two groups and the two periods, more than the between-sector change.

This kind of decomposition may be misleading, however, insofar as it does not take into account the dynamic impact of the reallocation effect, which is the joint effect of the changes in sector employment and sector productivity levels. For example, the

FIGURE 1.17  
**Evolution of sectoral productivity in the least developed countries, 1990–2016**

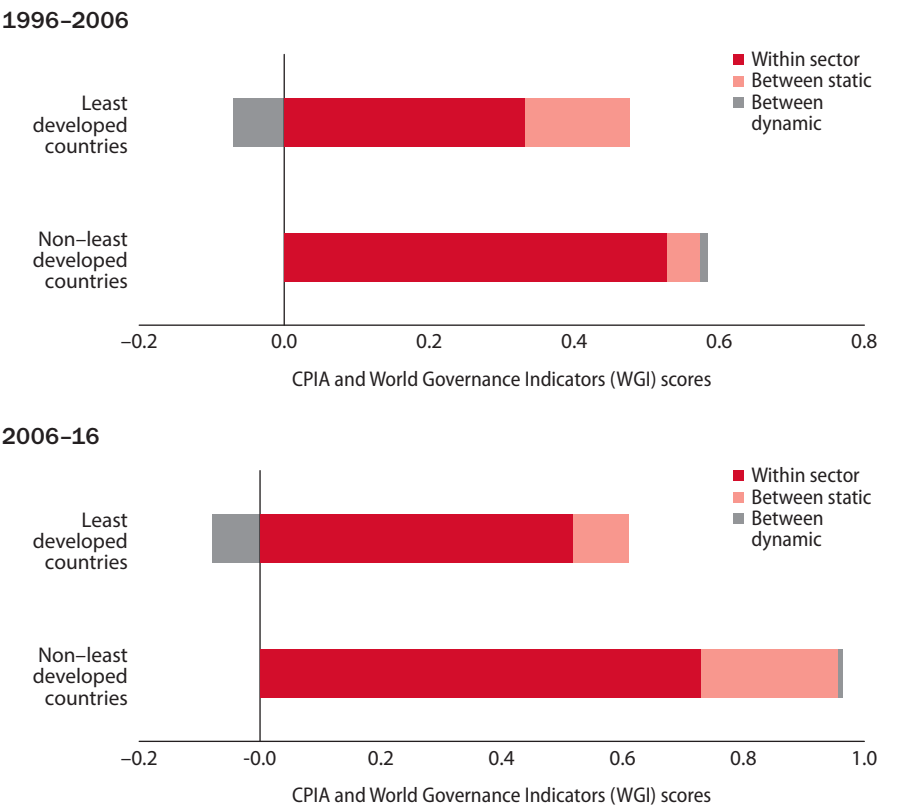


Source: Authors' analysis based on data from World Bank (2017).

growth of the services sector as labour moves from agriculture may be accompanied by a decline in the productivity of services. When the sectoral shift is broken down into between-static and between-dynamic changes, both components are positive for other developing countries whereas the between-dynamic change is negative in LDCs, suggesting that the sectoral change is led mainly by the between-static change (figure 1.18).

Some LDCs (Bhutan, Mali, Uganda and Zambia) moved from a negative sectoral shift in productivity over 1996–2006 to a low but positive change over 2006–16 (see figure A1.2.6 in appendix A1.2). LDCs with a positive sectoral change in labour over 1996–2006 continued to improve over 2006–16, except for Senegal. Moreover, Ethiopia, an outlier, had a high negative sectoral shift in 2006–16 that erases the structural shift for the LDCs in 2006–16, justifying its exclusion from the aggregate LDC analysis. The productivity change for the two periods is not significant enough to conclude that support measures had an effect. The decomposition of the between-sector shift

FIGURE 1.18  
**Decomposition of the productivity change into within-, between-static and between-dynamic changes**



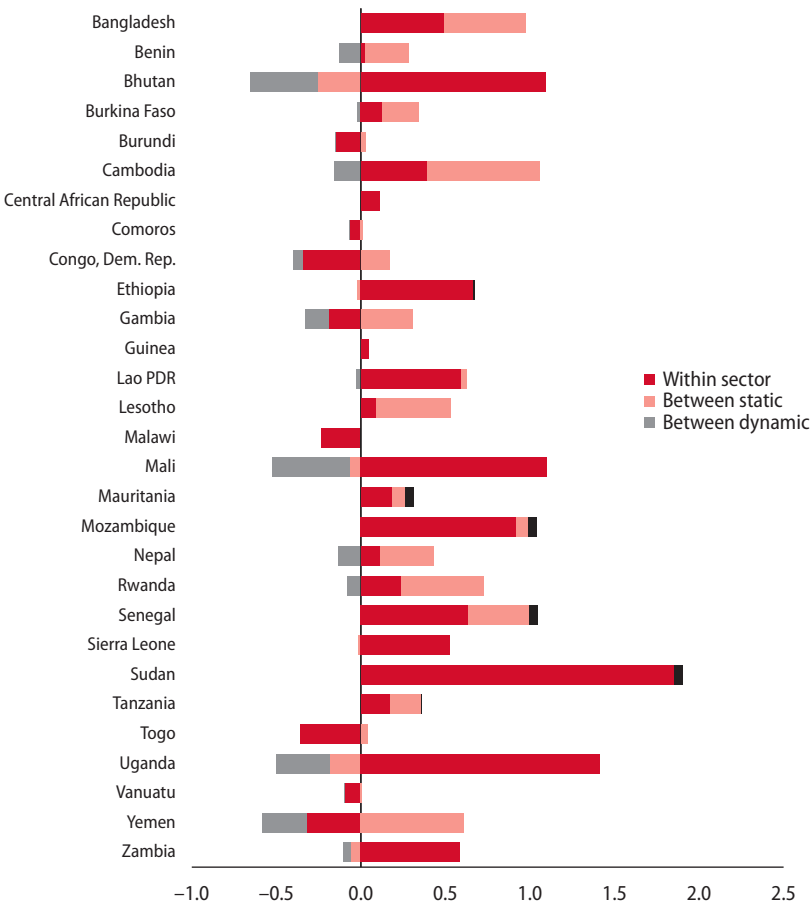
Source: Authors' analysis based on data from World Bank (2017).

into between-static and between-dynamic changes for individual countries (figure 1.19) shows that LDCs had a negative between-dynamic change of 50 percent between 1996–2006 and 2006–16. Moreover, for countries with a remaining negative structural change, the size was reduced, suggesting a good dynamic for LDCs.

These results show that in LDCs, the sectors with the highest productivity did not attract much employment. In many LDCs, mining is a major component of the industrial sector, and mining requires more physical capital than human capital. Moreover, the low level of education in LDCs, along with the mismatch between education and

FIGURE 1.19  
**Decomposition of productivity change into within-sector, between-static and between-dynamic changes in the least developed countries, 1996–2006 and 2006–16**

1996–2006



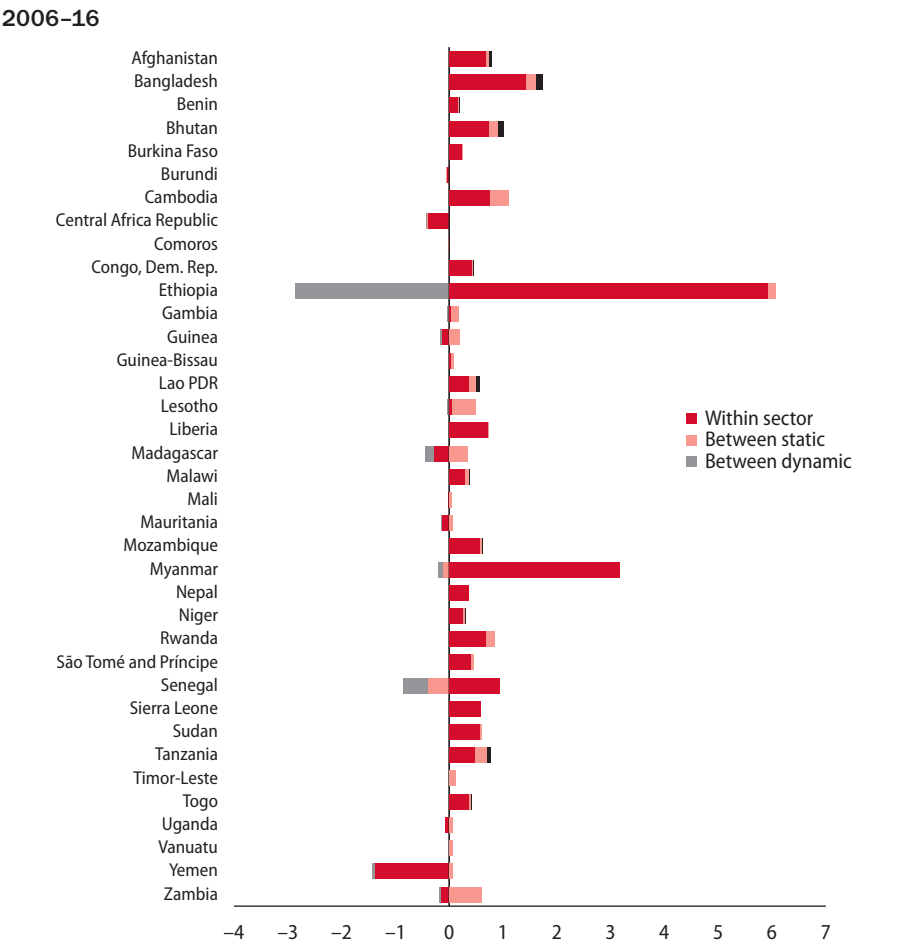
(continued)

the skills needed in the economy, has impeded the movement of workers from agriculture to industry.

*Achieving structural transformation in the least developed countries*

Each country’s development strategy, and thus the mechanisms that enable its structural transformation, need to reflect the country’s specific circumstances and characteristics. For that reason, the impact of international support on structural transformation cannot be assessed using uniform structural criteria. Copying the strategies that

FIGURE 1.19 (continued)  
**Decomposition of productivity change into within-sector, between-static and between-dynamic changes in the least developed countries, 1996–2006 and 2006–16**



Source: Authors’ analysis based on data from World Bank (2017).

enabled development in other countries may not lead to success for the LDCs, which need to take stock of their comparative advantage in primary commodities and base their development on that (AfDB et al. 2013). The primary sector can be modernized, diversified and expanded into processing activities, which would likely improve income distribution as well.

Agricultural activities can create jobs for the low-skilled population in LDCs. Rising incomes will lead to increased demand for the output of new, more productive activities. The virtuous circle created—rising income, rising demand and new economic activities—will make more resources available for the development of the productive and social infrastructure essential to attracting foreign investment. In the long term, higher education levels, infrastructure development and greater foreign direct investment will lead to industrialization based on higher level technology.

Development of the primary sector requires boosting agricultural productivity, and LDCs need to invest massively in the production and processing of raw materials to climb up the global value chain. The prerequisites for this transformation are good governance, human capital accumulation, and competitive exchange rates, among others.

## Conclusion

The LDC category identifies countries that are thought to be caught in the low-level equilibrium trap identified by early development economists. The analysis presented in this chapter does not reject the hypothesis of such a low-income trap (though it does question the existence of a middle-income trap). The structural handicaps that define the LDC trap have reduced economic growth in the LDCs more over 1975–2000 than over the longer period 1975–2011, suggesting that structural change may have occurred over the past 15 years.

Since the mid-1990s and accelerating in the 2000s, economic growth in the LDCs improved after two decades of low growth, holding out hope that escape from the trap is possible. On average, LDCs are now growing as fast as other developing countries. However, convergence in income growth does not mean convergence in income levels, which requires faster GDP per capita growth in countries with lower initial levels.

During the nearly five decades since the LDC category was established, the LDCs have reduced poverty and implemented structural changes, as reflected in improvements in the two indicators of structural handicaps used to identify the LDCs: the Economic Vulnerability Index and, even more clearly, the Human Assets Index. However the gap between the LDCs and other developing countries has narrowed little, suggesting that the LDCs continue to face more severe obstacles to growth. The gap has even been widening recently on the economic vulnerability measure. Moreover, poverty reduction, while substantial, has been slower in LDCs than in other developing countries, due to both slower growth of income per capita and a weaker response of poverty to economic growth.

Structural transformation, as reflected by the change in the sectoral composition of the economy, has been largely through an increase in the services sector's share of the economy (to about half) and a decline in agriculture's share, with little change in industry's share. Productivity growth in the LDCs seems to come mainly from within-sector changes, in particular in agriculture, rather than from a sectoral shift in the labour force.

Oil resources seems to explain only a small share of the observed improvement in LDCs. Changes in the terms of trade reduced economic growth in both the LDCs and other developing countries before 2000 and increased it over 2000–15. The contribution of changes in the terms of trade was larger in the LDCs than in other developing countries, suggesting that improvements in the terms of trade have narrowed the growth gap between LDCs and other developing countries. Moreover, the LDCs were relatively more protected from the global economic crisis of 2007–09 than were more developed countries, partly because they are less integrated into the global economy and experienced a smaller decline in external capital flows (development assistance, foreign direct investment and remittances).

It is likely that the persistence and reinforcement of external support measures have contributed to the improvements in the LDCs. But the analysis presented here could not rigorously measure the impact of support on the overall performance of LDCs in economic growth, poverty reduction and structural transformation. The reason is that the countries that are the beneficiaries of these support measures are at the same time (and by definition) facing specific structural handicaps. It was difficult to disentangle the impact of the handicaps themselves, which vary among LDCs, from that of the support measures taken to overcome them, which depend on membership. The analytical methods used (including regression discontinuity design) did not reveal a causal effect of LDC status on economic growth in the short run. The following chapters consider the support measures separately, along with their country-specific application, which allows for better assessment.

## Notes

1. Oil-exporting countries are defined as countries whose petroleum (SITC 33) and gas (SITC 34) exports reached 50 percent of total exports for at least one year between 1980 and 2016. Petroleum and gas data are taken from UN COMTRADE (<https://comtrade.un.org/>) completed by some data from the Observatory of Economic Complexity (<https://atlas.media.mit.edu/en/>).
2. HAI levels improved over all subregions and income groups, and neither convergence nor divergence can be observed.
3. Symetrically, the Gini elasticity of poverty is weaker in LDCs than in other developing countries. For the same change in inequality, all other things being equal, the poverty level increases less in LDCs.

4. Resilience depends mainly on current policy, whereas the size, frequency, and degree of exposure to shocks are structural. Exogenous shocks are either natural (environmental or climate disasters) or external (trade-related). Exposure to exogenous shocks is greater for small countries (particularly through a higher share of trade in GDP), countries specialized in primary goods, and remote countries.
5. The evolution of productivity has been similar for other ever-low-income developing countries and LDC graduates. Productivity is lowest in the LDCs and highest in the LDC graduates.
6. Ethiopia is excluded because it is an outlier. The inclusion of Ethiopia erases the structural shift for LDCs in the second period because of its large negative sectoral change.

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## Policy performance: Is it weaker in the least developed countries?

### Introduction

The development outcomes of the Least Developed Countries (LDCs), though improving since the beginning of the century, still lag behind those of other developing countries, even with international support. Their lagging outcomes can result from structural handicaps or from lower quality policies. Indeed, the quality of public policies, often referred to as “performance”, is central in explaining economic growth. Poor policies in LDCs would then explain the somewhat disappointing results in chapter 1.

This chapter first examines the quality of LDC policies according to the usual criteria. If the policy indicators of the LDCs are lower than those of other developing countries, it may be due either to a weaker will for reform or to structural factors beyond their current will. We can then define “policy performance” as the quality of “autonomous” policy—in other words the quality of the policy assessed with respect to exogenous factors, structural handicaps or initial conditions. The chapter then proposes several measures of LDC policy performance. Even if some policy indicators appear worse in LDCs, their policy performance, assessed by policy indicators adjusted for the impact of structural factors, is not weaker. The structural handicaps facing LDCs thus affect their development both directly and through their impact on policy.

This finding has implications for international assistance policy. Performance is often an important criterion for allocating aid among developing countries, as seen in the next chapters. For instance, the multilateral development banks allocate aid among recipient countries according to mathematical formulas using performance as a determining criterion. The amount of aid prescribed by these models for a given recipient country is an increasing function of its performance.

But the performance used as a criterion does not take into account the possible impact of structural handicaps on the quality of policy, so that countries suffering more from these handicaps, as the LDCs do, are also penalized by an allocation based on the unadjusted measure of performance (Guillaumont, McGillivray and Wagner 2016). Other donors allocate aid less systematically, but often provide more aid to countries that score better on indicators of economic policies, public sector management and institutions.

As structural handicaps, economic vulnerability and a low level of human capital have received great attention in the literature for a long time (see a survey in Guillaumont 2009a and 2009b). Their detrimental impacts on policy and aid allocation may lead to a double punishment for LDCs, which face structural economic vulnerability and low human capital. The problem then is that if lower performance in LDCs can be to some extent explained by economic vulnerability and low human capital, the usual and unadjusted measure of performance is not a fair criterion to allocate aid.

This chapter addresses this issue by focusing on the measures of performance commonly used by bilateral and multilateral donors. It shows that once structural characteristics—economic vulnerability and low human capital—are taken into account, LDCs on average do not display lower performance either in institutional quality or the quality of their economic policies. It then proposes to correct governance indicators for the impacts of these exogenous structural handicaps to reflect genuine performance explained only by autonomous political choices of countries.

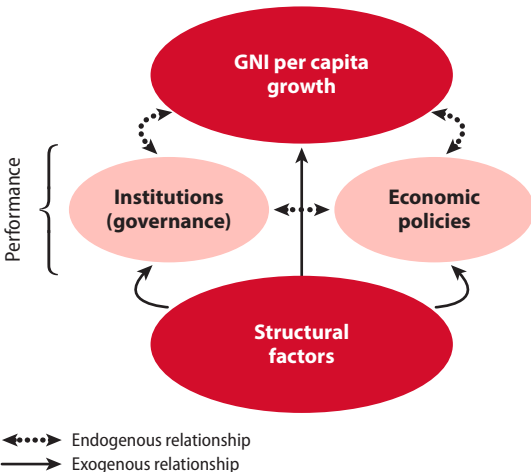
In the first part the chapter proposes a way to test and take into account that low scores of LDCs on usual indicators of governance and institutional quality reflect structural factors independent of the country's will. In the second part it shows that structural factors shape the macroeconomic policy of LDCs.

### **Governance indicators in LDCs: how they depend on structural factors**

The quality of institutions, governance and policies has been highlighted as a main factor of growth and development (Acemoglu et al. 2001; Rodrik et al. 2004). Supposedly weak quality of governance in LDCs would then explain poor economic results. However, LDCs may suffer from structural handicaps that contribute to poor results by generating weak governance and bad policy choices, conceptualized in figure 2.1.<sup>1</sup> This dependence of governance and economic policies on structural factors suggests that LDCs do not choose autonomously a weak level of governance and that structural factors are crucial in explaining economic results. Moreover many bilateral and multilateral development agencies use indicators of the quality of governance or policies to allocate their concessional funds. So, low quality governance leads to less official development assistance, as at the World Bank (see box A2.1.2 in appendix A2.1). If the relationship displayed in figure 2.1 holds, not taking into account structural factors in aid allocation frameworks would then lead to a double punishment. Countries with adverse structural factors then suffer from poor governance but also from low aid inflows.<sup>2</sup>

FIGURE 2.1

From structural factors to performance: a conceptual framework



Source: Authors.

Governance can be defined as the way a country is governed by its public authorities. It broadly consists of government policies, institutions (the rules of the game in the country that can be formal or informal) and the functioning of the government and public administration. Because the international community and academics widely agree that governance is central in economic development, several measures of the quality of governance have been developed since the 1990s, particularly at the World Bank. Here are the three most usual composite indicators:

- The Country Policy and Institutional Assessment (CPIA).
- The Worldwide Governance Indicators (WGI).
- The Doing Business indicators (DB).

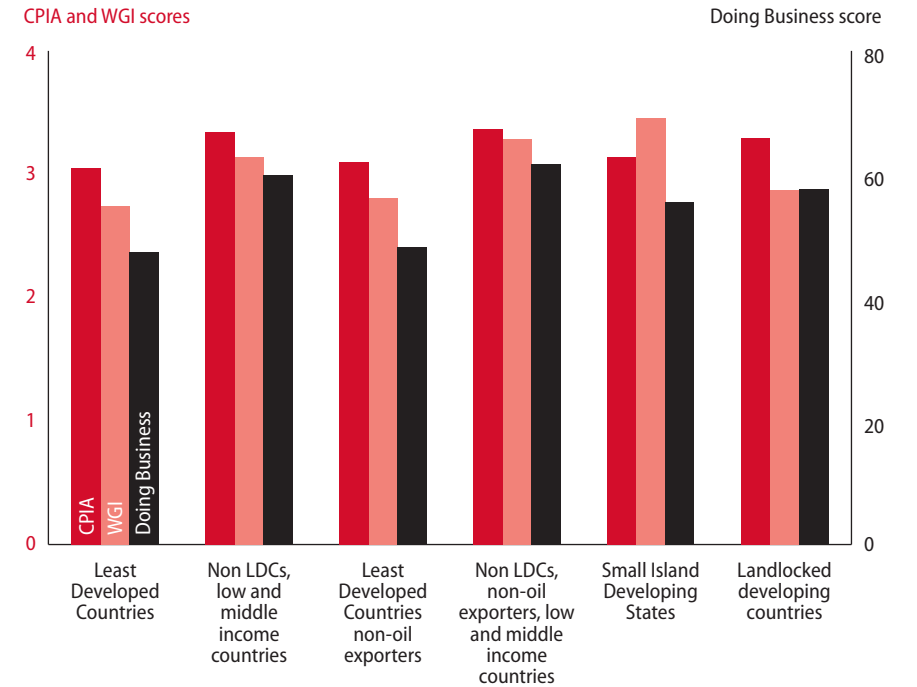
All three are widely used in academic studies and donor operations.<sup>3</sup> They are strongly correlated (table 2.1) though each focuses on different dimensions of governance and is constructed using different methodologies (see appendices A2.1, A2.2 and A2.3). Probably the most extended and widest definition of governance is covered by the CPIA and the WGI, but the CPIA gives more importance to social and macroeconomic policies while the WGI focuses more on institutions. The DB indicators have a narrower focus in assessing business environment (the rules of the game governing business activities). All three indicators rely on largely subjective assessments. The coverage by country and over time also differs. Since 2005 the publicized CPIA ratings cover almost 80 developing countries on a set of 16 criteria, the WGI more than 200 countries and territories since 1996 and the DB about 185 countries. These different indicators may lead to different but complementary assessments (figure 2.2). The three indicators are used here to compare the quality of governance in LDCs and in other countries.

TABLE 2.1  
**Simple correlations between the CPIA, WBI indicators in 2017 (developing countries only)**

|      | CPIA<br>Average score of<br>16 components<br>(IDA countries) | WGI<br>Average score of<br>6 components | Ease of Doing Business (DB)<br>Average score of<br>10 components |
|------|--|---|--|
| CPIA | 1.00<br>(74)   | —                                       | —  |
| WGI  | 0.69<br>(74)   | 1.00<br>(138)                           | —  |
| DB   | 0.79<br>(73)   | 0.71<br>(132)                           | 1.00<br>(132)  |

Note: All correlations are significant at the 1 percent level. The number of countries is in parentheses. The CPIA ranges from 0 to 6 while the WGI ranges from –2.5 to 2.5. The DB ranks countries from 1 to 100 (1 being the least business friendly and 100 the most). See appendices A2.1–A2.3 for the components of each composite indicator.  
Source: Authors’ calculations from World Bank data.

FIGURE 2.2  
**Average values for the CPIA, World Governance Indicators and Doing Business by developing countries categories in 2017**



Note: The CPIA ranges from 0 to 5 while the WGI ranges from –2.5 to 2.5 (for the sake of clarity the WGI has been rescaled from 0 to 6 in this figure). The DB ranks countries from 1 to 100 (1 being the least business friendly and 100 the most). See appendices A2.1–A2.3 for the components of each composite indicator.  
Source: Authors’ calculations from World Bank data.

### *Usual governance indicators: lower ratings in LDCs*

*Country Policy and Institutional Assessment (CPIA) scores.* The Country Policy and Institutional Assessment (CPIA) rates 64 IDA countries,<sup>4</sup> on a 1–6 scale increasing with the quality of governance, against a set of 16 criteria grouped in four clusters: economic management, structural policies, policies for social inclusion and equity, and public sector management and institutions. Box A2.1.1 in appendix A2.1 provides the 4 clusters and 16 components of the CPIA.

Table 2.2 (and tables A2.4.1 and A2.4.2 in appendix A2.4) reports average CPIA scores for country groupings. Not surprisingly, LDCs with an average score of about 3.05 in 2017 have a significantly weaker CPIA than the other developing countries that show an average score of about 3.34 (figure 2.3). The score of 3.2 is the threshold used by the World Bank to identify “Fragile States” (table 2.3). Differences in means tend to be

TABLE 2.2

### **Average values for the CPIA, World Governance Indicators and Doing Business by developing countries categories in 2017**

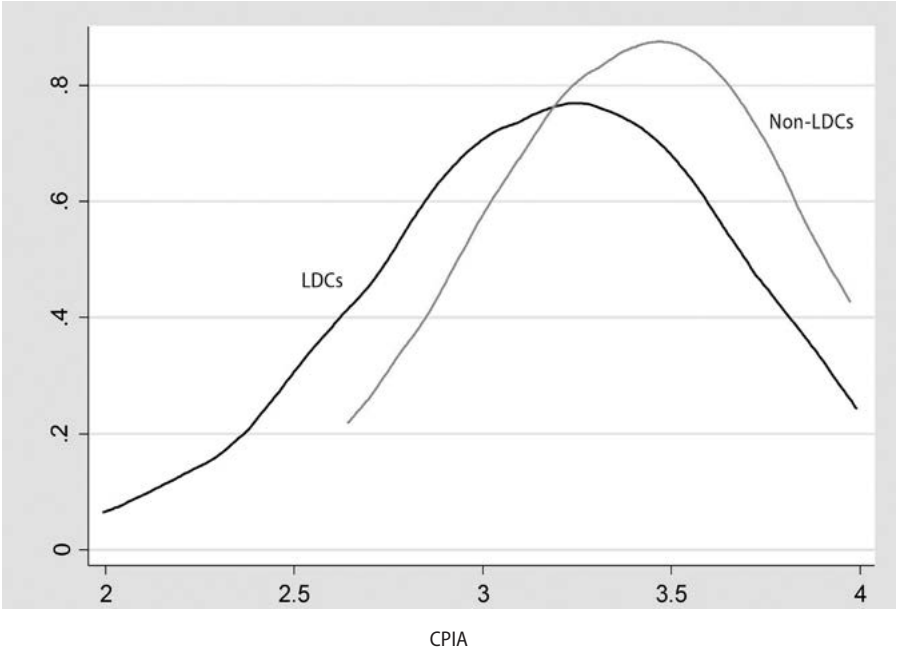
| Country groups  | CPIA                |               | WGI                 |               | Doing Business      |               |
|---|---------------------|---------------|---------------------|---------------|---------------------|---------------|
|   | Number of countries | Average score | Number of countries | Average score | Number of countries | Average score |
| Low-income countries  | 29                  | 2.98          | 31                  | −1.06         | 30                  | 45.21         |
| Lower middle income countries                                     | 34                  | 3.25          | 47                  | −0.50         | 47                  | 54.84         |
| Upper middle income countries                                     | 11                  | 3.39          | 60                  | −0.20         | 55                  | 61.95         |
| Main oil exporters  | 5                   | 2.61          | 20                  | −1.12         | 19                  | 48.57         |
| <b>Least developed countries</b>                                  | <b>45</b>           | <b>3.05</b>   | <b>46</b>           | <b>−0.76</b>  | <b>45</b>           | <b>47.42</b>  |
| LDCs non-oil exporters  | 42                  | 3.10          | 42                  | −0.69         | 41                  | 48.23         |
| LDCs non-graduating   | 41                  | 3.03          | 41                  | −0.84         | 40                  | 46.55         |
| LDCs non-oil exporters non-graduating                             | 38                  | 3.08          | 38                  | −0.77         | 37                  | 47.18         |
| Non-LDCs  | 29                  | 3.34          | 92                  | −0.36         | 87                  | 59.86         |
| <b>Non-LDCs, low- and middle-income countries</b>                 | <b>29</b>           | <b>3.34</b>   | <b>92</b>           | <b>−0.36</b>  | <b>87</b>           | <b>59.86</b>  |
| Non-LDCs, low and lower middle income countries                   | 19                  | 3.29          | 33                  | −0.64         | 32                  | 56.25         |
| Non-LDCs non-oil exporters, low- and middle-income countries      | 27                  | 3.37          | 76                  | −0.22         | 72                  | 61.69         |
| Non-LDCs non-oil exporters, low and lower middle income countries | 17                  | 3.33          | 29                  | −0.58         | 28                  | 57.37         |
| Small island developing states                                    | 19                  | 3.14          | 26                  | −0.05         | 24                  | 55.50         |
| Landlocked developing countries                                   | 22                  | 3.30          | 31                  | −0.63         | 30                  | 57.62         |

Note: The CPIA ranges from 0 to 6 while the WGI ranges from −2.5 to 2.5. The DB ranks countries from 1 to 100 (1 being the least business friendly and 100 the most). See appendices A2.1–A2.3 for the components of the composite indicators.

Source: Authors' calculations from World Bank data.

FIGURE 2.3  
**Differences in distributions of the CPIA between LDCs and non-LDCs in 2017**

Kernel density estimate for CPIA



Note: The CPIA ranges from 0 to 6. See appendix A2.1 for the components of the CPIA composite indicator. The vertical dotted line represents the threshold the World Bank uses to identify fragile states. Eligibility for International Development Association (IDA) support depends grossly on a country’s relative poverty, defined as a GNI per capita below an established threshold and updated annually. Eighty-two countries are now eligible to receive IDA resources. Together, they are home to 2.8 billion people, half the total population of the developing world. Source: Authors’ calculations from World Bank data.

statistically significant among categories. But the difference between LDCs and other developing countries does not remain significant whatever the definition of LDC–non-LDC groups. Furthermore, CPIA scores increase with income (figure 2.4). Oil exporters are particularly characterized by their poor governance, illustrating one of the facets of the “resource curse”.

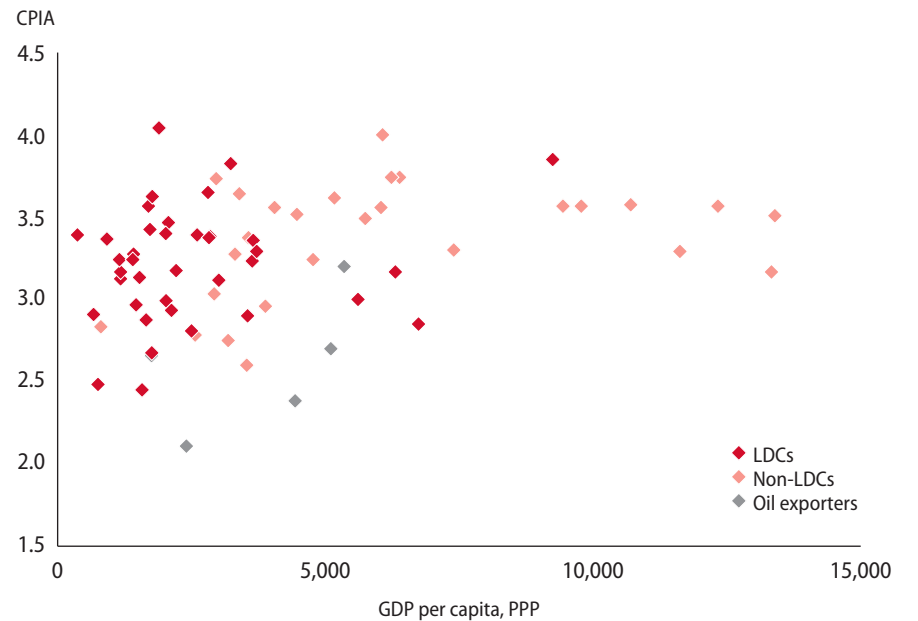
*Worldwide Governance Indicators (WGI).* The Worldwide Governance Indicators (WGI) project reports indicators for 215 countries over 1996–2012, for six dimensions of governance: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption. These aggregate indicators combine the views of a large number of enterprise, citizen and expert survey respondents in developed and developing countries. They are

TABLE 2.3  
**Wilcoxon test of difference in means between LDCs’ and non-LDCs’ scores in CPIA, World Governance Indicators and Doing Business in 2017**

|  | CPIA                    | WGI                     | Doing Business          |
|--|-------------------------|-------------------------|-------------------------|
| LDCs vs non-LDCs, low- and middle-income countries   | $z = 2.497$<br>(0.0125) | $z = 3.731$<br>(0.0002) | $z = 5.804$<br>(0.0000) |
| LDCs non-oil exporters vs non-LDCs non-oil exporters, low-and middle-income countries                      | $z = 2.423$<br>(0.0154) | $z = 4.373$<br>(0.0000) | $z = 6.285$<br>(0.0000) |
| LDCs non-graduating vs non-LDCs, low and lower middle income countries                                     | $z = 1.772$<br>(0.0764) | $z = 1.571$<br>(0.1161) | $z = 4.046$<br>(0.0001) |
| LDCs non-oil exporters non-graduating vs non-LDCs non-oil exporters, low and lower middle income countries | $z = 1.731$<br>(0.0835) | $z = 1.594$<br>(0.1108) | $z = 4.279$<br>(0.0000) |

Note: A positive z-score indicates that values for LDCs are lower than for non-LDCs. P-values are in parentheses. See appendices A2.1–A2.3 for the components of each composite indicator. Source: Authors’ calculations from World Bank data.

FIGURE 2.4  
**A positive relationship between the quality of governance (measured by the CPIA) and the level of income per capita (PPP) in 2017 in IDA countries**



Note: See note to figure 2.3. See appendix A2.1 for the components of the CPIA composite indicator. Source: Authors’ calculations from World Bank data.



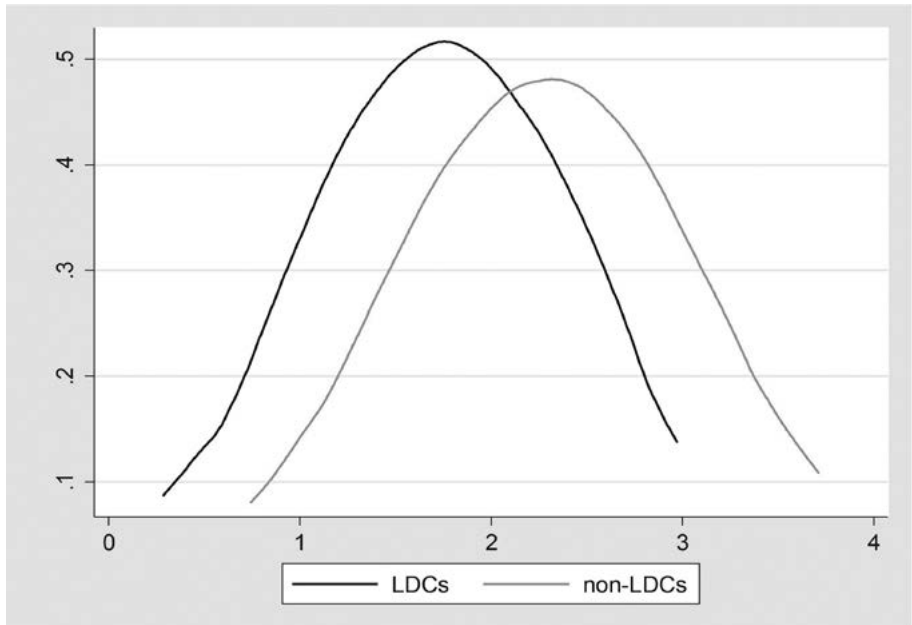
based on more than 30 individual data sources produced by a variety of survey institutes, think tanks, non-governmental organizations, international organizations and private sector firms (see appendix A2.2 for details).

Table 2.2 and tables A2.4.3 and A2.4.4 in appendix A2.4 report the average ratings of LDC and non-LDC groups in 2014. Individual scores lie on the scale [−2.5 to 2.5] with positive (negative) values signaling good (bad) governance quality. As for the CPIA, the data reveal a positive relationship between governance quality and income, with developing countries typically showing inferior ratings (see figures 2.5 and 2.6).

As shown in table 2.3, LDCs usually show weaker levels of governance compared with non-LDCs. However, as shown in appendix A2.4, the gap is not always significant. For the three indicators of Government Effectiveness, Regulatory Quality and Rule of Law the scores are significantly lower for LDCs than for non-LDCs, whatever the definitions of the LDC and non-LDC groups. In contrast, for Political Stability the difference is never significant. For both Voice and Accountability and Control of Corruption, the LDCs’ scores are significantly lower but the difference becomes insignificant between the non-graduating LDCs and the non-LDCs limited to low and lower middle income countries (even when oil exporters are excluded).

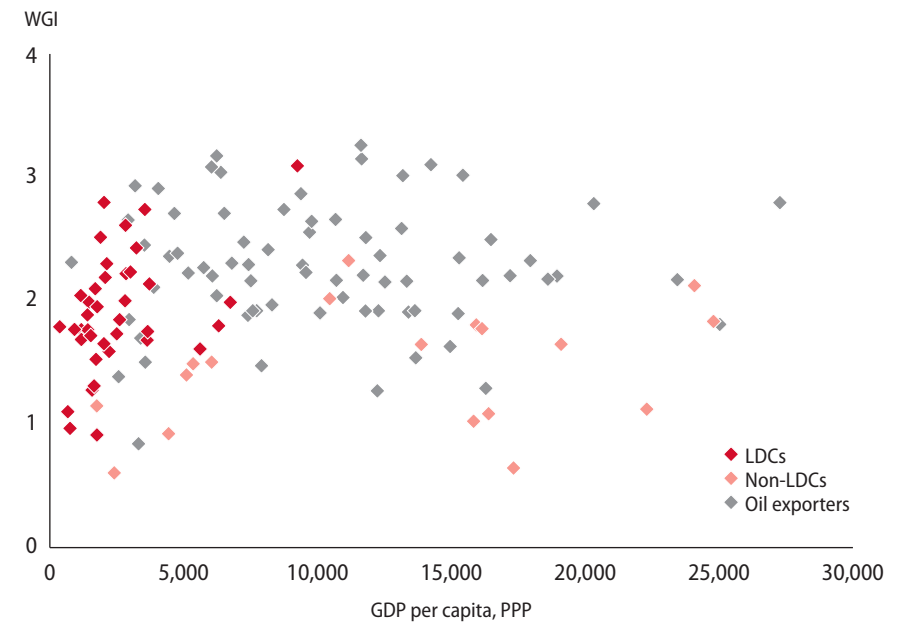
FIGURE 2.5

Differences in distributions for WGI between LDCs and non-LDCs in 2017



Note: The WGI index has been rescaled to range between 0 and 5. See appendix A2.1 for the components of the WGI composite indicator.  
Source: Authors’ calculations from World Bank data.

FIGURE 2.6  
**A positive relationship between the quality of governance (measured by the WGI) and the level of income per capita (PPP) in 2017**



Note: The WGI index has been rescaled to range between 0 and 5.  
Source: Authors' calculations from World Bank data.

*World Bank Doing Business indicators.* The Doing Business indicators measure business regulation and the protection of property rights—and their effect on businesses, especially small and medium-size domestic firms. They cover 185 countries. The Doing Business data are collected in a standardized way and are based on surveys of experts' opinions.

The ease of doing business index ranks economies from 1 to 185, in descending order (a high ranking indicating that the regulatory environment is conducive to business operations). For each country the ranking is calculated as the simple average of the percentile rankings on each of the 10 topics in the index in Doing Business 2013, giving equal weight to each topic (see appendix A2.3).

While more precise than the CPIA or the WGI, the Ease of Doing Business index is also more limited in scope as it does not account for macroeconomic conditions or the strength of underlying institutions.

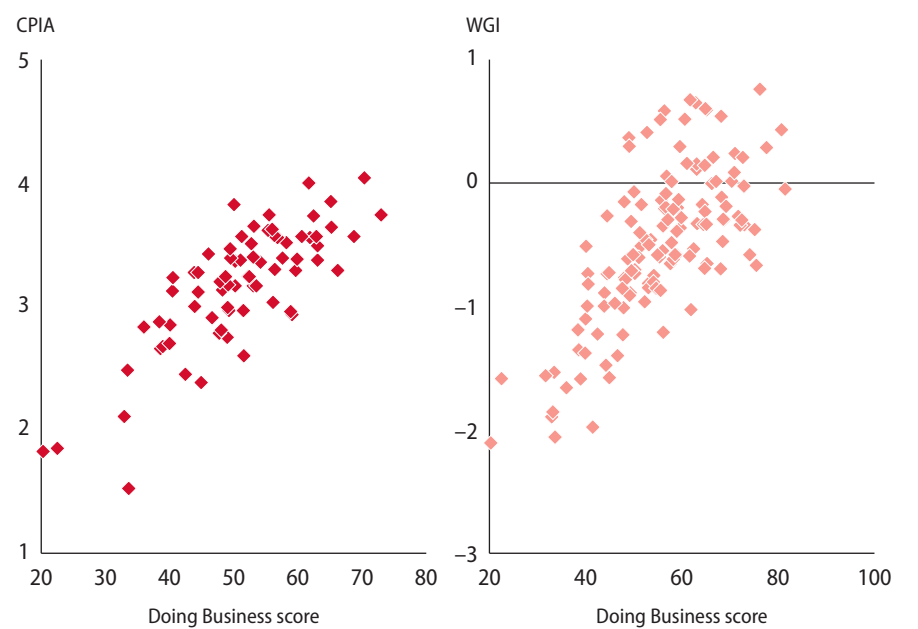
LDCs have a significantly weaker Doing Business average score of about 50 in 2017 than the other developing countries, at about 60 (table 2.2). The largest gaps are on Dealing with Construction Permits, Getting Credit, Protecting Investors, Trading Across Borders, and Closing a Business. For Starting a Business, Paying Taxes

and Enforcing Contracts, LDC medians do not significantly differ from other LDC medians.

*Heterogeneity of LDCs’ policy indicators and evolution over time.* Overall, the three indicators tend to tell the same story about LDCs. They present lower average values for each indicator of governance displayed above. But the LDC category is heterogeneous on the three policy indicators (figure 2.7). Situations in countries like Cabo Verde or Rwanda strongly differ from those of the Central African Republic or Eritrea, whatever the indicator. Moreover the correlation between the three indicators, as noted in table 2.1 for all developing countries and illustrated here, is not perfect: some countries are better ranked by the CPIA than by DB (Senegal), or the reverse (Yemen).

The evolution of indicators in LDCs—such as the CPIA—is stable when compared with other developing countries, showing no convergence between the two country groups (figure 2.8). The gap in the CPIA average level of the two groups alternates between decreasing (2014) and increasing (2017). But the stable evolution of the gap may conceal instability for individual countries, since policies are reversible and country-specific. More important, for both groups the increasing trend from 1995 to 2005 was been followed by a five-year plateau, then by a slight decrease from 2010 on. This means that if domestic policy has been a factor in growth improvement since the

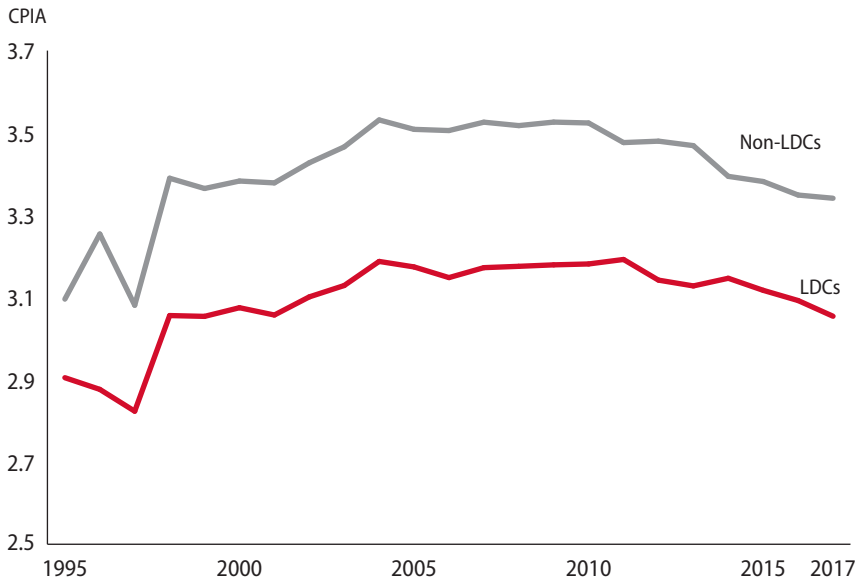
FIGURE 2.7  
**Correlations between the CPIA, Doing Business and WGI in LDCs in 2017**



Source: Authors’ calculations from World Bank data.

FIGURE 2.8

Evolution of the CPIA between 1995 and 2017 for IDA countries



Note: The CPIA ranges from 0 to 6. See appendix A2.1 for the components of the CPIA composite indicator.

Source: Authors' calculations from World Bank data.

beginning of the millennium, it may be due to a better level of policy rather than to its change. Growth improvement may have also been fuelled by the stronger impact of international support measures.

Interpreting preliminary findings is also critical for designing international development policies in LDCs. One could see in the lower averages a clear lack of willingness of the LDCs to implement valuable reforms. The other hypothesis, discussed later in the chapter, is that structural differences between LDCs and non-LDCs may influence the quality of policies between them. So, lower governance scores may no longer reflect an unwillingness to reform, but rather the influence of structural handicaps.

*Adjusted governance indicators: not lower LDCs performance*

The quality of governance and policies in LDCs appears weaker than those in non-LDCs. But LDCs suffer from structural handicaps that can partly explain weak governance and bad policy choices. Put differently governance is partly endogenous to structural factors. Indeed, there are strong reasons to expect that performance will be partly driven by vulnerability to exogenous shocks or, more specifically, will be procyclical with shocks. Low human capital is not only a structural handicap to governance, but it is also a handicap that interacts with vulnerability. It exacerbates the detrimental effects

of recurrent shocks by lowering a country's resilience, and it is durably affected by negative shocks due to often irreversible effects on health and education. Consequently, the indicators of governance mentioned above may not adequately reveal the performance of countries due to discretionary choices of the countries' authorities (beyond the structural constraints). So, these indicators need to be corrected to reveal countries' autonomous choices. Only when so adjusted can the indicators reflect the policy performance of countries.

*Methodological framework.* Here we define and construct indicators with the aim to reveal country authorities' autonomous choices, by adjusting policy and governance indicators for the impacts of exogenous structural handicaps. The method aims at adjusting the observed level (or quality) of policy and governance from the effects of structural handicaps—to reveal the autonomous choices of countries (see various applications of this method in Combes et al. 2000, Combes and Saadi Sedik 2006 and Bousichas and Goujon 2010). The impact of structural factors on the level of the CPIA has been recently explored in Guillaumont, McGillivray and Wagner (2016). Using quartile regressions they show that this impact is particularly strong at lower CPIAs.

The method is here applied to the CPIA, WGI and DB. The “adjusted” indicator of governance is built by computing the difference between its observed level and a “structural” part that results only from the exogenous structural determinants, not depending on present policy. The “structural” part is estimated by the fitted values of the governance indicators derived from a (cross-country) regression of the observed levels on the structural determinants. The residuals of this regression—the part of governance that remains unexplained by the structural determinants—may be seen as the autonomous part of governance reflecting the choices of country authorities.

The econometric regression of the observed level of governance in countries  $i$  and year  $t$  ( $G_{it}$ ) on its structural determinants (denoted by the vector  $X_{it}$ ) is:

$$G_{it} = \beta X_{it} + P_{it} \quad (1)$$

with  $\beta$  the vector of parameters of the impact of  $X_{it}$  on  $G_{it}$  to be estimated. The residual of the regression ( $P_{it}$ ) derived from the regression is considered as a proxy for the autonomous part of the governance:

$$\hat{P}_{it} = G_{it} - \hat{\beta} X_{it} \quad (2)$$

For a given country  $\hat{P}_{it}$  can be positive (negative) if the observed level of governance is higher (lower) than the predicted level  $\hat{\beta} X_{it}$ . Since the sum of the residuals is equal to zero,  $\hat{P}_{it}$  is a relative indicator of the adjusted governance, allowing the comparison between countries.

Since the indicator is a residual, different assumptions underlie the validity of the indicator. First, no significant structural factors must be omitted from the regression

such that the residual accurately reflects only the autonomous part of the governance. Second, the included explanatory variables must be exogenous (governance cannot influence them instantaneously or simultaneously). Third, there must be no measurement error. Fourth, the functional form of the regression must be specified correctly. Given the restrictiveness of these assumptions, results must be considered with caution. The list of structural variables cannot be considered as definitive and should be revised according to data availability for relevant structural factors.

Structural factors considered here to partly explain policy choices are those used to identify the LDCs. In other words, we examine whether the specific features of the LDCs are likely to explain their rather low governance and policy indicators. To be recalled, the three identification criteria of the LDCs are income per capita, human capital<sup>5</sup> (captured by the Human Assets Index, HAI) and structural economic vulnerability (captured by the Economic Vulnerability Index, EVI). A low level of development—as measured by the two first criteria, per capita income and human capital—constrains the material and human capacity of the government and public administration. For the governance and policy indicators in a given period, the level of development at the beginning of this period is exogenous, as resulting from past history.<sup>6</sup> For country authorities the current level of development is given when they adopt their current policy choices or governance.

The last retained exogenous factor corresponds to the third identification criterion of the LDCs, the structural economic vulnerability measured by the Economic Vulnerability Index (EVI). The economic vulnerability of a (poor) country is the risk of this country seeing its development hampered by natural and external shocks. Vulnerability (as a weak level of human capital) may induce weak governance by limiting or constraining the capacity of authorities to formulate, adopt and implement long term development-conducive policies or management (reasons examined in *Caught in a Trap*, chapter 6). In Guillaumont, McGillivray and Wagner (2016), export instability is the most significant negative factor among the components of the EVI. The relationship between external factors and the CPIA is also clear in time series data, as shown in Guillaumont, McGillivray and Wagner (2016), when estimating the impact of the evolution of the terms of trade on the CPIA.

*Adjusting indicators for their dependence on structural factors.* To test the dependence of the relative governance level of LDCs on the level of human assets, we use initial values of the HAI to avoid simultaneity bias. We also use the transformed variable 100-HAI to get an indicator of the human assets weaknesses.<sup>7</sup> To capture common structural factors of geographic regions, regional dummies are included in the regressions.

Table 2.4 reports the regressions of the CPIA, the WGI and the DB ratings respectively on the three indicators used as criteria for LDC identification, on a cross-country sample of 78 IDA countries and 116 developing countries respectively, with one

TABLE 2.4

**OLS regression of CPIA and WGI on structural factors, country averages over 1995–2016**

| 1995–2016             | (1)<br>CPIA          | (2)<br>CPIA          | (3)<br>Control of<br>corruption | (4)<br>Govern-<br>ment<br>effective-<br>ness | (5)<br>Political<br>stability | (6)<br>Regula-<br>tory<br>quality | (7)<br>Rule of<br>law | (8)<br>Voice and<br>account-<br>ability | (9)<br>WGI<br>score  | (10)<br>Doing<br>Business |
|-----------------------|----------------------|----------------------|---------------------------------|--|-------------------------------|-----------------------------------|-----------------------|---|----------------------|---------------------------|
| GDP per<br>capita PPP | 0.049<br>(0.103)     | 0.074<br>(0.117)     | 0.049<br>(0.107)                | 0.099<br>(0.095)                             | 0.144+<br>(0.093)             | 0.044<br>(0.093)                  | 0.012<br>(0.093)      | -0.093<br>(0.126)                       | 0.040<br>(0.087)     | 1.480<br>(1.337)          |
| EVI                   | -0.011***<br>(0.003) | -0.013***<br>(0.005) | 0.008*<br>(0.004)               | -0.007*<br>(0.004)                           | 0.028***<br>(0.006)           | -0.009**<br>(0.004)               | 0.006+<br>(0.004)     | 0.012**<br>(0.005)                      | 0.006*<br>(0.004)    | -0.084+<br>(0.055)        |
| LHAI-1995             | -0.006*<br>(0.003)   | -0.008**<br>(0.003)  | -0.014***<br>(0.003)            | -0.013***<br>(0.003)                         | -0.017***<br>(0.004)          | -0.012***<br>(0.003)              | -0.018***<br>(0.003)  | -0.019***<br>(0.004)                    | -0.016***<br>(0.003) | -0.211***<br>(0.045)      |
| LDC                   |                      | 0.147<br>(0.176)     |                                 |  |                               |                                   |                       |   |                      |                           |
| Observations          | 78                   | 78                   | 116                             | 116  | 116                           | 116                               | 116                   | 116                                     | 116                  | 116                       |
| R-squared             | 0.283                | 0.293                | 0.309                           | 0.426  | 0.459                         | 0.337                             | 0.380                 | 0.448                                   | 0.421                | 0.458                     |

Note: Robust standard errors in parentheses. Each specification includes a constant and 6 regional dummy variables. LHAI-1995 is the inverse of HAI (100-HAI) in 1995. GDP per capita is in logarithm. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .  
Source: Authors’ calculations from World Bank data.

observation by country built as the period average (1995–2016). Results in columns 1 and 2 suggest a highly significant dependence of CPIA ratings on structural factors. When added to the regression, a dummy variable corresponding to the LDC category membership does not appear to have a significant, although positive, impact, showing that the low level of CPIA rating in LDCs does not reflect a common lower policy performance.

The first line in table 2.5 reports the aggregate CPIA residuals from the regression presented in column 1 in table 2.4 as an indicator of adjusted policy and governance. The main conclusion is that the LDC–non-LDC difference in means is no more significant, suggesting that autonomous choices in governance quality do not differ between the two groups. In other words, the lower quality of governance and policy in LDCs is first explained by structural handicaps—that is, lower income, higher vulnerability and lower human capital.

The same methodology is applied for the six WGI indicators, supplemented by an overall WGI indicator computed as the simple average of the six indicators (see table 2.4, columns 3 to 9). The same conclusions emerge: governance is highly dependent on structural factors and, when added, the LDC category membership dummy does not appear to have a significant coefficient (although it is again positive, see table A2.4.7). But the impact of the three factors is not the same for the six components: while income per capita has a significant impact on all but one indicator (voice and accountability), human capital has essentially a significant impact on government effectiveness, rule of law and voice and accountability, and structural economic vulnerability on government effectiveness, political stability and regulatory quality.

TABLE 2.5

**Wilcoxon test of difference in means between LDC and non-LDC estimated residuals from table 2.4**

| Residuals from equations<br>(1) to (10) in table 2.4 | LDCs  | Non-LDCs | Z-scores<br>(p-values) |
|--|-------|----------|------------------------|
| CPIA   | 0.021 | −0.026   | −0.658 (0.511)         |
| Control of Corruption                                | 0.068 | −0.040   | −1.163 (0.244)         |
| Government Effectiveness                             | 0.041 | −0.024   | −0.637 (0.524)         |
| Political Stability                                  | 0.083 | −0.048   | −1.203 (0.229)         |
| Regulatory Quality                                   | 0.029 | −0.017   | −0.249 (0.221)         |
| Rule of Law  | 0.059 | −0.034   | −0.975 (0.329)         |
| Voice and Accountability                             | 0.028 | −0.016   | −0.369 (0.712)         |
| WGI score  | 0.052 | −0.031   | −0.992 (0.321)         |
| Doing Business                                       | 0.326 | −0.192   | 0.037 (0.970)          |

Note: A positive z-score indicates that values for LDCs are lower than for non-LDCs. P-values are in parentheses.

Source: Authors’ calculations from World Bank data.

As shown in table 2.5 lines 2 to 7, the average levels of adjusted WGI are systematically higher in LDCs, while being positive for LDCs and negative for non-LDCs. But none of their differences are significant, whereas when calculated for 1996–2003 they were significant only for the adjusted overall WGI index, and control of corruption and rule of law indices.

The same conclusions emerge even more clearly from the Doing Business indicator: scores depend significantly on the three structural factors, and the adjusted indicator does not differ in means between LDCs and non-LDCs.

For country residuals and ranks (table 2.6), adjusted governance in LDCs is heterogeneous, with a number of countries showing a better than expected governance (particularly LDCs of the West African Economic and Monetary Union).

Overall, from those results, it appears clearly that the CPIA, the WGI and the DB, whatever their intrinsic value, poorly reflect the actual governance performance of the countries, since they are significantly influenced by adverse structural factors. By contrast, using adjusted performance measures provides a more accurate alternative view of the autonomous willingness of LDCs to implement valuable reforms.

**Assessing economic policies in LDCs: two relevant indicators**

We now leave composite indicators of policy and governance as used at the World Bank to focus on some specific policy indicators that can be considered particularly relevant for LDCs and that do not rely on subjective assessments (as the previous composite indicators partly and unavoidably do). There are indeed two methods for building a policy indicator. The first consists of analyzing the policy instruments and the second of



TABLE 2.6  
**Residuals of the regressions as CPIA, WGI and DB adjusted governance indicators**

| Countries                | Adjusted CPIA score:<br>Residuals from<br>column 1 in<br>table 2.4 |      | Adjusted WGI score:<br>Residuals from<br>column 9 in<br>table 2.4 |      | Adjusted DB score:<br>Residuals from<br>column 10 in<br>table 2.4 |      |
|--------------------------|--|------|---|------|---|------|
|                          | Residuals  | Rank | Residuals   | Rank | Residuals   | Rank |
| Afghanistan              | −0.50  | 70   | −0.58   | 106  | −5.24   | 94   |
| Albania                  |  |      |   |      |   |      |
| Algeria                  |  |      | −0.15   | 73   | −7.15   | 100  |
| American Samoa           |  |      |   |      |   |      |
| Angola                   | −0.95  | 77   | −0.27   | 90   | −6.00   | 96   |
| Argentina                |  |      | −0.26   | 88   | −6.75   | 99   |
| Armenia                  | 0.34   | 13   | 0.24  | 36   | 3.47  | 33   |
| Azerbaijan               | 0.27   | 17   | −0.13   | 70   | 4.32  | 30   |
| Bangladesh               | −0.03  | 49   | −0.01   | 56   | −8.29   | 103  |
| Belarus                  |  |      |   |      |   |      |
| Belize                   |  |      | 0.06  | 51   | 0.96  | 56   |
| Benin                    | 0.40   | 11   | 0.63  | 11   | −1.91   | 76   |
| Bhutan                   | 0.63   | 4    | 0.83  | 1    | 8.86  | 13   |
| Bolivia                  | 0.10   | 35   | −0.06   | 60   | −4.40   | 89   |
| Bosnia and Herzegovina   |  |      |   |      |   |      |
| Botswana                 |  |      | 0.82  | 2    | 9.99  | 10   |
| Brazil                   |  |      | 0.15  | 41   | −5.10   | 93   |
| Bulgaria                 |  |      |   |      |   |      |
| Burkina Faso             | 0.48   | 6    | 0.56  | 16   | 1.02  | 55   |
| Burundi                  | −0.04  | 50   | −0.27   | 89   | 1.96  | 48   |
| Cabo Verde               | 0.66   | 2    | 0.67  | 6    | 2.31  | 44   |
| Cambodia                 | 0.03   | 40   | −0.06   | 62   | 0.00  | 62   |
| Cameroon                 | −0.20  | 57   | −0.20   | 82   | −3.74   | 86   |
| Central African Republic | −0.53  | 72   | −0.35   | 97   | −12.39  | 110  |
| Chad                     | −0.09  | 52   | −0.24   | 86   | −8.20   | 102  |
| China                    |  |      | −0.17   | 76   | −0.55   | 65   |
| Colombia                 |  |      | −0.29   | 91   | 6.12  | 20   |
| Comoros                  | −0.51  | 71   | −0.46   | 102  | −1.72   | 73   |
| Congo, Dem. Rep.         | −0.37  | 66   | −0.91   | 113  | −14.19  | 113  |
| Congo, Rep.              | −0.58  | 74   | −0.68   | 107  | −14.13  | 112  |
| Costa Rica               |  |      | 0.66  | 9    | −1.09   | 69   |
| Cuba                     |  |      |   |      |   |      |
| Côte d'Ivoire            | −0.29  | 61   | −0.22   | 85   | −4.57   | 90   |

TABLE 2.6  
**Residuals of the regressions as CPIA, WGI and DB adjusted governance indicators** *(continued)*

| Countries                    | Adjusted CPIA score:<br>Residuals from<br>column 1 in<br>table 2.4 |      | Adjusted WGI score:<br>Residuals from<br>column 9 in<br>table 2.4 |      | Adjusted DB score:<br>Residuals from<br>column 10 in<br>table 2.4 |      |
|------------------------------|--|------|---|------|---|------|
|                              | Residuals  | Rank | Residuals   | Rank | Residuals   | Rank |
| Djibouti                     | −0.01  | 47   | 0.60  | 12   | 5.47  | 22   |
| Dominica                     | 0.18   | 24   | 0.48  | 18   | 1.74  | 53   |
| Dominican Republic           |  |      | 0.06  | 52   | 4.73  | 26   |
| Ecuador                      |  |      | −0.49   | 103  | −1.86   | 75   |
| Egypt, Arab Rep.             |  |      | 0.16  | 40   | 1.72  | 54   |
| El Salvador                  |  |      | 0.10  | 46   | 4.46  | 28   |
| Equatorial Guinea            |  |      | −0.87   | 112  | −7.16   | 101  |
| Eritrea                      | −0.31  | 62   | −0.35   | 96   | −13.48  | 111  |
| Ethiopia                     | 0.30   | 14   | 0.31  | 33   | 6.33  | 18   |
| Fiji                         |  |      | −0.32   | 93   | 1.87  | 49   |
| Gabon                        |  |      | −0.32   | 94   | −8.97   | 105  |
| Gambia, The                  | 0.25   | 19   | 0.13  | 44   | 4.75  | 25   |
| Georgia                      | 0.25   | 18   | 0.47  | 19   | 17.40   | 2    |
| Ghana                        | 0.41   | 10   | 0.48  | 17   | 9.86  | 11   |
| Grenada                      | −0.02  | 48   | 0.31  | 32   | −3.79   | 87   |
| Guatemala                    |  |      | −0.04   | 59   | 6.73  | 17   |
| Guinea                       | −0.21  | 59   | −0.14   | 72   | −1.73   | 74   |
| Guinea-Bissau                | −0.24  | 60   | −0.35   | 95   | −4.76   | 91   |
| Guyana                       | −0.14  | 55   | −0.26   | 87   | −1.23   | 70   |
| Haiti                        | −0.61  | 75   | −0.12   | 68   | −3.18   | 82   |
| Honduras                     | −0.01  | 46   | −0.19   | 79   | 3.39  | 34   |
| India                        | 0.16   | 28   | 0.39  | 26   | −1.64   | 72   |
| Indonesia                    | 0.14   | 30   | −0.20   | 80   | −1.01   | 68   |
| Iran, Islamic Rep.           |  |      | −0.39   | 99   | −0.89   | 67   |
| Iraq                         |  |      | −0.86   | 111  | −5.57   | 95   |
| Jamaica                      |  |      | 0.09  | 47   | 2.97  | 40   |
| Jordan                       |  |      | 0.44  | 21   | −1.62   | 71   |
| Kazakhstan                   |  |      | −0.10   | 66   | −3.48   | 84   |
| Kenya                        | 0.03   | 39   | −0.21   | 83   | 2.71  | 42   |
| Kiribati                     | 0.13   | 32   | 0.28  | 35   | 0.76  | 58   |
| Korea, Dem.<br>People's Rep. |  |      |   |      |   |      |
| Kosovo                       |  |      |   |      |   |      |
| Kyrgyz Republic              | 0.03   | 42   | −0.17   | 75   | 1.82  | 51   |
| Lao PDR                      | 0.12   | 34   | −0.12   | 67   | −4.17   | 88   |

TABLE 2.6  
**Residuals of the regressions as CPIA, WGI and DB adjusted governance indicators** *(continued)*

| Countries                | Adjusted CPIA score:<br>Residuals from<br>column 1 in<br>table 2.4 |      | Adjusted WGI score:<br>Residuals from<br>column 9 in<br>table 2.4 |      | Adjusted DB score:<br>Residuals from<br>column 10 in<br>table 2.4 |      |
|--------------------------|--|------|---|------|---|------|
|                          | Residuals  | Rank | Residuals   | Rank | Residuals   | Rank |
| Lebanon                  |  |      | −0.20   | 81   | 1.80  | 52   |
| Lesotho                  | 0.13   | 31   | 0.07  | 49   | 0.18  | 61   |
| Liberia                  | 0.23   | 20   | −0.41   | 101  | 0.36  | 59   |
| Libya                    |  |      | −0.82   | 110  | −25.16  | 116  |
| Macedonia, FYR           |  |      |   |      |   |      |
| Madagascar               | 0.08   | 37   | 0.15  | 42   | −3.05   | 80   |
| Malawi                   | 0.28   | 16   | 0.40  | 24   | 3.27  | 36   |
| Malaysia                 |  |      | 0.45  | 20   | 11.99   | 4    |
| Maldives                 | 0.15   | 29   | −0.16   | 74   | 0.90  | 57   |
| Mali                     | 0.41   | 9    | 0.42  | 23   | 4.22  | 31   |
| Marshall Islands         | −0.46  | 68   | −0.06   | 61   | −3.61   | 85   |
| Mauritania               | 0.30   | 15   | −0.02   | 57   | −2.29   | 77   |
| Mauritius                |  |      | 0.58  | 14   | 14.82   | 3    |
| Mexico                   |  |      | 0.03  | 53   | 8.39  | 15   |
| Micronesia, Fed.<br>Sts. | −0.54  | 73   | 0.13  | 43   | −11.55  | 109  |
| Moldova                  |  |      |   |      |   |      |
| Mongolia                 | 0.03   | 41   | 0.34  | 31   | 3.15  | 37   |
| Montenegro               |  |      |   |      |   |      |
| Morocco                  |  |      | 0.73  | 3    | 11.33   | 8    |
| Mozambique               | 0.41   | 8    | 0.68  | 5    | 11.92   | 5    |
| Myanmar                  | −0.15  | 56   | −0.73   | 109  | −11.19  | 107  |
| Namibia                  |  |      | 0.59  | 13   | 5.78  | 21   |
| Nauru                    |  |      |   |      |   |      |
| Nepal                    | −0.09  | 51   | −0.07   | 64   | 8.19  | 16   |
| Nicaragua                | 0.08   | 36   | −0.01   | 55   | 1.86  | 50   |
| Niger                    | 0.18   | 25   | 0.39  | 27   | −0.62   | 66   |
| Nigeria                  | −0.11  | 53   | −0.50   | 104  | −2.49   | 78   |
| Pakistan                 | −0.20  | 58   | −0.18   | 78   | 0.22  | 60   |
| Papua New Guinea         | 0.06   | 38   | 0.07  | 50   | 2.73  | 41   |
| Paraguay                 |  |      | −0.58   | 105  | 3.39  | 35   |
| Peru                     |  |      | −0.03   | 58   | 10.42   | 9    |
| Philippines              |  |      | −0.17   | 77   | −8.65   | 104  |
| Romania                  |  |      |   |      |   |      |
| Russian Federation       |  |      |   |      |   |      |

TABLE 2.6  
**Residuals of the regressions as CPIA, WGI and DB adjusted governance indicators** *(continued)*

| Countries                         | Adjusted CPIA score:<br>Residuals from<br>column 1 in<br>table 2.4 |      | Adjusted WGI score:<br>Residuals from<br>column 9 in<br>table 2.4 |      | Adjusted DB score:<br>Residuals from<br>column 10 in<br>table 2.4 |      |
|-----------------------------------|--|------|---|------|---|------|
|                                   | Residuals  | Rank | Residuals   | Rank | Residuals   | Rank |
| Rwanda                            | 0.83   | 1    | 0.40  | 25   | 21.01   | 1    |
| Samoa                             | 0.52   | 5    | 0.36  | 30   | 3.06  | 39   |
| Senegal                           | 0.43   | 7    | 0.66  | 8    | −3.16   | 81   |
| Serbia                            |  |      |   |      |   |      |
| Sierra Leone                      | 0.02   | 43   | 0.09  | 48   | 2.35  | 43   |
| Solomon Islands                   | −0.34  | 63   | −0.12   | 69   | 4.50  | 27   |
| Somalia                           |  |      |   |      |   |      |
| South Africa                      |  |      | 0.29  | 34   | 5.43  | 23   |
| South Sudan                       |  |      |   |      |   |      |
| Sri Lanka                         | −0.11  | 54   | −0.22   | 84   | −3.01   | 79   |
| St. Lucia                         | 0.21   | 21   | 0.63  | 10   | 4.36  | 29   |
| St. Vincent and the<br>Grenadines | 0.21   | 22   | 0.73  | 4    | 3.08  | 38   |
| Sudan                             | −0.88  | 76   | −1.05   | 116  | −0.25   | 63   |
| Suriname                          |  |      | 0.00  | 54   | −11.54  | 108  |
| Swaziland                         |  |      | −0.36   | 98   | 2.20  | 45   |
| Syrian Arab Republic              |  |      |   |      |   |      |
| São Tomé and<br>Príncipe          | −0.36  | 65   | 0.10  | 45   | −6.55   | 98   |
| Tajikistan                        | −0.49  | 69   | −0.29   | 92   | −9.58   | 106  |
| Tanzania                          | 0.37   | 12   | 0.36  | 29   | 4.98  | 24   |
| Thailand                          |  |      | 0.19  | 37   | 9.31  | 12   |
| Timor-Leste                       | 0.12   | 33   | 0.18  | 38   | −4.81   | 92   |
| Togo                              | −0.35  | 64   | −0.13   | 71   | −3.45   | 83   |
| Tonga                             | 0.00   | 45   | −0.40   | 100  | 2.16  | 47   |
| Tunisia                           |  |      | 0.56  | 15   | 11.54   | 7    |
| Turkey                            |  |      | 0.66  | 7    | 2.16  | 46   |
| Turkmenistan                      |  |      |   |      |   |      |
| Tuvalu                            |  |      |   |      |   |      |
| Uganda                            | 0.63   | 3    | 0.16  | 39   | 3.94  | 32   |
| Ukraine                           |  |      |   |      |   |      |
| Uzbekistan                        | −0.41  | 67   | −0.68   | 108  | −16.12  | 114  |
| Vanuatu                           | 0.16   | 27   | 0.43  | 22   | 6.24  | 19   |
| Venezuela, RB                     |  |      | −0.98   | 114  | −23.64  | 115  |
| Vietnam                           | 0.18   | 26   | −0.07   | 63   | −0.25   | 64   |

TABLE 2.6  
**Residuals of the regressions as CPIA, WGI and DB adjusted governance indicators** *(continued)*

| Countries          | Adjusted CPIA score:<br>Residuals from<br>column 1 in<br>table 2.4 |      | Adjusted WGI score:<br>Residuals from<br>column 9 in<br>table 2.4 |      | Adjusted DB score:<br>Residuals from<br>column 10 in<br>table 2.4 |      |
|--------------------|--|------|---|------|---|------|
|                    | Residuals  | Rank | Residuals   | Rank | Residuals   | Rank |
| West Bank and Gaza |  |      |   |      |   |      |
| Yemen, Rep.        | 0.01   | 44   | −0.08   | 65   | 8.54  | 14   |
| Zambia             | 0.19   | 23   | 0.36  | 28   | 11.64   | 6    |
| Zimbabwe           | −1.02  | 78   | −0.99   | 115  | −6.24   | 97   |

Source: Authors’ calculations from World Bank data.

analyzing the quantitative results of the policy. Using a method similar to that of the previous section, this section defines and constructs indicators of policies that can reflect country authorities’ choices or willingness only (autonomous policy choices), by correcting policy outcomes for the direct and indirect impacts of exogenous structural handicaps. The focus is on two important policies: fiscal effort and currency undervaluation.<sup>8</sup>

*Is tax effort lower in LDCs?*

Ensuring the supply of public goods and services, including the needed infrastructure, questions the authorities’ capacity and willingness to mobilize domestic public resources. The ratio of public resources to GDP is a usual indicator to compare countries’ relative public resource mobilization over time. But the capacity to mobilize resources, through access to potential resources and administrative capacities, is constrained by structural factors, like those used to identify LDCs. To assess the real willingness to enhance fiscal policy, these structural factors have to be taken into account.

*Structural factors, policies and outcomes and the method of “revealed” policy indicators.* Figure 2.9 summarizes the links between structural features, policies and policy outcomes.

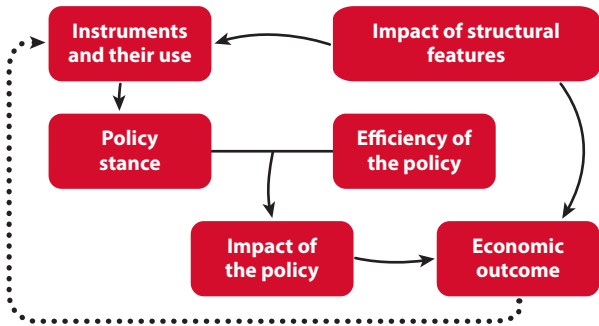
Economic policy uses different instruments. Instruments and their use define the policy stance. The policy stance and its efficiency give the impact of the policy on economic outcome.<sup>9</sup>

Exogenous structural features then affect economic outcomes in three ways:

- Directly.
- Through the choice and the use of policy instruments by governments, so that policy stance is then partly induced by the nature and the level of structural features.
- Through the efficiency of the policy or the degree of “response” of the economy to policy actions. In other words, policy efficiency is partly function of structural features.

FIGURE 2.9

The conceptual framework of the method of “revealed” policy indicators



Source: Authors.

Policy stance, policy efficiency and its impact on outcome and the various impacts of structural features are not observable directly, so there is a need for synthetic indicators of policy. The construction of a policy indicator can then follow two directions:

- Through policy instruments (or policy stances), giving the instrument-based indicators.
- Through the impact of policy on outcome (policy stances associated with efficiency), giving the outcome-based indicators.

The two kinds of indicators may not generate the same diagnostic, the difference being explained mainly by policy efficiency, which should depend on the length of transmission channels between instrument use and outcomes. But the difference between diagnostics is not systematic. First, instrument-based indicators may include efficiency in instrument use. This is the case of some trade indicators such as effectively applied tax rates, which account for recovery rates, in opposition to uncorrected official tax rates. Second, outcome-based indicators may be approximated by intermediate policy outcomes instead of final outcomes. For instance, one can use monetary aggregates as intermediate indicators of monetary policy outcome.<sup>10</sup> Generally, however, it can be difficult to find such intermediate policy results.

There are no criteria to favour, a priori, one kind of indicator over the others. On one hand, instrument-based indicators require much work to gather data on the different instruments. They suffer from a high degree of subjectivity, since questions about policy instruments and the assessment of the changes can be ambiguous. In addition, it is difficult to compare all of the characteristics of policies between countries and to derive a quantitative and synthetic indicator. Moreover, arbitrariness is unavoidable when characteristics or instruments are aggregated to build a synthetic indicator.<sup>11</sup> On the other hand, outcome-based indicators are influenced by exogenous factors and cannot represent policies alone. Explained below is a method to correct the observed policy outcome from the

effects of structural features in order to reveal the impact of the policy alone. This method appears to have some advantages over the others. It is easier to manage since there are fewer data to gather, and it is more objective since it does not arbitrarily combine several policy instruments. Policy endogeneity to structural features is also taken into account.

Following this methodology, we use panel data econometrics and introduce more specific structural factors to build the revealed tax effort indicator.

The panel data regression is inspired from equation (1) and takes the following general form:

$$Y_{it} = c + \beta X_{it}\alpha_i + \theta_t + \varepsilon_{it} \quad (3)$$

with  $Y_{it}$ , the observed policy outcome in country  $i$  and year  $t$ ,  $X_{it}$ , the structural determinants of  $Y_{it}$  and  $\theta_t$  the specific time effects (unobservable time characteristics that are common for countries). Each specification includes six regional dummy variables.

*Policy outcome: a lower ratio of public resources to GDP in LDCs.* Using data from the World Bank's WDI, we compute five-year averages of the ratio of public revenue to GDP for 112 developing countries, covering 1995–2016.

Table 2.7 shows that LDCs' average level (around 13 percent) is significantly lower than non-LDCs' level (around 15.5 percent), whatever the specific definition of these groups. This suggests that LDCs, besides having an ever-possible lower willingness to tax, may suffer from structural handicaps that can lower the potential public resources. For instance, the public revenue ratio and the level of development are positively linked, suggesting that the low development in LDCs may induce low potential taxation.

*Policy performance: not a lower tax effort when structural factors are taken into account.*

Brun, Chambas and Guérineau (2007) define an indicator of tax effort as the share of the ratio of public tax to GDP not explained by factors that determine the fiscal potential (or structural capacity) of countries.<sup>12</sup> Fiscal potential is the predicted value of the tax ratio (to GDP) from a regression for a sample of countries. In Brun, Chambas and Guérineau (2007) the right hand side variables are the initial level of GDP per capita (in logarithm), the share of agriculture value added in GDP, the share of mineral and fuel exports in total merchandise exports and the ratio of goods and services imports in GDP (in logarithm). While the first three variables can be seen as structural factors, it may not entirely seem the case for the import to GDP ratio. But this ratio is itself strongly influenced by factors beyond the present will of the country such as population size, income per capita and the aid-to-GDP ratio. Fiscal or tax effort is then the difference between the observed tax rate and the predicted value. Here we also introduce as structural factors the relative structural handicaps of LDCs, in addition to the level of GDP per capita: economic vulnerability measured by EVI and initial lack of human capital (measured as 1–HAI). Yohou and Goujon (2017) also computed a tax effort

TABLE 2.7  
**Average values for the tax revenue to GDP ratio by country groups, 1995–2016**

| Country group  | Number of countries | Fiscal revenues over GDP (%) |
|--|---------------------|------------------------------|
| Low-income countries   | 18                  | 11.45                        |
| Lower middle income countries                                      | 40                  | 14.86                        |
| Upper middle income countries                                      | 49                  | 16.42                        |
| Main oil exporters   | 12                  | 12.44                        |
| LDCs   | 29                  | 13.62                        |
| LDCs non-oil exporters   | 27                  | 13.71                        |
| LDCs non-graduating  | 25                  | 12.83                        |
| LDCs non-oil exporters non-graduating                              | 24                  | 13.09                        |
| Non-LDCs   | 78                  | 15.51                        |
| Non-LDCs, low- and middle-income countries                         | 78                  | 15.51                        |
| Non-LDCs, low and lower middle income countries                    | 29                  | 13.98                        |
| Non-LDCs non-oil exporters, low- and middle-income countries       | 68                  | 15.97                        |
| Non-LDCs non-oil exporters, low- and lower middle income countries | 27                  | 14.21                        |
| Small island developing states                                     | 18                  | 18.60                        |
| Landlocked developing countries                                    | 26                  | 14.10                        |

Source: Authors’ calculations from World Bank data.

index for 120 developing countries over 1990–2012, based on a new measure of non-resource tax revenues and the use of EVI and HAI as structural factors of fiscal potential.

Our sample consists in a cross-sectional average over the period 1995–2016 for 100 developing countries, 26 of them LDCs.

Regression results in table 2.8 show that the level of public revenue appears to be influenced by the level of import flows but not significantly by structural handicaps. Structural factors augmented by the import-to-GDP ratio are explaining roughly 40 percent of the variance of countries’ tax efforts ( $R^2=0.37$ ). In the second column, the LDC dummy, although positive, is not significant. Taken together those results suggest that, once structural factors are taken into account, no significant difference can be found in tax efforts between LDCs and non-LDCs. This conclusion echoes with the first section where the quality of governance and of public policies wasn’t significantly lower in LDCs once structural factors were accounted for. Indeed, the success of reforms, and more generally the efficiency of tax policy, depends largely on the quality of administrations in charge of their definition and implementation. This low quality of administrations in LDCs reduces the efficiency of programs, which have only a little impact on the improvement of the public revenue levels in LDCs. The clear pattern behind our results shows that the designs and outcomes of bad policies don’t solely



TABLE 2.8  
**Regressions of tax revenue-to-GDP ratio on structural factors, 1995–2016, cross-sectional OLS estimates**

| Cross-sectional OLS over 1995–2016                                      | (1)<br>Tax revenues<br>over GDP | (2)<br>Tax revenues<br>over GDP |
|---|---------------------------------|---------------------------------|
| Initial GDP per capita (in 1995, in logarithm)                          | –2.753*<br>(1.518)              | –2.754*<br>(1.544)              |
| Exports of fuel and minerals (in total merchandise exports)             | –0.062*<br>(0.034)              | –0.062*<br>(0.033)              |
| Imports of goods and services over GDP                                  | 0.067**<br>(0.034)              | 0.067*<br>(0.034)               |
| Agriculture value added over GDP  | –0.245**<br>(0.093)             | –0.245***<br>(0.091)            |
| EVI   | 0.008<br>(0.048)                | 0.008<br>(0.049)                |
| Initial HAI (in 1995)   | –0.086<br>(0.059)               | –0.085<br>(0.062)               |
| LDC dummy   |                                 | –0.004<br>(1.989)               |
| Observations  | 100                             | 100                             |
| R-squared   | 0.371                           | 0.371                           |
| Wilcoxon z-test score<br>Ho: res(non-LDC) = res(LDC) ( <i>p</i> -value) | Z = –0.157<br>(0.875)           |                                 |

Note: Each specification includes a constant and six regional dummy variables. Robust standard errors in parentheses. \*\*\* *p* < 0.01, \*\* *p* < 0.05, \* *p* < 0.1.

Source: Authors’ calculations from World Bank data.

represent the autonomous willingness of developing countries, but are strongly influenced by structural handicaps that are difficult to address in LDCs.

*Have LDC currencies been misaligned?*

The exchange rate policy has long been considered a crucial part of economic policy in developing countries. The real exchange rate (RER) is generally measured as the ratio of foreign prices versus domestic prices (or its inverse) expressed in the same currency thanks to the nominal exchange rate. It is therefore a measure of price competitiveness relative to foreign economies. According to development economics it simultaneously represents the ratio of the price of tradable to non-tradable goods and is a measure of the relative profitability of the tradable sector, namely industry and sometimes agriculture. During the period of “structural adjustment”, devaluation and the depreciation of the RER was often a part of the policy package, but too extensive use has also been criticized. Anyway there is a consensus that a significant misalignment of the RER—such as that at a level deviating from a normal or equilibrium rate—should be avoided. Of course, the assessment of the equilibrium rate, which is not observable, may differ strongly according to the methodology.

For many authors, avoiding a significant overvaluation of the currency (such as a positive deviation from the equilibrium RER measured as domestic prices relative to foreign prices) is one of the most robust imperatives for economic growth, as strongly supported by cross-country statistical evidences (Razin and Collins 1997, Johnson, Ostry and Subramanian 2007, and Rajan and Subramanian 2007).<sup>13</sup> However Rodrik (2008) even argues that undervaluation of the currency is needed to stimulate the growth of developing countries through favoring the tradable sectors. This assertion is based on two arguments. First, the marginal product in the tradable sector is higher than in the non-tradable sector. “The long tradition of thought on dualism in developing countries takes the persistence of large differences between marginal products in the advanced “formal” parts of the economy (such as industry) and marginal products elsewhere as the very essence of under development” (Rodrik 2008, p. 405). Second, tradable sectors, compared with non-tradable ones, suffer disproportionately from institutional weaknesses that prevent completely specifying contracts and from failures in goods, credit and labour markets that damage information and coordination externalities.

This thesis has met approbation but also criticism. For the LDCs, the main issue concerns the impact of currency undervaluation on productivity. In a low-income country a real depreciation of the RER reduces the real wage, expressed in tradable goods, for unskilled workers and would induce a decrease in their efficiency in countries where their wages are still very low (Guillaumont and Guillaumont Jeanneney 1991). Leibenstein (1957, 1966) stressed early that low labour remuneration in developing countries may hurt workers’ health and their working capacity but also their motivation and “X-efficiency”. A second argument is that a real depreciation increases the relative cost of imported capital goods and decreases wages relative to the cost of capital. This induces a less capital-intensive production system, discourages technological innovations and so reduces manufacturing competitiveness. A third argument is that an undervalued currency may be an alibi to postpone structural reforms. So we will not recommend an undervaluation of LDC currencies (Guillaumont Jeanneney 2015).

### *Choosing an indicator of the real exchange rate misalignment*

It is common in the literature to compute misalignments of the RER as the residuals of a regression of the RER on its long-run (structural) determinants. This method of measurement is roughly the same as for policy indicators developed in previous sections. Following Rodrik (2008) we compute a simplified version of misalignments, where only one variable determines the long-run or equilibrium level of the RER, namely the relative per capita GDP to capture the Balassa-Samuelson effect. In this way the measure of the RER adjusts “the relative price of tradable to non-tradable for the fact that as countries grow rich, the relative prices of non-tradables as a group tend to rise because of higher productivity in tradables” (Rodrik 2008, p. 369). Many authors use alternative definitions of the equilibrium RER that relate to the determinants of

external balance, such as terms of trade and net capital flows. Here the main issue (as in Rodrik's paper) is whether the exchange rate policy has or has not benefited to the structural transition of the productive system in favour of tradables, since it is supposed to accelerate growth.

The main measure of the RER used by Rodrik is countries' bilateral RER against the US dollar. To take into account the diversity of the trade partners of LDCs, we prefer here to use a real effective exchange rate (REER) such as:

$$REER_j = \prod_{i=1}^{10} \left( \frac{XR_i}{XR_j} * \frac{CPI_j}{CPI_i} \right)^{wi}$$

where  $i=1,...,10$  are the 10 first trading partners of country  $j$ ,  $XR$  is the nominal exchange rate expressed in national currency units per US dollar,  $CPI$  is the consumer price index, and  $wi$  is the weight of the 10 first partners in country  $j$ 's imports (excluding oil). So an increase (decrease) in REER signals a real appreciation (depreciation) of the country  $j$ 's currency against its partner's currencies.

In the second step, we take into account the Balassa-Samuelson effect by regressing REER on the relative per-capita GDP of country  $j$  against its partners that is calculated using the same weighting as for the REER.

$$\ln REER_{jt} = \alpha + \beta \ln RGDP_{jt} + f_t + u_{jt}$$

where  $f_t$  is a fixed effect for year and  $u_{jt}$  is the error term. This regression is performed on an unbalanced panel of 169 countries over 1995–2016. It yields an estimated  $\beta = 0.197$  (with a high  $t$ -statistic), almost the same value found by Rodrik (2008, p. 371), suggesting a strong and well-estimated Balassa-Samuelson effect. When relative per capita GDP rises by 10 percent, the REER appreciates by around 2 percent, without reflecting an overvaluation. Finally, the index of misalignment is the difference between the actual REER and the Balassa-Samuelson-adjusted REER:

$$MISALGN_{jt} = \ln REER_{jt} - \ln \widehat{REER}_{jt}$$

with  $\ln \widehat{REER}_{jt}$  the predicted value from the REER regression on relative per-capita GDP (and is then a measure of REER equilibrium).  $MISALGN$  measures REER misalignment in percent: a positive value means a relatively overvalued currency and a negative value a relatively undervalued currency (by construction, the sum of the residuals is zero). Defined this way,  $MISALGN$  allows us to compare countries' evolution over time.

*LDCs compared with other developing countries.* Table 2.9 displays the group average for the period 1995–2016. On average over the entire period the relative misalignments are weak. Not a surprise, since misalignments are supposed to cure themselves gradually. Note that, on average, over the whole period LDCs' currencies have been slightly undervalued compared with non-LDC low- and middle-income countries.

TABLE 2.9  
**Average value of currency misalignment, by developing countries categories, 1995–2016**

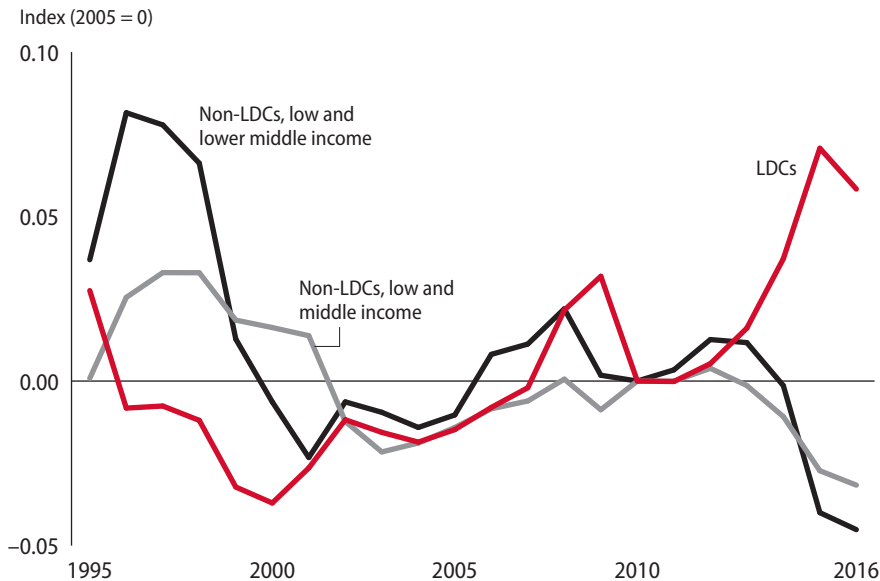
|   | Number of countries | Average currency misalignment (MISALGN) |
|---|---------------------|---|
| Low-income countries  | 27                  | 0.042                                   |
| Lower middle income countries                                     | 39                  | –0.023                                  |
| Upper middle income countries                                     | 47                  | –0.004                                  |
| Main oil exporters  | 17                  | –0.037                                  |
| <b>LDCs</b>   | <b>39</b>           | <b>–0.002</b>                           |
| LDCs non-graduating   | 35                  | 0.009                                   |
| LDCs non-oil exporters  | 34                  | –0.001                                  |
| LDCs non-oil exporters non-graduating                             | 31                  | 0.004                                   |
| Non-LDCs  | 74                  | 0.001                                   |
| <b>Non-LDCs, low- and middle-income countries</b>                 | <b>74</b>           | <b>0.001</b>                            |
| <b>Non-LDCs, low and lower middle income countries</b>            | <b>27</b>           | <b>0.011</b>                            |
| Non-LDCs non-oil exporters, low- and middle-income countries      | 61                  | 0.005                                   |
| Non-LDCs non-oil exporters, low and lower middle income countries | 24                  | 0.013                                   |
| Small island developing states                                    | 22                  | 0.009                                   |
| Landlocked developing countries                                   | 25                  | –0.006                                  |

*Note:* As data are often missing in developing countries and more important for LDCs, As data are often missing in developing countries and more important for LDCs, Kiribati, Myanmar, Lesotho, Somalia, South Sudan, Tuvalu and Timor-Leste are missing from the LDC category.  
*Source:* Authors’ calculations.

It is more significant to look at the fluctuations and trends of the misalignments. Figure 2.10 displays the annual misalignments of group averages over 1995–2016. It shows that, on average, LDCs’ and non-LDCs’ currencies tend to be relatively “undervalued” at the end of the 1990s and “overvalued” in the 2000s, with a divergent path between LDCs and other developing countries, probably due to an income shortfall in some LDC that are oil exporters or in civil conflict (see above).<sup>14</sup>

Anyway, it does seem that the difference in trends is due to the exchange policy of the developed countries since it concerns on average all developing countries and since LDCs have not significantly modified their choice between fixed parity and crawling peg or floating from one decade to another.<sup>15</sup> On average, during the last 20 years LDCs have not suffered from more overvalued currencies compared with the other developing countries. And if they evidence a trend from relative undervaluation to relative overvaluation (measured from the level of real exchange rate and the level of income per capita, as explained above), this trend should be seen as an outcome of their growth resumption rather than as a growth obstacle.

FIGURE 2.10  
**Relative evolution of currency misalignment, annual group average 1995–2016, LDCs versus non-LDCs**



Note: A negative value indicates a currency undervaluation and a positive value a currency overvaluation. Base year is 2010. As data are often missing in developing countries and more important for LDCs, Kiribati, Lesotho, Myanmar, Somalia, South Sudan, Tuvalu and Timor-Leste are missing from the LDC category.  
Source: Authors' calculations from World Bank data.

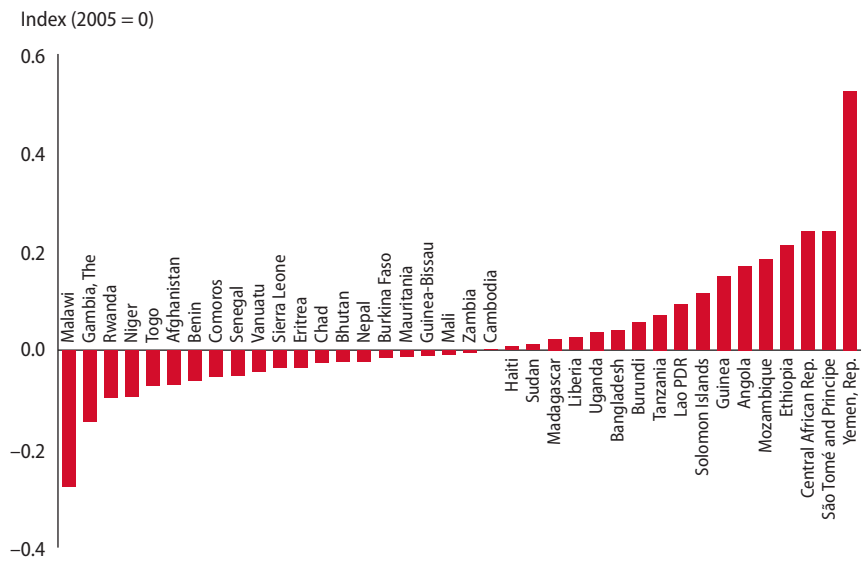
Figure 2.11 shows LDC individual misalignments for 2011–16. A majority of LDCs had their currency relatively undervalued. Furthermore, there is no clear relationship between the exchange rate regime and the under or overvaluation of the currency. In the sample the same number of LDCs have adopted a fixed exchange regime and a floating regime or a crawling peg: they are distributed on the whole vertically.<sup>16</sup> By contrast, the countries with overvalued currency are mainly exporters of oil (the price of which sharply fluctuated) and/or are fragile states suffering from conflicts or bad governance (such as Angola, Central African Republic, Mozambique and Yemen).

From these results, it seems that LDCs on average have successfully avoided significant misalignments of their currency once productivity growth is taken into account. That would mean that exchange rate policies have not contributed to the LDCs' growth lag.

**Conclusion**

Developing country performance on economic policies and institutional quality is often considered a major factor of economic growth. It is also a common criterion for the

FIGURE 2.11  
**Relative currency undervaluation in LDCs relative to 2010, average over 2011–16**



Note: A negative value indicates a currency undervaluation and a positive value a currency overvaluation. The base year is 2010.  
Source: Authors' calculations from World Bank data.

allocation of aid among recipient countries. The countries that lag the most behind—the LDCs—seem also to be those suffering from the poorest performance compared with other groups of developing countries. This chapter questioned the way performance is used in this regard, arguing that performance is defined too simply, and then wrongly. A more appropriate definition controls for the structural factors featuring LDCs—income per capita, economic vulnerability and human capital—given that these variables are likely to be inversely related with performance.

The chapter presented the results of an econometric analysis of cross-section and panel data that strongly support this assumption. Specifically, once human capital and economic vulnerability as well as the level of income per capita were taken into account, the gap in performance between LDCs and non-LDCs, measured either by the World Bank governance indicators or by specific policy outcomes, became insignificant.

The fact that EVI and governance indicators are inversely related, especially after controlling for income per capita, provides a strong case for augmenting the performance-based allocation mechanisms with the EVI, in a way that ensures that the aid allocations they prescribe are an increasing function of it. This is explained in more detail in chapter 3.

**Appendix A2.1. The Country Policy and Institutional Assessment (CPIA) index**

Every year, the World Bank’s staff judges and rates the quality of present policy and institutional frameworks across developing countries, “quality” referring to how conducive this framework is to growth and poverty reduction, including through an effective use of development assistance (World Bank 2009). Since 2005, the publicized Country Policy and Institutional Assessment (CPIA) ratings cover almost 80 developing countries on a set of 16 criteria grouped into four categories (“clusters”). The countries are rated in descending order, with the rating restricted to 64 countries that are eligible for the World Bank’s International Development Assistance (IDA) funding.

Criteria ratings are subjective since they are based on judgements about quality of policies and institutions, rather than outcomes, and on policy actions and implementation, rather than promises or intentions. For each criterion, the rating scale is from 1 (very weak quality of policies or institutions) to 6 (very strong quality). Each criterion has equal weight in its category (cluster) and the 4 categories have equal weight in the aggregate CPIA rating. The aggregate CPIA index then ranges on a 1–6 scale.

BOX A2.1.1

**The 4 clusters and 16 criteria of the CPIA**

- A. *Economic Management:*

  - 1. Macroeconomic Management,
  - 2. Fiscal Policy, 3. Debt Policy.
- B. *Structural Policies:* 4. Trade, 5. Financial Sector, 6. Business Regulatory Environment.
- C. *Policies for Social Inclusion/Equity:*

  - 7. Gender Equality, 8. Equity of Public Resource Use, 9. Building Human Resources, 10. Social Protection and
- Labour, 11. Policies and Institutions for Environmental Sustainability.
- D. *Public Sector Management and Institutions:* 12. Property Rights and Rule-based Governance, 13. Quality of Budgetary and Financial Management, 14. Efficiency of Revenue Mobilization, 15. Quality of Public Administration, 16. Transparency, Accountability, and Corruption in the Public Sector.

Source: Country Policy and Institutional Assessments, 2009 Assessment Questionnaire, The World Bank Operations Policy and Country Services, September 2009.

The CPIA overall/aggregate score is used for the allocation of IDA funds and is referred to as the IDA Resource Allocation Index (IRAI). The IRAI and portfolio performance together constitute the IDA Country Performance Rating (CPR). In addition to the CPR, population and per capita income also determine IDA allocations (see box A2.1.2).

## BOX A2.1.2

**IDA's performance-based allocation formula**

The performance-based allocation formula used during the IDA18 period is the following:

$$PBA_i = (CPR_i)^5 \times (GNI/P)^{-0.125} \times P_i$$

with:  $PBA_i$  the indicator of the allocation based on performance for a country  $i$ ,  $GNI/P$  the gross national income per capita for the year 2007 in US dollars,  $P_i$  the population. The evaluation of country performance rating ( $CPR$ ) is itself the sum of three indicators:

$$CPR = 0.24CPIA_{Atoc} + 0.68CPIA_D + 0.08ARPP$$

The CPIA (Country Policy and Institutional Assessment index) is composed of sixteen indicators grouped into four categories: macroeconomic management, structural policies, social policies and public sector management and institutions, the latter referring to governance. Besides the two components related to the CPIA, the CPR also encompasses a rating for each country's implementation performance based on the World Bank's Annual Report on Portfolio Performance (ARPP).



## Appendix A2.2. The Worldwide Governance Indicators

The Worldwide Governance Indicators (WGI) define governance as “the set of traditions and institutions by which authority in a country is exercised” (Kaufmann et al. 2010). The WGI capture six dimensions of governance since 1996 for 212 countries and territories (see box A2.2.1). Coverage by country and over time is then broader than for the CPIA. Moreover, in the WGI the focus is more on institutions and less on policies, and the rating on “political stability and absence of violence” does not seem to have an equivalent in the CPIA.<sup>17</sup> Like the CPIA, the WGI is primarily based on subjective information. But while the CPIA rating is based only on the judgements of World Bank staff, the WGI consists in the aggregation of various governance ratings (including the CPIA). The country scores are based on several variables, drawn from about 30 separate databases reflecting subjective perceptions of a wide range of issues.<sup>18</sup> Each one of the 6 indicators described in box A2.2.1 is a weighted average of underlying variables with each indicator so that scores are centred around zero and fall in the range  $[-2.5; 2.5]$ . Higher scores indicate better governance ratings.

### BOX A2.2.1

#### The six World Governance Indicators

1. *Voice and accountability (VA)*: “The extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media”.
2. *Political stability and absence of violence (PS)*: “Perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence and terrorism”.
3. *Government effectiveness (GE)*: “The quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies”.
4. *Regulatory quality (RQ)*: “The ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development”.
5. *Rule of law (RL)*: “The extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence”.
6. *Control of corruption (CC)*: “The extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests”.

Source: Kaufmann et al. 2010.

### Appendix A2.3. The Doing Business indicators (DB)

The Doing Business indicators measure business regulation and the protection of property rights—and their effect on businesses, especially small and medium-size domestic firms (see box A2.3.1). They cover 183 countries. The Doing Business data are based on surveys administered to more than 8,200 local experts.

#### BOX A2.3.1

#### The Doing Business indicators

The DB indicators document:

- The degree of regulation, such as the number of procedures to start a business or to register and transfer commercial property.
- Regulatory outcomes, such as the time and cost to enforce a contract, go through bankruptcy or trade across borders.
- The extent of legal protections of property.
- The tax burden on businesses.

- Different aspects of employment regulation.

They are based on feedback from professionals operating in the considered countries including lawyers, business consultants, accountants, freight forwarders, government officials and other professionals routinely administering or advising on legal and regulatory requirements, with standard assumptions assuring validity of comparisons and benchmarks across economies.

For each country the ranking is calculated as the simple average of the percentile rankings on each of the 10 topics included in the index in Doing Business 2013: 1. Starting a business, 2. Dealing with construction permits, 3. Getting electricity, 4. Registering property, 5. Getting credit, 6. Protecting investors, 7. Paying taxes, 8. Trading across borders, 9. Enforcing contracts, 10. Resolving insolvency.<sup>19</sup>

Each topic is made up of a variety of indicators:

- Starting a business: Procedures, time, cost and minimum capital to open a new business.
- Dealing with construction permits: Procedures, time and cost to build a warehouse.
- Getting electricity: Procedures, time and cost required for a business to obtain a permanent electricity connection for a newly constructed warehouse.
- Registering property: Procedures, time and cost to register commercial real estate.
- Getting credit: Strength of the legal rights index and depth of the credit information index.
- Protecting investors: Indices on the extent of disclosure, extent of director liability and ease of shareholder suits.

- Paying taxes: Number of taxes paid, hours per year spent preparing tax returns and total tax payable as a share of gross profit.
- Trading across borders: Number of documents and cost and time necessary to export and import.
- Enforcing contracts: Procedures, time and cost to enforce a debt contract.
- Resolving insolvency: The time, cost and recovery rate (percent) under bankruptcy proceeding.

## Appendix A2.4. Supplementary tables

TABLE A2.4.1

### Average values for the four CPIA clusters by developing countries categories in 2017 (for IDA countries)

| Country groups  | Number of countries | Cluster A   | Cluster B   | Cluster C   | Cluster D   |
|---|---------------------|-------------|-------------|-------------|-------------|
| Low-income countries  | 29                  | 3.06        | 3.00        | 3.09        | 2.77        |
| Lower middle income countries                                     | 34                  | 3.35        | 3.28        | 3.31        | 3.08        |
| Upper middle income countries                                     | 11                  | 3.21        | 3.53        | 3.35        | 3.45        |
| Main oil exporters  | 5                   | 2.57        | 2.73        | 2.74        | 2.40        |
| <b>Least developed countries</b>                                  | <b>45</b>           | <b>3.16</b> | <b>3.07</b> | <b>3.12</b> | <b>2.87</b> |
| Least developed countries non-oil exporters                       | 42                  | 3.22        | 3.11        | 3.16        | 2.92        |
| Least developed countries non-graduating                          | 41                  | 3.12        | 3.05        | 3.10        | 2.83        |
| Least developed countries non-oil exporters non-graduating        | 38                  | 3.19        | 3.09        | 3.16        | 2.88        |
| <b>Non-LDCs</b>   | <b>29</b>           | <b>3.31</b> | <b>3.42</b> | <b>3.41</b> | <b>3.23</b> |
| Non-LDCs, low- and middle-income countries                        | 29                  | 3.31        | 3.42        | 3.41        | 3.23        |
| Non-LDCs, low and lower middle income countries                   | 19                  | 3.33        | 3.32        | 3.41        | 3.10        |
| Non-LDCs non-oil exporters, low- and middle-income countries      | 27                  | 3.33        | 3.45        | 3.43        | 3.27        |
| Non-LDCs non-oil exporters, low and lower middle income countries | 17                  | 3.37        | 3.36        | 3.44        | 3.15        |
| Small island developing states                                    | 19                  | 3.06        | 3.28        | 3.08        | 3.14        |
| Landlocked developing countries                                   | 22                  | 3.35        | 3.29        | 3.45        | 3.10        |

Note: Eligibility for International Development Association (IDA) support depends on a country's relative poverty, defined as GNI per capita below an established threshold and updated annually. Eighty-two countries are now eligible to receive IDA resources. These countries are home to 2.8 billion people, half the total population of the developing world.

Cluster A. Economic Management: 1. Macroeconomic Management, 2. Fiscal Policy, 3. Debt Policy.

Cluster B. Structural Policies: 4. Trade, 5. Financial Sector, 6. Business Regulatory Environment.

Cluster C. Policies for Social Inclusion/Equity: 7. Gender Equality, 8. Equity of Public Resource Use, 9. Building Human Resources, 10. Social Protection and Labour, 11. Policies and Institutions for Environmental Sustainability.

Cluster D. Public Sector Management and Institutions: 12. Property Rights and Rule-based Governance, 13. Quality of Budgetary and Financial Management, 14. Efficiency of Revenue Mobilization, 15. Quality of Public Administration, 16. Transparency, Accountability and Corruption in the Public Sector.

Source: Authors' calculations from World Bank data.

TABLE A2.4.2

**Wilcoxon test of difference between LDCs and non-LDCs for the four CPIA clusters in 2017**

| Wilcoxon difference test scores ( <i>p</i> -values)   | Cluster A                    | Cluster B                    | Cluster C                    | Cluster D                    |
|---|------------------------------|------------------------------|------------------------------|------------------------------|
| Least developed countries vs non-LDCs, low- and middle-income countries   | <i>z</i> = 0.629<br>(0.5297) | <i>z</i> = 3.028<br>(0.0025) | <i>z</i> = 2.494<br>(0.0126) | <i>z</i> = 2.721<br>(0.0065) |
| Least developed countries non-oil exporters vs non-LDCs non-oil exporters, low- and middle-income countries                     | <i>z</i> = 0.389<br>(0.6970) | <i>z</i> = 3.036<br>(0.0024) | <i>z</i> = 2.259<br>(0.0239) | <i>z</i> = 2.757<br>(0.0058) |
| Least developed countries non-graduating vs non-LDCs, low and lower middle income countries                                     | <i>z</i> = 0.838<br>(0.4020) | <i>z</i> = 1.883<br>(0.0597) | <i>z</i> = 2.305<br>(0.0212) | <i>z</i> = 1.778<br>(0.0754) |
| Least developed countries non-oil exporters non-graduating vs non-LDCs non-oil exporters, low and lower middle income countries | <i>z</i> = 0.717<br>(0.4752) | <i>z</i> = 1.876<br>(0.0607) | <i>z</i> = 2.149<br>(0.0316) | <i>z</i> = 1.866<br>(0.0621) |

Note: A positive *Z*-score indicates that LDCs' residuals are lower than non-LDCs' ones. *P*-values are in parentheses.

Eligibility for International Development Association (IDA) support depends on a country's relative poverty, defined as GNI per capita below an established threshold and updated annually. Eighty-two countries are now eligible to receive IDA resources. These countries are home to 2.8 billion people, half the total population of the developing world.

Cluster A. Economic Management: 1. Macroeconomic Management, 2. Fiscal Policy, 3. Debt Policy.

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Cluster D. Public Sector Management and Institutions: 12. Property Rights and Rule-based Governance, 13. Quality of Budgetary and Financial Management, 14. Efficiency of Revenue Mobilization, 15. Quality of Public Administration, 16. Transparency, Accountability and Corruption in the Public Sector.

Source: Authors' calculations from World Bank data.

TABLE A2.4.3  
Average values for the six WGI sub-components by developing countries categories in 2017

| Country groups  | Number of countries | Voice and accountability | Political stability | Government effectiveness | Regulatory quality | Rule of law | Control of corruption |
|---|---------------------|--------------------------|---------------------|--------------------------|--------------------|-------------|-----------------------|
| Low-income countries  | 31                  | -0.91                    | -1.13               | -1.22                    | -1.05              | -1.08       | -0.99                 |
| Lower middle income countries                                     | 51                  | -0.36                    | -0.42               | -0.56                    | -0.59              | -0.54       | -0.51                 |
| Upper middle income countries                                     | 53                  | -0.15                    | -0.05               | -0.20                    | -0.25              | -0.27       | -0.29                 |
| Main oil exporters  | 18                  | -1.22                    | -1.09               | -0.95                    | -1.15              | -1.15       | -1.16                 |
| Least developed countries   | 48                  | -0.58                    | -0.65               | -1.00                    | -0.86              | -0.77       | -0.70                 |
| Least developed countries non-oil exporters                       | 43                  | -0.50                    | -0.55               | -0.96                    | -0.81              | -0.72       | -0.63                 |
| Least developed countries non-graduating                          | 47                  | -0.66                    | -0.78               | -1.04                    | -0.88              | -0.85       | -0.80                 |
| Least developed countries non-oil exporters non-graduating        | 42                  | -0.59                    | -0.67               | -1.00                    | -0.84              | -0.80       | -0.74                 |
| Non-LDCs  | 100                 | -0.30                    | -0.30               | -0.32                    | -0.39              | -0.43       | -0.43                 |
| Non-LDCs, low- and middle-income countries                        | 92                  | -0.30                    | -0.30               | -0.32                    | -0.39              | -0.43       | -0.43                 |
| Non-LDCs, low and lower middle income countries                   | 46                  | -0.53                    | -0.72               | -0.57                    | -0.65              | -0.68       | -0.67                 |
| Non-LDCs non-oil exporters, low- and middle-income countries      | 81                  | -0.12                    | -0.17               | -0.22                    | -0.24              | -0.28       | -0.29                 |
| Non-LDCs non-oil exporters, low and lower middle income countries | 40                  | -0.49                    | -0.62               | -0.51                    | -0.60              | -0.62       | -0.62                 |
| Small island developing states                                    | 33                  | 0.39                     | 0.46                | -0.47                    | -0.47              | -0.13       | -0.06                 |
| Landlocked developing countries                                   | 31                  | -0.74                    | -0.54               | -0.61                    | -0.58              | -0.66       | -0.65                 |

Source: Authors' calculations from World Bank data.

TABLE A2.4.4

Test of difference between LDCs and non-LDCs for the six WGI sub-components in 2017

| Wilcoxon difference test scores (p-values)  | Voice and accountability | Political stability    | Government effectiveness | Regulatory quality    | Rule of law           | Control of corruption |
|---|--------------------------|------------------------|--------------------------|-----------------------|-----------------------|-----------------------|
| Least developed countries vs non-LDCs, low- and middle-income countries   | z = 2.042<br>(0.0412)    | z = 1.929<br>(0.0538)  | z = 6.030<br>(0.0000)    | z = 4.598<br>(0.0000) | z = 3.148<br>(0.0016) | z = 2.538<br>(0.0111) |
| Least developed countries non-oil exporters vs non-LDCs non-oil exporters, low- and middle-income countries                     | z = 2.705<br>(0.0068)    | z = 2.186<br>(0.0288)  | z = 6.464<br>(0.0000)    | z = 5.514<br>(0.0000) | z = 3.676<br>(0.0002) | z = 3.074<br>(0.0021) |
| Least developed countries non-graduating vs non-LDCs, low and lower middle income countries                                     | z = 0.832<br>(0.4055)    | z = 0.114<br>(0.9091)  | z = 3.801<br>(0.0001)    | z = 2.246<br>(0.0247) | z = 1.332<br>(0.1828) | z = 0.908<br>(0.3639) |
| Least developed countries non-oil exporters non-graduating vs non-LDCs non-oil exporters, low and lower middle income countries | z = 0.645<br>(0.5187)    | z = -0.025<br>(0.9798) | z = 3.974<br>(0.0001)    | z = 2.404<br>(0.0162) | z = 1.303<br>(0.1924) | z = 0.835<br>(0.4036) |

Note: A positive Z-score indicates that LDCs' residuals are lower than non-LDCs' ones. P-values are in parentheses.  
Source: Authors' calculations from World Bank data.

TABLE A2.4.5

Average values for the 10 Doing Business components by developing countries categories in 2017

| Country groups                | Number of countries | Starting a business | Dealing with construction permits | Getting electricity | Registering property | Getting credit | Protecting investors | Paying taxes | Trading across borders | Enforcing contracts | Resolving insolvency |
|-------------------------------|---------------------|---------------------|-----------------------------------|---------------------|----------------------|----------------|----------------------|--------------|------------------------|---------------------|----------------------|
| Low-income countries          | 30                  | 73.55               | 45.63                             | 36.48               | 49.38                | 5.83           | 39.78                | 54.59        | 49.07                  | 47.26               | 27.22                |
| Lower middle income countries | 47                  | 77.82               | 62.02                             | 59.96               | 53.66                | 9.47           | 47.70                | 61.13        | 61.33                  | 46.79               | 30.70                |
| Upper middle income countries | 55                  | 81.17               | 65.76                             | 68.85               | 61.06                | 10.18          | 54.00                | 67.66        | 71.01                  | 57.76               | 41.37                |
| Main oil exporters            | 19                  | 71.24               | 53.56                             | 52.80               | 52.98                | 6.42           | 46.23                | 56.65        | 39.03                  | 50.97               | 30.15                |

| Country groups  | Number of countries | Starting a business | Dealing with construction permits | Getting electricity | Registering property | Getting credit | Protecting investors | Paying taxes | Trading across borders | Enforcing contracts | Resolving insolvency |
|---|---------------------|---------------------|-----------------------------------|---------------------|----------------------|----------------|----------------------|--------------|------------------------|---------------------|----------------------|
| Least developed countries   | 45                  | 74.14               | 53.07                             | 43.61               | 49.27                | 6.44           | 40.11                | 58.14        | 53.99                  | 44.63               | 25.05                |
| Least developed countries non-oil exporters                       | 41                  | 74.63               | 53.60                             | 44.57               | 48.79                | 6.83           | 40.08                | 58.59        | 57.40                  | 44.93               | 25.52                |
| Least developed countries non-graduating                          | 40                  | 73.23               | 51.43                             | 40.88               | 48.70                | 6.23           | 39.58                | 55.88        | 53.57                  | 44.80               | 26.32                |
| Least developed countries non-oil exporters non-graduating        | 37                  | 73.85               | 52.25                             | 41.65               | 47.95                | 6.49           | 39.91                | 56.52        | 56.32                  | 44.65               | 26.26                |
| Non-LDCs  | 87                  | 80.36               | 63.36                             | 65.94               | 59.14                | 10.23          | 52.87                | 64.55        | 67.02                  | 55.01               | 39.17                |
| Non-LDCs, low- and middle-income countries                        | 87                  | 80.36               | 63.36                             | 65.94               | 59.14                | 10.23          | 52.87                | 64.55        | 67.02                  | 55.01               | 39.17                |
| Non-LDCs, low and lower middle income countries                   | 32                  | 78.99               | 59.24                             | 60.94               | 55.83                | 10.31          | 50.94                | 59.20        | 60.16                  | 50.27               | 35.38                |
| Non-LDCs non-oil exporters, low- and middle-income countries      | 72                  | 82.15               | 65.07                             | 67.62               | 60.48                | 10.81          | 53.94                | 66.02        | 71.74                  | 55.32               | 40.50                |
| Non-LDCs non-oil exporters, low and lower middle income countries | 28                  | 79.81               | 61.09                             | 62.50               | 57.95                | 10.54          | 50.42                | 59.86        | 63.92                  | 50.73               | 34.78                |
| Small island developing states                                    | 24                  | 79.70               | 66.55                             | 63.82               | 48.08                | 8.04           | 43.96                | 69.30        | 68.59                  | 49.90               | 24.92                |
| Landlocked developing countries                                   | 30                  | 79.46               | 60.33                             | 53.50               | 63.36                | 9.77           | 50.28                | 63.01        | 67.80                  | 52.39               | 37.28                |

Note: The DB rates countries between 0 and 100 (100 being the most business friendly).  
Source: Authors' calculations from World Bank data.



TABLE A2.4.6

**Wilcoxon test of difference between LDCs and non-LDCs for the 10 Doing Business components in 2017**

| Wilcoxon difference test scores (p-values)  | Starting a business   | Dealing with construction permits | Getting electricity   | Registering property  | Getting credit        | Protecting investors  | Paying taxes          | Trading across borders | Enforcing contracts   | Resolving insolvency  |
|---|-----------------------|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|
| Least developed countries vs non-LDCs, low- and middle-income countries   | z = 2.355<br>(0.0185) | z = 3.567<br>(0.004)              | z = 6.035<br>(0.0000) | z = 3.920<br>(0.0001) | z = 4.495<br>(0.0000) | z = 4.621<br>(0.0000) | z = 2.208<br>(0.0272) | z = 3.627<br>(0.0003)  | z = 4.393<br>(0.0000) | z = 3.572<br>(0.0004) |
| Least developed countries non-oil exporters vs non-LDCs non-oil exporters, low- and middle-income countries                     | z = 2.550<br>(0.0108) | z = 3.720<br>(0.0002)             | z = 6.019<br>(0.0000) | z = 4.395<br>(0.0000) | z = 4.428<br>(0.0000) | z = 4.873<br>(0.0000) | z = 2.493<br>(0.0127) | z = 4.096<br>(0.0000)  | z = 4.435<br>(0.0000) | z = 3.475<br>(0.0005) |
| Least developed countries non-graduating vs non-LDCs, low and lower middle income countries                                     | z = 1.332<br>(0.1830) | z = 1.836<br>(0.0664)             | z = 4.307<br>(0.0000) | z = 2.482<br>(0.0131) | z = 4.183<br>(0.0000) | z = 3.201<br>(0.0014) | z = 0.612<br>(0.5406) | z = 1.507<br>(0.1318)  | z = 1.830<br>(0.0672) | z = 1.955<br>(0.0506) |
| Least developed countries non-oil exporters non-graduating vs non-LDCs non-oil exporters, low and lower middle income countries | z = 1.239<br>(0.2155) | z = 2.014<br>(0.0440)             | z = 4.478<br>(0.0000) | z = 3.266<br>(0.0011) | z = 3.980<br>(0.0001) | z = 2.719<br>(0.0065) | z = 0.596<br>(0.5511) | z = 1.802<br>(0.0716)  | z = 1.941<br>(0.0523) | z = 1.676<br>(0.0938) |

Note: A positive Z-score indicates that LDCs' residuals are lower than non-LDCs' ones. P-values are in parentheses.  
Source: Authors' calculations from World Bank data.

TABLE A2.4.7

OLS regression of WGI components on structural factors including a LDC dummy, cross-country data, average 1995–2016

|                    | (1)<br>Control of<br>corruption | (2)<br>Government<br>effectiveness | (3)<br>Political<br>stability | (4)<br>Regulatory<br>quality | (5)<br>Rule<br>of law | (6)<br>Voice and<br>accountability | (7)<br>WGI<br>score  |
|--------------------|---------------------------------|------------------------------------|-------------------------------|------------------------------|-----------------------|------------------------------------|----------------------|
| GDP per capita PPP | 0.235***<br>(0.074)             | 0.258***<br>(0.066)                | 0.282***<br>(0.073)           | 0.241***<br>(0.072)          | 0.186***<br>(0.065)   | -0.077<br>(0.102)                  | 0.187***<br>(0.060)  |
| EVI                | 0.003<br>(0.004)                | -0.011***<br>(0.004)               | 0.025***<br>(0.005)           | -0.012***<br>(0.004)         | 0.003<br>(0.004)      | 0.009*<br>(0.005)                  | 0.004<br>(0.003)     |
| LHAI-1995          | -0.021***<br>(0.004)            | -0.019***<br>(0.003)               | -0.020***<br>(0.004)          | -0.015***<br>(0.004)         | -0.024***<br>(0.003)  | -0.024***<br>(0.005)               | -0.021***<br>(0.003) |
| LDC                | 0.624***<br>(0.168)             | 0.452***<br>(0.157)                | 0.484**<br>(0.218)            | 0.400**<br>(0.172)           | 0.526***<br>(0.175)   | 0.263<br>(0.222)                   | 0.453***<br>(0.163)  |
| Observations       | 136                             | 136                                | 136                           | 136                          | 136                   | 136                                | 136                  |
| R-squared          | 0.497                           | 0.579                              | 0.550                         | 0.485                        | 0.536                 | 0.501                              | 0.566                |

Note: Robust standard errors in parentheses. Each specification includes a constant and six regional dummy variables. LHAI-1995 is the inverse of HAI in 1995.

GDP per capita is in logarithm. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ , +  $p < 0.15$ .

The WGI score is the simple average of the following six components: 1. Voice and accountability, 2. Political stability and absence of violence, 3. Government effectiveness, 4. Regulatory quality, 5. Rule of law, 6. Control of corruption.

Source: Authors' calculations from World Bank data.

TABLE A2.4.8

**OLS regression of DB components on structural factors including a LDC dummy, cross-country data, average 2010–16**

|                       | (1)<br>Starting a<br>business | (2)<br>Dealing with<br>construction<br>permits | (3)<br>Getting<br>electricity | (4)<br>Registering<br>property | (5)<br>Getting<br>credit | (6)<br>Protecting<br>investors | (7)<br>Paying<br>taxes | (8)<br>Trading<br>across<br>borders | (9)<br>Enforcing<br>contracts | (10)<br>Resolving<br>insolvency | (11)<br>Ease of<br>doing<br>business |
|-----------------------|-------------------------------|--|-------------------------------|--------------------------------|--------------------------|--------------------------------|------------------------|-------------------------------------|-------------------------------|---------------------------------|--------------------------------------|
| GDP per<br>capita PPP | -2.087<br>(1.810)             | 2.412<br>(1.705)                               | 4.661***<br>(1.714)           | 0.759<br>(3.027)               | 0.311<br>(0.336)         | 2.764*<br>(1.556)              | 7.754***<br>(1.883)    | 3.883*<br>(2.146)                   | -1.136<br>(1.993)             | 1.960<br>(2.321)                | 1.904*<br>(0.990)                    |
| EVI                   | 0.055<br>(0.099)              | 0.292***<br>(0.109)                            | -0.062<br>(0.099)             | -0.252*<br>(0.150)             | -0.090***<br>(0.022)     | -0.216**<br>(0.107)            | 0.285**<br>(0.115)     | -0.165<br>(0.117)                   | -0.127<br>(0.102)             | -0.585***<br>(0.140)            | -0.146***<br>(0.055)                 |
| LHAI-1995             | -0.454***<br>(0.087)          | -0.164*<br>(0.093)                             | -0.144<br>(0.103)             | -0.152<br>(0.150)              | -0.038**<br>(0.018)      | -0.213**<br>(0.091)            | -0.183+<br>(0.114)     | -0.385***<br>(0.112)                | -0.178+<br>(0.113)            | -0.380***<br>(0.120)            | -0.242***<br>(0.046)                 |
| LDC                   | -2.425<br>(4.519)             | 0.786<br>(3.902)                               | -1.935<br>(4.607)             | 3.059<br>(5.374)               | -0.765<br>(0.872)        | 2.548<br>(4.136)               | 12.278***<br>(4.283)   | 8.189+<br>(5.385)                   | -2.540<br>(4.198)             | 6.743<br>(4.859)                | 2.686<br>(2.273)                     |
| Observations          | 136                           | 136  | 136                           | 136                            | 136                      | 136                            | 136                    | 136                                 | 136                           | 136                             | 136                                  |
| R-squared             | 0.487                         | 0.256  | 0.495                         | 0.198                          | 0.420                    | 0.249                          | 0.370                  | 0.452                               | 0.233                         | 0.330                           | 0.525                                |

Note: Robust standard errors in parentheses. Each specification includes a constant and six regional dummy variables. LHAI-1995 is the inverse of HAI in 1995.

GDP per capita is in logarithm. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Source: Authors' calculations from World Bank data.

## Notes

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1. Following the criteria for identifying LDCs, structural handicaps mainly are low income and human capacity and economic vulnerability.
2. In contrast, LDCs can benefit from specific international policies that may positively influence governance.
3. Some official donors explicitly tie their assistance to an assessment of governance quality. In particular the allocation of the concessional resources of the multilateral development banks takes into account CPIA indicators (see box A2.1.2 in appendix A2.1), and the US Millennium Challenge Account takes into account WGI values (see chapter 3).
4. Eligibility for International Development Association (IDA) support depends grossly on the country's relative poverty, defined as GNI per capita below an established threshold updated annually.
5. See chapter 1.
6. As reflecting autonomous choices, past and present governance levels are more flexible and independent from the others than the level of development indicators. While they influence the rate of change of the development indicators, they have only a slow and progressive impact on their level.
7. The CPIA includes measures of the quality of policies towards building human resources.
8. This method is applicable to trade policies, but with shortcomings. Outcomes (export to GDP ratios) depend on structural factors and domestic policies but also on foreign policies such as specific preferences given to LDCs. Then the part of the outcomes that is not explained by structural factors would not reveal the domestic policy only. These issues are explored in chapter 6.
9. Since policy is formulated partly and more or less rapidly in reaction to economic outcomes, it is partly endogenous.
10. This kind of indicator can be built using time series as the difference between observed monetary aggregate, representing money supply, and the demand for money that depends on economic activity, giving an indicator of monetary policy stance. The Economic Freedom of the World Index (The Fraser Institute) uses this kind of indicator to rate monetary policy, next to an indicator based on observed inflation rate.
11. Using arbitrary weightings to combine several policy instruments.
12. In a more recent paper Brun, Chambas and Mansour (2015) consider the ratio of taxes not levied on natural resources that are not explained by structural factors. Results are not given for LDCs. See also Stotsky and WoldeMariam (1997) with an application to 43 Sub-Saharan countries.

13. Overvalued exchange rates are associated with shortages of foreign currency, rent-seeking and corruption, unsustainably large current account deficits, balance-of-payments crises, and stop-and-go macroeconomic cycles—all damaging to economic growth.
14. Comparison with results previously obtained for 1996–2013 shows the rapid change in the extreme values of the sample.
15. According to Ilzetzki et al. 2011.
16. The LDCs with a fixed exchange regime are from the top to the bottom: Bhutan, Maldives, Djibouti, Bangladesh, Lesotho, Guinea-Bissau, Burkina Faso, Niger, Cabo Verde, Togo, Senegal, Benin, Kiribati, whose currencies are undervalued, and Equatorial Guinea, Central African Republic, Solomon Islands, Chad, Comoros, Angola and Eritrea, whose currencies are overvalued (Ilzetzki et al. 2011).
17. The other five indicators can be compared with the sub-indices that belong to the CPIA D-cluster, “Public sector management and institutions”.
18. Surveys of firms, individuals, commercial risk-rating agencies, NGOs, think tanks and multilateral aid agencies.
19. Doing Business 2011 also uses a simple method to calculate which economies improve the most on the ease of doing business. First, it selects the economies that reformed in three or more of the nine topics included in this year’s ease of doing business ranking. Twenty-five economies met this criterion: Belarus, Brunei Darussalam, Burkina Faso, Cabo Verde, the Democratic Republic of Congo, Georgia, Grenada, Guyana, Hungary, Indonesia, the Islamic Republic of Iran, Kazakhstan, Lithuania, Mali, Montenegro, Peru, Rwanda, Saudi Arabia, Sierra Leone, Slovenia, Sweden, Tajikistan, Ukraine, Viet Nam and Zambia. Second, Doing Business ranks these economies on the increase in their ranking on the ease of doing business from the previous year using comparable rankings.

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# **Impact and effectiveness of foreign aid**





# Global aid flows to the least developed countries: What effectiveness of the aid target?

## Introduction

There seems to be a consensus that LDCs should be given priority in aid allocation. When the category was set up in 1971, it was to underline the need for special international support for LDCs, especially through aid. The special need for LDC aid was reiterated in July 2015 when the 4<sup>th</sup> UN Conference on Development Financing met in Addis Ababa. But official declarations do not necessarily translate into effective flows.

In this chapter we examine three related issues. First, looking at the resolutions and trends on ODA to LDCs, we assess the gap between aid targets and actual flows. Second, since, whatever the gap, there still may be preference given by donors to LDCs compared with other developing countries, we assess the effect of LDC membership on aid inflows. Third, whatever this effect, we assess the rationale for giving aid preference to LDCs, both in equity and effectiveness. The conclusion contains some ensuing policy implications and recommendations.

## Resolutions and trends: actual flows far below the targets

### *History of the international resolutions on ODA to LDCs*

*From 0.7 percent to 0.15 percent.* In 1968 the second UNCTAD Conference in New Delhi recommended that developed countries supply 0.7 percent of their GNI to ODA. Ten years after the LDC category's creation, in 1981, the First UN Conference on the Least Developed Countries adopted a higher target of

0.15 percent for aid to LDCs. At the time the two targets were adopted, DAC members' supply of ODA was clearly below the corresponding levels. Since then, as we will see, the targets have globally never been reached.

Since 1981, the 0.7 percent overall target has been recalled and re-endorsed in many circumstances, particularly in the last 15 years at the UN conferences on financing development (Monterrey 2002, Doha 2008, Addis Ababa 2015). This is also so of the 0.15 percent target, perhaps less frequently in global meetings and conferences, but specifically in LDC-focused ones, especially every 10 years at the UN Conferences on LDCs (Paris 1981, Brussels 1991 and 2001, Istanbul 2011). But this commitment to LDCs was not fully supported by the international community, part of which was reluctant to use the LDC category for aid. An illustration is given in 2011. The Declaration of the 4th High Level Meeting on Aid Effectiveness held at Busan (and renamed *Global Partnership for Effective Development Cooperation*), seven months after the 4th UN Conference on LDCs, does not mention the category, while making long references to "fragile states" (Guillaumont 2011a). With the preparation of the 2015 agenda, references to LDCs become more frequent, culminating in the Declaration of the 3rd UN Conference on Financing Development. Since adopting the higher target, the OECD DAC monitors its implementation by each donor and by DAC countries globally.<sup>1</sup>

*Besides the target.* The 0.15 percent target was also refined and supplemented in the framework of the OECD DAC. First, in 2001 it was agreed that countries already at the 0.15 percent target should aim to reach 0.2 percent of aid to LDCs (this applied to only four countries then: Denmark, Luxembourg, the Netherlands and Norway). Second, as soon as 2002, DAC members decided that ODA to LDCs should be untied (not tied to a procurement from the donor country). Third, some countries decided to supply their ODA to LDCs only as grants, excluding loans. Finally, and recently with the decision on a new definition of ODA (December 2014), it was agreed to apply a higher discount rate to calculate the grant element to LDCs, which was supposed to be an incentive to allocate more aid to LDCs (see box 3.1 on the definition of ODA).

In this chapter, we use the traditional and still present concept of ODA, though it has been increasingly debated, and will soon be changed (see box 3.1). As far as it is still retained for assessing aid effort, we use it to examine the trends and factors behind it. As usual, we refer to total ODA net disbursements, rather than to programmable ODA, less relevant for measuring aid efforts and allocation, and not as available as net disbursements (see box 3.2).

### *Global levels and trends of ODA to LDCs*

*Present levels.* How does the ODA received by LDCs compare with that received by other developing countries (ODCs)? It depends on the metrics. The total ODA amount received

## BOX 3.1

**ODA and TOSSD: new concepts matter for LDCs**

In December 2014, OECD DAC members agreed to modify rules for accounting for ODA loans, and to create incentives for providing more concessional loans to LDCs and other low-income countries (LICs). They adopted three changes to be implemented from 2017.

First, ODA loans will be accounted for according to the grant equivalent of their disbursements, or no longer in flows (positively when disbursed, negatively when reimbursed).

Second, the grant element thresholds used to define ODA eligibility of loans, as well as the discount rates used to calculate the concessionality of a loan, will be differentiated according to country categories. The grant element threshold of a loan defining its ODA eligibility will no longer be 25 percent for all recipient countries, but will be at least 45 percent for a loan to an LDC, 15 percent for a loan to a lower-middle income country (LMIC) and 10 percent for a loan to an upper-middle income country (UMIC). Thus, to be eligible for ODA, a loan to an LDC will have to be more concessional than before, and than a loan to a middle-income country (MIC). This is expected to incentivize donors to increase the concessionality of their loans to LDCs and lead to more concessional resources for LDCs. But, since the eligibility rule will be more restrictive for loans to LDCs than for MICs, it could also discourage donors to lend to LDCs.

To avoid this negative incentive and “award” donors which provide very concessional loans to LDCs, the discount rate

used to calculate the grant element, until now 10 percent for all countries, will be higher for LDCs and other LICs (9 percent) than for LMICs (7 percent) and UMICs (6 percent). A loan to an LDC or another LIC will thus score more ODA than a loan with the same conditions extended to a MIC. This is also seen as a way to better take into account the higher risk that a donor faces by lending to an LDC or a LIC than to another country. These new rules could finally create a positive incentive for donors to allocate more concessional resources to LDCs and other LICs.

In addition, the OECD decided to create a broader measure of development funding, which will be complementary to ODA. Through the provisional concept of “Total Official Support for Sustainable Development (TOSSD)”, the OECD aims to monitor all resource flows originating from official sources—concessional and non-concessional—which may contribute to sustainable development, particularly blended finance packages and innovative risk mitigation instruments. TOSSD should enable policymakers to get a clearer understanding of available financing and thus better steer development policies. For LDCs, it could be a useful tool to better track specific financing mechanisms able to tackle vulnerabilities but insufficiently taken into account in ODA. TOSSD could also be a way for policymakers to learn about some useful but less well known financing mechanisms. Some LDCs, however, see a risk that the TOSSD concept could blur the failed commitments by developed countries.

*Box written by Matthieu Boussichas, FERDI.*

BOX 3.2

**Total versus programmable ODA: their difference for LDCs**

Since 2007 the OECD has introduced a distinction between total ODA and the programmable kind (country programmable aid, CPA). The difference between the levels corresponding to the two concepts is not very high for LDCs (ratio CPA/ODA = 80 percent).

Total ODA is relevant to donors in ways including allocating ODA between countries. If we consider the ratio of ODA to GDP in recipient countries, the programmable ODA might also be relevant, but only gross disbursements are available, while most comparisons of the ratio to GDP are made with net disbursements.

TABLE 3.1  
**Global average of ODA to LDCs and ODCs: 2010–14**

|                            | ODA (% of GNI)        |                  | ODA per capita (2013 \$) |                  |
|----------------------------|-----------------------|------------------|--------------------------|------------------|
|                            | Median country values |                  |                          |                  |
| Least developed countries  | 9.7                   |                  | 66.8                     |                  |
| Other developing countries | 0.9                   |                  | 41.7                     |                  |
|                            | Simple average        | Weighted average | Simple average           | Weighted average |
| Least developed countries  | 12.8                  | 4.7              | 172.4                    | 44.5             |
| Other developing countries | 2.3                   | 0.2              | 85.2                     | 9.2              |

Note: Based on 41 LDCs and 63 other developing countries, excluding transition countries.  
Source: OECD, excluding countries with less than 50,000 inhabitants.

by LDCs between 2010 and 2014 is less than one third that received by ODCs (see table 3.2). But LDCs receive more ODA as a percentage of their GNI than other developing countries. Measured over 2010–14, the difference is significant: four times more using unweighted averages and 23.5 times more using weighted averages (and nine times with median values) (due to the higher GNI per capita of ODCs), as presented in table 3.1.

The higher unweighted average levels of ODA as a percentage of GNI result from two (negative) traditional factors of aid allocation: income per capita, on average lower in LDCs, and population size, also lower in LDCs.<sup>2</sup> This does not necessarily result from category membership or the special target of ODA to LDCs.

If the ODA amount is now measured per capita, the difference between the average levels of LDCs and ODCs is less significant, in particular with unweighted averages (about two times higher for LDCs) and even less with median values (1.6 times), as it appears in table 3.1. The global weighted average is significantly higher (four times) for LDCs (due to the large population size of some ODCs receiving rather low ODA per capita). But if, taking into account the percentage of population under the poverty line (headcount poverty

## BOX 3.3

**Aid per poor in LDCs and ODCs: a tentative comparison**

The extent that ODA goes to the poor is debated, particularly considering that most of the world's poor live in MICs, not in LICs, which of course is not enough reason to legitimize allocating a large part of ODA to MICs. It is interesting to compare the ratio of ODA with the number of poor in LDCs and in ODCs, keeping in mind that this ratio,  $A/P$ , is determined by three components:

$$A/P = (A/Y) \cdot (Y/N)/(P/N) = (A/N)/(P/N)$$

$A/Y$  being the ratio of ODA to the recipient country's GDP,  $Y/N$  its GDP per capita and  $P/N$  its headcount poverty ratio. To make the comparison global, we refer to weighted averages. As seen in table 3.1 above, the ratio  $A/Y$  is higher in LDCs. The ratio  $A/N$  is higher too, but to a lesser extent, since the ratio  $Y/N$  (GDP per capita) is even lower. Because in LDCs the ratio  $P/N$  is higher than in ODCs, it may result in less aid for the poor in LDCs, which is what seems to be the case.

A calculation has been made allowing us to compare 41 LDCs in 2010–14 for which the headcount poverty ratio ( $P/N$ ) is available with 63 ODCs. The results show that LDCs globally (weighted average) received \$133.30 per poor person, compared with \$92.70 per poor person in ODCs (a ratio of 1.44:1), while they received \$44.50 of ODA per capita compared with \$9.02 for ODCs (a ratio 4.84:1). Simple averages here are meaningless due to countries with a very low headcount poverty ratio pushing up the ratio of aid per poor person to extremely high levels. Even with median values considered (for the same period and sample) the median LDCs received less than 20 percent of the ODA received by each poor person living in the median of other developing countries (\$163.90 versus \$891.70 per capita), whereas the median value of aid per capita was 60 percent higher in LDCs than in other developing countries (\$66.80 versus \$41.80 per capita).

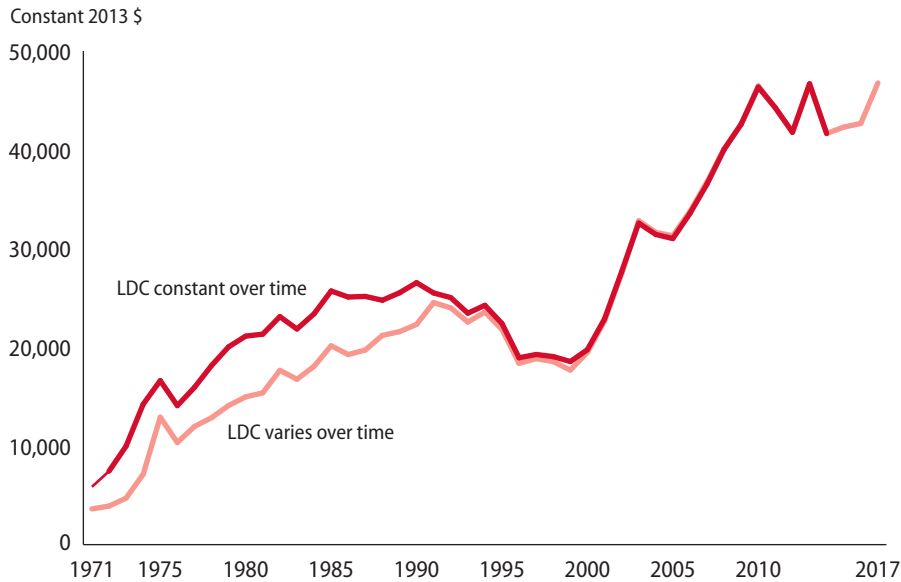
index), quite higher in LDCs, we consider the ratio of ODA to the number of the poor, even weighted, the difference between LDCs and ODCs narrows (see box 3.3).

In brief, according to non-exhaustive 2010–14 data, LDCs received more aid per capita than ODCs, but the gap is smaller when aid for poor people is considered. When the median values are considered for both subsamples, LDCs received less ODA per poor person but more ODA per capita than ODCs.

*Long-term trend of ODA to LDCs.* Figure 3.1 gives the evolution of ODA to LDCs according to two definitions of LDCs. One is the current set of LDCs over the years, a group of countries that were members of the category when aid amounts were reported. The other is a constant set of LDCs, countries that now are or were LDCs (the present LDCs plus Botswana, Cabo Verde and Maldives). In this second case the evolution of ODA to LDCs does not directly depend on the content of the LDC category.

The two curves clearly differ only until 1991, when the countries included in the list was significantly increasing (by five countries, Cambodia, Democratic Republic of Congo, Madagascar, Solomon Islands and Zambia). From 1971 to 1991, the increase is more regular for the list that broadens over time than for the constant list, which slows

FIGURE 3.1  
**Net ODA to LDCs, in constant 2016 \$, according to the content of the category**



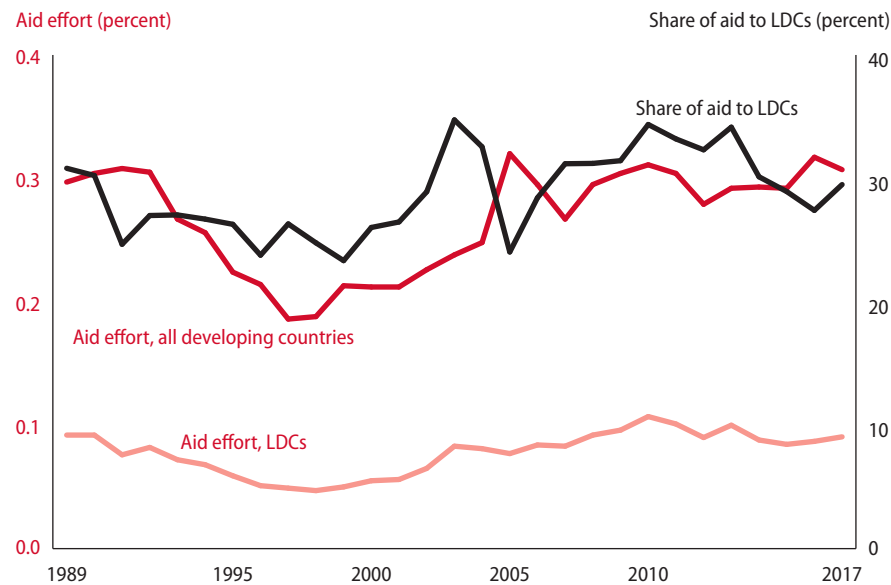
Note: LDC varies over time: the category of LDC corresponds to the list of countries included year by year. LDC constant over time: the category of LDC corresponds to the list of countries that were an LDC at least one year.  
Source: OECD.

down and stops in 1985. From 1992 to 2014, the two curves are nearly the same, with a decline from 1991 to 2000 followed by a sharp increase from 2000 to 2010, the period covered by the Brussels Plan of Action. Since then, during the first years covered by the Istanbul Plan of Action (IPoA), the trend of ODA to LDCs is no longer increasing. Except in 2013, all the last years show ODA to LDCs lower than in 2010, with a clear decrease in 2014 (the last date with available data).<sup>3</sup>

These trends, however, do not let us draw many lessons about the effect of the special LDC target.

*Actual flows compared with international targets: levels and trends of “aid effort”.* Figure 3.2 shows that aid to both LDCs and all developing countries falls short of the international commitments of 0.15 percent and 0.7 percent of GNI. The average aid to LDCs constantly decreased from 0.08 percent at the beginning of the 1990s to less than 0.05 percent in 2000. Since then, this trend has reversed so that LDC aid climbed back to 0.10 percent of donor countries’ GNI in 2010. During the last few years, except in 2013—and despite the reiterated commitment of the IpoA—this has declined to about 0.9 percent.

FIGURE 3.2  
**Average aid effort of DAC countries (%), 1989–2014**



Note: Aid effort (net disbursements) is ODA as a percentage of GNI.  
Source: OECD.

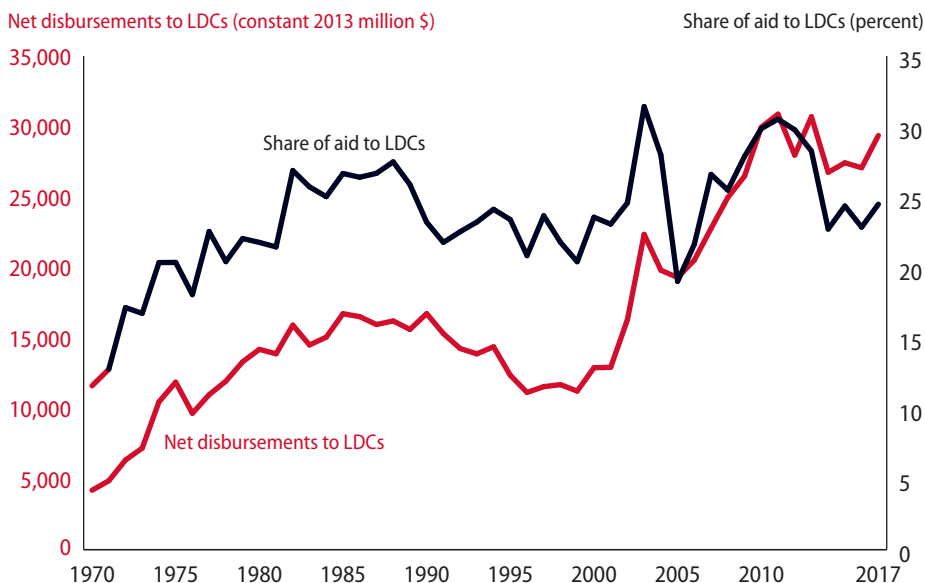
Figure 3.2 suggests two additional trends. The trend of ODA to LDCs broadly tracks that of total ODA, reflecting similar factors (end of the Cold War and the beginning of budget difficulties in donor countries). But the movement of ODA to LDCs is relatively stronger than that of total aid; the relative share of ODA to LDCs out of total ODA appears to move in the same direction as donors’ GNI.<sup>4</sup> This parallelism is even clearer when considering only bilateral aid (see figure 3.3). The 2014 (and 2015) shortfall of the share of ODA going to LDCs, at about 30 percent, shows how LDCs would benefit by receiving half of ODA.

Figure 3.3 shows that, since the 1970s, donor countries’ main foreign policy objectives have influenced the trend in bilateral aid to LDCs. Net bilateral disbursements to LDCs largely increased during the 1970s and 1980s partly due to the Cold War. They decreased in the 1990s due to the combination of the end of the Cold War and fiscal constraints in developed economies. The share of aid to LDCs (figure 3.3) slightly decreased since 1990, from about 27 percent to 20 percent, partly due to aid given to countries of the former Soviet Union. The share of aid to LDCs slowed during the economic slowdown of the beginning of the 1990s, perhaps because donor countries considered it less economically and politically important. Following the MDGs’ adoption in 2000 and the new geostrategic challenges raised by terrorism, bilateral aid to LDCs doubled from 2000 to 2014.



FIGURE 3.3

### Bilateral ODA to LDCs, net disbursements 1970–2014 (2013 \$), and relative LDC share



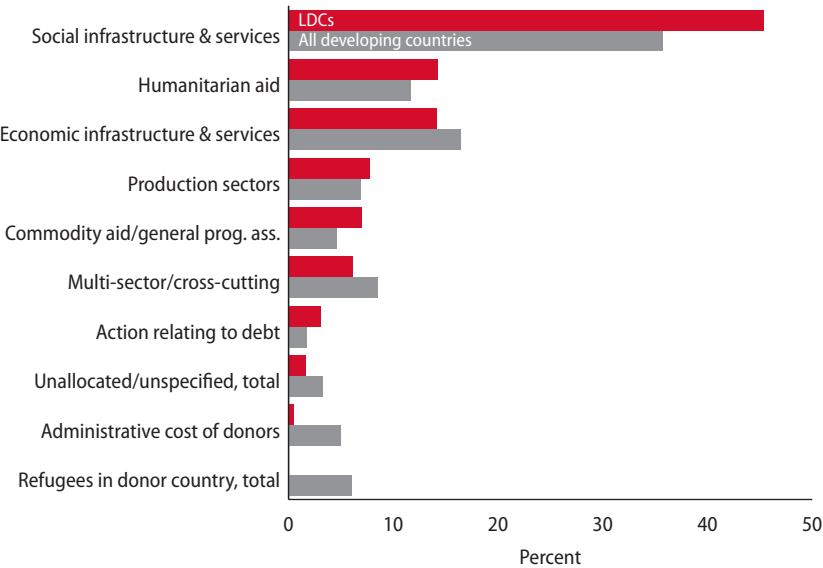
Note: Share of aid is measured as a percent of total net bilateral ODA to developing countries.  
Source: OECD.

Overall, figure 3.3 shows that the share of aid to LDCs follows the evolution of total bilateral aid: when aid increases, the share of aid to LDCs increases; when aid decreases, the share of aid to LDCs decreases. This suggests that aid to LDCs is adjusting in an amplified manner to the evolution of total disbursements, or that the elasticity of bilateral aid to LDCs with regard to total aid is greater than one.<sup>5</sup>

*Has ODA to LDCs been targeting the same sectors?* One could expect that the sector allocation of ODA to LDCs would reflect their specific needs, corresponding to their structural handicaps. But it is difficult to assess the average consistency of the sectoral allocation of ODA to LDCs. Even so, figure 3.4 illustrates the main differences in the distribution of aid by sector between LDCs and other developing economies in 2000–14. It includes social infrastructures investment (about 44 percent of aid to LDCs and 38 percent of aid to all developing economies), humanitarian aid (12 percent of aid to LDCs and 8 percent of aid to other developing countries), commodity aid and general program assistance, which are almost twice as important in LDCs than in other developing countries.<sup>6</sup> Even if humanitarian aid to LDCs is a non-negligible share of total aid to those countries, only 0.1 percent of aid to LDCs goes to the prevention of disaster and preparedness for shocks. Finally, actions relating to debt have been much more important in LDCs than in non-LDCs (9 percent and 4 percent of total aid respectively).

FIGURE 3.4

**Average bilateral disbursements by sector to LDCs and all recipients (as a share of total aid, %), 2010–14**



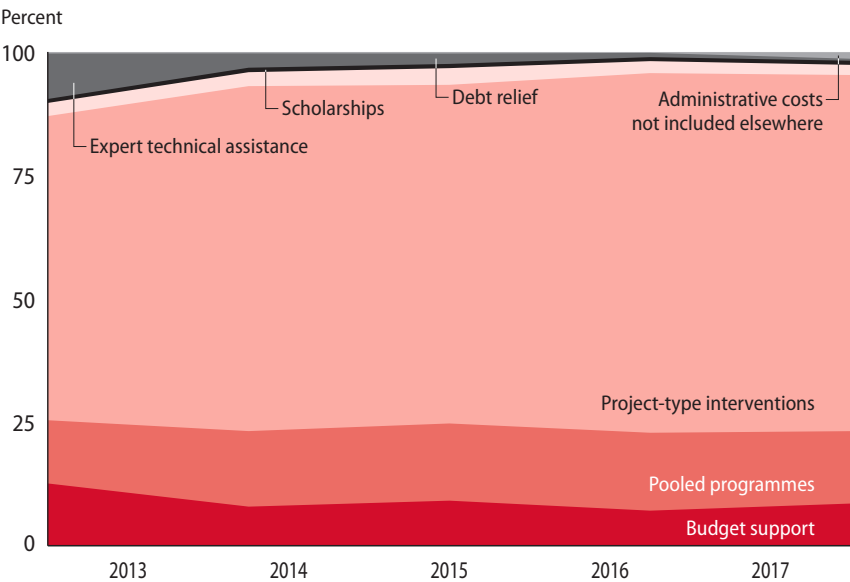
Source: OECD-Creditor Reporting System.

Panels A and B of figure 3.5 depict aid allocation to investment projects, program aid and technical cooperation for both LDCs and all developing countries. Strikingly, technical cooperation, composed of expert technical assistance and scholarships, is about 3 percent of total aid to LDCs, and 6 percent to all developing countries. Those countries which need more capacity building are also those which receive relatively less technical assistance. Relatively more budget and program aid is devoted to LDCs (about 20 percent), while other developing countries receive about 16 percent of their aid as budget support or sector program aid. But the share going to budget support in LDCs appears to have declined in 2014. Over 2009–14 LDCs have also received a larger share of bilateral aid as debt relief. Indeed, once debt relief has occurred, its share naturally decreases (at least as long as there is no excess re-indebtedness and new need of relief).

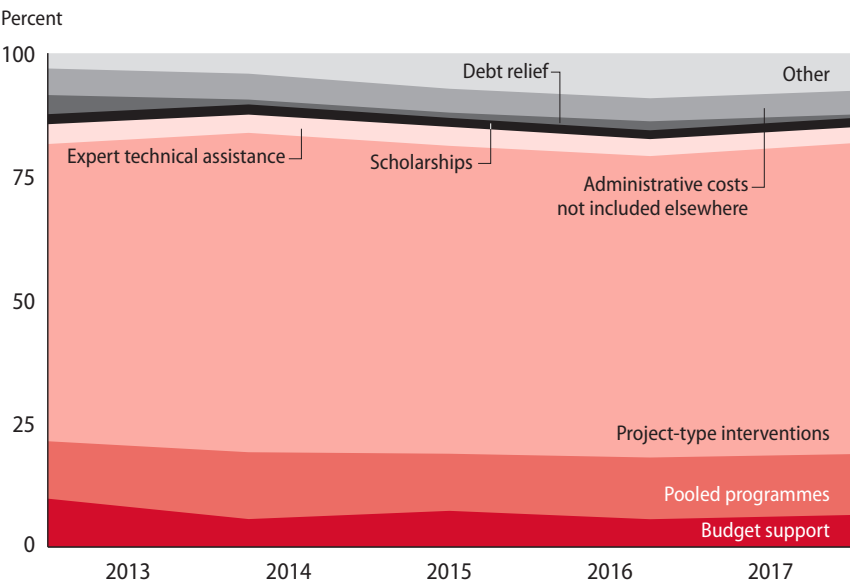
Aid for trade (AfT) is another part of aid flows particularly relevant for LDCs, which often face high handicaps to diversified trade, making them vulnerable. The origin and extent of AfT are examined in chapter 6. An AfT initiative was launched in 2005 to ease the acceptance of trade multilateralism by developing countries. It was progressively agreed that AfT covers trade policy and regulations and trade-related adjustment, economic infrastructure (transport and storage, communications, energy generation and supply) and building productive capacity (banking and financial services, business and other services, agriculture, forestry, fishing, mineral resources and

FIGURE 3.5  
**Bilateral disbursements, type of intervention, 2013 \$, 2009–14**

**A. Least developed countries**



**B. All developing countries**



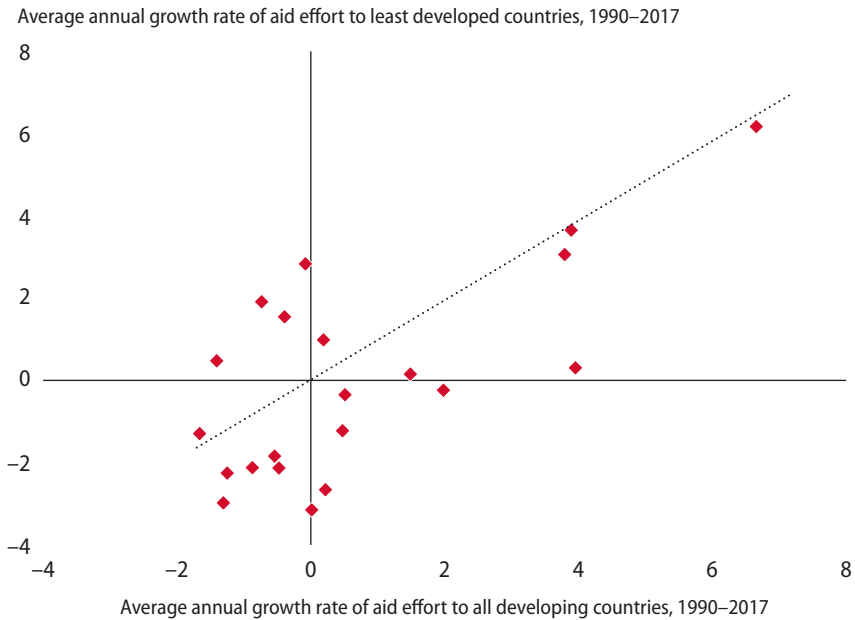
Source: OECD.

mining, tourism) (OECD definition), so AfT crosses the previous aid sectoral allocations. As explained in chapters 5 and 6, the share of AfT in the total ODA received by LDCs was 24 percent in 2014, while the share of AfT to LDCs in the total AfT is less than one third (28.5 percent in 2014, compared with 31 percent in 2007). This share may appear rather low if we consider that ODCs have easier access to sources other than ODA for financing what AfT is supposed to finance.

*Heterogeneity of donor country behaviour for ODA to LDCs.* This heterogeneity can be illustrated by two graphs, related to levels and trends. For each DAC country (as a percent of its GNI), figure 3.6 gives the average aid to LDCs for 2009–14 as a function of the average aid to all developing countries. It shows that on average during 2009–14, donor countries which achieved the 0.7 percent UN target and also achieved the 0.15 percent ODA to LDCs target were Denmark, Luxembourg, the Netherlands, Norway, which also reached the 0.2 percent target, and Sweden.<sup>7</sup> Belgium, Finland, Ireland and the UK also achieved the 0.15 percent target of aid to LDCs but not the 0.7 percent target (the UK was the closest, and reached it by 2013).

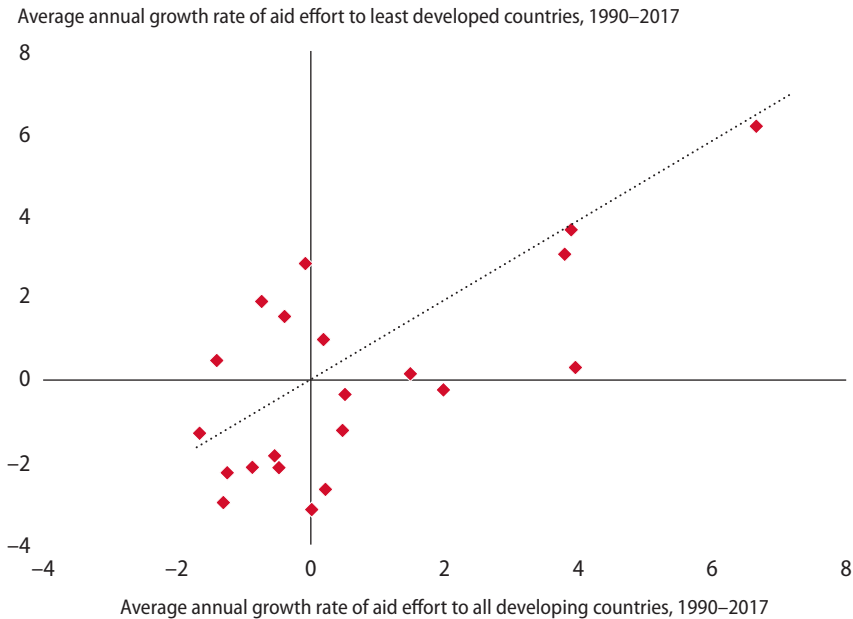
Figure 3.7 represents, again for each DAC donor country, the average growth rate of ODA to LDCs over 1990–2014 as a function of the average growth rate of the total ODA. It shows that the rate of aid growth to LDCs and ODCs are very similar for most donors. The highest rates of growth are observed for Luxembourg, Ireland, and

FIGURE 3.6  
**Relative effort of donors to LDCs, 2009–14, percent**



Source: OECD.

FIGURE 3.7  
**Average annual growth rate of ODA to LDCs and other developing countries**



Source: OECD.

the United Kingdom and, just for ODA to LDCs, New Zealand.<sup>8</sup> The lowest growth rates of ODA to LDCs are those of Italy and Portugal.

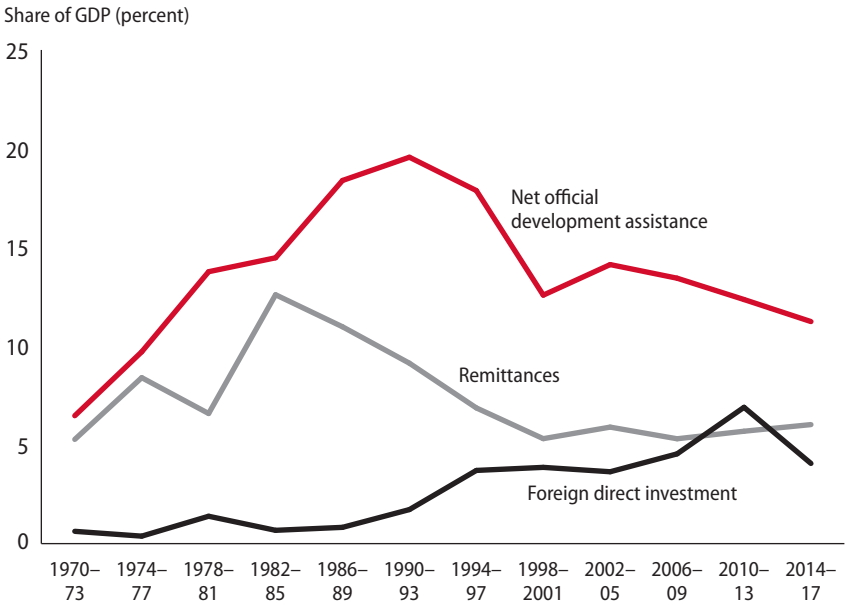
*ODA compared with other flows, in LDCs and elsewhere.* Table 3.1 gave the (unweighted) average level of the ratio of ODA received by each LDC to its GDP over 2010–14. Here Panels A and B in figure 3.9 first give the evolution over time (1970–2014) of this ratio for the LDCs and the ODCs. On average (unweighted), LDCs have received relatively more aid as a percent of their GDP (between 10 and 20 percent) than ODCs (between 3 and 7 percent). In both cases the trend of the ratio increases from 1970 to 1990, decreasing afterwards, more continuously for ODCs than for LDCs, and broadening the gap between the LDC and ODC ratios.<sup>9</sup>

Contrasting with ODA trends, figure 3.8 shows FDI and remittances average ratios to GDP (still unweighted) reaching similar levels in LDCs and ODCs in recent years, after a rising trend of both from the mid-1990s. In 2010–14 FDI represented respectively 6 percent and 4.5 percent of the GDP of ODCs and LDCs, and remittances 6 percent and 7 percent. These averages however hide a high heterogeneity (for FDI mainly due to the investments in fuel and other mineral activities). Figure 3.9 shows the distribution of these financial flows in the two groups of countries (see also in appendix A3.1 the ratio for each LDC).

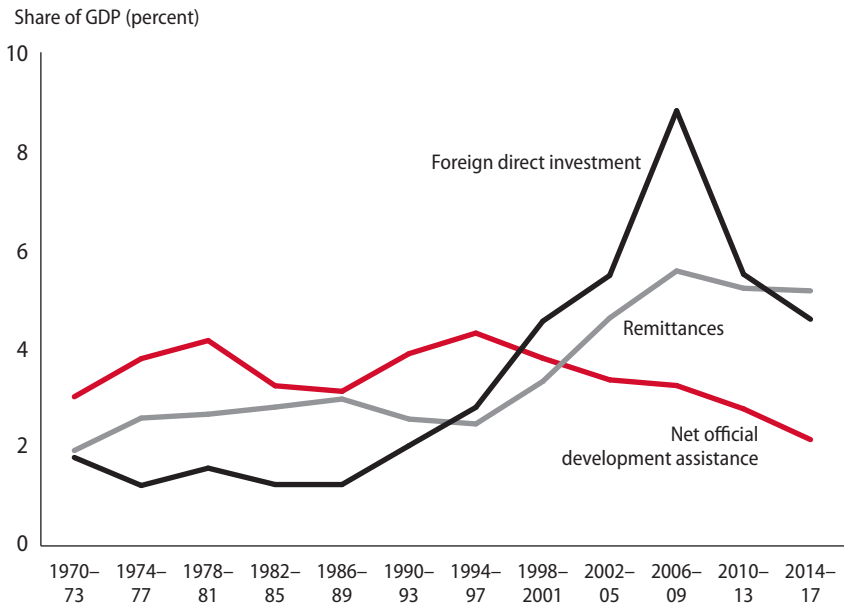
FIGURE 3.8

**Financial flows to LDCs and ODCs, five-year averages, 1970–74 to 2010–14**

**A. Least developed countries**



**B. Other developing countries**

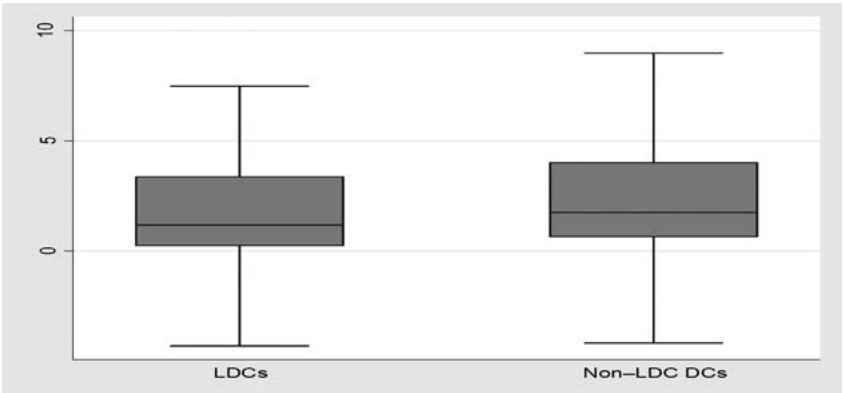


Note: The definition of LDCs does not vary over time. Flows are measured as a percentage of GDP. LDCs include all countries that are or have been LDCs.

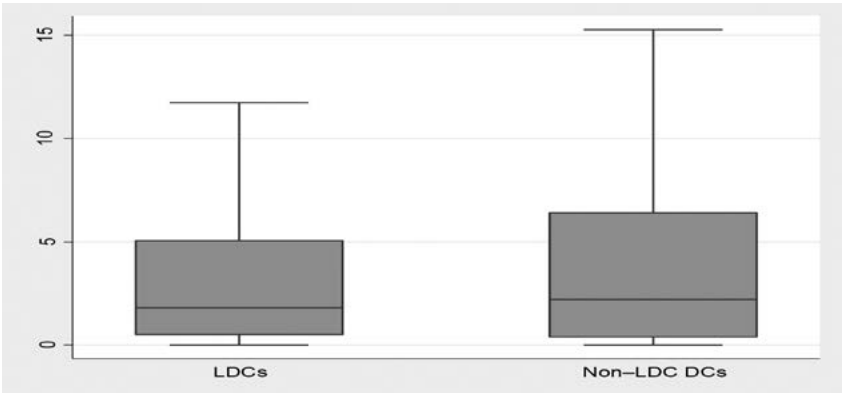
Source: World Development Indicators 2016.

FIGURE 3.9  
**Distribution of financial flows to LDCs and ODCs, five-year averages, 1970–74 to 2010–14 (% GDP)**

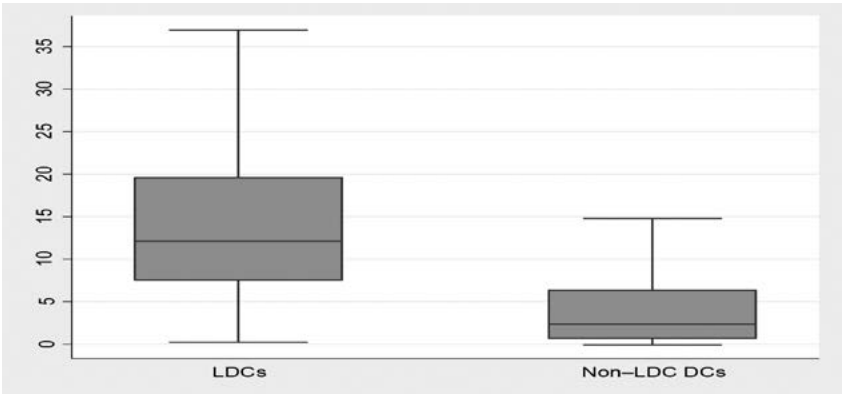
A. FDI per GDP



B. Migrants remittances per GDP



C. ODA per GDP



Source: World Development Indicators 2016 and OECD.

Let us now leave the country by country approach summarized in unweighted averages to look at the global amounts of each kind of flow to LDCs and ODCs. The total aid, FDI, and remittances received by all developing countries and LDCs over 2010–14 are presented in table 3.2. FDI and remittances are four and two times larger respectively than aid for all developing countries, while representing only one half and two thirds the total aid received by LDCs. This suggests striking differences in the distribution of the flows within each category of countries. The countries with larger GDPs tend to receive more FDI and to a lesser extent remittances than the poorest countries which still rely highly on aid. Table 3.3 also shows that other official flows (OOF) seem quite significant for developing countries, though well below aid amounts (only 5 percent of ODA), and are very low for LDCs (1 percent of ODA).

Assessing the effect of belonging to the LDC category on aid inflows

Many factors are traditionally considered to influence the geographical allocation of development assistance. The question we ask in this section is whether, besides all these factors, there is a specific effect of the LDC category membership. To assess a possible LDC category effect, we use two methods. The first compares the evolution of aid received by countries newly included and by other developing countries. The second takes into account the various factors likely to influence aid allocation besides LDC membership through an econometric model.

What comparisons show when a country is included...or graduated

*A double difference approach.* The method here is to compare the change in aid to a country newly included on (or graduated from) the LDC list with the simultaneous change in a group of comparable countries. For newly included countries the most relevant comparable group is that of other developing countries. For graduated LDCs (actually only four until now) the most relevant comparable group is that of LDCs staying on the list. In both cases however the group used for the other comparison gives additional information. The aid is measured as a ratio to GDP. As for inclusion, the comparison of the two groups is on the difference between a five-year period before inclusion and the

TABLE 3.2

Average FDI, aid and remittances (2010–14) for LDCs and ODCs, in billion \$

|                     | Net ODA | FDI   | Remittances | Net OOF | ODA/ FDI | ODA/ remittance | ODA/ OOF |
|---------------------|---------|-------|-------------|---------|----------|-----------------|----------|
| LDCs                | 44.8    | 21.7  | 29.9        | 0.45    | 2.06     | 1.49            | 100.2    |
| All developing      | 143.5   | 615.0 | 333.2       | 28.7    | 0.23     | 0.43            | 4.99     |
| LDCs/all developing | 0.31    | 0.04  | 0.09        | 0.02    | 8.96     | 3.47            | 20.08    |

Source: All variables are from World Development Indicators (2011), except for other official flows (OOF) and official development assistance (ODA), from the OECD-DAC. Billion current US\$.



five-year period beginning the year of inclusion. As for graduation, due to the too recent date for Maldives, the period following the event is limited to three years.

*Results: a small effect.* Results are given in table 3.3 below. It shows that on average for the years covered by the measurement<sup>10</sup> LDCs have received an additional 1.38 percentage point of GNI compared with other developing countries. Two countries can be considered extreme cases because they had a civil war or became post-conflict around the time they entered the LDC category (Mozambique and Timor-Leste). The coincidence of the end of civil war with the inclusion into the category blurs the results if we are interested in the change in aid due to inclusion. Since the end of the civil war is followed by large aid inflows, the timing of inclusion to the LDC category leads to very different results in change in aid at the time of inclusion. If inclusion occurs before the end of the war (as with Mozambique), then aid inflows are more likely to be large since they include post-conflict aid. If inclusion occurs after the end of the war (as with Timor-Leste), then at the time of inclusion the country sees its post-conflict aid decrease and the change may even be negative.

TABLE 3.3  
**Effect of the inclusion into the LDC category on the aid received (compared with an ODC control group)**

| Country                  | Year of inclusion | New LDC variation (1) | ODC variation (2) | Already LDC variation (3) | (1)–(2) | (1)–(3) |
|--------------------------|-------------------|-----------------------|-------------------|---------------------------|---------|---------|
| Afghanistan              | 1971              | 0.52                  | 0.22              |                           | 0.30    |         |
| Benin                    | 1971              | 2.02                  | 0.22              |                           | 1.80    |         |
| Botswana                 | 1971              | –8.49                 | 0.22              |                           | –8.70   |         |
| Burkina Faso             | 1971              | 3.93                  | 0.22              |                           | 3.72    |         |
| Burundi                  | 1971              | 3.21                  | 0.22              |                           | 2.99    |         |
| Lesotho                  | 1971              | –4.29                 | 0.22              |                           | –4.50   |         |
| Malawi                   | 1971              | –5.15                 | 0.22              |                           | –5.36   |         |
| Mali                     | 1971              | 6.33                  | 0.22              |                           | 6.12    |         |
| Nepal                    | 1971              | 1.17                  | 0.22              |                           | 0.95    |         |
| Niger                    | 1971              | 4.83                  | 0.22              |                           | 4.62    |         |
| Rwanda                   | 1971              | 4.32                  | 0.22              |                           | 4.11    |         |
| Somalia                  | 1971              | 3.93                  | 0.22              |                           | 3.72    |         |
| Sudan                    | 1971              | 1.75                  | 0.22              |                           | 1.53    |         |
| Uganda                   | 1971              | –0.56                 | 0.22              |                           | –0.78   |         |
| Bangladesh               | 1975              | 1.95                  | 1.12              | 2.25                      | 0.83    | –0.29   |
| Central African Republic | 1975              | 0.56                  | 1.12              | 2.25                      | –0.56   | –1.69   |
| Gambia                   | 1975              | 6.32                  | 1.12              | 2.25                      | 5.19    | 4.07    |

TABLE 3.3 (continued)

**Effect of the inclusion into the LDC category on the aid received (compared with an ODC control group)**

| Country  | Year of inclusion  | New LDC variation (1)       | ODC variation (2) | Already LDC variation (3) | (1)–(2) | (1)–(3) |
|--|--------------------|-----------------------------|-------------------|---------------------------|---------|---------|
| Comoros  | 1977               | -13.81                      | 1.02              | 3.01                      | -14.83  | -16.82  |
| Guinea-Bissau  | 1981               | -1.47                       | -0.75             | 2.88                      | -0.72   | -4.34   |
| Equatorial Guinea  | 1982               | 21.53                       | -1.10             | 2.62                      | 22.63   | 18.91   |
| Sierra Leone   | 1982               | 3.91                        | -1.10             | 2.62                      | 5.01    | 1.29    |
| Togo   | 1982               | 4.88                        | -1.10             | 2.62                      | 5.98    | 2.26    |
| Vanuatu  | 1985               | -4.82                       | -0.94             | 3.80                      | -3.89   | -8.62   |
| Kiribati   | 1986               | 5.48                        | -0.11             | 4.41                      | 5.59    | 1.07    |
| Mauritania   | 1986               | -4.96                       | -0.11             | 4.41                      | -4.85   | -9.37   |
| Mozambique   | 1988               | 38.12                       | 0.65              | 1.56                      | 37.48   | 36.57   |
| Cambodia   | 1991               | 8.39                        | 1.32              | 0.28                      | 7.07    | 8.12    |
| Dem. Rep. of Congo   | 1991               | -4.21                       | 1.32              | 0.28                      | -5.53   | -4.48   |
| Madagascar   | 1991               | -0.58                       | 1.32              | 0.28                      | -1.90   | -0.85   |
| Solomon Islands  | 1991               | -8.25                       | 1.32              | 0.28                      | -9.58   | -8.53   |
| Zambia   | 1991               | 16.85                       | 1.32              | 0.28                      | 15.52   | 16.57   |
| Angola   | 1994               | 5.43                        | 0.97              | -3.24                     | 4.46    | 8.66    |
| Eritrea  | 1994               | 9.25                        | 0.97              | -3.24                     | 8.27    | 12.48   |
| Senegal  | 2000               | -1.65                       | -0.86             | 0.24                      | -0.78   | -1.88   |
| Timor-Leste  | 2003               | -40.51                      | -1.49             | 2.34                      | -39.03  | -42.85  |
| Average  |                    | 1.63                        | 0.26              | 1.53                      | 1.38    | 0.49    |
| Average without Mozambique and Timor Leste                     |                    | 1.80                        | 0.30              | 1.49                      | 1.50    | 0.87    |
| Average 1971–87  |                    | 1.38                        | 0.09              | 3.01                      | 1.29    | -1.23   |
| Average 1991–2000  |                    | 3.15                        | 0.96              | -0.61                     | 2.19    | 3.76    |
| Country  | Year of graduation | Graduated LDC variation (1) | ODC variation (2) | LDC variation (3)         | (1)–(2) | (1)–(3) |
| Impact of graduation (aid three years after/five years before) |                    |                             |                   |                           |         |         |
| Botswana   | 1995               | -1.101                      | -0.304            | -5.675                    | -0.797  | 4.574   |
| Cabo Verde   | 2008               | -0.367                      | -0.247            | -0.824                    | -0.120  | 0.456   |
| Maldives   | 2011               | -1.302                      | -0.204            | -2.952                    | -1.097  | 1.650   |

Note: (1): [(Aid/Y) t. t+4 LDC] – [(Aid/Y) t–5. t–1 LDC]. t is the year of inclusion on the LDC list. (2): [(Aid/Y) t. t+4 ODC] – [(Aid/Y) t–5. t–1 ODC]. Data for Eritrea before inclusion cover only 1993. Missing data for Bhutan, Chad, Ethiopia, Guinea, Haiti, Lao PDR, Maldives, Samoa, Tanzania, Yemen (1971), Cabo Verde (1977), Djibouti, São Tomé and Príncipe (1982), Tuvalu (1986), Myanmar (1987), Liberia (1990).

Source: WDI (2016) (aid as a percentage of GNI).

Comparing the Cold War period (1971–87) with the post-Cold War period (1991–2000, and excluding Mozambique and Timor-Leste), we see that the increase of the aid to GDP ratio associated with inclusion in the category grew over time. Before 1990, LDCs received an additional 1.29 percentage point of GNI compared with other developing countries; after 1990, they received an additional 2.19 percentage point. Moreover, they received an additional 3.76 percentage point of GNI than the previously included LDCs, suggesting an increased effort by donors for newcomers.

Symmetrically, graduation (exiting the LDC category) has been followed by a significant decrease in the ratio of aid to GDP of the graduated country. This is illustrated by Botswana; after it graduated in 1994 (effective beginning of 1995), donors decreased their aid to the country as a percent of its GDP. But compared with other LDCs (instead of ODCs), the change in the aid ratio of Botswana was 4.57 percentage points of GNI higher than the average change of the same ratio for the aid received by other LDCs. This is because aid to LDCs decreased largely at the end of the 1990s (see above figure 3.2). To a lesser extent, and for a more recent period, the same is true for Cabo Verde (+0.46) and Maldives, which saw their aid to GDP ratio declining with respect to ODCs (respectively by  $-0.12$  and  $-1.097$ ), but not to other LDCs (respectively by  $+0.46$  and  $+1.65$ ).

These results, referring to ratios to GDP, may also be influenced by the country's GDP-specific changes due to factors linked to inclusion or graduation. More generally they do not consider the evolution of confounding factors to inclusion and graduation, which requires further study.

### *Lessons from an aid allocation model: respective effects of LDC membership and structural features*

*Back to country specific cases.* As shown in appendix A3.1, ranking LDCs according to the aid they receive varies greatly when divided by the GNI or the population. When aid per capita is considered, the smallest countries tend to receive more aid; when aid as percentage of GNI is considered, the picture is different (see table 3.4 and appendix A3.1). Overall, the ranks of aid as a percentage of GNI and aid per capita have a moderate correlation of 0.69. Moreover, the difference between the rank of aid to GNI and aid per capita among 49 LDCs can be high, notably for the poorest countries (such as Burundi with +26 or Malawi +19) and smallest ones (such as Maldives with  $-31$ , or Bhutan  $-16$ ). Table 3.4 illustrates the size of the differences in the relative aid received by LDCs in extreme cases. These extreme differences might suggest the often used terminology of aid orphans and darlings, but also challenges this terminology since orphans and darlings are not the same when referring to GNI and population. Above all the terminology would refer to an optimal aid allocation on which there is no agreement. Besides GNI per capita and population size, the structural handicaps retained for identifying LDCs, as measured by the

TABLE 3.4

**LDCs which receive a lot and a little aid, 2010–14.**

| Country                                  | Aid/GNI | Aid per capita | GDP per capita | Population | EVI  | HAI  |
|--|---------|----------------|----------------|------------|------|------|
| LDCs which receive little aid (% of GNI) |         |                |                |            |      |      |
| Equatorial Guinea                        | 0.5     | 35.5           | 13,257.1       | 774        | 46.7 | 62.6 |
| Bangladesh                               | 1.3     | 13.0           | 680.7          | 160,000    | 25.4 | 63.6 |
| Sudan                                    | 2.1     | 40.6           | 914.7          | 38,000     | 51.5 | 58.4 |
| Yemen                                    | 2.3     | 32.5           | 739.0          | 25,000     | 39.1 | 59.4 |
| Chad                                     | 4.0     | 36.2           | 724.1          | 13,000     | 49.9 | 22.5 |
| LDCs which receive much aid (% of GNI)   |         |                |                |            |      |      |
| Haiti                                    | 24.7    | 164.5          | 472.6          | 10,000     | 34.5 | 32.3 |
| Afghanistan                              | 33.4    | 204.0          | 396.3          | 30,000     | 35.6 | 43.4 |
| Solomon Islands                          | 44.6    | 540.5          | 1,086.5        | 549        | 50.3 | 74.7 |
| Tuvalu                                   | 46.0    | 2,731.3        | 2,605.2        | 10         | 58.1 | 88.3 |
| Liberia                                  | 63.1    | 196.5          | 215.5          | 4,200      | 58.1 | 43.3 |

Note: HAI increases when human development decreases. EVI increases when vulnerability increases.

Source: OECD for Aid/GNI and Aid per capita, WDI for GDP per capita and Population Ferdi for EVI and HAI.

EVI and HAI indices, differ both between the two groups of extreme countries and within each of them, underlining the need for a model to assess the impact of LDC membership on aid allocation.<sup>11</sup>

*Rationale of the model.* To assess the impact of belonging to the LDC category on the aid received by countries, we estimate aid allocation regressions of the following forms:

$$\text{Ln}AIDPC_{i,t} = \alpha + \beta STRUCTURAL_{i,t} + \delta LDC_{i,t} \times \tau_t + \tau_t + \varepsilon_{i,t} \tag{1}$$

and

$$\text{Ln}AIDPC_{i,t} = \alpha + \beta STRUCTURAL_{i,t} + \delta LDC_{i,t} \times \tau_t + \tau_t + \theta CRITERIA_{i,t} + \varepsilon_{i,t} \tag{2}$$

In equation (1), the aid per capita ( $\text{Ln}AIDPC_{i,t}$ ) expressed in logarithm, is explained by the structural factors of aid allocation traditionally considered—the logarithm of income per capita ( $\text{Ln}INCOMEPC_{i,t}$ ) and its squared value and the logarithm of population ( $\text{Ln}POPULATION_{i,t}$ ). To account for the potential evolution through the time of the inclusion in the LDC category, we also include in the model a dummy variable,  $LDC_{i,t}$  (which varies across countries and, a little, across time), in interaction with period dummies,  $\tau_t$ . This model allows one to capture the impact of the category membership through time, controlling for the traditional aid allocation factors.

The second version of the aid allocation model includes variables capturing the specific criteria now used to determine a country's eligibility to be included in the LDC category. These criteria are the economic vulnerability index ( $EVI_{i,t}$ ) and the human assets indicator ( $HAI_{i,t}$ ). Even if the criteria have changed little over time, the present ones well fit the structural characteristics of the LDCs, whatever the period considered. The issue is to separate the impact of the countries' structural features used to identify LDCs, likely to also have an impact on ODCs, as well as a differentiated impact on LDCs, and the "pure" impact of category membership.

All estimations include period dummies,  $\tau_t$ . Estimations are performed on annual data as well as on five-year averages, from 1990 to 2014. The sample includes 135 developing countries, of which 47 are LDCs.<sup>12</sup>

*Results: a convergence of aid to LDCs towards aid to other developing countries.* Table 3.5 shows the results. On annual data, in columns (1) and (2), corresponding respectively to models 1 and 2, we first note a non-linear relationship between  $\text{LnINCOMEPC}_{i,t}$  and  $\text{LnAIDPC}_{i,t}$ . This non-linearity is consistent with the evidence of a low-income bias in the literature, corresponding to the fact that below a very low income per capita threshold aid increases with income due to the limits in the absorptive capacity of the poorest countries, among which the LDCs are over-represented. But given the quite low threshold (\$100) here found in the regression, this increasing relationship only concerns two countries in the sample, both LDCs, Burundi and Liberia, and in transitory manner. In the same columns (1) and (2), we also find a negative correlation between  $\text{LnPOPULATION}_{i,t}$  and  $\text{LnAIDPC}_{i,t}$  suggesting a small country bias in aid allocation.

What is then the effect of the category membership? The effect of being an LDC is significantly negative in 1990–94 and 1995–99. The coefficient of  $LDC_{i,t}$  in column (1) suggests that the LDCs received between 30 and 40 percent less aid per capita compared with other developing countries during the 1990s. From 2000 on there no longer seems to be any adverse effect of belonging to the category since the interaction terms of LDC with period dummies are not significant. But the joint significance test for  $LDC_{i,t} \times \tau_t$  suggests that the null hypothesis that the interaction variables are equal to zero can be rejected at 5 percent. Controlling for income per capita, aid allocation to LDCs thus tends to progressively catch up to aid received by other developing countries, since the negative coefficients for  $LDC_{i,t} \times \tau_t$  become smaller through time. This effect of the LDC dummies is almost unaffected when we control in column (2) for  $EVI_{i,t}$  and  $HAI_{i,t}$ , the two criteria for LDC inclusion (model 2).

In columns (3) and (4), we replicate our results on five-year averages. The results are very similar in both significance and magnitude to those on annual data.<sup>13</sup>

*Further interpretation of the results.* Two additional tests and remarks should be discussed. First, as far as the LDC interaction terms are significant and the variables

TABLE 3.5

**The effect of LDC membership on aid allocation, 1990–2014, OLS estimates (annual and five-year averages)**

| LnAIDPC <sub>i,t</sub>                                | (1)                   | (2)                   | (3)                   | (4)                   |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
|   | Annual data           |                       | Five-year averages    |                       |
| LnINCOMEPC <sub>i,t</sub>                             | 0.985<br>(1.57)       | 1.193*<br>(1.90)      | 1.017*<br>(1.81)      | 1.268**<br>(2.23)     |
| LnINCOMEPC <sub>i,t</sub> , squared                   | −0.106**<br>(−2.43)   | −0.118***<br>(−2.70)  | −0.110***<br>(−2.86)  | −0.124***<br>(−3.22)  |
| LnPOPULATION <sub>i,t</sub>                           | −0.609***<br>(−20.69) | −0.634***<br>(−16.05) | −0.622***<br>(−20.12) | −0.655***<br>(−16.01) |
| EVI <sub>i,t</sub>                                    |                       | −0.00488<br>(−0.74)   |                       | −0.00634<br>(−0.89)   |
| HAI <sub>i,t</sub>                                    |                       | −0.00461<br>(−1.26)   |                       | −0.00576<br>(−1.53)   |
| LDC <sub>i,t</sub> × 1990–94                          | −0.340**<br>(−2.09)   | −0.399**<br>(−2.32)   | −0.369**<br>(−2.22)   | −0.442**<br>(−2.51)   |
| LDC <sub>i,t</sub> × 1995–99                          | −0.432***<br>(−2.72)  | −0.480***<br>(−2.74)  | −0.463***<br>(−2.78)  | −0.525***<br>(−2.89)  |
| LDC <sub>i,t</sub> × 2000–04                          | −0.194<br>(−1.24)     | −0.238<br>(−1.37)     | −0.220<br>(−1.36)     | −0.274<br>(−1.51)     |
| LDC <sub>i,t</sub> × 2005–09                          | −0.168<br>(−1.10)     | −0.200<br>(−1.21)     | −0.163<br>(−1.04)     | −0.206<br>(−1.17)     |
| LDC <sub>i,t</sub> × 2009–14                          | −0.0682<br>(−0.46)    | −0.100<br>(−0.66)     | −0.0264<br>(−0.18)    | −0.0660<br>(−0.43)    |
| Dummy 1990–94   | −0.0555<br>(−0.43)    | −0.117<br>(−0.87)     | 0.0127<br>(0.09)      | −0.0657<br>(−0.47)    |
| Dummy 1995–99   | −0.249**<br>(−2.25)   | −0.298***<br>(−2.61)  | −0.182<br>(−1.40)     | −0.247*<br>(−1.85)    |
| Dummy 2000–04   | −0.347***<br>(−3.88)  | −0.378***<br>(−4.16)  | −0.270**<br>(−2.58)   | −0.313***<br>(−2.96)  |
| Dummy 2005–09   | −0.0734<br>(−0.97)    | −0.0916<br>(−1.22)    | −0.0184<br>(−0.19)    | −0.0449<br>(−0.47)    |
| Constant  | 12.07***<br>(5.18)    | 12.10***<br>(4.99)    | 12.19***<br>(5.62)    | 12.29***<br>(5.16)    |
| Observations  | 2,749                 | 2,749                 | 588                   | 588                   |
| R-squared   | 0.68                  | 0.68                  | 0.72                  | 0.73                  |
| Number of countries                                   | 135                   | 135                   | 135                   | 135                   |
| Number of LDCs  | 47                    | 47                    | 47                    | 47                    |
| Joint sig. of LDC <sub>i,t</sub> and period (p-value) | 0.049                 | 0.045                 | 0.088                 | 0.056                 |

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Note: Robust standard errors in parentheses, clustered at the country level. Estimations using the OLS estimator. LDCs included in the estimations: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cabo Verde, Cambodia, Central African Republic, Chad, Comoros, Dem. Rep. of Congo, Djibouti, Equatorial Guinea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao PDR, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, São Tomé and Príncipe, Senegal, Sierra Leone, Solomon Islands, Sudan, Tanzania, Timor-Leste, Togo, Tuvalu, Uganda, Vanuatu, Yemen, Zambia.

reflecting structural criteria are not, it means that the criteria leading to the differentiation between LDCs and other developing countries do not influence aid allocation among LDCs. What can be directly tested: when the aid allocation equation is estimated on the sample of LDCs only, HAI and EVI are not significant. Second, the test of the respective effects of structural features and category membership can be refined to take into account that EVI is highly correlated with the population size also included in the model. Deleting the population size variable, and adding a new dummy for very large countries, those with a population above 75 million, the so-called fourth criterion used since 1991,<sup>14</sup> the EVI variable becomes highly significant (positively), and the large country dummy (negatively). The LDC interaction terms with time periods are no longer significant. This result suggests that most of EVI's positive impact on aid allocation is driven by population size.

Another interpretation should be given of the seemingly negative impact of LDC category membership on aid allocation during the 1990s. Chapter 2 has shown the impact of the structural characteristics (income per capita and structural handicaps, measured by EVI and HAI), on various governance indicators. When donors allocate their ODA between countries, they consider the quality of recipient country governance. Thus the seemingly negative impact of the LDC category membership during the 1990s, and the zero one afterwards as well, may stem from the effect of poor governance, itself due to structural handicaps LDCs face.

### **Grounds for giving an aid preference to LDCs: ethics and effectiveness**

Having found that the effect of the LDC category membership is limited, we now present arguments for allocating relatively more ODA to LDCs. Aid allocation should transparently rely on two principles: it should be equitable and efficient. The legitimacy of giving an aid preference to LDCs can be underlined with these two principles. The arguments given hold not only for giving a preference to LDCs as a group, but also within the LDC group to those LDCs where ODA is more required. (We then argue that it may be relevant to move from a category approach to a country approach.)

#### ***Equity: compensation for structural handicaps***

*Designing equity.* Among many and often debated definitions of equity in public action, Rawls (1971) and Sen (1970) developed the most agreed upon: making opportunities more equal for people. This definition applies to the equity between countries as well as between citizens from a country. Making opportunities to grow or to sustainably develop more equally between countries for a similar "effort" involves allowing them to overcome their structural handicaps.

*Relevance for LDCs.* The structural handicaps, as they have been defined for the identification of the LDCs and all over this book, are those which are or are supposed to be

independent from the country's present will. Because LDCs are poor countries facing high structural handicaps, it is equitable that they receive a high share of the total aid, to compensate, at least partly, for their structural handicaps and for their low income per capita. In a dynamic perspective, as developed in *Caught in a Trap* (Guillaumont 2009), this would provide them with more equal opportunities to reach a given future income per capita, for a similar policy effort.

The equity argument for allocating more aid to LDCs also holds for the allocation between LDCs as far as they are unequally facing structural handicaps, and unequally poor. Many of them are facing very high handicaps and severe poverty. This is particularly the case for "fragile states" with high poverty and poor governance, most of which are LDCs (33 LDCs/50 fragile states) (OECD 2015). They show a strong need for external assistance.

### *Effectiveness: a specific effect of aid on LDC growth*

For aid to make a country's chances really more equal, it should also be effective in promoting development. The past 20 years has seen a broad debate about aid effectiveness. In particular the risk of reaching absorptive capacity limits has been recalled many times. Because aid is only one among several international support measures to influence LDCs' economic growth, through effects difficult to disentangle (as seen in chapter 1), we do not here present a specific assessment of ODA's effect on LDCs' development. Relying on the literature on aid effectiveness, we explain what specific impact aid is likely to have in LDCs. We argue that aid to LDCs is likely to be on average not less, but more effective in these countries than in others.

*A higher marginal aid effectiveness in LDCs due to their vulnerability.* An agreed conclusion of the debate on aid effectiveness (in economic growth) is that the effect of aid on growth is heterogeneous and depends on receiving countries' characteristics. Initially the most highlighted characteristic has been governance (Burnside and Dollar 2000). But many have debated the influence of good governance on aid effectiveness. It has notably been shown by Hansen and Tarp (2001), Easterly et al. (2004) and Roodman (2007) that the influence of governance on aid effectiveness is not robust to sample and time-span extension as well as to changes in the specification of the growth equation. While the robustness of the relationship making aid effect on growth dependent on governance was debated, since the beginning of the 2000s governance has gained weight in multilateral development banks' aid allocation criteria (World Bank and regional banks). Indeed the argument for using such a criterion has changed. It's no longer because aid would be more effective in countries with good governance, but because it would generate incentives to adopt better governance and institutions.

Alongside Burnside and Dollar's work, it has also been shown in the literature that aid effectiveness depends on countries' vulnerability to external shocks (Guillaumont



and Chauvet 2001; Collier and Goderis 2009; Chauvet and Guillaumont 2009). This vulnerability is most often measured by the instability of the export of goods and services. As far as LDCs have more unstable export earnings than ODCs and are more economically vulnerable, aid may have more potential in LDCs. Sometimes the EVI is itself used to show the higher marginal effectiveness of aid in vulnerable countries (Wagner 2014).

This higher marginal effectiveness seems to be due to a stabilising effect of aid. The stabilising effect has been shown in two main ways. First, various cross section regressions of growth on aid show a positive impact of an interactive variable aid x export instability. Here the stabilising impact is linked to the average level of aid, not to its time profile. Second, a stabilising effect of aid, defined as the difference between the instability of exports (of goods and services) and the instability of an aggregate flow of exports and aid, has been measured at the country level. Here the stabilising impact is linked both to the level and time profile of aid. It is likely higher when aid is countercyclical than when it is procyclical, but it can also occur in the latter case (Guillaumont 2005; Chauvet and Guillaumont 2009), and it is higher in LDCs than in ODCs (see table 3.6).

This stabilising impact, when introduced in a cross-country regression, is itself a significant factor of growth (Chauvet and Guillaumont 2009). By this way aid has probably been more effective in LDCs than in ODCs.

Another structural feature of LDCs may also influence the marginal effectiveness of the aid they receive: their low human capital. A low level of education, as a high vulnerability, has a negative effect on growth, but increases the marginal impact of aid on growth because the knowledge content of aid has a higher marginal impact the lower the education.

Thus the marginal effect of aid on growth is positively influenced by the structural handicaps in LDCs, in particular vulnerability, while it may be, though it is debated, negatively influenced by poor governance. Because, as seen in the previous chapter, poor

TABLE 3.6  
**Export and (aid + export) volatility computed on 1994–2014**

| Group    | Instability                     |                                       |                    |
|----------|---------------------------------|---------------------------------------|--------------------|
|          | Exports of goods & services (1) | Exports of goods & services + Aid (2) | Difference (1)–(2) |
| LDCs     | 20.21                           | 16.87                                 | 3.34               |
| Non-LDCs | 13.02                           | 13.01                                 | 0.01               |

Note: Sample of 144 countries with 47 LDCs and 97 non-LDCs.

Source: OECD for aid and WDI for exports.

governance is partly determined by structural handicaps, it is all the more important to underline that aid can enhance growth in poor and vulnerable countries such as LDCs.

The combined role of structural handicaps and governance in aid effectiveness has been highlighted by the growing importance of fragile states. State fragility, like being an LDC, does not imply a low marginal effectiveness of aid, it only calls for appropriate aid modalities.

*The absorptive capacity issue.* It is often argued that, whatever the “aid needs” of the LDCs, their capacity to use aid effectively is limited. This is an argument that for 60 years has been used to legitimate low foreign aid.<sup>15</sup> Indeed the absorptive capacity encompasses several kinds of real reasons why beyond some level and in given circumstances external inflows cease to contribute to development and may be counterproductive. The issue is to know what this level is and what factors it depends on. Several aid-growth regressions have suggested a turning point where the marginal contribution of aid to growth becomes zero (then negative) by introducing besides the aid variable its squared value, their respective estimated coefficients being positive and negative. Wagner (2014) has shown that the aid to GDP threshold corresponding to this turning point is higher the more vulnerable the country, measured by EVI (box 3.4).

In the same line, Guillaumont and Laajaj (2006) show that the success and sustainability of World Bank projects are negatively affected by exports instability, and by low education, but that aid tends to dampen these negative effects: the marginal effectiveness of aid is higher when instability is high and education is low. Because both economic vulnerability and low human capital increase the marginal effectiveness of aid, it seems that aid should be more effective in LDCs. Guillaumont and Guillaumont Jeanneney (2010) discuss this point and figure 3.10, reproduced from their paper, illustrates the difference in the absorptive capacity of aid in LDCs and non-LDCs. Figure 3.10 plots the estimated success rate of World Bank projects<sup>16</sup> as a function of aid received by countries. It shows that the average rate of success of aid projects is higher in non-LDCs than in LDCs, but that the marginal effectiveness of aid increases with aid amounts in LDCs, while it decreases in non-LDCs.<sup>17</sup> This suggests that even if the LDCs have a lower average success rate, they have increasing returns to aid and higher absorptive capacity.

*Is there a risk linked to aid volatility?* Highlighting the dampening effect of aid on LDCs might suggest that using aid to attenuate the effect of these shocks is likely to increase aid volatility. As seen above, the stabilising impact of aid does not necessarily result from a countercyclical volatility of aid, but it could. The literature has discussed aid volatility as a source of macroeconomic volatility that is detrimental to economic growth (Pallage and Robe 2001; Bulir and Hamann 2008). It thus might be that the effectiveness of aid, due to its dampening effect, comes at the cost of a source of ineffectiveness, its volatility. The question then is which of the two outweighs the other. Chauvet and Guillaumont

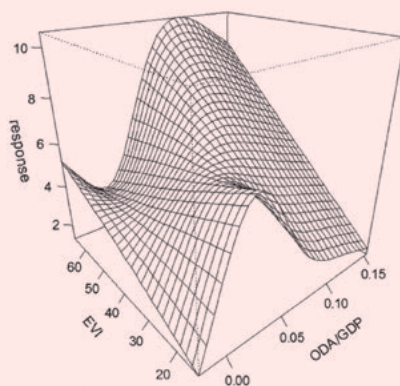
## BOX 3.4

**Aid effectiveness thresholds in vulnerable countries: big push and absorptive capacity**

Through the figure below, relying on significant econometric estimations for 89 developing countries over 1970–2009 Wagner (2014) shows how the thresholds in the aid growth relationship differ according to the structural economic vulnerability (EVI) of the recipient country. For countries with low vulnerability (in front of the figure), aid to GDP ratio has a decreasing positive marginal effect on growth, becoming negative as the ratio of aid to GDP rises above 2 percent. For highly vulnerable countries (at the bottom of the figure), at a low aid to GDP ratio, the marginal impact is first close to zero or negative, but as the level rises above 2 percent, it becomes positive, increasingly, then decreasingly, becoming negative as the aid to GDP ratio goes over 12 percent. For intermediate levels of vulnerability the figure depicts intermediate patterns of the aid-growth relationship.

In all cases the relationship between aid and growth is positive and then negative with a turning point corresponding to the absorptive capacity. The point is reached at a higher level the higher the vulnerability, due to a higher stabilising effect of aid in

**Relationship between aid to GDP ratio, EVI and growth**



Source: Wagner 2014.

vulnerable countries. Moreover in very vulnerable countries, as are most LDCs, a lower threshold implies that a minimum level of aid is required to produce positive effects on growth, which is consistent with the “Big Push” theory. In brief a high structural vulnerability not only increases the amount that can be productively absorbed, it also involves a minimum amount of aid to be delivered.

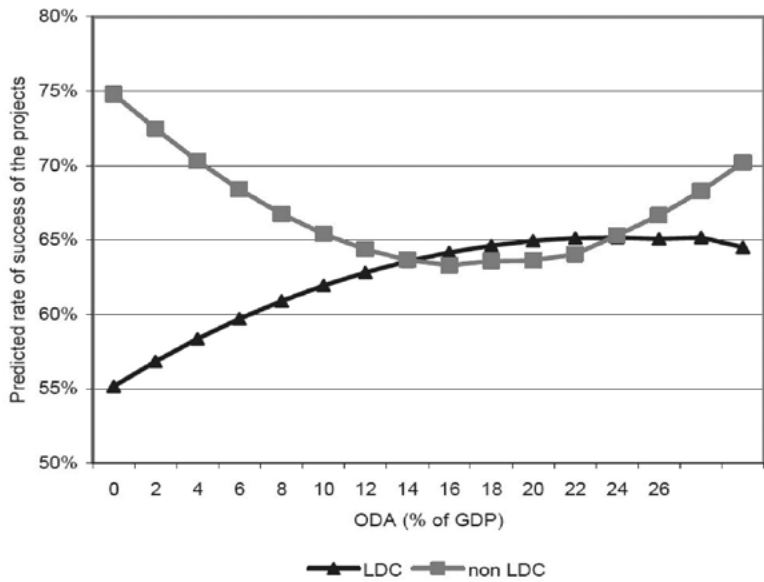
See details in Wagner (2014) where this figure is presented.

(2009) provide evidence that aid volatility indeed increases income volatility but that the level of aid tends to decrease it, and that overall the stabilising character of aid has a large positive effect on economic growth.

*Aid-poverty relationship in LDCs.* It is well known that poverty reduction depends on the economic growth rate, and the income elasticity of poverty. This elasticity is smaller the higher the initial poverty level (measured by the headcount ratio), which could make the contribution of aid to poverty reduction lower in LDCs where poverty is high. But, as seen in chapter 1, the impact of growth on poverty also depends on the stability of the growth rate: stable growth is more pro-poor, because downward

FIGURE 3.10

LDCs: initial handicaps but higher absorptive capacity



Source: Guillaumont and Guillaumont Jeanneney 2010.

changes in income make more poor people, by any poverty dimension, than upward changes lift people out of poverty. Thus, by dampening fluctuations of the LDCs’ income, ODA to LDCs has a double effect on poverty reduction: it enhances growth and makes it more pro-poor.

ODA of course may also have a specific impact on poverty in LDCs through its sectoral allocation. As noted, in LDCs a larger share of ODA goes to social infrastructure, humanitarian aid and budget support. This may have oriented ODA more to the poor, but is not a necessary outcome in countries where most poverty reduction comes from economic growth. In brief, it depends on countries’ specific situations. Moreover other orientations of ODA, examined in the next section, could enhance growth and poverty reduction in LDCs.

Beyond the target: for consistency in aid policy to LDCs

The previous analyses show donor countries have not globally reached the target of 0.15–0.2 percent of GNI devoted to ODA, despite a convergence in aid allocations to LDCs towards that of ODCs. Because more ODA to LDCs seems to have a robust and specific effect for equity reasons (compensating structural handicaps) and for effectiveness (dampening vulnerability), an increase in ODA to LDCs remains a priority. Four other principles deserve special attention to make ODA most beneficial to the development of LDCs and countries in similar situations.

### *Using LDCs' criteria for aid allocation between countries*

*Rationale of the principle.* If the arguments above hold for giving a preference to LDCs as a group, they should also apply for giving more to LDCs that require more ODA, where it is more needed and useful for structural handicaps and income per capita. It then may be helpful to move from a category approach to a criteria approach. If the criteria used to identify LDCs as poor countries with the most structural handicaps to sustainable development are valid, they should also be appropriate criteria for aid allocation. This was initially prosed before (Guillaumont 2011a, 2011b; Guillaumont and Chauvet 2001; Guillaumont and Wagner 2014; Guillaumont et al. 2017), and at the end of the companion volume *Caught in a Trap* (Guillaumont 2009). It was then repeated in UN Secretariat documents prepared for the Development Cooperation Forum or for the Istanbul 4th UN Conference on LDCs (UN 2011).

The UN General Assembly also recognized the proposal in a resolution. To address the issues raised by the graduation of LDCs a group was set up by General Assembly resolution 66/213 of 22 December 2011. In its report (A/C.2/67/L.51), paragraph 23 of the resolution proposed: “to consider least developed country indicators, gross national income per capita, the human assets index and the economic vulnerability index as part of their criteria for allocating official development assistance”.

Applying this principle would help make the transition smoother for graduating countries and have three other benefits. First it would channel more ODA to LDCs, making it easier to reach the 0.15–0.2 percent target (or a possible target of half of ODA to LDCs). Second, it would result in better allocation between LDCs. Finally it would be more equitable for non-LDC countries facing similar structural handicaps.

*Limited implementation.* Strikingly this important resolution paragraph hasn't been commented on or reiterated much in the main documents adopted afterwards (the Addis Ababa Action Agenda in 2015 and the Declaration of the mid-term review of the IPoA in 2016).<sup>18</sup>

There are not yet enough data to estimate a possible change in the coefficients of the three criteria variables in the resolution in an allocation model such as that used above to test the effect of LDC membership. It does not seem yet that the resolution has influenced global allocation of ODA to LDCs. Nor does it seem, as we will see in the next chapter, that the main multilateral financial institutions have accordingly changed their aid policy for concessional resources, except for the European Commission.

*A new application for adapting to climate change.* The principle of taking into account vulnerability in allocating concessional resources can benefit LDCs in ways beyond receiving development assistance. It applies even more to allocating aid for adapting to climate change. Here the vulnerability to be considered is climate change vulnerability that is fully exogenous and beyond countries' will. This vulnerability, as measured

by the “Physical Vulnerability to Climate Change Index (PVCCI)” set up at FERDI, is also higher in LDCs than in ODCs. Used alongside income per capita and human capital for allocating concessional adaptation resources, it would result in allocating a substantial part of these resources to LDCs (Guillaumont 2015) (see next chapter for the (limited) preference given to LDCs in the present multilateral finance climate).

### *Tackling structural handicaps by appropriately using ODA*

A second way to make ODA most beneficial to LDC development is to use it to tackle LDC structural handicaps. This can be achieved by tailoring development projects and sectoral allocations to the goals of reducing structural economic vulnerability and enhancing human capacities. Of course the challenge goes beyond economic vulnerability. As argued in the FERDI book *Financing Sustainable Development: Addressing Vulnerability* (Boussichas and Guillaumont 2015), to achieve truly sustainable development, finance should be used to tackle vulnerability in development’s various dimensions (economic, social, environmental), all areas where LDCs are particularly vulnerable. Here we briefly describe the main goals for development finance targeted to reduce structural handicaps to growth, particularly vulnerability.

*Tackling structural vulnerability ex ante.* Enhancing human capital is particularly important for LDCs. ODA can support it in many ways; it might focus, for example, on specific learning attainment rather than enrolment numbers.

ODA can also reduce LDCs’ structural economic vulnerability. Several measures have been debated for decades and sometimes applied to tackle such vulnerability. *Diversification*, rightfully so, has for a long time been seen as a remedy for instability; it has gained a new favour with the aim of promoting “structural transformation” in LDCs. But it must be obtained competitively to lead to sustainable development. Many LDCs are small economies with narrow domestic markets and limited opportunities for competitive diversification. Aid for trade (with appropriate content) should provide these opportunities.

ODA can also help reduce LDCs’ vulnerabilities by supporting regional integration between some of them. Such integration lowers vulnerability in several ways (see Guillaumont 2013). It extends the size of the “domestic” market and lowers the instability of the integrated area’s exports compared with that of each economy, allowing compensation between asymmetric blocs. Countries in the region gain more credibility. These factors help lower income volatility and its harm to development (Kpodar 2016).

The most common way to tackle vulnerability through ODA is to use it as an *insurance* (see Guillaumont 2005). Shocks generate imbalances and uncertainty at the macro and micro levels. LDC governments can hardly use market instruments to insure against macroeconomic shocks. Nor can poor farmers against microeconomic natural or external ones. There are many applications of this idea. The various kinds of compensatory

finance implemented by the IMF, and by the EU (through the Stabex, Sysmin, Flex, and Superflex) illustrate donors' reluctance to provide compensatory finance automatically and quickly to countries facing shocks. Automaticity should be decided *ex ante* as it is in the so-called "countercyclical loans" of the AFD, where the debt service for a project is indexed on an exogenous variable, but the coverage of which remains limited. The more global proposal to have a debt service indexed on GDP (Panizza 2015) has a broader coverage, but an effect restricted by the debt size. So there are many ways to use ODA as a guarantee (see UNDP/AFD 2016).

The more promising and legitimate use of ODA as a guarantee for the LDCs may be found in the support given to insurance schemes focused on groups of poor farmers (including weather-indexed insurance, but likely to also cover world price indexed insurance) (see a review in de Janvry and Sadoulet 2015).

### *Leveraging alternative sources of finance, mainly domestic, by ODA*

Because ODA supply stays far from the target and is expected to decrease in the long run, it is important to make growth sustainable by promoting new finance sources, mainly domestic. For the pioneers of development economics, self-sustained growth involved a high marginal savings rate, which made it possible to reach the required investment rate without excess dependency on external finance. Today for LDCs a major concern is the increase in non-aid resources likely to be invested in their country and how ODA can contribute to their mobilisation.

*Aid to support public finance and taxation.* One of the most debated issues in the literature on aid effectiveness is the effect of aid on fiscal receipts. Recent empirical research leads to rejecting the crowding out hypothesis (Clist and Morrissey 2011). This research easily explains a positive effect of aid on tax receipts in the medium term: even if there may be a partial static effect of substitution between aid and tax effort, the impact of aid on public spending is positive. This leads to increased activity, resulting in an increase of fiscal receipts.

Moreover part of foreign aid, multilateral and bilateral, is (or could be) increasingly delivered to LDCs as technical assistance to improve their tax system. LDCs obtain major gains in this way due to their relatively low tax to GDP ratio and relatively weak fiscal capacities. The prospects are also important given the very low technical assistance received by LDCs than by ODCs (see figure 3.4).

*Aid to generate financial deepening and savings.* This is another old debate on aid effectiveness, encompassing the previous one: does external savings (aid in particular) crowd out domestic savings? The old crowding out hypothesis relied on a negative correlation that could not support any causal relationship due to an econometric problem of simultaneity that was not addressed (Guillaumont 1985). And the theoretical argument for



supporting a positive effect of aid on savings is similar to that used for tax receipts: even if aid is a partial substitute to savings, it helps increase investment, then income, leading to an increased savings rate as far as the marginal savings rate is higher than the initial average one.

Moreover, again, part of ODA can be used to increase the savings rate. Any policy enhancing financial deepening (the money/GDP ratio) may have such an effect and, when combined with “financial widening” (dissemination of saving and payment facilities), is favourable to the poor (Guillaumont Jeanneney and Kpodar 2015). New payment technologies, such as mobile banking, have a significant role to play, with particularly high potential in LDCs.

A special mention should be given to how ODA can support the new insurance modalities, which help lower the vulnerability of people and countries, again particularly LDCs. This is so with index-based weather insurance (though “smart subsidies”) or with flexible financial risk management products that may need help for re-insurance or information sharing (Carter et al. 2015). Pooling risks is pooling hope, as argued by Michel Sidibe, who advocates a “Global Compact” for sustainable health financing (Sidibe 2015).

*Aid and the mobilisation of foreign investment.* It is well known that among the many factors influencing foreign investment, the quality of hard and soft infrastructure, from transportation facilities to business climate, is important. All that has been said above and below emphasizes the effect of aid for trade in attracting foreign direct investment.

### *Enhancing own country institutions*

Recipient LDCs must take initiative for ODA to target their specific needs. Promoting ownership helps address institutional handicaps to politically sustainable development. It is particularly important for LDCs due to their lack of human capital and their vulnerability, which significantly weaken their institutions.

Several reforms in aid modalities may contribute to enhancing ownership in LDCs. One is conditionality reform. Many believe policy conditionalities in budget support weaken ownership and then effectiveness. Some have proposed replacing the conditionality related to policy measures with conditionality related to results or performance (see Collier and Dollar 2002; Adam et al. 2004). While some progress has occurred in this area, following the Paris (2005), Accra (2008) and Busan (2011) Declarations, much is still to be done. Earmarked funds (vertical and trust funds) from international institutions are another area for improvement. They are generally operated in countries outside the recipient nations. In both cases current practice reflects a lack of confidence in the government/administration of recipient countries, making them weaker. This is particularly important for LDCs with their need for stronger capacity.



## Conclusion

While the aid per capita received by LDCs is higher than that received by other developing countries, the level of aid they receive as a percentage of GDP is even higher, since their GDP per capita is lower, but the level they receive per poor person is barely higher, since the percentage of poor people (the headcount poverty ratio) is higher.

From the beginning of the LDC category, development assistance has been seen as a major tool to support the LDCs' effort to move out of the trap. The legitimacy of giving a priority to LDCs in aid allocation is well established, relying both on equity reasons (equalizing opportunities by addressing the structural handicaps featuring the category) and on the search of effectiveness (higher in more vulnerable countries). This priority has been formally recognized by the international community in specific ODA targets for LDCs, as well as by the UN invitation to use LDC identification criteria as criteria for aid allocation.

However, this chapter shows that the actual flows of ODA to LDCs have remained far below the targets since their adoption, and their allocation far from what it would have been according to the LDC identification criteria. This does not mean that ODA to LDCs has not been effective in supporting their development, but it suggests that reaching the targets could have resulted in more rapid growth and development. With higher levels and better design of ODA to LDCs, more of them could have graduated from the category and seen their needs of assistance declining. The remaining LDCs could have received on average more aid (still corresponding to the targets) and been à leur tour better prepared for graduation.

If the rationale of the LDC category relies on the identification of a trap, a big push to overcome the structural handicaps to development and move from a vicious circle to a virtuous one would be the consistent policy.

Appendix A3.1. Aid, GDP, Population, EVI and HAI for LDCs, average 2010–14

| Country              | Aid per capita |      | Aid/GNI |      | Population | GDP per capita | EVI  | HAI  |
|----------------------|----------------|------|---------|------|------------|----------------|------|------|
|                      | Amount         | Rank | Amount  | Rank |            |                |      |      |
| Afghanistan          | 204.0          | 9    | 33.4    | 4    | 30,000     | 396.3          | 35.6 | 43.4 |
| Angola               | 10.5           | 49   | 0.2     | 48   | 23,000     |                | 36.5 | 41.4 |
| Bangladesh           | 13.0           | 48   | 1.3     | 46   | 160,000    | 680.7          | 25.4 | 63.6 |
| Benin                | 63.1           | 29   | 8.1     | 28   | 10,000     | 632.2          | 32.4 | 48.1 |
| Bhutan               | 184.1          | 11   | 8.7     | 27   | 743        | 1,936.6        | 40.4 | 71.8 |
| Burkina Faso         | 64.7           | 28   | 10.2    | 24   | 17,000     | 494.8          | 38.1 | 36.6 |
| Burundi              | 55.6           | 32   | 24.3    | 6    | 10,000     | 149.5          | 52.7 | 38.4 |
| Cambodia             | 52.6           | 33   | 6.2     | 35   | 15,000     | 675.5          | 42.3 | 71.0 |
| Central African Rep. | 67.5           | 24   | 12.0    | 20   | 4,600      | 305.8          | 31.1 | 21.2 |
| Chad                 | 36.2           | 40   | 4.0     | 42   | 13,000     | 724.1          | 49.9 | 22.5 |
| Comoros              | 93.0           | 17   | 12.1    | 19   | 734        | 593.6          | 66.1 | 59.8 |
| Dem. Rep. of Congo   | 48.8           | 34   | 15.7    | 14   | 70,000     | 258.1          | 28.8 | 49.7 |
| Djibouti             | 168.8          | 12   |         |      | 853        | 1,157.9        | 45.2 | 56.2 |
| Equatorial Guinea    | 35.5           | 41   | 0.5     | 47   | 774        | 13,257.1       | 46.7 | 62.6 |
| Eritrea              | 24.4           | 46   | 6.3     | 34   | 4,900      | 232.5          | 58.3 | 40.8 |
| Ethiopia             | 38.5           | 39   | 9.6     | 26   | 92,000     | 275.2          | 33.3 | 43.1 |
| Gambia               | 67.2           | 25   | 14.0    | 15   | 1800       | 444.4          | 66.6 | 61.0 |
| Guinea               | 30.6           | 44   | 6.2     | 36   | 12,000     | 299.5          | 26.3 | 39.2 |
| Guinea-Bissau        | 62.6           | 30   | 11.2    | 22   | 1700       | 428.1          | 56.4 | 48.7 |
| Haiti                | 164.5          | 13   | 24.7    | 5    | 10,000     | 472.6          | 34.5 | 32.3 |
| Kiribati             | 543.5          | 3    | 21.6    | 9    | 107        | 1,100.1        | 77.1 | 83.4 |
| Lao PDR              | 64.7           | 27   | 5.0     | 38   | 6500       | 728.4          | 40.3 | 62.7 |
| Lesotho              | 118.9          | 14   | 9.9     | 25   | 2100       | 933.7          | 42.4 | 63.7 |
| Liberia              | 196.5          | 10   | 63.1    | 1    | 4200       | 215.5          | 58.1 | 43.3 |
| Madagascar           | 21.4           | 47   | 4.7     | 39   | 22,000     | 272.0          | 33.6 | 52.3 |
| Malawi               | 64.7           | 26   | 23.2    | 7    | 16,000     | 266.4          | 41.4 | 52.9 |
| Maldives             | 298.7          | 6    | 5.5     | 37   | 367        | 4,593.2        | 48.3 | 89.9 |
| Mali                 | 74.9           | 22   | 12.2    | 18   | 16,000     | 452.8          | 32.6 | 44.1 |
| Mauritania           | 91.5           | 18   | 7.8     | 30   | 3,800      | 822.6          | 41.2 | 49.4 |
| Mozambique           | 82.4           | 20   | 16.2    | 13   | 26,000     | 494.1          | 39.2 | 42.2 |
| Myanmar              | 24.7           | 45   | 3.8     | 43   | 53,000     |                | 32.8 | 72.2 |
| Nepal                | 30.7           | 43   | 4.6     | 40   | 28,000     | 398.9          | 27.8 | 70.8 |
| Niger                | 45.5           | 37   | 11.7    | 21   | 18,000     | 279.3          | 38.3 | 34.4 |
| Rwanda               | 98.8           | 15   | 16.3    | 12   | 11,000     | 411.2          | 42.2 | 53.7 |
| Samoa                | 610.7          | 2    | 16.9    | 11   | 189        | 2,692.1        | 44.9 | 94.7 |

| Country               | Aid per capita |      | Aid/GNI |      | Population | GDP per capita | EVI  | HAI  |
|-----------------------|----------------|------|---------|------|------------|----------------|------|------|
|                       | Amount         | Rank | Amount  | Rank |            |                |      |      |
| São Tomé and Príncipe | 292.8          | 7    | 22.8    | 8    | 179        | 1,025.2        | 38.2 | 73.2 |
| Senegal               | 74.9           | 21   | 7.3     | 32   | 14,000     | 800.3          | 32.2 | 57.7 |
| Sierra Leone          | 87.6           | 19   | 13.7    | 16   | 6,000      | 436.7          | 45.5 | 37.7 |
| Solomon Islands       | 540.5          | 4    | 44.6    | 3    | 549        | 1,086.5        | 50.3 | 74.7 |
| Somalia               | 94.7           | 16   | 20.1    | 10   | 10,000     |                | 36.4 | 19.0 |
| Sudan                 | 40.6           | 38   | 2.1     | 45   | 38,000     | 914.7          | 51.5 | 58.4 |
| Tanzania              | 59.4           | 31   | 8.0     | 29   | 49,000     | 550.3          | 29.1 | 54.4 |
| Timor-Leste           | 239.3          | 8    | 6.9     | 33   | 1100       | 728.0          | 54.2 | 61.7 |
| Togo                  | 48.7           | 35   | 11.2    | 23   | 6700       | 407.7          | 34.1 | 59.8 |
| Tuvalu                | 2731.3         | 1    | 46.0    | 2    | 10         | 2,605.2        | 58.1 | 88.3 |
| Uganda                | 47.0           | 36   | 7.7     | 31   | 35,000     | 423.9          | 32.6 | 53.7 |
| Vanuatu               | 398.2          | 5    | 13.3    | 17   | 248        | 2,102.7        | 47.5 | 81.4 |
| Yemen                 | 32.5           | 42   | 2.3     | 44   | 25,000     | 739.0          | 39.1 | 59.4 |
| Zambia                | 68.7           | 23   | 4.4     | 41   | 15,000     | 970.9          | 44.9 | 36.2 |

Note: HAI increases when human development decreases. EVI increases when vulnerability increases. Aid per capita and GDP per capita are in constant dollars (respectively base years in 2013 and 2005). Maldives data is for 2010 only.

Source: Aid per capita: OECD; aid/GNI, population, GDP per capita: WDI (2016); EVI and HAI: FERDI.

## Notes

1. Compare the recent communiqué of the DAC High Level Meeting (OECD 2016a), when it recalls that the 0.15 percent target refers to countries “the most in need”, rather than only to LDCs.
2. This results from the fact that the aid to GDP ratio equals the aid per capita (lower in large countries) divided by the GDP per capita (aid declining with a higher GDP per capita).
3. This trend in the last period is in accordance with preliminary results from the 2016 DAC Survey on Forward Spending Plans (OECD 2016b), which expected an increase in 2016 and up to 2019 for LDCs, at least for CPA (Country Programmable Aid).
4. The respective peaks in the evolution of ODA to LDCs in 2003 and of total ODA in 2005 are due to debt cancellation for Afghanistan in 2003 and Nigeria in 2005.
5. When estimating the logarithm of the bilateral aid to LDCs as a function of the logarithm of the bilateral aid to all developing countries from 1971 to 2014, we find an elasticity of 1.97.
6. This disaggregation of aid does not show aid for trade which is spread across the various categories adopted here and which is the focus of chapter 5.
7. The 0.2 percent target concerned only Denmark, Great Britain, Ireland, Luxembourg, Norway and Sweden.
8. Austria registered a high ODA growth rate, not specifically to LDCs, and starting from a low level, with a still low aid to GNI ratio.
9. Now from 1 to 4 with these unweighted averages, quite more with aggregated (weighted) averages (see table 3.1).
10. Meaning from 1970 to 2008 (five years after the inclusion of Timor-Leste), with some years double counted when there is less than five years between two inclusions. As seen above in table 3.1 the average difference during 2010–14 is higher: 12.4 percent.
11. Defined below.
12. Eritrea, Myanmar, Somalia and South Sudan are not included for statistical reasons.
13. We also looked at the influence of being a Small Island Developing State (SIDS). When introducing a dummy for SIDS, the results are not altered and the SIDS dummy is only significant (and negative) when  $EVI_{i,t}$  and  $HAI_{i,t}$  are omitted from the model (results not shown).
14. This dummy does not include Bangladesh, included in the list before the adoption of the rule, or Ethiopia, which crossed the threshold afterwards.
15. See Guillaumont (1971) and Guillaumont and Guillaumont Jeanneney (2010).
16. The estimation includes various project-level characteristics as well as country-level factors such as income per capita, aid, aid squared and the interaction of aid and aid squared with an LDC dummy variable.
17. This is true up to a threshold of aid about 17 percent of GDP (75 percent of the sample).
18. It was only mentioned in the 2016 report submitted by the Secretary-General for consideration by the Development Cooperation Forum: Trends and progress in international development cooperation.

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## Multilateral assistance to the least developed countries: To what extent is it specific?

### Introduction

As seen in the previous chapter, official development assistance (ODA), including development financing, technical cooperation and other assistance, has great potential to directly address LDCs' underlying development constraints. To help LDCs overcome these constraints, the international community has proffered international support measures that fall into three main areas. These include ODA, international trade, and general support. The Secretariat of the Committee for Development Policy of the United Nations Department of Economic and Social Affairs has taken the lead in cataloging these measures.<sup>1</sup>

This chapter focuses on assistance to LDCs from multilateral channels. It illustrates that there are two main multilateral channels for LDC assistance, either from UN institutions, with some of these entities providing LDC-specific support, or from outside the UN system, particularly from international financial institutions. This chapter reviews the extent to which multilateral ODA to LDCs as well as UN special support measures for LDCs are actually allocated to these countries due to their status.<sup>2</sup> The chapter argues that apart from specific cases, LDC status appears to have a limited effect on allocating resources and benefits.

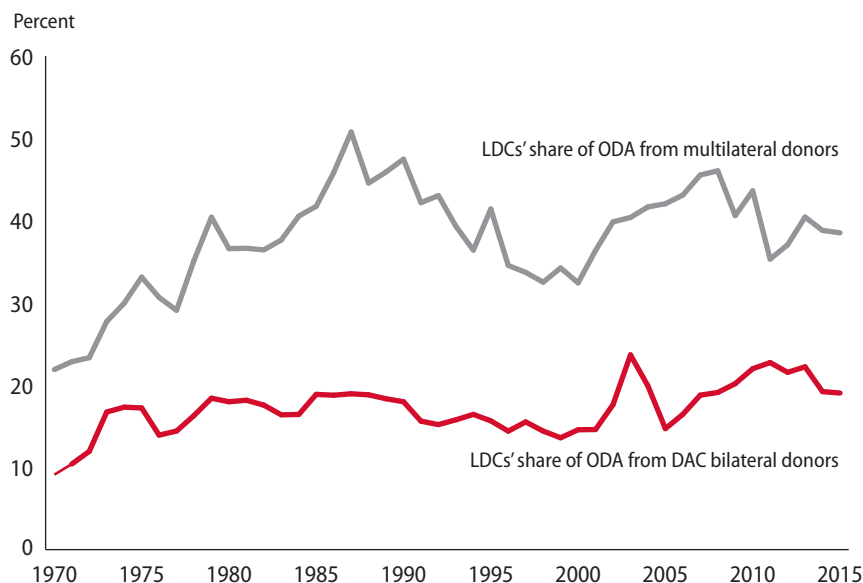
### Multilateral support to LDCs in perspective

LDCs are major beneficiaries of multilateral ODA.<sup>3</sup> In 2015, multilateral donors spent more than \$16 billion on LDCs, \$11 billion more than in 2000 and 38 percent of total multilateral ODA. This compares with 19 percent from OECD Development Assistance Committee bilateral donors, amounting to \$25 billion in 2015. In nominal terms, the ODA from multilateral donors has



FIGURE 4.1

### LDCs' share of bilateral and multilateral ODA, net disbursements, 1970–2015



Source: OECD.Stat.

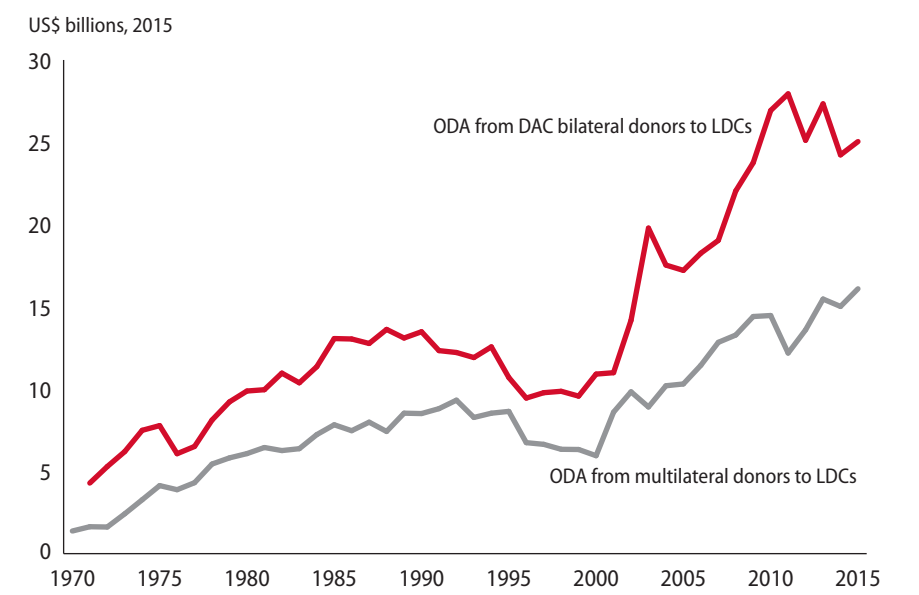
increased over the past 20 years though not as much as bilateral flows from DAC donors (see chapter 3). As a share of total multilateral ODA to all developing countries (figure 4.1), allocation to LDCs has been significantly higher than that from bilateral donors, which over the past 20 years has mainly remained below 25 percent. But in very recent years UN organization spending on LDCs has actually been decreasing: according to the UN Secretary-General's Quadrennial Comprehensive Policy Review report, in 2013, LDCs made up 57 percent of total development spending.<sup>4</sup> In 2014, UN spending on LDCs was about 53 percent.<sup>5,6</sup>

Figure 4.2 compares the amount of bilateral and multilateral ODA to LDCs over time. Similar to bilateral aid, multilateral aid to LDCs roughly reflects three trends: an increase from 1970 to the mid-1980s, followed by a stagnation (or slight decline) until the end of the 1990s, then a significant increase until the 2010s, though weaker than that of bilateral aid. Only the period 2010–15 shows a diverging trend, with more multilateral and less bilateral aid.

The structure of multilateral ODA is summarized in figure 4.3 (panels a–c). The first two pie charts (panels a and b) highlight that:

- Bilateral ODA from DAC countries to LDCs and other developing countries is higher than multilateral ODA.
- Multilateral donors give more ODA to LDCs than other developing countries.

FIGURE 4.2  
**Bilateral and multilateral ODA to LDCs, net disbursements, 1970–2015**  
**(US\$, millions, 2015)**



Source: OECD.Stat.

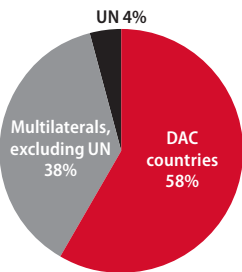
- The UN provides 4 percent of ODA received by LDCs and other developing countries.

The third pie chart in figure 4.3 (panel c) shows the ODA share provided by the main multilateral donors in total ODA in LDCs in 2015. The World Bank (through its International Development Association, IDA) is the largest multilateral LDC donor (35 percent). Along with the regional development banks (14 percent) and IMF (3 percent), this represented half of ODA to LDCs. The second largest multilateral donor is the European Union (EU), comprising 20 percent of multilateral ODA to LDCs. The European Development Fund provided much of the EU’s ODA to LDCs. About one sixth of that comes from the two health-related funds: the Global Fund to Fight AIDS, Tuberculosis and Malaria (10 percent) and the Global Alliance for Vaccines and Immunization (GAVI) (5 percent). The UN System gave 10 percent of multilateral ODA to LDCs in 2015.

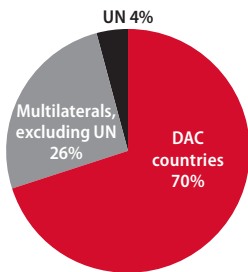
All UN organizations recognize the LDC category, and many acknowledge its importance in their strategic planning and programme priorities.<sup>7</sup> An important question is whether this has any implications for ODA disbursements to these countries. UN organizations with defined LDC budget targets (such as the United Nations Development Programme and the United Nations Children’s Fund) clearly disbursed more funds to LDCs in 2015 than those without such targets (figure 4.3, panel d). Most UN

FIGURE 4.3  
**Multilateral official development assistance and UN spending on LDCs, 2015**

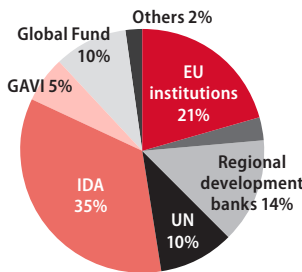
**A. Share of DAC ODA and multilateral ODA to LDCs**



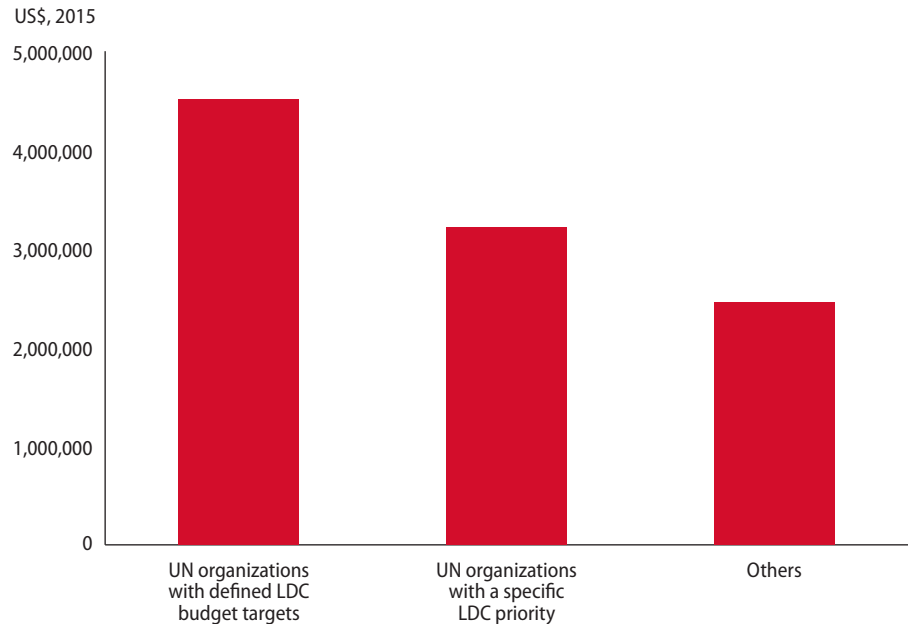
**B. Share of DAC ODA and multilateral ODA to other developing countries**



**C. Structure of multilateral ODA to LDCs**



**D. UN spending on LDCs**



Note: For details see appendix A4.1. UN organizations with defined LDC budget target: UN organizations with percentage budget targets in their core budget allocated to LDCs. UN organizations with specific LDC priority: UN organizations which recognize LDCs as a priority in their strategic frameworks and planning documents, have specific guidelines to allocate budget to LDCs, or have a specific LDC trust fund (also corresponds to columns 1, 2, 3, 4, and 7 in figure 4.4 below). Others: UN organizations which have no clear targets nor commitments in their LDC budget allocations.  
Source: OECD.Stat.

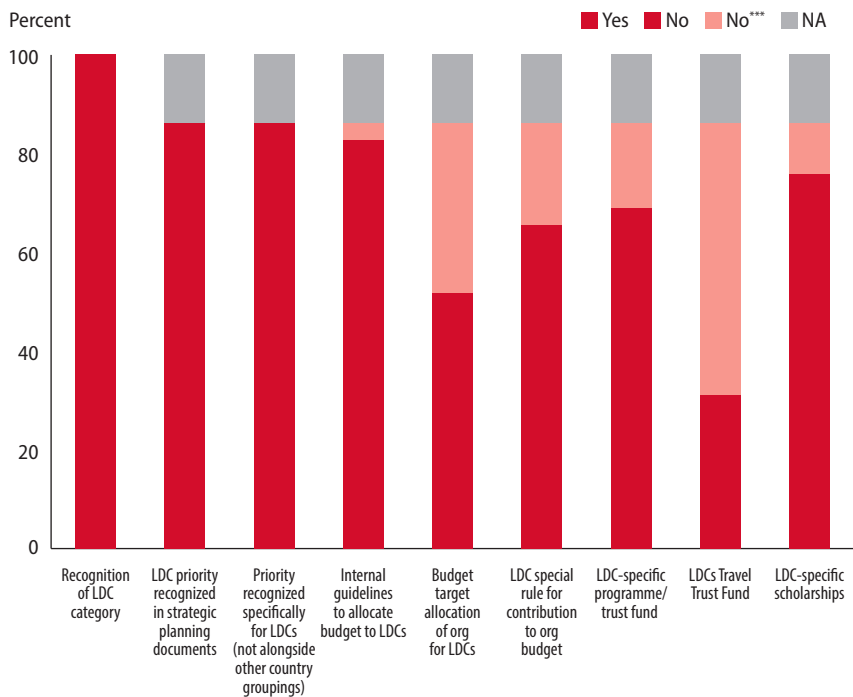
entities do not have specific budget rules favoring LDCs, but some give certain priorities to these countries, such as recognizing LDCs as a priority in their strategic frameworks and planning documents; having specific guidelines to allocate capacity development funding to LDCs; or having a specific LDC trust fund. Such organizations spend relatively less on LDCs (see section 2). The spending drops further for other organizations with no clear targets or commitments in their budgets for LDCs.<sup>8</sup>

Multilateral support of United Nations organizations to LDCs

Although UN organizations recognize the LDC category,<sup>9</sup> such recognition does not translate into consistently applying priorities and budget allocation, and there are large variations in types and levels of LDC-specific assistance. For UN agencies whose primary mission is to promote sustainable development, it could be a concern that some specialized agencies lack a mandate to support LDCs.

The main evidence of LDC category recognition and support is reflected in various UN organizations’ programme priorities and strategic frameworks. Figure 4.4 shows the different practices of LDC-specific support across organizations. The fifth column shows the relatively few organizations that use specific budget target allocations for LDCs.

FIGURE 4.4  
Percentage of United Nations development system organizations surveyed that apply special LDC measures



Note: No\*\*\*: Although there is no specific LDC measure, the organization has some related measures which benefit LDCs. NA: Organization did not reply to the survey question.

In practice, UN organizations’ stated priority for LDCs falls into four categories:

- General support.
- Technical cooperation and capacity development.
- Specific LDC budget targets.
- “Related” resource allocations (not LDC-specific).

*General support.* The UN system supports LDCs by supporting their participation in UN meetings, and by requesting reduced LDC contributions to the UN regular and peacekeeping budgets.

The UN financially supports LDC participation in General Assembly annual sessions. It pays travel, but not subsistence expenses to LDCs as follows: up to five representatives (per LDC) attending a regular General Assembly session; one representative (per LDC) attending a special or emergency session of the General Assembly; and one member of a permanent mission in New York designated as a representative or alternate to General Assembly sessions.

Some UN organizations have trust funds to help LDC government representatives participate in their meetings (table 4.1). Even when trust funds are not in place or have been discontinued, most UN organizations help LDCs travel to and participate in their international meetings. Some organizations also have internal guidelines prioritizing

TABLE 4.1  
**Examples of travel-related funds for LDCs**

| Entity                                | Description  |
|---------------------------------------|--|
| FAO/WHO Codex Alimentarius Commission | Trust fund for LDC participation in meetings of the Codex Alimentarius Commission.   |
| International Criminal Court          | Trust fund for LDC participation in meetings of the International Criminal Court Assembly of State Parties.  |
| United Nations Secretariat            | Trust fund to help LDCs attend the annual review of the Programme of Action for the LDCs for the Decade 2011–2020.<br>Trust fund to help LDCs attend the United Nations Consultative Process on Oceans and the Law of the Sea. |
| UNCCD                                 | Trust fund for LDC participation in meetings of the UN Convention to Combat Desertification.   |
| UNFCCC                                | Trust fund to help LDCs participate in the UNFCCC process.   |
| UNEP-CMS                              | Trust fund to help LDCs participate in meetings of the Convention on Migratory Species.  |
| UNEP Montreal Protocol                | Trust fund for LDC participation in meetings of the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol.   |
| UNEP Stockholm Convention             | Trust fund for LDC participation in meetings of the Stockholm Convention on Persistent Organic Pollutants.   |
| UNIDO                                 | Trust fund to help LDCs participate in UNIDO meetings.   |
| UNODC                                 | Trust fund for LDC participation in sessions of the Commission on Crime Prevention and Criminal Justice and sessions of related Conferences of States Parties.   |

Source: UNDESA and CDP 2012.

LDC participation in their intergovernmental and multistakeholder events, and some award fellowships to LDCs to participate in seminars and workshops.

The travel measures are among the best known by LDC government officials. They may improve the LDC structural handicap of human capital, particularly for small LDCs, and help them influence international decisionmaking. But more far-reaching human capital investment is needed.

LDC contributions to the regular budgets of all UN Secretariats are capped at 0.01 percent of the total UN budget, regardless of their national income or other factors (a \$271,356 maximum per country in 2015). But LDCs were nonetheless required to contribute to regular budgets at a minimum of 0.001 percent, or \$27,136 in 2015. In 2015, seven LDCs—Angola, Bangladesh, Equatorial Guinea, Ethiopia, Myanmar, Sudan and Yemen (those with the most income in their group), reached the 0.01 percent cap.<sup>10</sup> Had they not been classified as LDCs, they would have had to contribute up to \$0.5 million more to regular budgets based on their income. In the future, this cap is likely to most benefit fast-growing LDCs with a relatively high GNI.

LDCs are also entitled to a 90 percent discount in their contributions to peacekeeping operations. As in the case of savings in regular budget contributions, the benefits may be relatively small in monetary terms, but they still reflect a special and actually utilized measure for LDCs.

*Technical cooperation and capacity development programmes for LDCs.* Some UN organizations provide LDC-specific support through investment, technical assistance and capacity development programmes. One example of an LDC funding mechanism is the UNCTAD LDC Trust Fund. Technical activities undertaken under the Trust Fund focus on strengthening export supply capacities through the development of integrated country-level programmes. Such programmes include support for trade policy reforms and trade diversification, and financial and fiscal sector reforms.

Three other LDC-specific funds also deserve attention: the United Nations Capital Development Fund; the Least Developed Countries Fund (LDCF) of the United Nations Framework Convention on Climate Change (UNFCCC), managed by the Global Environment Facility; and the Enhanced Integrated Framework for Trade-Related Assistance to LDCs.

The United Nations Capital Development Fund provides access to investment capital, capacity development and technical advisory services to promote microfinance and local LDC development. UNCDF's financing models work through two channels: financial inclusion that expands the opportunities for individuals, households, and small businesses to participate in the local economy, providing them with the tools they need to climb out of poverty and manage their financial lives; and localized investments that show how fiscal decentralization, innovative municipal finance, and structured project finance can drive public and private funding that underpins local economic

expansion and sustainable development. Donors contributed \$58 million in 2015 and \$54.5 million in 2016; spending amounts were about the same.

The UNFCCC's Least Developed Countries Fund was established for LDCs' climate change needs. As of September 2016, donors had provided 51 former and current LDCs with \$12.2 million to prepare their National Adaptation Programmes of Action (NAPAs).<sup>11</sup> NAPAs support LDCs to address the challenge of climate change given their particular vulnerability and immediate needs with regard to adaptation. Fifty of these countries completed their NAPAs, and the LDCF approved funding for NAPA implementation projects for 49 countries, totaling \$1.03 billion for 178 projects.<sup>12, 13</sup> Cumulative pledges to the LDCF have been \$1.19 billion (with \$1.02 billion received as of 31 August 2016). UNEP and UNDP are the lead UN agencies of the National Adaptation Plans Global Support Programme (GSP),<sup>14</sup> which targets LDCs with LDCF financing.<sup>15</sup>

The Integrated Framework for Trade-Related Assistance (IF), analyzed in more detail in chapters 5 and 6, was launched in 1997 at the WTO by six multilateral institutions (the IMF, ITC, UNCTAD, UNDP, World Bank and WTO). Its aims include helping LDCs integrate trade into their national development plans and providing them with more coordinated technical assistance to take advantage of the multilateral trading system. In 2000, the IF was restructured into the Enhanced Integrated Framework, which received \$238 million in contributions between 2008 and 2016.

*Specific budget targets for LDCs.* Few UN organizations have specific budget targets from their core budget for LDCs based on a system approved by their executive boards.<sup>16</sup> Of these, UNDP and UNICEF have rules to earmark the allocation of their programme budgets or extra-budgetary resources to LDCs (with targets ranging from 50 to about 60 percent of their regular resources allocated to LDCs). This results in relatively high percentages of aid for LDCs. Other UN organizations also have internal rules for allocating resources to LDCs, for example for selecting and approving development projects.

But in many cases, it is unclear how the stated LDC priority of UN organizations in their strategic planning and programme documents translates into budget allocation for LDCs since most organizations do not have operational guidelines with clear budget targets, or rules for budget allocation to LDCs. Instead, most organizations make "general recommendations," which are not specific about budget or about LDCs as target beneficiaries.<sup>17</sup>

The absence of such targets can be detrimental, as witnessed by the declining share of UN development spending for LDC development operational activities in recent years. With the need for enhanced support to overcome the structural challenges these countries face in implementing the 2030 Agenda for Sustainable Development, an increase in targeted budget allocations would help enhance the flow and predictability

of resources and development prospects in these countries. Some organizations, despite not having a percentage target in their commitments, already spend a relatively high percentage of their budget on LDCs. But a specific budget target for LDCs would be a clear commitment that UN organizations prioritize LDCs and set themselves a benchmark.

*“Related” resource allocation (not LDC-specific).* Many UN entities do not have LDC-specific funding or targeting, but LDC-related trust funds. UNIDO, for example, has a dedicated fund for Africa (“Special Resources for Africa”). Others offer funds for technical assistance for LDC countries.<sup>18</sup> Some organizations have no specific resources for LDCs since their support is demand driven, based on LDCs’ evolving needs.

These “related” funds and activities can serve as catalysts for assistance from other sources, contribute to develop capacity within LDCs and help draw attention to the need to integrate various sustainable development issues into country development strategies.

### **Multilateral support from international financial institutions**

Several international financial institutions, such as the World Bank, regional development banks and the IMF, are major suppliers of multilateral ODA to LDCs (see figure 4.3, panel c). But these organizations do not recognize the category nor consider it in their lending or in designing country-specific programmes.

The IMF has specific lending facilities for countries according to their income and access to international financial markets. Resources are not earmarked for specific member countries and are furnished on an as-needed basis. The World Bank also does not consider LDC status in determining its budget. The World Bank’s IDA focuses on the world’s poorest countries based on income,<sup>19</sup> also taking into account their credit-worthiness, but does not offer any special credits or grants to LDCs.

In practice, despite the non-recognition of the category, most LDCs benefit from special financing from international financial institutions due to the weight given by these institutions to income per capita for concessional eligibility. For example, according to OECD–DAC the World Bank Group allocates 56 percent of its ODA to LDCs.<sup>20</sup> But non-recognition has been a matter of concern within the UN system, for instance, as recently reflected in a UN General Assembly<sup>21</sup> resolution following the mid-term review of the Istanbul Programme of Action. And the prominent place of LDCs in the 2030 Agenda for Sustainable Development and their international political support should prompt organizations to recognize and use the category in their work programme.

The same concern may apply to global trust funds, such as the Global Fund and GAVI, two other important multilateral finance sources for LDCs, as noted at the beginning of the chapter, though they allocated respectively 50 percent and 53 percent of their resources to LDCs in 2015.<sup>22</sup>



TABLE 4.2  
**Concessional lending windows of major multilateral development banks and eligibility for least developed countries**

| Entity                          | Name of concessional lending window   | Eligibility                           | Note   |
|---------------------------------|---------------------------------------|---------------------------------------|--|
| World Bank                      | International Development Association | All LDCs, except Angola and Tuvalu.   | Certain island countries with per capita income higher than the cutoff are eligible due to the island exception. Bhutan receives hardened lending terms. |
| African Development Bank        | African Development Fund              | All LDCs in the region except Angola. | Angola receives hardened lending terms.  |
| Asian Development Bank          | Asian Development Fund                | All LDCs in the region.               | Yemen is not an ADB member. Bangladesh is categorized as a blend country.  |
| Inter-American Development Bank | Fund for Special Operations           | Haiti, the only LDC in the region.    | n/a  |

Source: UNDESA and CDP 2012.

**Conclusion: impact of LDC status on multilateral LDC assistance**

The LDC category has gathered political support in intergovernmental negotiations as witnessed by the references to their special situation in many development agendas and outcomes, including the 2030 Agenda for Sustainable Development. Thanks to the category’s creation and political support over the years, the overall multilateral ODA share to LDCs could also be significantly higher than it might have otherwise been.

UN organizations make significant contributions to LDCs’ development. But while UN entities recognize the LDC category, such recognition does not translate into a consistent application of priorities and budget allocation, and there are large variations in the kinds of LDC-specific assistance. UN organizations must go beyond mere category recognition and implement meaningful LDC-specific support measures. Additional efforts are also needed to improve the coherence and application of such measures.

Too often, assistance is based on UN organizations’ own criteria which may not necessarily be related to LDC status. More complete and consistent monitoring would improve the assessment of how well the UN system helps LDCs overcome their structural handicaps. In this regard, the Committee for Development Policy can continue to play an important role in reviewing how UN entities apply the LDC category and to report their findings.<sup>23</sup>

While it is recognized that additional measures are necessary to support LDCs, more tailor-made, national and international responses for each LDC are needed to improve support. Greater coherence is also needed between the LDCs’ plans of actions, other related strategies and commitments, such as the SDGs, and those of the IMF and World Bank.

To equitably address the specific issues faced by LDCs due to their structural handicaps, multilateral ODA, channeled either through the UN or multilateral financial institutions, should take into account the UN General Assembly resolution on smooth transition from the LDC category. Development partners should consider the LDC indicators—gross national income, the human assets index and the economic vulnerability index—as part of their criteria for allocating ODA, as the European Union has done (see chapter 3).<sup>24</sup> While the UN resolution applies to all development partners, it particularly matters for multilateral institutions, including UN organizations, which could take the lead in addressing LDC concerns. Applying the criteria would permit differentiation among LDCs according to the severity of their handicaps as well as address graduating LDCs' specific concerns. These concerns are further examined in chapter 8.

### Appendix A4.1. Expenditures on operational activities for development by recipient and entity: 2015 (US\$, thousands)

| Recipient                 | Total      | UNDP <sup>a</sup> | UNICEF    | WFP       | UNHCR     | UNRWA     | UNFPA   |
|---------------------------|------------|-------------------|-----------|-----------|-----------|-----------|---------|
| Groups of countries       |            |                   |           |           |           |           |         |
| LDCs                      | 10,184,106 | 1,982,428         | 2,527,135 | 2,815,180 | 1,071,017 | 0         | 371,256 |
| LDCs as % of total        | 35.90      | 38.68             | 49.77     | 57.53     | 32.66     | 0.00      | 37.98   |
| LDCs Africa and Haiti     | 7,748,721  | 1,156,947         | 2,072,398 | 2,275,135 | 923,149   | 0         | 296,019 |
| LDCs Asia                 | 2,419,657  | 820,223           | 454,737   | 536,158   | 147,868   | 0         | 75,238  |
| ODCs                      | 9,090,727  | 1,832,894         | 1,954,837 | 1,659,173 | 1,487,806 | 569,997   | 299,675 |
| ODCs Africa and Haiti     | 2,299,894  | 481,294           | 626,675   | 356,453   | 291,136   | 0         | 112,607 |
| ODCs Asia                 | 5,050,634  | 467,023           | 1,118,354 | 1,153,714 | 1,043,410 | 569,997   | 113,172 |
| Total Member States       | 20,483,203 | 4,304,143         | 4,603,363 | 4,557,366 | 2,717,490 | 569,997   | 691,786 |
| Total nonmembers          | 1,092,252  | 184,834           | 34,498    | 52,600    | 9,847     | 763,778   | 3,827   |
| Total countries/areas     | 21,575,455 | 4,488,977         | 4,637,861 | 4,609,966 | 2,727,337 | 1,333,775 | 695,613 |
| Non-gov. org. and private | 6,638,281  | 137,254           | 160,081   | 283,506   | 338,531   | 0         | 176,615 |
| Not elsewhere classified  | 157,497    | 0                 | 141,000   | 0         | 0         | 0         | 0       |
| Total                     | 28,371,234 | 5,124,567         | 5,077,602 | 4,893,472 | 3,278,872 | 1,333,775 | 977,378 |

| Recipient                 | Specialized agencies |         |                     |         |         |                   |         |        |
|---------------------------|----------------------|---------|---------------------|---------|---------|-------------------|---------|--------|
|                           | WHO                  | FAO     | UNESCO <sup>b</sup> | ILO     | UNIDO   | IFAD <sup>b</sup> | ICAO    | IAEA   |
| Groups of countries       |                      |         |                     |         |         |                   |         |        |
| LDCs                      | 649,601              | 340,629 | 0                   | 79,552  | 33,008  | 0                 | 5,938   | 11,464 |
| LDCs as % of total        | 24.87                | 34.54   | 0.00                | 16.25   | 13.52   | 0.00              | 4.67    | 13.47  |
| LDCs Africa and Haiti     | 480,707              | 280,965 | 0                   | 31,161  | 27,218  | 0                 | 5,814   | 7,511  |
| LDCs Asia                 | 163,154              | 59,171  | 0                   | 48,086  | 5,790   | 0                 | 124     | 3,953  |
| ODCs                      | 579,521              | 182,955 | 0                   | 67,215  | 88,041  | 0                 | 62,000  | 24,529 |
| ODCs Africa and Haiti     | 240,618              | 50,243  | 0                   | 24,010  | 32,452  | 0                 | 2,843   | 6,952  |
| ODCs Asia                 | 324,883              | 83,097  | 0                   | 30,146  | 45,117  | 0                 | 1,290   | 8,842  |
| Total Member States       | 1,269,471            | 726,335 | 0                   | 154,184 | 144,593 | 0                 | 83,352  | 48,845 |
| Total nonmembers          | 9,869                | 10,581  | 0                   | 543     | -90     | 0                 | 0       | 189    |
| Total countries/areas     | 1,279,340            | 736,916 | 0                   | 154,727 | 144,503 | 0                 | 83,352  | 49,034 |
| Non-gov. org. and private | 1,332,820            | 249,282 | 589,838             | 334,798 | 99,638  | 168,226           | 43,806  | 36,045 |
| Not elsewhere classified  | 0                    | 0       | 0                   | 0       | 0       | 0                 | 0       | 0      |
| Total                     | 2,612,160            | 986,198 | 589,838             | 489,525 | 244,141 | 168,226           | 127,158 | 85,079 |

Source: ECOSOC 2017.

| UNEP <sup>b</sup> | UN-Women | OCHA    | UNAIDS  | UNODC   | UN-Habitat | OHCHR   | ITC <sup>b</sup> | UNDESA <sup>b</sup> | UNCTAD <sup>b</sup> |
|-------------------|----------|---------|---------|---------|------------|---------|------------------|---------------------|---------------------|
| 0                 | 70,054   | 112,526 | 29,613  | 17,539  | 51,175     | 14,181  | 0                | 0                   | 0                   |
| 0.00              | 22.24    | 36.46   | 10.07   | 6.29    | 30.63      | 9.69    | 0.00             | 0.00                | 0.00                |
| 0                 | 46,247   | 81,404  | 24,638  | 4,991   | 21,508     | 11,458  | 0                | 0                   | 0                   |
| 0                 | 23,802   | 31,122  | 4,974   | 12,548  | 29,667     | 2,723   | 0                | 0                   | 0                   |
| 0                 | 52,568   | 44,756  | 34,688  | 92,050  | 35,543     | 16,491  | 0                | 0                   | 0                   |
| 0                 | 25,141   | 6,209   | 17,235  | 15,388  | 7,032      | 1,833   | 0                | 0                   | 0                   |
| 0                 | 10,265   | 36,113  | 8,970   | 9,766   | 22,663     | 1,594   | 0                | 0                   | 0                   |
| 0                 | 132,602  | 160,200 | 67,099  | 114,249 | 89,265     | 35,381  | 0                | 0                   | 0                   |
| 0                 | 5,202    | 6,639   | 0       | 2,217   | 5,182      | 2,364   | 0                | 0                   | 0                   |
| 0                 | 137,804  | 166,839 | 67,099  | 116,466 | 94,447     | 37,745  | 0                | 0                   | 0                   |
| 559,703           | 67,843   | 141,796 | 226,838 | 162,453 | 72,615     | 108,538 | 102,654          | 44,363              | 23,282              |
| 0                 | 16,497   | 0       | 0       | 0       | 0          | 0       | 0                | 0                   | 0                   |
| 559,703           | 314,976  | 308,635 | 293,937 | 278,919 | 167,062    | 146,283 | 102,654          | 44,363              | 23,282              |

| Specialized agencies |                  |        |                  |                   |                    | Regional commissions |       |       |       |       |
|----------------------|------------------|--------|------------------|-------------------|--------------------|----------------------|-------|-------|-------|-------|
| ITU                  | WMO <sup>b</sup> | UPU    | IMO <sup>b</sup> | WIPO <sup>b</sup> | UNWTO <sup>b</sup> | ECA                  | ESCAP | ESCWA | ECE   | ECLAC |
| 363                  | 850              | 596    | 0                | 0                 | 0                  | 0                    | 0     | 0     | 0     | 0     |
| 0.84                 | 2.73             | 4.03   | 0.00             | 0.00              | 0.00               | 0.00                 | 0.00  | 0.00  | 0.00  | 0.00  |
| 363                  | 724              | 364    | 0                | 0                 | 0                  | 0                    | 0     | 0     | 0     | 0     |
| 0                    | 99               | 219    | 0                | 0                 | 0                  | 0                    | 0     | 0     | 0     | 0     |
| 2,148                | 3,679            | 159    | 0                | 0                 | 0                  | 0                    | 0     | 0     | 0     | 0     |
| 149                  | 1,538            | 87     | 0                | 0                 | 0                  | 0                    | 0     | 0     | 0     | 0     |
| 1,472                | 745              | 0      | 0                | 0                 | 0                  | 0                    | 0     | 0     | 0     | 0     |
| 5,120                | 7,590            | 773    | 0                | 0                 | 0                  | 0                    | 0     | 0     | 0     | 0     |
| 91                   | 82               | 0      | 0                | 0                 | 0                  | 0                    | 0     | 0     | 0     | 0     |
| 5,211                | 7,672            | 773    | 0                | 0                 | 0                  | 0                    | 0     | 0     | 0     | 0     |
| 37,991               | 23,429           | 14,023 | 12,457           | 10,555            | 5,976              | 8,992                | 6,374 | 5,014 | 3,118 | 1,845 |
| 0                    | 0                | 0      | 0                | 0                 | 0                  | 0                    | 0     | 0     | 0     | 0     |
| 43,202               | 31,101           | 14,796 | 12,457           | 10,555            | 5,976              | 8,992                | 6,374 | 5,014 | 3,118 | 1,845 |

Appendix A4.2

| Country group   | Number of countries | Voice and accountability | Political stability | Government effectiveness | Regulatory quality | Rule of law | Control of corruption |
|---|---------------------|--------------------------|---------------------|--------------------------|--------------------|-------------|-----------------------|
| Low-income countries  | 31                  | -0.91                    | -1.13               | -1.22                    | -1.05              | -1.08       | -0.99                 |
| Lower middle income countries                                     | 47                  | -0.36                    | -0.42               | -0.56                    | -0.59              | -0.54       | -0.51                 |
| Upper middle income countries                                     | 59                  | -0.15                    | -0.05               | -0.20                    | -0.25              | -0.27       | -0.29                 |
| Main oil exporters  | 20                  | -1.22                    | -1.09               | -0.95                    | -1.15              | -1.15       | -1.16                 |
| Least developed countries   | 46                  | -0.58                    | -0.65               | -1.00                    | -0.86              | -0.77       | -0.70                 |
| Least developed countries non-oil exporters                       | 42                  | -0.50                    | -0.55               | -0.96                    | -0.81              | -0.72       | -0.63                 |
| Least developed countries non-graduating                          | 41                  | -0.66                    | -0.78               | -1.04                    | -0.88              | -0.85       | -0.80                 |
| Least developed countries non-oil exporters non-graduating        | 38                  | -0.59                    | -0.67               | -1.00                    | -0.84              | -0.80       | -0.74                 |
| Non-LDCs  | 91                  | -0.30                    | -0.30               | -0.32                    | -0.39              | -0.43       | -0.43                 |
| Non-LDCs, low- and middle-income countries                        | 91                  | -0.30                    | -0.30               | -0.32                    | -0.39              | -0.43       | -0.43                 |
| Non-LDCs, low and lower middle income countries                   | 33                  | -0.53                    | -0.72               | -0.57                    | -0.65              | -0.68       | -0.67                 |
| Non-LDCs non-oil exporters, low- and middle-income countries      | 75                  | -0.12                    | -0.17               | -0.22                    | -0.24              | -0.28       | -0.29                 |
| Non-LDCs non-oil exporters, low and lower middle income countries | 29                  | -0.49                    | -0.62               | -0.51                    | -0.60              | -0.62       | -0.62                 |
| Small island developing states                                    | 26                  | 0.39                     | 0.46                | -0.47                    | -0.47              | -0.13       | -0.06                 |
| Landlocked developing countries                                   | 31                  | -0.74                    | -0.54               | -0.61                    | -0.58              | -0.66       | -0.65                 |

## Notes

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1. See [www.un.org/ldcportal](http://www.un.org/ldcportal) and CDP (2015).
2. This chapter does not discuss the details of trade-related multilateral development assistance, which is dealt with in other chapters of the book (3, 5, 6).
3. Multilateral Official Development Assistance represents flows from governments to multilateral organizations. These are also referred to as core contributions since the donor countries typically do not specify which projects and programmes are to be funded. <http://www.oecd.org/dac/stats/faq.htm>.
4. Paragraph 35 (A/70/62 E/2015/4).
5. Paragraph 39 (A/71/63 E/2016/8).
6. Paragraph 40 of the Quadrennial Comprehensive Policy Review resolution A/RES/71/243.
7. See detailed analysis in Lenzi (2017).
8. For some agencies data are not available at the country level (only aggregated at the global level, see appendix A4.1 for details on disbursements and a list of UN organizations considered).
9. See appendix A4.1 for a list of UN organizations and related data for 2015.
10. Equatorial Guinea graduated from the LDC category in 2017.
11. GEF 2016.
12. Cumulative flows.
13. See an assessment of the actions recommended by the Istanbul Programme of Action for the adaptation to climate change considering the need of the countries as identified by an index measuring the physical vulnerability to climate change in Guillaumont and Simonet (2014) and LDC IV Monitor (2014) chapter 8, pp. 287–317.
14. <http://www4.unfccc.int/nap/Support/Pages/NAPGSP.aspx>.
15. <https://www.thegef.org/about/funding>.
16. Between 2008 and 2012, about 50 percent of UNDP's resources were allocated to LDCs. In 2012, the budget allocated to LDCs, landlocked LDCs and SIDS was slightly above \$2.6 billion.
17. For example, FAO's Governing Bodies make "general recommendations" to prioritize country presence and programme support in Low-Income Food-Deficit Countries. ITC pledged to devote at least 70 percent of interventions on priority countries, which do not only include LDCs but also landlocked LDCs, SIDS, Sub-Saharan African nations, post-conflict states and small and vulnerable economies. IFAD reports that it "usually" funds LDCs on softer terms, since its financing terms are among other things determined by per capita income. Some

- organizations, such as IAEA, do not consider LDC status in determining budget allocation, and give “due consideration” to the needs of underdeveloped regions. LDC status is one of UNDESA’s guiding principles as stated in its capacity development strategy and formulation of capacity development assistance. But there is no formal rule for budget allocation to LDCs.
18. For example, UNESCO’s Capacity Development for Education for All, while not LDC-specific, uses some LDC criteria to determine countries that are eligible for funding and eventually ends up benefitting LDC countries as well.
  19. As of 1 July 2016, low-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of \$1,025 or less in 2015; lower-middle income economies are those with a GNI per capita between \$1,026 and \$4,035; upper-middle income economies are those with a GNI per capita between \$4,036 and \$12,475; and high-income economies are those with a GNI per capita of \$12,476 or more. The updated GNI per capita estimates are also used as inputs to the World Bank’s operational guidelines that determine lending eligibility.
  20. <http://stats.oecd.org/qwidsl/>.
  21. “We [the Heads of State and Government and High Representatives participating in the Comprehensive High-level Midterm Review of the implementation of the Istanbul Programme of Action for the Least Developed Countries for the Decade 2011–2020] invite the Committee for Development Policy to look into the reasons and consequences of the non-application of the least developed country category by some United Nations development system organizations and to include its findings on this matter in its annual report to the Economic and Social Council”. (Paragraph 119 of the Political Declaration of the Comprehensive High-level Midterm Review of the Implementation of the Istanbul Programme of Action for the Least Developed Countries for the Decade 2011–2020, United Nations.)
  22. Source: OECD website.
  23. See also ECOSOC resolution E/2017/L.31, “Report of the Committee for Development Policy on its nineteenth session”.
  24. General Assembly Resolution A/RES/67/221 (paragraph 23) on “Smooth transition for countries graduating from the list of least developed countries”, adopted on 21 December 2012.

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# **Support through trade**



## Trade-related measures for the LDCs: What has been done?

### Introduction

Special and differential treatment (SDT) in multilateral trade agreements has a long history. The term dates from the 1973 Tokyo Round Declaration, which recognizes “the importance of the application of differential measures to developing countries in ways which will provide special and more favourable treatment [...]” (Whalley 1990). Differential treatment includes provisions granting preferential market access and flexibilities in adopting and implementing the disciplines dictated by the multilateral trade regime. This chapter examines non-tariff SDT provisions made available for LDCs within the context of the WTO agreements. It also reviews the Enhanced Integrated Framework (EIF, previously IF) for Trade-Related Technical Assistance for the least developed countries (LDCs). Preferential market access provisions and impacts are addressed in chapter 6, while the role of LDCs in the governance of the WTO is examined in chapter 8.

The chapter is organized as follows. The second section provides a brief background on the origins and evolution of the special and differential treatment measures and provisions and an overview of those measures. The third addresses issues of access and use of SDT measures, as well as the impact of the measures actually used by LDCs. The fourth looks more closely at measures supporting accession of LDCs to the WTO. The fifth focuses on the EIF, its origins and evolution. The sixth concludes. Appendix A5.1 (available at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>) lists the articles of WTO agreements with references to LDCs.

### Special and differential treatment in WTO agreements: How have LDCs been differentiated?

As of January 2016, 36 of the 48 LDCs in the list of LDCs are members of the WTO. Another 6 are in the process of accession (table 5.1).

TABLE 5.1  
**LDCs and the World Trade Organization as of January 2016**

| LDC members of the WTO     |                           |                       |                 |          |
|----------------------------|---------------------------|-----------------------|-----------------|----------|
| Afghanistan <sup>a</sup>   | Chad                      | Lesotho               | Nepal           | Tanzania |
| Angola                     | Congo, Democratic Rep. of | Liberia <sup>a</sup>  | Niger           | Vanuatu  |
| Bangladesh                 | Djibouti                  | Madagascar            | Rwanda          | Yemen    |
| Benin                      | Gambia                    | Mali                  | Senegal         | Zambia   |
| Burkina Faso               | Guinea                    | Malawi                | Sierra Leone    |          |
| Burundi                    | Guinea-Bissau             | Mauritania            | Solomon Islands |          |
| Cambodia                   | Haiti                     | Mozambique            | Togo            |          |
| Central African Republic   | Lao PDR                   | Myanmar               | Uganda          |          |
| Ongoing accessions         |                           |                       |                 |          |
| Bhutan                     | Equatorial Guinea         | São Tomé and Príncipe |                 |          |
| Comoros                    | Ethiopia                  | Sudan                 |                 |          |
| LDCs not seeking accession |                           |                       |                 |          |
| Eritrea                    | Somalia                   | Timor-Leste           |                 |          |
| Kiribati                   | South Sudan               | Tuvalu                |                 |          |

a. Accession terms accepted at the WTO Nairobi Ministerial in December 2015. Membership will become effective once domestic ratification is completed.  
Source: WTO.

**Background**

*The GATT and the differential treatment for developing countries.* Differential treatment for developing countries can be traced initially to the revision of article XVIII of the General Agreement on Tariffs and Trade (GATT) in the 1950s and the inclusion of a special provision to address balance-of-payment difficulties and protect their infant industries that “can only support low standards of living and are in the early stage of developments”. In 1964 GATT contracting parties adopted Part IV on Trade and Development, which recognized that “[...] there is need to provide in the largest possible measure more favourable and acceptable conditions of access to world markets for these products [primary commodities]” and “[...] for processed and manufactured products currently or potentially of particular export interest to less-developed contracting parties [...]” (article XXXVI.4 and .5).

Part IV reinforced the principle that the “less-developed contracting parties use special measures to promote their trade and development” (article XXXVI.1(f)). It also stated that “[t]he developed contracting parties do not expect reciprocity for commitments made by them in trade negotiations to reduce or remove tariffs and other barriers to the trade of less-developed contracting parties” (article XXXVI.8). Nonreciprocity

was, and still is the cornerstone of SDT, albeit to less extent since the conclusion of the Uruguay Round.

Subsequently, under the auspices of the United Nations Conference on Trade and Development (UNCTAD) developed countries established, on a voluntary and individual basis, the General System of Preference (GSP) in 1968. Under this system selected products originating in developing countries could be granted zero tariff or tariffs lower than those under the most-favoured-nation (MFN) treatment. In 1971 a waiver of GATT obligations (article I on “general most favoured nation treatment”) was granted for a period of 10 years. Preferential market access became a permanent feature of the GATT in 1979 with the adoption of the decision on “Differential and more favourable treatment reciprocity and fuller participation of developing countries”—the so-called “Enabling Clause”.

*The GATT and the LDCs.* The year 1971 also witnessed the establishment of the LDC category and the recognition that these countries were caught in a vicious cycle of low rates of growth and low incomes and thus needed special supplementary support measures by the international community to address such problems (UN/CDP 1971).

With the adoption the Enabling Clause, the LDC category is incorporated in the multilateral trading regime. The clause recognized the differentiation between developing and least developed countries and the need for special treatment for LDCs. Among other things, it provided the legal basis for the derogation of the key GATT Article I, the MFN clause, for preferential tariff treatment by developed countries of developing countries exports and differential and more favourable treatment for developing countries on GATT non-tariff provisions. It also introduced special treatment for the LDCs in the context of any special measure granted to developing countries. Moreover, the developed countries, in view of the particular situation of LDCs, agreed to exert utmost restraint in seeking concessions from these countries. The clause reaffirmed the principle of nonreciprocity and provided a stronger legal basis for SDT but not a binding one (Michalopoulos 2000).

*The Uruguay Round and the single undertaking.* The Uruguay Round introduced major changes in the way negotiations were conducted and in the thrust and objectives of special and differential treatment when the “single undertaking” (SU) approach was adopted. Developing countries could no longer opt out of specific agreements, as had been the case under the GATT (WTO Secretariat 1998), and they were brought under the same disciplines as developed countries. The SU implied significant additional commitments by developing countries. As adjustment and implementation costs fell largely on the developing countries, there was need for flexibilities in implementing the new trade rules (longer transition periods, simpler or less frequent reporting requirements) and increased technical assistance for building institutional capacities, particularly for LDCs. In fact, the Decision on Measures in Favour of the Least-Developed Countries

(adopted on 15 December 1993) calls for expeditious implementation of SDT provisions, flexibility in the application of WTO rules and substantially increased technical assistance for LDCs. The call for attention to the special needs of LDCs is a common feature of subsequent ministerial decisions and declarations, particularly after the establishment of the WTO Sub-Committee on Least-Developed Countries in July 1995 by the Committee on Trade and Development.

However, most of the UR (and post-UR) SDTs aim at guaranteeing participation by developing countries (and LDCs) in the multilateral trade regime and facilitating the implementation of the new disciplines, which reflected the rules and legislation prevailing in the developed countries. Little flexibility related to the promotion and protection of industries and activities remained. At the same time, the principle of nonreciprocity of commitments for developing and least developed countries was maintained in the UR negotiations. Article XI of the Agreement establishing the WTO stresses that “the least-developed countries will only be required to undertake commitments and concessions to the extent consistent with their individual development, financial and trade needs or their administrative and institutional capabilities” (see appendix A5.1 at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>).

Nonetheless, the principle of nonreciprocity seems to have become weaker recently, as SDTs have been increasingly reflecting longer implementation periods and not special disciplines or provisions adjusted to the level of development of the country. For example, in the Revised Agreement on Government Procurement (GPA), a WTO plurilateral agreement that entered into force in 2014, deviations from the rules are allowed only while the country implements the agreement; SDTs are not permanent exemptions under the GPA. Similarly, in the Agreement on Trade Facilitation negotiated at the WTO Bali Ministerial in 2013, most of the SDTs adopted for LDCs do not go much beyond the extension of longer periods for presenting the numerous notifications required for the classification of commitments, the implementation schedule and the requests for additional extensions. As in the GPA, full reciprocity is expected. No deviations from rules are foreseen, and all countries are expected to implement the entire agreement, eventually (Cortez and Arda 2015). The space for special and differential treatment for LDCs seems to be closing quickly.

### *The Uruguay Round provisions: what more for the LDCs?*

LDC members of the WTO may benefit from special considerations in implementing its agreements.

*Adding provisions over time.* The agreement creating the WTO and its appendices contain 29 articles and paragraphs explicitly mentioning differential treatment for LDCs, though not all of them imply interventions in their exclusive favour (other subgroups of developing countries may benefit as well) or go beyond expressing general principles and considerations (table 5.2). Over the years, provisions adopted at the UR have been

TABLE 5.2

LDC special and differential treatment provisions of the Uruguay Round agreements

| Uruguay Round agreements                                   | Types of provisions                               |     |   |     |                                     |     |                      |                        |  |
|--|---|-----|---|-----|-------------------------------------|-----|----------------------|------------------------|--|
|  | Number of Flexibilities of provisions commitments |     | General: consider/give priority/take into account |     | Longer transition period (Expired?) |     | Technical assistance | Monitoring/ review     | LDC specific?  |
| Column   | 1   | 2   | 3   | 4   | 5                                   | 6   | 7                    | 8                      | 9  |
| Establishing the WTO (articles IV.7 and XI.2)              | 2   | Yes |   |     |                                     |     | Yes                  | Yes                    | Commitments compatible with level of development; review of measures by the Committee on Trade and Development.  |
| Understanding balance of payment provisions (article 8)    | 1   | Yes |   | Yes |                                     |     |                      | Yes                    | Simplified consultation procedures allowed more than two successive consultations. Bangladesh simplified only up to 2000 then reverted to regular consultations.   |
| Agriculture (articles 15.2, 16.1 and 16.2)                 | 3   | Yes |   |     |                                     | Yes | Yes                  | No, net food importers | No reduction commitments required for LDCs; reference to decision on least-developed and net food importers; monitoring by the Committee on Agriculture. Acceded LDCs (Cabo Verde, Cambodia and Nepal) made commitments. |
| Sanitary and phytosanitary measures (articles 10.1 and 14) | 2   |     | Yes   |     | Yes, Yes (art. 14)                  |     | Yes                  | No                     | Special attention to, in particular LDCs. Several LDCs identified by the WTO Secretariat as being potentially affected by SPS measures by other members.   |



TABLE 5.2 (continued)

**LDC special and differential treatment provisions of the Uruguay Round agreements**

| Uruguay Round agreements   | Types of provisions  |   |  |  |                                  |   | Observations   |
|--|----------------------|---|--|--|----------------------------------|---|--|
|  | Number of provisions | General: Flexibilities of trade commitments | General: consider/priority/take into account | Longer transition period (Expired?)                                      | Technical assistance             | Monitoring/review   |  |
| Technical barriers to trade (articles 11.8, 12.7 and 12.8)           | 3                    |   | Yes  | Yes, case specific/requested   | Yes                              | Yes   | Give priority/in particular LDCs. The WTO and few members have provided technical assistance to LDCs.  |
| TRIMS (article 5.2)  | 1                    |   |  | Yes, extended  |                                  | Yes   | Renewed in Hong Kong. Only Uganda has informed the WTO on TRIMS.   |
| Licensing procedures (article 3.5 (j))                               | 1                    |   | Yes  |  |                                  | No  | Special consideration for LDCs.  |
| Subsidies and countervailing duties (articles 27.2 and 27.3)         | 2                    | Yes   |  | Yes, Yes (exemption on domestic inputs expired in 2003)                  |                                  | No, developing countries with per capita income up to \$1,000 | Export subsidy exemption not taken in Cambodia and Nepal accessions.   |
| GATS (articles IV.3, XIX.3 Annex on Telecommunications article 6(d)) | 3                    |   | Yes  |  | Yes, Annex on Telecommunications | Yes   | Special priority to LDCs; guidelines on future negotiations to include SDTs for LDCs.  |
| TRIPS (Preamble, Articles 66.1 and 66.2)                             | 3                    |   | Yes  | Yes, extended in 2005 until 1 July 2013. Article 70.9 until 1 July 2021. | Yes                              | Yes   | Extension linked to identifying priority needs for assistance on implementation of TRIPS, Bangladesh, Rwanda, Senegal, Sierra Leone, Tanzania, and Uganda submitted reports. Subsequent measures on pharmaceuticals (paragraph 6 of the Doha Declaration). |

TABLE 5.2 (continued)

LDC special and differential treatment provisions of the Uruguay Round agreements

| Uruguay Round agreements                                  | Number of provisions | Types of provisions                               |                |                                     |                      |  | Monitoring/<br>review | LDC specific? | Observations  |
|---|----------------------|---|----------------|-------------------------------------|----------------------|--|-----------------------|---------------|---|
|   |                      | General: consider/give priority/take into account | WTO procedures | Longer transition period (Expired?) | Technical assistance |  |                       |               |   |
| Annex 2 Dispute settlement (articles 24.1 and 24.2)       | 2                    | Yes   |                |                                     |                      |  |                       | Yes           | No dispute settlement with LDC as defendant; DG office consulted in cotton initiative.  |
| Annex 3 Trade policy review mechanism                     | 2                    | Yes   | Yes            |                                     | Yes                  |  |                       | Yes           | Longer review periods. In practice, LDCs are reviewed every 6 years as the majority of members.                                 |
| Annex 4 Government procurement (articles 1, 2, 12 and 13) | 4                    | Yes   |                |                                     | Yes                  |  |                       | Yes/No        | In particular the LDCs, bearing in mind special problems of LDCs, special treatment for LDCs. No LDC is party to the Agreement. |
| Total   | 29                   |   |                |                                     |                      |  |                       |               |   |

Note: This list excludes the Agreement on Textiles and Clothing, which expired in 2005. There is no consensus on the number of measures in favour of LDCs enacted by the Uruguay Round. UNCTAD's *Least Developed Countries Report 2004* indicates 24 articles and paragraphs that extend special and differential treatment explicitly to LDCs, while the WTO Secretariat puts that number at 14 provisions (UNCTAD 2004; WTO Secretariat 2010). Additional LDC-specific instruments adopted by the Uruguay Round include a decision on measures in favour of least developed countries in agriculture and measures concerning the possible negative effects of the reform programme on least developed and net food-importing developing countries.

complemented by ministerial decisions and declarations, as well as by decisions of the General Council and other WTO governing bodies (table 5.3).

As mentioned, several of these measures have been intended to facilitate compliance with WTO rules to be respected as part of the SU in view of LDCs' limited institutional capacities. These include giving LDCs longer transitional periods, facilitating reporting and making technical assistance available. For instance, trade policy reviews

TABLE 5.3

### Main ministerial and other decisions containing specific measures in favour of the LDCs

|  |
|--|
| Differential and more favourable treatment, reciprocity and fuller participation of developing countries – Decision of 28 November 1979 (Enabling Clause - L/4903).  |
| Decision on measures in favour of least developed countries (15 December 1993).  |
| Decision on measures concerning the possible negative effects of the reform programme on least-developed and net food-importing developing countries (15 December 1993).   |
| Preferential tariff treatment for least developed countries – Decision on waiver—15 June 1999 (WT/L/304).  |
| Extension of the transition period under article 66.1 of the Trade Related Intellectual Property Rights (TRIPS) Agreement for least-developed country Members for certain obligations with respect to pharmaceutical products – Decision of the Council for TRIPS of 27 June 2002 (IP/C/25). |
| Least-developed country Members—obligations under article 70.9 of the TRIPS Agreement with respect to pharmaceutical products – Decision of 8 July 2002 (WT/L/478).  |
| Accession of least developed countries – Decision of 10 December 2002 (WT/L//508).   |
| The implementation of paragraph 6 of the Doha Declaration on the TRIPS agreement and public health (WT/L/540 and Corr.1) – Decision of 30 August 2003.   |
| Extension of the transition period under article 66.1 for least-developed country Members – Decision of the Council for TRIPS of 29 November 2005 (IP/C/40).   |
| General Council Decision on the amendment of the TRIPS Agreement (WT/L/641) – Decision of 6 December 2005.   |
| Other decisions in favour of least developed countries: Annex F Hong Kong Ministerial Declaration adopted on 18 December 2005 (WT/MIN(05)/DEC).  |
| Preferential treatment to services and service suppliers of least developed countries. Ministerial Decision of 17 December 2011 (WT/L/847).  |
| General Council Addendum to its Decision of 10 December 2002 entitled Accession of Least Developed Countries, contained in document WT/L/508, adopted on 25 July 2012 (WT/COMTD/LDC/W/55/Rev.2).   |
| Operationalization of the waiver concerning preferential treatment to services and service suppliers of least developed countries. Ministerial Decision adopted on 7 December 2013 (WT/MIN(13)/43; WT/L/918).  |
| Preferential Rules of Origin for Least Developed Countries. Ministerial Decision adopted on 7 December 2013 (WT/MIN(13)/42 or WT/L/917).   |
| Preferential Rules of Origin for Least Developed Countries (WT/MIN(15)/47—WT/L/917/Add.1): Ministerial Decision adopted on 21 December 2015.   |
| Implementation of Preferential Treatment in Favour of Services and Service Suppliers of Least Developed Countries and Increasing LDC Participation in Services Trade (WT/MIN(15)/48—WT/L/982): Ministerial Decision adopted on 21 December 2015.   |

Source: WTO Secretariat 2010. Special and Differential Treatment Provisions in WTO Agreements and Decisions. Note by the Secretariat (TN/CTD/W/33) 4 June 2010, UN/CDP (2015).

are to be conducted less often for LDCs than for other countries. LDCs can use “simplified” procedures in balance-of-payments consultations. LDCs do not have to prove they have limited manufacturing capacity to import pharmaceuticals under compulsory licensing. Other measures are related to monitoring obligations by WTO bodies or its secretariat on implementing measures benefiting LDCs. For instance, the Committee on Trade and Development has to periodically review the special provisions in favour of LDCs and report to the General Council for appropriate action (article IV.7).

Note that the UR, while curtailing policy space for developing countries, maintained for LDCs some of the special rights acquired in the previous rounds on protection and promotion of economic activities. Some LDC-specific SDT give LDCs more policy space than other developing countries. Thus LDCs were not required to make reduction commitments in agriculture, they were exempted from the prohibition on export subsidies, and they were not required to implement most provisions of the Agreement on Trade Related Intellectual Property Rights (TRIPs). At the Hong Kong Ministerial transition periods for existing Trade Related Investment Measures (TRIMs) were extended, and the introduction of new TRIMs was allowed in LDCs.

For the objective of promoting economic activities other measures call on WTO members to assist LDCs in developing specific sectors, such as telecommunications infrastructure or a viable technological base. WTO members were also invited to assist LDCs in removing impediments to trade—for example, by giving technical assistance for compliance with technical barriers to trade and sanitary and phytosanitary requirements.

*A wide range of SDT provisions.* The SDT provisions are very varied, even within measures that have similar objectives. For instance, among those measures providing for longer transitional periods, some have expired (Agreement on Countervailing Duties) while others have been renewed and extended (TRIPS article 66.1). Technical assistance may be provided by private agents, in some instances with the encouragement of developed country members, by WTO members themselves, or by the WTO Secretariat via the Trade Policy Review mechanism (see appendix A5.1 at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>).

Some provisions, such as those related to implementing the Agreement on Trade Facilitation, are very specific. Others seem to indicate intentions, best endeavours or simply guidelines for WTO members in their future dealings with LDCs. For example, several provisions indicate that contracting parties commit “to take into consideration” a particular action or approach, “to have special regard” or to give “special priority” to LDCs, “to take into account special needs” of LDCs, “to exercise due restraint” when negotiating with LDCs, and so on. These shortcomings were already noticed in 2001 when the Doha Ministerial Conference adopted the Decision on Reacted Issues and Concerns, which, among other things, instructs the Committee on Trade and

Development (CTD) to consider the legal implications of converting SDT measures into mandatory provisions and to consider ways SDT can be made more effective.

SDTs have become a difficult and contentious issue for the Doha round, with very little progress. After lengthy negotiations a Monitoring Mechanism was adopted at the Bali Ministerial in 2013 to provide a forum for monitoring SDT provisions and generating recommendations on how to improve them. It is not clear however if the mechanism will be effective in making special treatment “more precise, effective and operational” (Doha Ministerial Declaration, paragraph 44). Special and differential treatment and its use by the LDCs.

### **Access, use and effectiveness of special and differential treatment for LDCs**

The wide variety of SDT measures and provisions makes it difficult to ascertain the extent of their use by LDCs or their effectiveness, and assessments of the actual application of SDT measures to LDCs and their impact on user countries are not always readily available.

#### ***Results from a survey by the UN Committee for Development Policy***

The secretariat of the Committee for Development Policy (CDP) devised a survey on the International Support Measures related to WTO Provisions and Preferential Market Access for LDCs to assemble information on trade-related support measures for LDCs and to collect relevant data using the LDCs themselves as sources.<sup>1</sup> The main findings of the survey are presented here. Additional information is available at the Support Measures Portal for Least Developed Countries ([www.un.org/ldcportal](http://www.un.org/ldcportal)), a web-based catalogue of all LDC-exclusive support measures launched by the CDP secretariat.

*No dispute settlement procedures against LDCs.*<sup>2</sup> No dispute settlement procedures have been initiated against LDCs. This may indicate that members may be “exercising due restraint in raising matters under these procedures” and giving “particular consideration to the special situation of LDC members”. Similarly, under “due restraint”, Nepal indicated that there was a noticeable favourable change in trading partners’ attitude towards accession negotiations after the adoption of the Decision on Accession of least developed countries (see below).

*Longer transition periods for LDCs.* It is realistic to suppose that LDCs have benefited from SDTs that grant them longer transition periods. Extensions of transition periods have often been negotiated at the group level. There have, however, been occurrences of individual LDCs requesting and being granted additional time to implement a particular WTO discipline. Bangladesh’s request on phasing out quantitative restrictions on agricultural

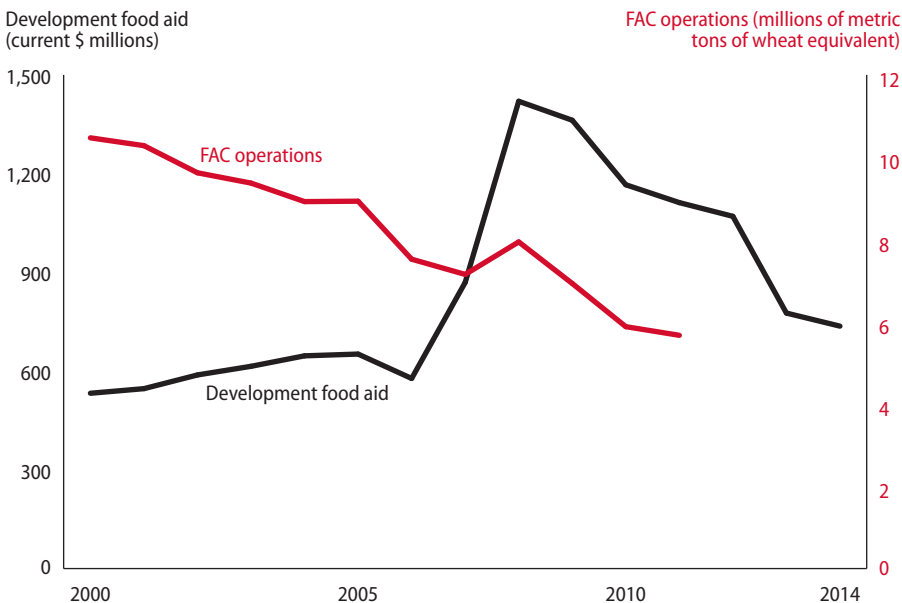
imports is a case in point. Meanwhile, several countries indicated the use of flexibilities related to implementing certain provisions of the Custom Valuation Agreement.

*Food aid.* LDCs have also benefited from food aid delivered in grant form and according to other provisions of the Decision on measures concerning possible negative effects of the reform programme on least developed and net food-importing developing countries. Food aid deliveries to least developed and net food-importing developing countries by the signatories of the Food Aid Convention reached 5.67 million metric tons of wheat equivalent in 2011/2012, well above the agreed commitments in value terms (figure 5.1). Meanwhile, food aid by all donors to LDCs reached \$736.61 million in 2014, up from about \$600 million during the period 2002–06.

*Other forms of assistance.* The survey also indicated that LDCs are receiving other forms of technical and financial assistance envisaged by WTO provisions, either from partners or the WTO secretariat. But some provisions on technical assistance seem to be used more than others at the time the survey was conducted (figure 5.2). While most

FIGURE 5.1

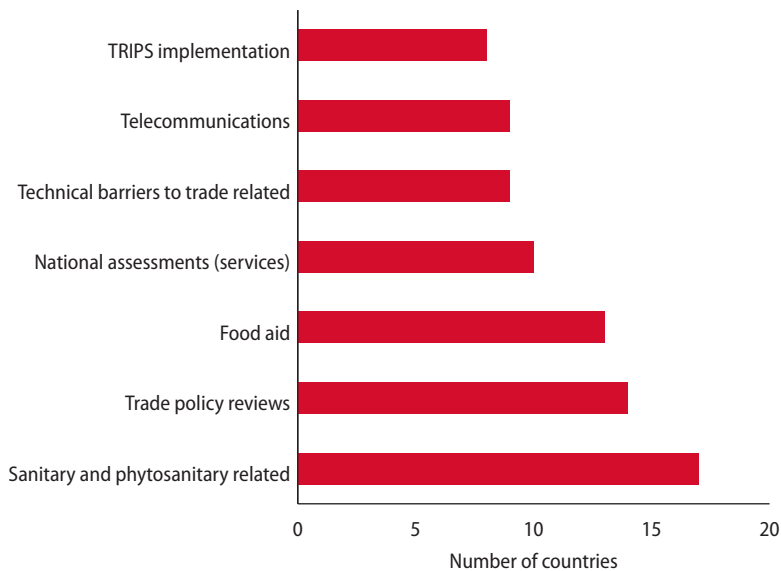
**Food Aid Convention annual operations and development food aid disbursements, 2000–14**



Note: FAC operations refer to the July/June year and include deliveries to both NFIDC and LDCs. ODA flows refer to calendar year and include flows to LDCs only.

Source: Food Aid Convention (<http://www.foodaidconvention.org/en/index/Summarytable.aspx>, downloaded on 08/02/2016) and OECD.Stat, dataset DAC2a ODA Disbursements (data extracted on 8 February 2016).

FIGURE 5.2  
**Technical and financial assistance received**



Source: Results of the CDF secretariat's survey.

countries have received technical assistance related to SPS issues, only a few (Bangladesh, Guinea, Lesotho and Uganda) have benefited from art. 67 of TRIPS and obtained the technical cooperation they requested from trading partners.

Other measures are much less used by LDCs, particularly those requiring some sort of active intervention by the countries. These often fall within the SDTs that exempt them from certain disciplines (policy space) or that require notifying WTO bodies, which would lead to follow-up actions such as the provision of technical assistance. In fact, only a few countries have acknowledged the use of subsidies and other forms of support to exports or agriculture (Bangladesh, Madagascar, Tanzania and Uganda), while only one LDC indicated it maintained a TRIM. Rwanda has been the only LDC that imported medicines under compulsory licensing. Meanwhile, the WTO data base on Sanitary and Phytosanitary (SPS) measures and Technical Barriers to Trade (TBT) agreements indicate that at the beginning of 2015, 18 LDCs<sup>3</sup> have formally notified the TBT Committee on specific TBT concerns (WTO 2015), while The Gambia and Senegal raised SPS concerns before the 2010 SPS Committee. Conversely, most LDCs had their exports affected by SPS or TBT measures.

*Why is SDT not fully used by LDCs?*

LDCs have faced several obstacles to greater use of the SDT measures available for them.

*Inadequate knowledge.* Preferential treatment use reflects understanding the WTO agreements, which varies from country to country. The few with better knowledge of SDT provisions have been able to use them. In general, knowledge about special measures and support available as well as about procedures to request such assistance has been inadequate. Moreover, LDCs have not been using existing mechanisms at the WTO to formally voice their concerns and to demand remedial action (see chapter 8 on the cotton issue).

*Coordination and communication failures.* Coordination and communication failures have compromised LDC use of SDT. Communications among the several ministries with WTO jurisdiction at the country level—and between the government and the private sector—are often fragmented or nonexistent. In some instances the private sector itself is poorly organized and does not effectively communicate within itself and with the government.

Many LDCs have not established mechanisms to follow up on WTO matters that bear direct relevance for them and to absorb the content of the various technical notifications delivered by trade partners that affect their exports (or their export potential), particularly those related to SPS measures and TBT. In some countries exporters whose products had been rejected on SPS or TBT grounds did not inform their governments, and without the government's awareness of the problem, action to evoke the pertinent SDT cannot be taken. Thus, technical assistance that could be provided by the relevant contracting parties is in many cases not requested.<sup>4</sup>

A related problem is that some LDCs do not have representations in the WTO<sup>5</sup> or have limited human resources to follow up and participate at the various WTO meetings. So they have little influence on decisions at these meetings or limited access to information being discussed/analysed/shared. While the interests of the LDCs are to be safeguarded or given particular attention, LDCs are not to present and defend their interests. Although participation may be indirect via representatives of LDC groups, communication between representations in Geneva and New York and the relevant ministries at the national level needs to be strengthened.

*Measures are not tailored to conditions prevailing in LDCs.* Some SDTs do not seem to be adjusted to conditions in LDCs. When replying to the survey, LDCs underscored inadequate and insufficient human and financial resources, lack of organizational structures and outdated or nonexistent data systems as important factors preventing them from more effective use of SDTs.

The very use of transitional periods and their extension indicate that LDCs continue to face difficulties in implementing several WTO disciplines and effectively engaging in the multilateral trading regime—which may also reflect the incompatibility or unsuitability of some WTO disciplines with respect to the current stage of



development of these economies. It also suggests that additional measures are necessary if WTO rules are to be adopted at the country level. TRIPS is a case in point. At the LDC group's request, the Council for TRIPS agreed in November 2005 to extend the transition period for LDC members to apply the provisions of the agreement to 1 July 2013. The Council extended again this general transition period in 2013 until 1 July 2021.

The November 2005 extension also requested LDCs to submit—preferably by 1 January 2008—an assessment of their priority needs for technical and financial cooperation to facilitate implementation of the agreement by these countries. Between 2007 and 2013, nine LDCs submitted their priority need assessments: Bangladesh, Madagascar, Mali, Rwanda, Senegal, Sierra Leone, Tanzania, Togo and Uganda. The provision—albeit well meant—is not in complete synchrony with the realities at the country level. In fact, Burkina Faso indicated that it did not submit its priority needs due to difficulties it experienced in assessing and formulating such needs. In this regard, it seems very likely that additional extensions and maximum flexibility in implementing the agreement domestically will be necessary to allow LDCs to develop intellectual property regimes that will enable them to “create a sound and viable technological base”.

Facing financial constraints, most LDCs cannot afford to subsidize exports or agriculture. This implies little usefulness of the measure for the category as a whole, although the measure may still benefit some individual countries. In addition, many LDCs have institutional capacity constraints, which make it extremely difficult for them to fulfil reporting requirements, present specific documentation or adjust legislation to use some of the provisions. Importing medicines under compulsory licensing is an example. Similarly, some market access provisions—particularly those involving products with greater value added and processing—are accompanied by complex and costly rules of origin requirements.

*Offsetting measures.* Another important factor preventing fuller use of the measures is that some SDTs are offset by measures taken elsewhere, thus indicating some lack of coherence and coordination in the global policymaking. Conditionality imposed by international financial organizations related to structural adjustment programmes implied reductions or eliminations of subsidies, agriculture support and tariffs despite the fact that LDCs were exempted from making reduction commitments at the WTO (such as Uganda for agriculture support and Bangladesh for tariffs). Guinea is another country indicating that conditionality attached to structural adjustment programmes were among the reasons the country did not provide subsidies to its exporters, although insufficient fiscal resources were also an important constraint.

In other instances, special and differential provisions in WTO agreements have been offset by bilateral or regional free trade agreements, which often encompass greater liberalization of trade and trade-related areas such as TRIMs and TRIPS. SDT may be

given up (and additional commitments taken up) in the hope of securing access to larger market shares through free trade agreements.

*Measures are not enforceable.* It is not clear how enforceable these provisions are. SDT measures in relevant ministerial and general council texts may not be enforceable through dispute settlement. Some seem to “represent political commitments and inform policy development towards LDCs” (Nguyen 2008). Besides not being enforceable, some measures may not be mandatory. An analytical exercise by the WTO Secretariat indicated that among 16 LDC-specific SDT measures, 4 were not mandatory.

### *Assessing effectiveness of SDT, beyond market access*

Besides the wide number of measures, a comprehensive assessment of the value of SDT for LDCs is also complicated by the lack of specific benchmarks, targets or agreed standards for comparisons. In some instances, there are issues of attribution since it is not clear whether support is being extended because of an existing provision in WTO agreements or because of other factors (box 5.1). Moreover, WTO-related support measures have become more numerous with time along with the complexity of disciplines. Implementation difficulties have become more evident while LDCs become more politically engaged and active in the WTO negotiation processes.

That many provisions are quite recent, such as those adopted subsequent to the UR (see table 5.3) compounds the complexity of assessing their effectiveness even further—because there may not be sufficient evidence to draw firm conclusions.<sup>6</sup> In any case, more provisions do not necessarily imply more precise, effective and operational provisions. In fact, some of the more recent provisions only reinforce or reaffirm previous commitments and do not add much further precision in actions to be taken.

Besides attribution, design and timing, another problem in evaluating the usefulness of SDT is identifying the objectives these measures were supposed to fulfil. In other words, should SDTs be assessed for how effectively they address the relevant LDC handicaps as established by the criteria that define the category?<sup>7</sup> Alternatively, should SDT be evaluated in relation to how successful the measures have been in integrating these economies into the global trading system?<sup>8</sup> The latter includes not only increasing their participation in world trade but also implementing the rules and disciplines created to ensure the expansion of global trade in goods and services.

SDT provisions are obviously no silver bullet for overcoming the challenges LDCs face. But at least in principle, and when combined with other interventions, they can contribute to tackling some of the structural handicaps that characterize LDCs: low income, acute export concentration and marked export volatility. The provisions allow LDCs to provide temporary incentives for export diversification and for more stable export revenue flows through preferential market access. In theory, these measures could contribute to reducing some of the LDC structural vulnerabilities by supporting the diversification of

## BOX 5.1

**Examples of attribution difficulties**

Article 6(d) of the GATS Appendix on Telecommunications states that suppliers of telecommunications services have to assist in the transfer of technology and capacity building. While technology transfer may have taken place and training was made available by telecommunications companies operating in some LDCs, it is not clear whether the reasons for such activities is Article 6 of the Appendix or whether it simply reflects customary business practices.

Similar conclusions have been reached by a study on the reports submitted during 1999–2007 on implementing TRIPS Article 66.2, which states that developed countries shall provide incentives for enterprises operating in their territories for promoting and encouraging technology transfer to LDCs (see appendix A5.1 at <https://ferdi.fr/en/publications/out-of-the-trap-supporting-the-least-developed-countries>). It indicates that of 292 programmes reviewed, only 116 (or 40 percent) were specifically targeted towards LDCs (members and nonmembers of the WTO), and among them, 84 qualify as technology transfer programmes. Yet, the study was unable to establish whether any of these programmes were put together specifically

in compliance with article 66.2 or whether they just reflected business as usual policies. Many of the activities listed fall under traditional ODA, and assessing additionality is a problem (Moon 2008). As stated in The Least Developed Countries Report 2010, “the major outcome of article 66.2 is the reporting mechanism” and the “incentives offered so far are inappropriate or insufficient in relation to the obligation” (UNCTAD 2010, p. 71).

Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health is another case. Rwanda is the only LDC to have benefited from that flexibility so far. Some argue that the complexities associated with the process discourage its use. Meanwhile, some LDCs have acknowledged that they do not evoke the measure because medicines are being supplied through bilateral donor’s aid programmes. It is not clear, however, whether paragraph 6 played a role in facilitating access to medicines by inducing donors with manufacturing capacity to provide the drugs through their assistance programmes. Nor is it clear whether these drugs are acquired at lower cost than if they had been acquired under compulsory licensing. But this issue falls beyond the scope of this review.

their exports. What is debatable is whether these measures, as currently conceived and implemented, can be effectively used by the LDCs to address the handicaps they confront.

As suggested by the WTO Secretariat (2004), SDT provisions can be classified in five main groups according to their objectives: increasing trade opportunities through market access, safeguarding the interest of developing countries, allowing flexibility in the application of rules and disciplines governing trade measures, providing longer transitional periods, and providing technical assistance. Issues related to increasing trade opportunities through market access are discussed in chapter 6.

Granting longer transition periods aims at facilitating LDC integration in the rule-based system. While extensions have been used, it is not clear whether they have achieved their goal. Transition periods and their extensions highlight the difficulties LDCs continue to experience in implementing WTO agreements. In fact, 15 of the 18

LDCs participating in the CDP secretariat survey indicated they had faced difficulties in implementing WTO agreements, while 12 LDCs indicated they expect to continue to have difficulties in complying with WTO obligations in the future.

Similarly, technical and financial assistance has facilitated implementation, and some positive developments have been recorded on this front. Yet it appears to be well below country needs or has not been delivered as anticipated. In their survey replies several LDCs indicated that while valuable, some of the training received could go beyond the generic seminars and workshops now offered. Yet LDCs did not suggest how such initiatives could be better tailored to their needs. There also are some areas where trading partners seem not to be delivering fully on their commitments. For example, only a third of the countries surveyed indicated they had received assistance to facilitate their increased participation in global trade of services.

SDT measures are deviations from “rules” adopted to contribute “[...] to raising standards of living, ensuring full employment and a large and steadily growing real income...” (Marrakesh Agreement Establishing the World Trade Organization, preamble). SDT is supposed to provide some flexibility and allow countries with varying levels of development—and conflicting interests—to participate in a single system. Even on that account, the approach does not seem to be working well. As seen, measures to accelerate their accession to the WTO do not seem to be producing desired results as their accession process has been taking as long, or longer than for other countries.

In any case, there seems to be an implicit contradiction: GATT/WTO rules aim at improving welfare for all, but at the same time deviations from the rules are necessary. If deviations are needed, some of the rules may not necessarily be in the best interests of LDCs. Increasing LDC participation in the multilateral trading system may then strengthen the system itself but not necessarily promote the development of these countries (Kleen and Page 2005). More worrisome, this reasoning may give further weight to the relevance of whether the policy package implicit in WTO agreements is appropriate for economies at an early stage of development.<sup>9</sup>

In all, the current SDTs seem to be inefficient in at least four aspects. First, some provisions cannot be accessed as they require a certain level of institutional capacity—which currently is lacking in many LDCs—to be integrated into the countries’ policies. Second, when accessible, SDTs need to be complemented by other policy interventions to be effective, such as upgrading the productive capacity of these countries. Duty-free access of unprocessed raw materials (already a characteristic of most MFN regimes) is not enough to put these countries on a sustained development path. Other SDTs may need financial support by donors, as in agriculture. In this regard, it is encouraging to see that donors have in some instances been able to provide such financial support, as for Madagascar and Tanzania. Third, some SDTs are simply off the target and do not respond to LDC-specific needs. And fourth, others are too vaguely defined or just indicate unenforceable good intentions to provide concrete benefits.

### **Accession to the WTO: has it been made easier for LDCs?**

SDT provisions in WTO legal texts are not applicable to acceding LDC members. Accessions are ruled by article XII.1 of the Marrakesh Agreement, which states that parties “[...] may accede to this Agreement, on terms to be agreed between it and the WTO”. Terms of accession are detailed in the Protocol of Accession negotiated between the acceding state and a Working Party comprising interested members. The process is complex and long, prompting the Third UN Conference on LDCs to call for streamlining the WTO accession requirements for LDCs to make them less onerous for these countries and more in synchrony with their economic conditions. Thus on 10 December 2002 the WTO General Council adopted the Decision on Accession of Least Developed Countries, which contains guidelines on how to conduct accession negotiations with LDCs (WTO General Council 2003).

The 2002 Decision specifies that SDTs are applicable from the date of entry into force of the respective Protocol of Accession, but it says nothing on SDTs being applicable during the negotiating process. It also calls for WTO members to exercise restraint when seeking concessions from LDCs. While only detailed analysis can indicate whether WTO members exercised restraint in seeking commitments, some of the concessions agreed by LDCs that recently joined the Organization may suggest that considerable policy space is being relinquished too soon (see below). Other provisions of the Decision reinforce the uniqueness of the accession process and its country-by-country approach—thus reflecting rather than guiding the negotiations between the working party and the acceding country. For instance, the Decision indicates that transitional periods shall be granted by taking into account countries’ individual development, financial and trade needs, while acceding LDCs shall offer commitments and concessions on trade in goods and services commensurate with their individual development.

The 2002 guidelines were further strengthened and operationalized on 25 July 2012, when the General Council approved new guidelines to enable LDCs to negotiate membership of the WTO more quickly and easily.<sup>10</sup> The new guidelines have five key components: benchmarks for agricultural and industrial goods, broad parameters for market access for services, transparency in accession negotiations, access to special and differential treatment provisions and favourable consideration of requests for additional transition periods, and technical assistance for the accession process.

#### *A lengthy process*

Since the establishment of the WTO nine LDCs have acceded to it. Afghanistan and Liberia had their accession approved at the Nairobi WTO Ministerial in December 2015 but membership will follow the conclusion of their respective domestic ratification processes. Six other countries are in the accession process (table 5.4).

While several acceding LDCs initiated their accession process over the past few years and the 2012 Decision on Accession is also relatively new, it is not obvious that

TABLE 5.4

**LDCs and accession to the WTO: 1994–2015**

| Country                 | Application received | Accession completed | Number of years | Accession guidelines in force |
|-------------------------|----------------------|---------------------|-----------------|-------------------------------|
| Cambodia                | 1994                 | 2004                | 10              | 2002                          |
| Nepal                   | 1989                 | 2004                | 15              | 2002                          |
| Cabo Verde <sup>a</sup> | 1999                 | 2008                | 9               | 2002                          |
| Vanuatu                 | 1995                 | 2012                | 17              | 2002                          |
| Samoa <sup>a</sup>      | 1998                 | 2012                | 14              | 2002                          |
| Lao PDR                 | 1997                 | 2013                | 16              | 2002                          |
| Yemen                   | 2000                 | 2014                | 14              | 2002; 2012                    |
| Afghanistan             | 2004                 | 2016                | 12              | 2002; 2012                    |
| Liberia                 | 2007                 | 2016                | 9               | 2002; 2012                    |
| Countries in accession  |                      |                     |                 |                               |
| Bhutan                  | 1999                 | ...                 | >16             | 2002; 2012                    |
| Comoros                 | 2007                 | ...                 | >8              | 2002; 2012                    |
| Equatorial Guinea       | 2007                 | ...                 | >8              | 2002; 2012                    |
| Ethiopia                | 2003                 | ...                 | >12             | 2002; 2012                    |
| São Tomé and Príncipe   | 2005                 | ...                 | >10             | 2002; 2012                    |
| Sudan                   | 1994                 | ...                 | >19             | 2002; 2012                    |

a. Graduated from the LDC category but negotiated terms of accession as LDCs.

being an LDC makes the accession process faster. Georgia, Kyrgyz Republic and Oman had their processes completed in three to four years while it took at least twice as long as that for all LDCs that joined. Negotiations for Bhutan are still going on after 16 years, while Viet Nam and Tonga—countries with comparable incomes—completed their accessions in 10–12 years.

### *Differentiation among equals*

For market access, original LDC members of the WTO committed on average 20 service subsectors (of 155 subsectors identified by the WTO/CPC classification list), while Cambodia, Nepal—the only LDC to join the WTO after 1997 and before 2012—and Cabo Verde<sup>11</sup> undertook commitments in 94, 99 and 77 of the service sub sectors, respectively (WTO Secretariat 2009; Evenett and Braga 2005). Cambodia and Nepal committed to bind 100 percent of their tariff lines, while the average binding coverage is 58 percent in the founding LDC members. Nepal committed to tariff reductions in agriculture while the Agreement on Agriculture, as mentioned above, does not require LDCs to make such commitments. Cambodia set its maximum bound rate in agriculture at 60 percent, low even when compared with the maximum ad valorem duty applied by developed countries on certain agricultural products.

For Lao PDR the terms of accession package was agreed by late September 2012 and approved by the General Council of the WTO in October 2012. But several of the recommendations adopted in July 2012 to further strengthen, streamline and operationalize LDC accession guidelines were not taken into consideration during the negotiations. For merchandise market access Lao PDR's concessions are beyond those suggested in the 2012 recommendations, but in line with the concessions by LDCs that joined the Organization after 1995 (Cabo Verde, Cambodia, Nepal, Samoa and Vanuatu). That implies a degree of trade liberalization often greater than that observed in LDCs among WTO "founding fathers" (figure 5.3). Compared with the latter, acceding members commit to binding a higher share of tariff lines at a lower average bound tariff and to opening a greater number of services sectors and subsectors.

Lao PDR agreed to bind tariffs on agricultural products at an average of 19.3 percent (while LDC members were not required to make commitments on agriculture under the Agreement on Agriculture). This is below the 50 percent suggested by the 2012 guidelines and the 78.8 percent average of the 30 original LDC members, though applied tariffs are much lower at 15.3 percent. For nonagricultural market access, Lao PDR committed to binding all tariff lines at an average of 18.7 percent, which compares with a recommendation of average bound tariffs of 35 percent covering 95 percent of nonagricultural products. Meanwhile, the original LDC members bound 48.8 percent of their tariff lines at an average of 44.4 percent (applied rates are much lower at 11.9 percent).<sup>12</sup> Lower bound tariffs may reduce policy options for the country in the future.

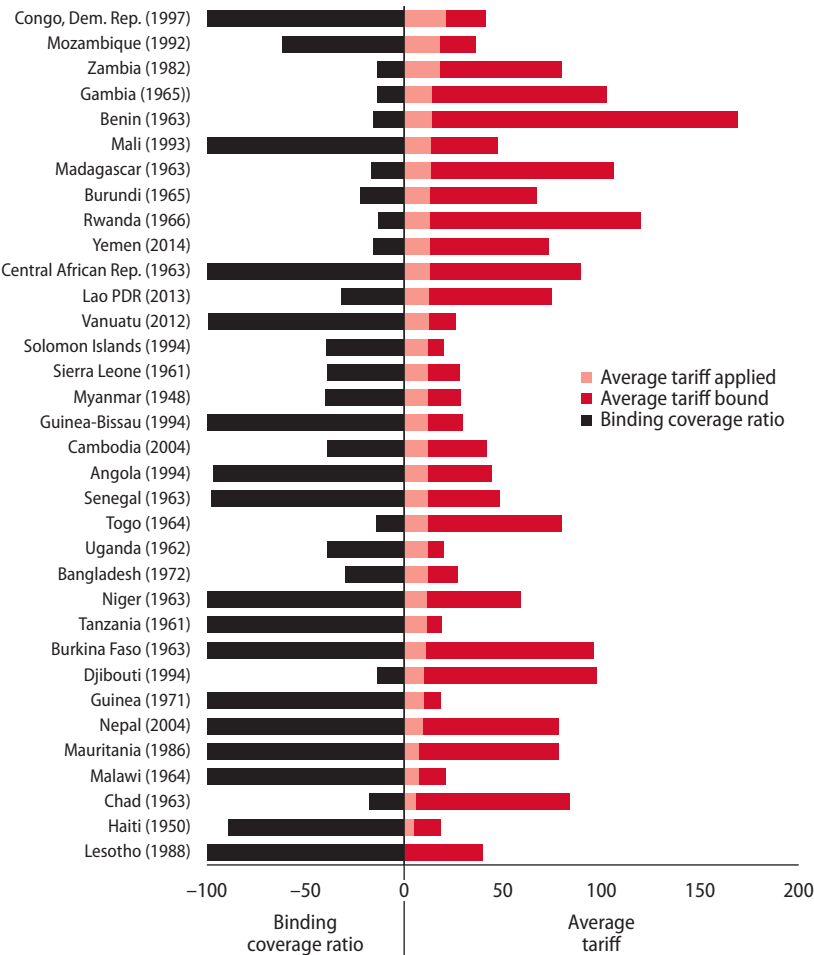
Cambodia gave up using export subsidies in its agricultural sector (Adhikari et al. 2008), still a common practice among developed countries. It agreed to full implementation of the TRIPS provisions by no later than 1 January 2007, while founding LDC members had until July 2021 to implement TRIPS. Nepal also agreed to fully implement that agreement (by 31 December 2006) but got a slightly better deal since there is an understanding that such commitment would not affect the country's rights with respect to the provision of the Doha Declaration on the TRIPS Agreement and Public Health (Pandey et al. 2011). Meanwhile Vanuatu—a WTO member since August 2012—had agreed to apply TRIPS by 1 December 2012.

Lao PDR insisted on reserving rights to LDC flexibilities existing in the Agreement on Subsidies and Countervailing Measures regarding the use of export subsidies (Article 27.2). New legislation adopted by the country abolished the use of incentives and subsidies contingent on local content, which are not permissible under the ASCM. Lao PDR seemed, however, to have given up the LDC flexibility of using TRIMS-incompatible measures (subject to notification and approval by the WTO) as provided by Appendix F of the Declaration of the Sixth WTO Ministerial Conference (extension of transition period for phasing out incompatible measures as well as the possibility of introduction of new measures) and would apply the TRIMs Agreement from the date



FIGURE 5.3

Applied and bound tariffs for least developed countries



Note: The vertical dash line indicates 10 percent. Tariff rates and binding rates in percent. Year of accession to GATT (prior to 1994) and to the WTO (post-1994) in parentheses. The binding coverage ratio is the number of HS6-bound tariff lines. Liberia and Afghanistan membership approved in December 2016 is not indicated.

Source: Author's construction based on data from the WTO. Countries ranked by ascending order of applied tariffs.

of accession without recourse to any transitional period. The country also indicated that, with the provision of capacity building and technical assistance, TRIPS could be fully implemented by 31 December 2016. Yet it also stressed it would make use of “the special and differential treatment provisions provided for under the TRIPS Agreement and WTO Ministerial Declarations” for LDCs. Currently, LDCs are to comply only with articles 3, 4 and 5 of the Agreement, with the group being granted a general transition until 1 July 2021 (second extension).



The Samoan accession package did not include several SDT provisions now granted to LDC WTO members. The country gave up its prerogative to have TRIMs-incompatible measures, to maintain or introduce export subsidies and not to undertake reduction commitments in agriculture. It did receive transitional periods for implementing TRIPS and lifting import bans on certain products.<sup>13</sup>

Note first that although belonging to the same category of countries, there is a distinction between founding and acceding LDC members since SDTs granted to the former do not represent acquired rights for the latter.<sup>14</sup> Only through membership in WTO can these rights be exercised provided the country's terms of accession do not forfeit them. And second, there is differentiation within LDC acceding members because they commit to different levels of concessions.

It seems reasonable that SDT should be tailored to needs that are country-specific.<sup>15</sup> But it is not clear what the advantages of belonging to the LDC category are if the support measures associated with that category cannot necessarily be accessed by all—as in the case of LDCs being asked to forgo the use of export subsidies, participate in plurilateral agreements, and so on. Acceding LDCs cannot count on the political pressure/support founding members had by functioning as a group when SDT was being negotiated in GATT/WTO rounds. In the end acceding countries' ability to secure the necessary SDT will depend on their individual negotiating skills—however well they may be supported by technical assistances—and on their individual bargaining position vis-à-vis members of the Working Party. The statement by Cambodia's Commerce Minister Cham Prasidh on the occasion of his country's accession summarizes the issue well:

“We managed to secure a package of commitments and concessions we feel was the most affordable and possible deal for Cambodia's accession, bearing in mind Cambodia's little political and economic weight and its current reliance on external assistance from the major donor countries who are also WTO members”.<sup>16</sup>

Yet, one would expect that the advantages of belonging to the WTO are perceived to compensate for the costs of joining the organization—otherwise countries would not opt to join. As mentioned by Vanuatu, “Because we are a LDC and vulnerable to pressures, we have made a conscious and rational choice in favour of “open protection” under rules-based multilateralism”.<sup>17</sup> Having the possibility of shaping those rules—and counting on the heavier weight of the LDC group to advance common positions—may be another major reason LDCs wish to join the WTO.

### **Trade capacity building: the Integrated Framework and its enhancements**

With the increasingly important role assigned to international trade in development and the complexity of the trade rules, the provision of technical assistance to developing

countries in general and to LDCs in particular becomes prominent in WTO legal texts and documents. Naturally, technical assistance for LDCs in the area of trade precedes these initiatives given the central role of trade in the economic development of these countries. It has been a well-established component of the work of the UN system, particularly through the UN International Trade Centre (ITC) and UNCTAD, which is the focal point in the United Nations for the integrated treatment of trade and development. UNCTAD has exercised considerable leadership in international trade in goods and services and commodities, in investment and enterprise development, in trade logistics and technology, and in services infrastructure for development and trade efficiency.<sup>18</sup>

Of several provisions for technical assistance for developing countries in the UR Agreements, three are related exclusively to LDCs (see table 5.2).<sup>19</sup> Subsequently, the need for additional effort in trade capacity in LDCs was acknowledged with the creation of the Integrated Framework for Trade-related Assistance for LDCs at the High-level Meeting on Integrated Initiatives for LDCs' Trade Development, held at the WTO in October 1997.

### *The initial Integrated Framework and its limitations*

*Origin and goal.* The Integrated Framework for Trade-Related Technical Assistance for Least Developed Countries (IF for short) was created in 1997 as a coordinating mechanism among six multilateral agencies to deliver technical assistance to improve the capacity of LDCs to formulate, negotiate and implement trade policies and thus derive greater benefits from their integration into the multilateral trading system. The agencies included the International Monetary Fund (IMF), the ITC, UNCTAD, the United Nations Development Programme (UNDP), the World Bank and the WTO. In 2009 UNIDO joined the group as an observer.

Little was accomplished during the early years due to a lack of clear priorities, ill-defined governance structures, and lack of a funding mechanism (Agarwal and Cutura 2004). As a result, the IF was restructured in 2001 with two main objectives: mainstreaming trade into national development plans such as the Poverty Reduction Strategy Papers (PRSPs) of LDCs, and assisting in the coordinated delivery of technical assistance. A tripartite governance and management structure—multilateral agencies, donors and LDCs—was established, with a trust fund managed by the UNDP and funded by donors.

*Windows and action matrices.* Two funding windows were envisaged. Window 1 was for financing the diagnostic trade integration studies and strengthening in-country structures. Window 2 was for priority projects as identified in the Diagnostic Trade Integration Study (DTIS) action matrices. Despite the restructuring, the IF continued to suffer from some of its original shortcomings, including insufficient attention to trade

outcomes. Funding was inadequate and unpredictable, and many of the activities identified in the action matrices could not be implemented and financed, so the initiative stalled at the diagnostic phase.

The action matrices identified needs well above the available resources. LDCs understood the IF as a funding mechanism created to finance infrastructure to alleviate supply bottlenecks. But donors saw it as an instrument to promote better policy and regulatory frameworks in recipient countries. Moreover, trade was not being sufficiently integrated in the PRSPs, with LDCs finding it difficult to mainstream trade into their development plans, and coordinate action and policies among several stakeholders. Overall awareness of the IF at the country level remained weak, with a strong perception that the IF remained agency- and donor-driven. Meanwhile, the participation of several agencies and donors with different reporting requirements, programming cycles and priorities made coordination challenging.

### *Enhancing the Integrated Framework*

A new round of reforms led in 2007 to the launch of the Enhanced Integrated Framework (EIF). Funding through Window 1 (now called Tier 1) increased to support greater capacity building at the country level, including that to help countries undertake a DTIS, which would now also include a needs assessment for infrastructure. Window 2 (now Tier 2) was modified to allow greater implementation of activities identified as priorities in the action matrix, including strengthening export supply capabilities, trade support services and trade facilitation.

*From Tier 1 to Tier 2, with limited funds.* Tier 2 financing would be available to provide bridge funding to jumpstart identified activities. Larger projects (infrastructure) would be supported by other funding mechanisms outside the EIF Trust Fund, such as Aid for Trade (AFT), an initiative launched at the Hong Kong Ministerial in 2005 and available for all developing countries. The EIF is designed to allow LDCs to leverage necessary additional funding, over and above that available through the EIF Trust Fund, through their normal dialogue/platform with their usual development partners.

But EIF funds are limited. There is a funding ceiling per country over the first five years of EIF: pre-DTIS support up to \$50,000 for a new entrant; DTIS up to \$400,000 for the first time; DTIS update up to \$200,000 to be approved by the executive director of the EIF Secretariat (above \$200,000 requires approval of the EIF Board); and support to the National Implementation Arrangements and other assistance up to \$300,000 a year for the first three years and additional funding for the next two years with approval according to the period review set out in the EIF monitoring modalities. Tier 2 funds, by contrast, can finance priority small-scale projects to build trade-related and supply capacity. The total funding for Tier 2 projects is in the range of \$1.5 million to \$3.0 million.

*Evaluating the EIF.* In 2014 an independent evaluation of the EIF confirmed the relevance of the initiative, but indicated the need to improve the management and administration model to enhance its effectiveness and efficiency. The evaluation also recommended that the EIF expand its scope to address global value chains, regional integration and private sector engagement to enhance its relevance. Subsequently, the EIF Steering Committee endorsed an extension of the programme into a second phase.

The main change to the EIF is to permit the possibility of regional programmes, with funding still channeled through national agencies. The regional dimension comes in to reduce LDC vulnerability through regional economic integration, which should receive a greater focus in LDC trade strategies. This is paradoxical since many LDCs are members of regional economic arrangements. In the West African Economic and Monetary Union (WAEMU), seven of its eight members are LDCs, and all seven have had a DTIS. Ten years ago it was proposed that a regional DTIS would be led for the WAEMU (Guillaumont, Chambas and Geourjon 2006), suggesting ways to do it. Recent evaluations of the EIF (Capra International 2014; Brenton and Gillson 2014) note that a regional DTIS would be welcome, as does a recent WTO report (WTO 2015).

The second phase will also attempt to provide better value for money by placing a ceiling on administrative costs. The budget will be increased to an estimated \$274–\$320 million, depending on donor commitments. Measures will be put in place to improve programme management. And management processes and procedures will be streamlined. Phase two started in January 2016 and will run until 2022 (UN/CDP 2015).

The IF/EIF has been in place for 16 years, and like the AFT initiative it has been the subject of official reviews and academic assessments. Brenton and Gilson (2014) review the IF process and its implementation with a focus on Africa. They conclude that, while the DTISs have provided high quality input in the discussion over trade, capturing the growing complexity of the trade agenda remains a challenge, especially when it comes to implementation because of insufficient focus on the political economy affecting trade reforms.

In any case, measuring the impact of the programme can be challenging even in the presence of quantifiable targets, since it is very difficult to attribute changes at the macro level to specific interventions at the micro level. The task is even more daunting if targets refer to qualitative goals such as mainstreaming trade into development policies or improved policymaking processes and enhanced capacity to trade—which should be seen not as ends in themselves but as means to better export performance, faster growth and sustained higher incomes.

*From EIF to Aid for Trade.* It is not clear whether EIF has been an effective tool to mobilize additional finance, in particular, resources from Aid for Trade for LDCs. According to OECD data, the volume of AFT commitments to LDCs increased from \$9.6 billion in 2007 to \$14.5 billion in 2014 (both figures reported in 2013 US dollars), while the share of LDCs in total commitments declined from 31 percent in 2007 to 28 percent in 2014.<sup>20</sup> So, although AFT could be useful in promoting trade capacities in LDCs, the bulk of AFT resources goes to middle-income countries, and LDCs do not seem to have been prioritized in the initiative. In addition, disbursements reaching LDCs are concentrated in a small number of countries, with the top 10 LDC recipients absorbing more than 60 percent of total commitments in 2013. In fact, there is an urgent need to shift AFT allocations towards the neediest countries—the LDCs in general and LDC subgroups, such as landlocked LDCs, due to their greater difficulty to integrate in dynamic international markets (CDP 2016) (see chapters 3 and 6).

### Concluding remarks

The assessment of the EIF and of the associated DTISs forcefully takes us back to the difficulty of promoting trade as an engine of growth in LDCs and on the specific modalities supporting trade in these countries. Trade has an important role in promoting development, so it should be considered an instrument and not a goal in itself. Yet, the special measures—developed in parallel with the strategy to support trade by LDCs—are not adequate or sufficient to make trade an instrument and means of development. As already recognized by the Doha Round, special and differential treatment (SDT) measures need to be more precise, effective and operational. But negotiations have been painfully slow, while the recently launched Monitoring Mechanism has still to produce concrete results. At the same time, the space for SDTs for developing countries and LDCs seems to be closing fast, as with the expectation that all WTO members will eventually abide by the same set of rules.

The analysis here indicated several challenges related to the use and effectiveness of the available set of SDTs for LDCs. Yet, however imperfect the current SDT provisions, they can have a role in removing some of the obstacles LDCs face in increasing and diversifying their exports. But LDCs need to have a more active position and get better acquainted with the measures developed for their benefit, including formulating requests for specific capacity building assistance programmes. Only through accessing and using these measures will LDCs be able to identify problems and formulate specific demands for change and improvement.

Part of the lack of effectiveness of the SDTs is that LDCs are not fully aware of them—and even when aware cannot productively use them due to communication and coordination failures at the country level. LDCs need to correct these problems and take more ownership of these provisions. Another part has to do with the way some of these measures have been designed (not necessarily tailored to the conditions prevailing

in most LDCs). The “add-ons” they carry (such as stringent rule of origin and other requirements) and the lack of policy coherence at the global level mitigate (and on some occasions completely offset) the contribution that some measures could bring to LDCs. Enlightened international cooperation is needed to address these shortcomings.

## Notes

1. For additional details see the Survey on International Support Measures Specific to the Least Developed Countries (LDCs) Related to WTO Provisions and Preferential Market Access, summary and analysis of the responses by LDCs, available at <http://bit.ly/1RqFFzz>. The CDP secretariat also conducted surveys with LDC trading partners (available at <http://bit.ly/1pKBuE1>); bilateral donors (available at: <http://bit.ly/1V54thK>) and multilateral organizations (available at <http://bit.ly/1UCnZni>) on granting support measures for LDCs.
2. On dispute procedures from LDCs against some developed countries, as illustrated by the case of cotton, see Chapter 8.
3. Benin, Burundi, Cambodia, Central African Republic, The Gambia, Guinea, Haiti, Lao PDR, Mali, Mozambique, Myanmar, Nepal, Rwanda, Senegal, Tanzania, Togo, Uganda and Zambia.
4. The Advisory Centre on WTO law in Geneva provides free legal advice to enforce market access for LDC WTO members. See Bown (2009, chapter 6) for a review of their activities. The CDP secretariat has also launched a new initiative to address communication constraints related to SPS and TBT notifications in LDCs. For details see <http://www.epingalert.org/>.
5. This is the case for The Gambia, Guinea-Bissau, Malawi, São Tomé and Príncipe, Sierra Leone and the Solomon Islands.
6. For instance, table 5.2 identified 29 provisions specifically related to measures to assist LDC members in all Uruguay Round agreements. The Doha Ministerial Declaration alone contains 21 different paragraphs on LDC concerns. See Implementation of Special and Differential Treatment Provisions in WTO Agreements and Decisions (WTO Secretariat 2001) and WTO Work Programme for the Least Developed Countries adopted by the Sub-Committee on Least-Developed Countries (WTO 2002).
7. The relevant criteria refer to low income, export concentration and volatile export earnings.
8. The preamble of the agreement establishing the WTO states: “Recognizing further that there is need for positive efforts designed to ensure that developing countries and especially the least developed among them, secure a share in the growth in international trade commensurate with the needs of their economic development”.
9. For a discussion on this last aspect, see Diverging Growth and Development (United Nations 2006), particularly chapter 3 “Has trade integration caused greater divergence?” See also Rodrik (2001), Khor and Ocampo (2010) and Hoekman (2004).
10. Recommendations by The Sub-Committee on LDCs to the General Council to Further Strengthen, Streamline and Operationalize the 2002 LDC Accession Guidelines (WT/COMTD/LDC/W/55/Rev.2).

11. Cabo Verde graduated from the LDC category in December 2007 but negotiated its accession to the WTO while a LDC.
12. See also “Assessing the accession: highlights of Lao’s package”, available at the Support Measures Portal for LDCs ([www.un.org/ldcportal](http://www.un.org/ldcportal)).
13. See “Samoa becomes the 155th WTO Member” available at the Support Measures Portal for LDCs ([www.un.org/ldcportal](http://www.un.org/ldcportal)).
14. According to the Technical Note on Accessions by the WTO Secretariat (2005, p. 15), “The transition periods provided in the Uruguay Round had formed part of the Single Undertaking and had been intended to allow the negotiators time to become accustomed to the new rules and to move to address in legislation their new responsibilities. [...] Throughout the accession process, conformity with the WTO Agreements is the standard against which acceding governments’ trade policies are measured”.
15. For instance, some countries may need more time than others to adopt certain WTO disciplines. Some papers on the conditions of accession to the WTO propose explanations to the different lengths of accession. For instance, Jones (2009), quoted by Davis and Wilf (2014), considering the fact that the length of accession has increased, argues that with the broadening of the scope of the rules new members should accept more obligations and that with the cost of being outside becoming higher, it allows members to demand more from acceding ones. Some other authors (for instance, Allee and Scalera 2012) argue that the impact of accession on trade depends on the conditions of accession. On this issue see additional remarks in chapter 6.
16. See the whole article on WTO News, at [http://www.wto.org/english/news\\_e/pres03\\_e/pr354\\_e.htm](http://www.wto.org/english/news_e/pres03_e/pr354_e.htm).
17. Statement by H.E. Honourable Sela Molissa, Minister of trade, commerce and industry of Vanuatu on the occasion of the re-convened working party on accession of Vanuatu, 2 May 2011.
18. Additional information on UNCTAD’s technical cooperation activities in trade and in LDCs is available at <http://www.unctad.org/Templates/Page.asp?intItemID=1479&lang=1>.
19. These are found in the GATS Appendix on Telecommunications, the Appendix on Trade Policy Review Mechanism and the Decision on Measures in Favour of Least Developed Countries.
20. [https://public.tableau.com/views/Aid\\_for\\_trade/Aid\\_for\\_trade?:embed=y&showTabs=y&display\\_count=no&showVizHome=no#1](https://public.tableau.com/views/Aid_for_trade/Aid_for_trade?:embed=y&showTabs=y&display_count=no&showVizHome=no#1).

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## Trade marginalization of LDCs and its reversal: What impact of international support?

### Introduction

Trade has long been recognized as essential in the LDC strategy for a sustainable development path. This focus is understandable because the accumulating evidence points towards trade as an engine of growth that reduces poverty. Since the end of the 1960s and the second UNCTAD conference in Delhi (1968), the international community has agreed to give a special treatment to developing countries for their access to the markets of developed countries. Following a UNCTAD recommendation the LDC category was created (in 1971) and the specific need of LDCs for trade was recognized in 1979 with the so-called “Enabling clause” (see chapter 5 and Guillaumont 2009).

The special and differential treatment for LDCs has progressively been reshaped, both for their market (particularly in 2000, with the EBA initiative of the EU for all LDCs) and through many dispositions for facilitating LDC accession to the WTO and their participation in the WTO-related rules framework (see chapter 5). As chapter 5 discussed, LDCs have been challenged by commitments associated with the “Single Undertaking” imposed by the Uruguay Round on all existing and aspiring WTO members.<sup>1</sup> Despite special and differential treatment (SDT) measures the share of LDCs in world trade fell until recently, and the recent recovery has been helped by a rising volume of oil exports from a few LDCs and by a (temporary) rising price of oil and some other commodities.

This chapter is about how LDCs have fared in their quest to integrate in global markets—including reaching the goals set in the four successive UN conferences, which resulted in “programmes of action”, particularly the last two,

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Chapter written by Céline Carrère with substantive contributions from Jaime de Melo and Laurent Wagner on the policies and with the assistance of Stephanie Brunelin. The main documentation was realized on data available in 2016 with recent updating of the main figures.

adopted in Brussels (2001) and Istanbul (2011) and whether there is LDC specificity in their trade performance. The chapter gives new estimates of LDC performance and market access. It also surveys what we know about the determinants of trade performance in developing countries, focusing where possible on LDCs rather than on developing countries.

Throughout, the evaluation of the indicators of trade performance is for all countries in the group (now 47). Although this group has been designated for common structural features—low income per capita, low human capital, high economic vulnerability—it is very heterogeneous in characteristics usually selected as the main determinants of differences in trade. The LDC category includes some small island developing states and landlocked developing countries (unlike LDCs, not recognized by the UN as an official sub-group of developing countries, but sharing common geographic features). Five LDCs are essentially oil exporters, and so are considered separately in the analysis. The multiple dimensions of this heterogeneity may blur the task of trying to identify LDC specificity in their trade performance.

Behind the possible specificity of LDCs in their trade performance, the main issue addressed in this chapter (as in the other ones) is the impact of SDT on their trade performance. This impact is difficult to assess because the LDCs as a group share not only the possible benefit of the SDT—of the policies implemented by their partners for the group—but also some structural handicaps to trade and growth. Moreover, the relative trade performance of the LDCs as a group may be influenced by their own policies. LDC specificity may then be the result of three kinds of factors: the structural factors they face, the trade policies of their partners and their own trade policies.

The paper is organized as follows. The first section presents stylized facts about LDC trade performance in comparison with other developing countries. It questions the reversal in the long-term marginalisation of LDCs in world trade that occurred since 2000 and finds it to be mainly a result of oil and mineral exports. The section also deals with measures that affect this ambiguous performance by influencing trade costs. The second section uses a gravity model to assess trade costs and their lower decline than in other developing countries and then to show the limited extent to which preferential market access has helped boost LDC exports. The third section gives some stylized facts on export diversification, seemingly lower than in other developing countries, but not when it is assessed relative to the LDC's GDP per capita.

The fourth section explains why trade preferences to LDCs through the SDT measures did not have the expected impact on LDCs exports, while their reform is likely to improve their trade prospects. More specifically, it analyses market access actually granted to LDCs after taking into account potential preference erosion, restrictiveness of the origin requirements associated with market access, and non-tariff measures. The fifth section, besides LDC access to the market of developed countries, briefly explores how SDTs can facilitate the integration of the LDCs in the multilateral trade system (through, say, LDC accession to the WTO). It also presents some international trade-related measures not

exclusively adopted for LDCs but of interest for increasing their capacity to export (such as Aid for Trade or aid facilitation agreements). And it recalls the importance of LDC domestic policies for expanding their exports. The sixth section concludes.

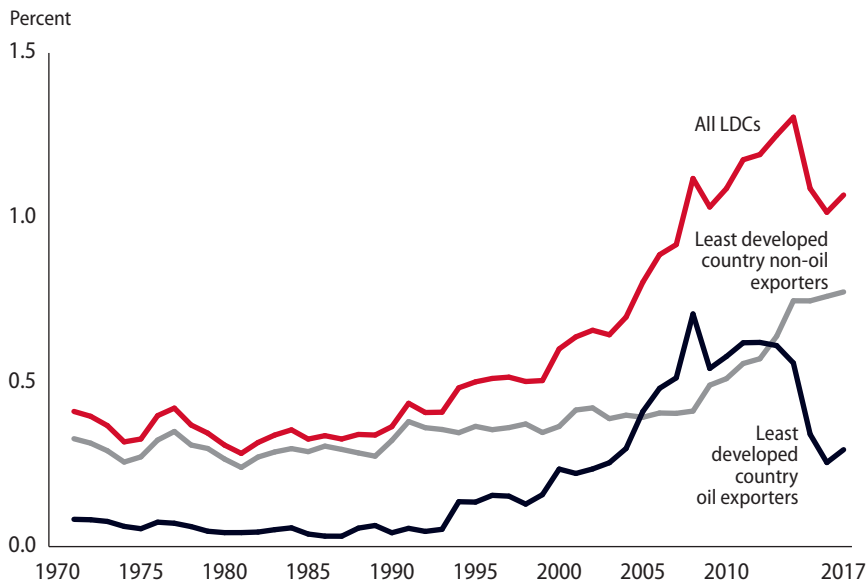
Global trends in LDC exports: impact of specific goods and services

We look first at LDC export trends for goods and then for services.

Trends in exports of goods: impact of oil and mineral exports

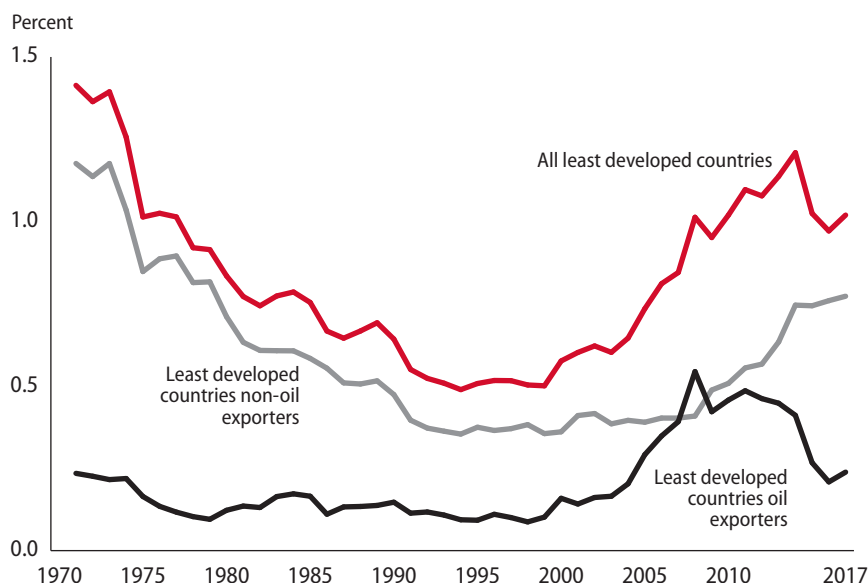
*Decrease of the LDCs' share in world exports and its reversal.* The LDC group has grown from an initial membership of 24 countries in 1971 to the current 47 countries, with five exiters. Figure 6.1 reports the share of LDC exports in world exports by computing each year the share of the current membership against all other countries. Because no country exited the group until 1994, the growing membership mechanically increases the group's share. But during 1970–90, as the membership rose from 24 to 42, the LDC export share stayed flat. Slight increases could be observed in 1991, with 5 new members added, in 1994, with 2 new members (and a graduation), and in 2000, with Senegal added. From 2001 to 2014 with only two new small members (Timor-Leste and South Sudan) and despite three graduations (Cabo Verde, Maldives and Samoa) the share has sharply increased. Since 2014 LDC exports have experienced a downward trend due mainly to decreasing oil prices and production.

FIGURE 6.1  
LDC share in world trade: open membership group, oil and non-oil exporters



Note: Rolling membership. LDC group adjusted each year for new memberships and graduations.  
Source: Authors' computation based on UN COMTRADE data.

FIGURE 6.2

**Closed groups of 48 LDCs: Oil, non-oil, and non-mineral exporters**

Note: LDC group consisting of the 48 LDC members.

Source: Authors' computation based on UN COMTRADE data.

For the present group of 47 countries in 1970–2017, the LDC share was cut by two-thirds between 1970 and 1992 and stagnant between 1992 and 1999 (figure 6.2). So until the early 1990s, the 47 LDC members were losing ground. A reversal occurred, beginning in 2000, and only in 2014 did their share in global exports nearly return to the 1971 starting point before declining again because of the reduction in oil export value. This reversal cannot be attributed to an enhancement of international support measures, or to an endogenous improvement of competitiveness, without examining the countries and products behind this reversal.<sup>2</sup>

*Reversal without oil and mineral exports?* Returning to the overall performance of the variable or constant membership group in figures 6.1 and 6.2, it is clear that after 1992, and until the financial crisis in 2008, the rising share is led by main oil-exporting LDCs (Angola, Chad, Equatorial Guinea, Sudan and Yemen)<sup>3</sup> even though the terms of trade were also improving for other LDCs. In 2009–13 the share of these five countries represented more than half the total exports of LDCs (UNCTAD 2014). In 2011–13 the share of fuels in the total merchandise exports of LDCs reached 51.7 percent, and the share of “minerals, ore and metals” 14.2 percent (Ibid.). Adding the (small) share of the exports of food and agriculture (12.5 percent), boosts the share of primary commodities in total LDC exports to 78.4 percent and 93.3 percent for African LDCs (and Haiti), significantly higher than during the 15 previous years.

Indeed, after the great trade collapse that accompanied the financial crisis, the non-oil exporter group increased its share (from 0.4 to 0.7 percent). But it is difficult to attribute this sharp rise to a global improvement in LDC competitiveness in goods. Keep two facts in mind. First, this rise includes the increase for mineral, ore and metals exporters (other than oil). Between 2005 and 2014 the share in world exports of the 10 main mineral exporting LDCs (Zambia, RDC, Mozambique, Burkina Faso, Mauritania, Mali, Sierra Leone, Tanzania, Guinea and Lao PDR) rose from 0.1 to 0.36 percent, or around 0.26 percentage points (calculated from UNCTAD 2015). So the export share of the 35 LDCs that were neither oil exporters, nor exporters of minerals, ore and metals, did not increase much. Second, the slight rise is essentially due to a few Asian LDCs: between 2005 and 2014 Bangladesh, Cambodia and Myanmar increased their share in world exports from 0.16 to 0.28 percent, or 0.12 percentage points.

*Goal of doubling the LDCs' share in world exports.* Looking at the evolution of the share of LDCs in world trade in relation to the goals and results of the Brussels programme of action (BPoA), it is clear that the goal of raising this share during the 2000s has been reached, roughly doubling from 0.5 percent to 1 percent. But it was mainly as a result of oil exports, with the share of non-oil exporters hardly rising. It is not less clear that the Istanbul programme of action (IPoA) goal of again doubling the share from 1 percent to 2 percent is unlikely to be reached, unless oil prices and production rapidly expand again in the LDCs.

Prospects for the LDCs' share evolution in world exports should rely on an examination of the LDCs' export structure.

For the non-oil exporters the IPoA doubling goal would mean a rise from 0.4 percent to 0.8 percent, which seems difficult to reach, particularly with the low commodity prices at mid-term. It would involve both a strong reversal in commodity prices, particularly oil and metals, and continuing rapid growth of exports from the main non-oil and non-mineral LDC exporters.

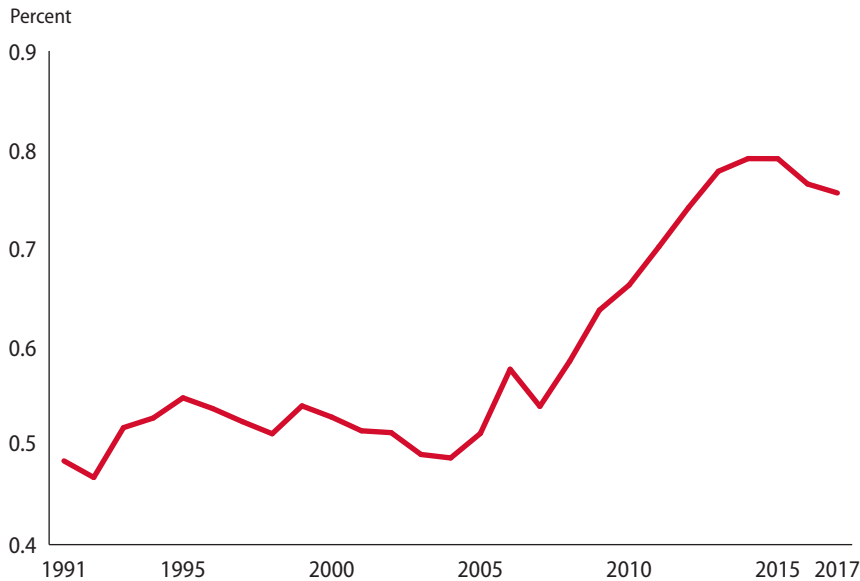
### *Trends in exports of services: impact of travel (tourism)*

*Main LDC exporters of services.* An encouraging development is the evolution of the LDC share in world exports of services (figure 6.3). After stagnating at around 0.50–0.55 percent in the 1990s and first half of the 2000s, it rose sharply after 2005, reaching 0.79 percent in 2014. But since 2015 the share has slightly declined, to 0.75 percent in 2017. The top-5 service exporters—in declining order: Bangladesh, Tanzania, Cambodia, Ethiopia and Uganda—are also large LDCs with growth rates since 2005 among the highest of the LDCs. But services represent only 14 percent of total LDC exports in 2014, and LDC participation in world service exports remains very small (less than 1 percent).



FIGURE 6.3

LDC share in world service exports



Source: Authors' computation based on WDI data.

*Main services exported by LDCs.* Travel is the main category of services exported by LDCs (42.9 percent in 2014), followed by transport (19.2 percent). The share of travel, due to the weight of tourism, differs from that in other developing economies (34.1 percent) or developed economies (20.7 percent). The growth of travel (tourism) service exports largely explains the recent sharp rise in the LDC share in world service exports. This rise corresponds to an increase of world demand of such services, as well as an increase of the competitiveness of LDCs. It also remains fragile, as shown in Maldives after the 2004 tsunami, followed by a rapid recovery, or in Nepal after the December 2014 earthquake. Terrorist attacks now have a very negative impact on tourism in several African LDCs.

The data reflect that much potential remains for LDC service suppliers. In this perspective, the implementation of special treatment for LDC services, as agreed at the WTO Ninth Ministerial Conference in 2013, should have positive effects. The last 15 years in LDC exports of both goods and services is both a new high-potential source of growth and a lasting vulnerability.

Looking for specific factors in LDCs' trade trends: Lessons from gravity models

Does belonging to the LDC category have no effect on trade? Given the many determinants that can explain the preceding trends, answering this question needs to go one step further, based on a gravity equation. For at least two reasons one should expect a

positive impact of the LDC category on both export flows: tariff preferences are given to the LDCs by a greater number of countries (by the BRICs), and LDC countries also benefit from other trade-related measures.

### *Trade cost trends: How are they evolving?*

The evolution of trade shares also reflects changes in trade costs. In addition to the evolution of GDP, the evolution of positive trade shares in the gravity world depends on the evolution of relative trade costs among partners and of relative internal and external trade costs. If one adds the assumption of identical technologies and preferences across countries, one can use the gravity model to infer (one might say calibrate) aggregate bilateral trade costs (or trade frictions) from observed bilateral trade. Arvis et al. (2013) carried out this estimation for a large number of countries including 40 LDCs over 1996–2012.<sup>4</sup>

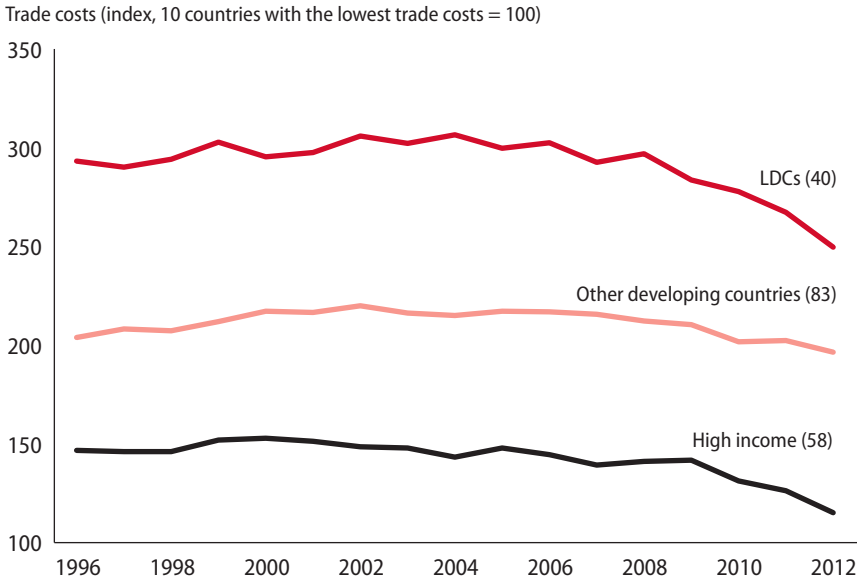
This decomposition is at best indicative of the many zero bilateral trade flows for LDCs.<sup>5</sup> The calculation assumes symmetry in trade costs, with all trade costs between partners assumed to be variable even though they are independent of the functional form assumed by trade costs. As partners with prohibitive trade costs do not appear in the data, this decomposition applies only to partners with registered positive bilateral trade. Nor does the decomposition disentangle trade costs between partners.<sup>6</sup> Importantly, the implicit measurement of internal trade costs is also captured indirectly by estimates of internal shipments measured as the difference between gross output (where available or obtained by inflating sectoral value-added ratios) and exports. Internal trade costs also vary greatly across countries, and are much higher in developing countries than in developed countries (figure 6.4).<sup>7</sup>

Because trade costs are multilateral, the evolution of trade costs has to be benchmarked. Arvis et al. report trade costs relative to the average bilateral trade costs of the 10 partners with the lowest bilateral trade costs. LDCs show little catching up over the period to 2008, with the fall since 2008 reflecting the relative increase in trade of LDCs (and of other developing countries).<sup>8</sup> Moreover, since LDCs are starting from a much higher base, the rates of reduction in trade costs have not been sufficient to prevent their marginalization.<sup>9</sup>

In a second step, Arvis et al. regress their estimated bilateral trade cost indices on the standard gravity variables: geographic (distance, landlocked, common currency and common border) and policy-related (tariffs, belonging to an RTA and three indices of performance [logistics, air connectivity, and liner connectivity]) in a cross-section excluding landlocked countries. Focusing on the more stable results for manufacturing, they find an overwhelming contribution of geography-related variables and of the common variation among the explanatory variables indicating strong multicollinearity in accounting for the observed variance in trade costs.<sup>10</sup> As in all gravity estimates, geography trumps effects captured by policy variables and their proxies.

Among the policy-related variables, the three indices of performance are significant, but since each index is a geometric mean of the respective bilateral index, the results do

FIGURE 6.4  
**Trade costs by country grouping**



Source: Authors' computation based on Arvis et al. (2015).

not inform their relative importance across partners. No clear pattern emerges either when the sample is split into three groups—North-North, South-South and South-North—except that tariffs are a significant component of trade costs in South-South trade but insignificant in North-North trade. We explore below some factors that can explain this (non)evolution of trade costs—the effect of the preferential market access granted by developed countries to LDCs as well as other trade-related measures (not necessarily specific to LDCs).

*Is there an LDC effect in trade flows?*

The LDCs' share in world exports has increased since the mid-1990s (see figure 6.1) and part of it, especially since the financial crisis, can be related to the evolution in trade costs (see figure 6.4). Here we look further behind the evolution in a comparative setting using changes in the export to GDP ratio following the inclusion into the LDC list relative to control groups and a gravity model that explains bilateral trade in terms of such structural factors as GDP and trade costs.

*Comparisons with other countries when a country becomes an LDC.* First, we look at whether the inclusion into the list of LDCs has brought a change in the export to GDP ratio that is significantly different from that of two other control groups: countries already LDCs, and the other developing countries (see table 6.1). The change is

TABLE 6.1  
**Impact of the inclusion in the LDC list on the trade openness evolution  
(compared with a control group)**

| Country               | Year of inclusion | New LDC variation (1) | DC non-LDC variation (2) | Already LDC variation (3) | (1)–(2) | (1)–(3) |
|-----------------------|-------------------|-----------------------|--------------------------|---------------------------|---------|---------|
| Afghanistan           | 1971              | 4.24                  | 6.29                     |                           | –2.05   |         |
| Burundi               | 1971              | –0.60                 | 6.29                     |                           | –6.89   |         |
| Benin                 | 1971              | 7.52                  | 6.29                     |                           | 1.23    |         |
| Burkina Faso          | 1971              | 1.45                  | 6.29                     |                           | –4.84   |         |
| Botswana              | 1971              | 13.48                 | 6.29                     |                           | 7.19    |         |
| Haiti                 | 1971              | 0.27                  | 6.29                     |                           | –6.02   |         |
| Lesotho               | 1971              | 2.92                  | 6.29                     |                           | –3.37   |         |
| Mali                  | 1971              | –0.11                 | 6.29                     |                           | –6.40   |         |
| Malawi                | 1971              | 2.88                  | 6.29                     |                           | –3.41   |         |
| Niger                 | 1971              | 4.92                  | 6.29                     |                           | –1.37   |         |
| Nepal                 | 1971              | 0.15                  | 6.29                     |                           | –6.14   |         |
| Rwanda                | 1971              | 0.34                  | 6.29                     |                           | –5.95   |         |
| Sudan                 | 1971              | –1.05                 | 6.29                     |                           | –7.34   |         |
| Somalia               | 1971              | 0.37                  | 6.29                     |                           | –5.92   |         |
| Chad                  | 1971              | 1.26                  | 6.29                     |                           | –5.03   |         |
| Uganda                | 1971              | –8.10                 | 6.29                     |                           | –14.39  |         |
| Bangladesh            | 1975              | –0.62                 | 4.86                     | 3.09                      | –5.48   | –3.71   |
| Central African Rep.  | 1975              | –5.73                 | 4.86                     | 3.09                      | –10.59  | –8.82   |
| Gambia                | 1975              | 2.63                  | 4.86                     | 3.09                      | –2.23   | –0.46   |
| Guinea-Bissau         | 1981              | 0.55                  | 2.83                     | 1.00                      | –2.28   | –0.45   |
| Equatorial Guinea     | 1982              | –14.23                | –3.29                    | 2.07                      | –10.94  | –16.30  |
| Sierra Leone          | 1982              | –8.67                 | –3.29                    | 2.07                      | –5.38   | –10.74  |
| São Tomé and Príncipe | 1982              | –16.59                | –3.29                    | 2.07                      | –13.30  | –18.66  |
| Togo                  | 1982              | –2.70                 | –3.29                    | 2.07                      | 0.59    | –4.77   |
| Vanuatu               | 1985              | –7.20                 | –0.32                    | 1.25                      | –6.88   | –8.45   |
| Kiribati              | 1986              | –8.28                 | 1.40                     | 0.56                      | –9.68   | –8.84   |
| Mauritania            | 1986              | 3.78                  | 1.40                     | 0.56                      | 2.38    | 3.22    |
| Myanmar               | 1987              | –3.13                 | 3.21                     | 0.79                      | –6.34   | –3.92   |
| Mozambique            | 1988              | 5.45                  | 4.49                     | 0.80                      | 0.96    | 4.65    |
| Liberia               | 1990              | 4.46                  | 5.44                     | 2.36                      | –0.98   | 2.10    |
| Cambodia              | 1991              | 13.94                 | 4.78                     | 3.11                      | 9.16    | 10.83   |
| Madagascar            | 1991              | 3.17                  | 4.78                     | 3.11                      | –1.61   | 0.06    |
| Solomon Islands       | 1991              | 8.49                  | 4.78                     | 3.11                      | 3.71    | 5.38    |
| Dem. Rep. of Congo    | 1991              | –6.34                 | 4.78                     | 3.11                      | –11.12  | –9.45   |
| Zambia                | 1991              | –0.45                 | 4.78                     | 3.11                      | –5.23   | –3.56   |

TABLE 6.1 (continued)

**Impact of the inclusion in the LDC list on the trade openness evolution  
(compared with a control group)**

| Country     | Year of inclusion | New LDC variation (1) | DC non-LDC variation (2) | Already LDC variation (3) | (1)–(2) | (1)–(3) |
|-------------|-------------------|-----------------------|--------------------------|---------------------------|---------|---------|
| Angola      | 1994              | 23.08                 | 2.45                     | 4.15                      | 20.63   | 18.93   |
| Eritrea     | 1994              | 1.04                  | 2.45                     | 4.15                      | –1.41   | –3.11   |
| Senegal     | 2000              | –3.39                 | –4.01                    | –3.86                     | 0.61    | 0.47    |
| Simple mean |                   | 0.51                  | 3.82                     | 2.04                      | –3.32   | –2.53   |
| Median      |                   | 0.35                  | 4.86                     | 2.22                      | –4.93   | –3.33   |

(1): [(X/Y)  $t$ ,  $t+4$  LDC] – [(X/Y)  $t-5$ ,  $t-1$  LDC],  $t$  being the year of inclusion on the LDC list.

(2): [(X/Y)  $t$ ,  $t+4$  DC non-LDC] – [(X/Y)  $t-5$ ,  $t-1$  DC non-LDC].

Source : Author.

measured by variation in the export-to-GDP ratio between the five years preceding the inclusion year and the five years following. The aim is to control for factors of change in export ratio that are common to all developing countries, on or off the list. Results are presented for each new LDC over 1966–2000. This first approach does not show any impact of inclusion on the list on trends in the export-to-GDP ratio (on average, the impact is even negative). But this method does not control for country-specific factors.

Second, the comparison with other developing countries may be biased by not taking into account the structural handicaps of the LDC category. And third, the comparison with previous LDCs may be affected because the positive impact of membership may need a longer time than the five years retained for the calculation. Given the ambiguity of these results, we turn to the gravity model, a method that allows for controlling for country-specific factors over a longer period.

*Comparisons using a gravity equation.* Exports of developing countries to all partners are estimated following the benchmark structural gravity equation:<sup>11</sup>

$$\ln(M_{ijt}) = \beta_1 \ln(Y_{jt}) + \beta_2 \ln(TC_{ijt}) + \beta_3 \ln(MR_{jt}) + \beta_4 LDC_{jt} + \lambda_{it} + \varepsilon_{ijt} \quad (1)$$

where  $M_{ijt}$  represents imports of  $i$  from  $j$  in year  $t$  (including zero trade flows) from the CEPII BACI,  $Y_{jt}$  is the GDP of country  $j$  in  $t$ ,  $TC_{ijt}$  is a vector trade costs between countries  $i$  and  $j$  in  $t$ . It includes (i) distance between the two countries, a dummy equals unity if  $j$  is a landlocked country, if  $i$  and  $j$  share a border, a common language or a past colonial history (CEPII database); (ii) the internet users per 100 people, proxy for infrastructure development widely available that captures communication costs (WDI database);<sup>12</sup> (iii) several dummy variables to capture preferential access from membership in different regional trading arrangements (RTAs) preferential arrangements, the dummy

taking a value of one if  $j$  benefits from preferential access to  $i$  with dummy variables to capture the distinction between Cotonou and AGOA agreements from other RTAs in the sample,  $MR_{jt}$  is the “multilateral resistance” terms or “remoteness” of the exporter country  $j$  in  $t$ , computed as the average distance to its trade partners over time—that is,

$$MR_{jt} = \left[ \sum_k \frac{Y_{kt}}{Y_{wt}} \ln(Dist_{kjt}) \right],$$

with  $Y_{wt}$  being the world GDP in  $t$ ,  $\lambda_{it}$  is a time-varying importer-year fixed effect that captures GDP and other time-varying correlates in the importer country  $s$  and  $\varepsilon_{ijt}$  is the error term. ( $i=1, \dots, 183$ ;  $j=1, \dots, 120$ ;  $t=1995, \dots, 2014$ ).

To sharpen the relevance of the estimates, bilateral trade flows between the high-income countries are excluded from the sample, which includes 523,088 observations, corresponding to all exports of developing countries (120) to all their partners (183), of which 34 percent correspond to exports from LDCs. Given that around one-third of the sample has zero trade flows, we follow Santos Silva and Tenreiro (2006) and estimate gravity using the Pseudo Poisson Maximum Likelihood (PPML) estimator.

Results are reported in table 6.2, columns 1 and 3 for overall exports and 2 and 4 for manufactured exports. As expected, the elasticity of trade with respect to income is positive and significant at the 1 percent level. All trade cost variables are in line with the meta-analysis results reported by Head and Mayer (2014, table 3.4). Distance and the associated remoteness terms have the expected opposite (and same magnitude) coefficient values. The estimates show that the more remote country  $j$  is from its trade partners, the more  $j$  will trade with  $i$ . Contiguity and common language have very comparable effects, with coefficient values around 0.4, about twice the strength of colonial links. As expected, an improvement in the quality of infrastructure—proxied by the increase in internet users—significantly affects the volume of trade. Finally, the RTA dummy has a value close to estimates reported from meta-analyses of structural gravity estimates. After controlling for other factors, sharing a trade agreement increases the overall exports of  $j$  to  $i$  by around 33 percent ( $=e^{0.288}-1$ ) and by around 46 percent for exports of manufactures.<sup>13</sup>

As most LDCs are also ACP countries,<sup>14</sup> they have benefited from the “Cotonou” agreement (and “Lomé” before) on the EU market during the period, receiving the same benefits as those under the EBA. In the same way, since 2001, a varying sample of African countries benefits from the “African and Growth Opportunity Act” on their exports to the US. Because of entry and exits in AGOA membership, it is unlikely that membership effects can be captured here.<sup>15</sup> In any case, coefficient estimates are systematically negative for AGOA membership, perhaps an indication of uncertainty and variability in AGOA access for beneficiaries. Results also suggest that, subject to controls in the estimation, Cotonou members have underperformed in their exports of manufactures. For instance, ACP exports of manufactured goods to the EU are 13 percent lower than expected given their GDP and trade costs.<sup>16</sup>

TABLE 6.2  
Trade performance of LDCs in a gravity equation, 1995–2014

| Variables                           | (1)<br>All<br>exports | (2)<br>Manufactured<br>only | (3)<br>All<br>exports | (4)<br>Manufactured<br>only |
|-------------------------------------|-----------------------|-----------------------------|-----------------------|-----------------------------|
| LDC jt                              | −0.408***<br>(0.0277) | −0.481***<br>(0.0305)       |                       |                             |
| LDC – EU ijt                        |                       |                             | −0.517***<br>−0.0415  | −0.620***<br>−0.0397        |
| LDC – US ijt                        |                       |                             | −1.017***<br>−0.0812  | −1.243***<br>−0.0962        |
| LDC – China ijt                     |                       |                             | −0.437***<br>−0.0821  | −0.478***<br>−0.0818        |
| LDC – other ijt                     |                       |                             | −0.335***<br>−0.0341  | −0.379***<br>−0.0385        |
| GDP                                 | 0.744***<br>(0.00476) | 0.731***<br>(0.00481)       | 0.744***<br>(0.00478) | 0.731***<br>(0.00483)       |
| Ln (distance ij)                    | −0.641***<br>(0.0156) | −0.572***<br>(0.0151)       | −0.640***<br>(0.0156) | −0.571***<br>(0.0151)       |
| Remoteness jt                       | 0.711***<br>(0.0432)  | 0.501***<br>(0.0390)        | 0.711***<br>(0.0432)  | 0.501***<br>(0.0390)        |
| Landlocked j                        | −0.201***<br>(0.0365) | −0.187***<br>(0.0365)       | −0.201***<br>(0.0365) | −0.186***<br>(0.0366)       |
| Contiguity ij                       | 0.401***<br>(0.0292)  | 0.417***<br>(0.0314)        | 0.401***<br>(0.0291)  | 0.416***<br>(0.0313)        |
| Common lang ij                      | 0.372***<br>(0.0265)  | 0.436***<br>(0.0268)        | 0.372***<br>(0.0265)  | 0.436***<br>(0.0269)        |
| Colonial link ij                    | 0.208***<br>(0.0284)  | 0.187***<br>(0.0276)        | 0.208***<br>(0.0284)  | 0.187***<br>(0.0276)        |
| Internet use per 100 inhabitants jt | 0.235***<br>(0.0155)  | 0.253***<br>(0.0175)        | 0.235***<br>(0.0155)  | 0.253***<br>(0.0175)        |
| Regional agreement ijt              | 0.288***<br>(0.0205)  | 0.380***<br>(0.0217)        | 0.289***<br>(0.0205)  | 0.381***<br>(0.0216)        |
| AGOA ijt                            | −0.575***<br>(0.0483) | −0.722***<br>(0.0494)       | −0.486***<br>(0.0460) | −0.623***<br>(0.0470)       |
| Cotonou ijt                         | −0.0330<br>(0.0444)   | −0.135*<br>(0.0419)         | −0.00572<br>(0.0388)  | −0.102*<br>(0.0372)         |
| Observations                        | 523,088               | 523,088                     | 523,088               | 523,088                     |
| Percent of zero export flows        | 31.6                  | 34.3                        | 31.6                  | 34.3                        |

Note: PPML estimator, robust standard errors in parentheses, \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .  
Source: Authors’ computation.

Is there an “LDC effect” during this period of improving trade performance? The “LDC” dummy (equal to one if the exporter is an LDC in year  $t$ ) is significantly negative: on average over 1995–2014, LDCs export 34 percent less than other developing countries, once controlled for GDP and trade costs (column 1) and by 38 percent in manufactures (column 2). The results suggest underperformance by

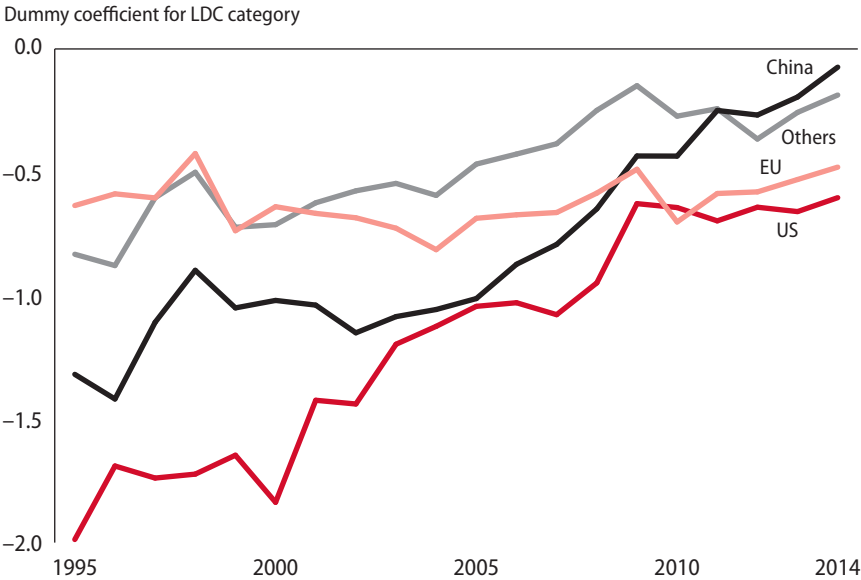
LDCs and are unchanged when the five main oil exporters are excluded from the LDC dummy.

However, LDCs’ market access is very heterogeneous according to the export market considered. To check this possibility, we decompose the LDC dummy in columns 3 and 4 according to destinations. On average over 1995–2014, LDC exports to the EU have been 40 percent below the export level predicted by the gravity equation, 64 percent below the US and “only” 28 percent below China.

Figure 6.5 plots the dummy coefficients for the LDC category for each year in the benchmark equation reported in column 3 of table 6.2 to each of three destinations: China, the EU and the US. This decomposition allows detecting if other time-varying factors specific to each destination might have contributed to a change in trade performance.

Two conclusions emerge. First, controlling for other factors, including changes in trade costs (as captured by the dummy variables for the Cotonou and AGOA agreement), LDC exports to the EU have been stable and significantly below prediction over the period. Second, there is catching up to the US and Chinese markets. By 2014, at the end of the period, average LDCs’ bilateral exports to China are on track—they correspond to those predicted by the gravity model, which controls for market size in origin and destination countries, trade costs and market access. This pattern concurs with the gravity-based estimates by Engel and Jouanjean (2014), who show that Chinese LDC preferences have increased LDC exports to China at both the extensive and intensive margins.

FIGURE 6.5  
**Evolution of LDCs in gravity equation, 1995–2014**



Source: Authors’ computations based on table 6.1.



*Controlling for the impact of LDCs' structural handicaps.* Finally, we control for the impact of the structural characteristics featuring the LDCs, their economic vulnerability and their low human capital, two factors likely to influence their trade performance. We introduce the Economic Vulnerability Index (EVI) and Human Assets Index (HAI) of the exporting countries in the gravity equation defined in equation 1.<sup>17</sup> We indeed find that the impact on trade of the structural economic vulnerability (EVI) is negative and significant at the 1 percent level—and the positive impact of human capital. Increasing the EVI by 10 percent decreases the bilateral exports by 2.9 percent. Increasing human capital (HAI) by 10 percent increases the bilateral exports by 5.8 percent. At the same time the coefficient of the LDC dummies appears to be lowered (by around one-third), compared with the results reported in column 4, but the difference is not significant. Because the initial estimation is not statistically better than that including EVI and HAI, structural handicaps facing LDCs may contribute to their low share in world exports.

## Diversification of LDCs' exported products

### *Why diversification matters*

It is generally accepted that countries get rich by producing the goods that rich countries consume. This implies that economic development is a process of learning how to produce more complex products. Some have pointed out that productivity increases are primarily achieved through interindustry spillovers and that these are more likely in certain product groups—in the product-space language, in the “denser” part of the “forest” where opportunities are greater for cross-product linkages. Along these lines Hausmann, Hwang and Rodrik (2007) find that—after controlling for intervening factors, notably per capita income—countries with a more sophisticated (more diversified) export bundle subsequently grow faster. It could also be that productivity increases come through learning from exporting or through self-selection as the highest productivity firms self-select into exporting.

### *How diversification is measured*

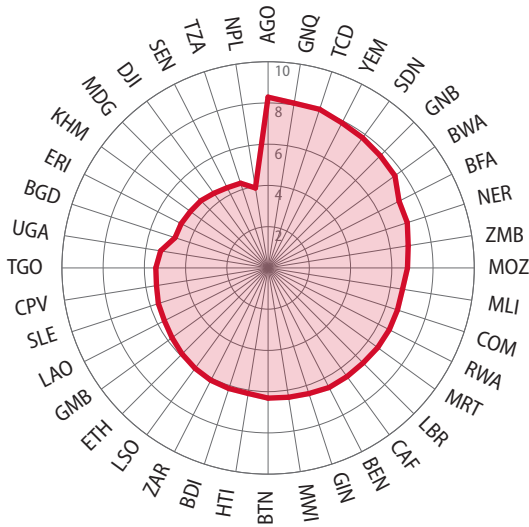
We examine patterns of diversification on all products, focusing on the precrisis and compute the Theil index of export concentration for each country and year. Theil's index is given by:

$$T = \frac{1}{n} \sum_{k=1}^n \frac{x_k}{\mu} \ln \left( \frac{x_k}{\mu} \right) \text{ where } \mu = \frac{\sum_{k=1}^n x_k}{n}$$

where  $x_k$  is the export value of product  $k$  at the HS-6 level (around 5,000 products) and  $n$  is the number of exported products (omitting country and time subscripts). We report the Theil index in figure 6.6 for 2008 (in decreasing order).

FIGURE 6.6

**Export diversification (Theil) index for LDCs in 2008**



Source: Authors’ computation based on Cadot, Carrère and Strauss-Khan (2011).

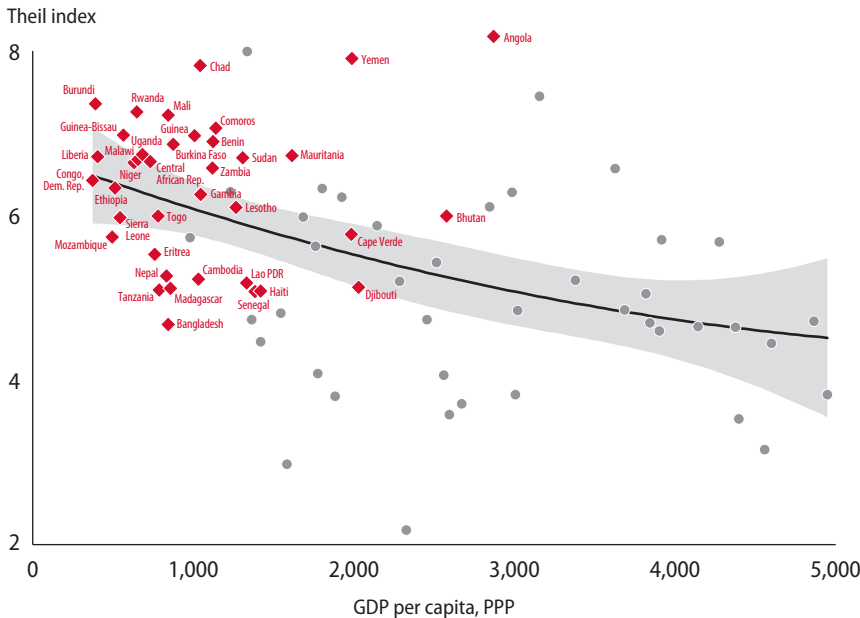
As expected, the five LDC oil exporters in 2008 (Angola, Equatorial Guinea, Chad, Yemen and Sudan) have the most concentrated export baskets. Among the most diversified are Nepal, Tanzania, Senegal and Madagascar.

This index differs from the index UNCTAD uses to regularly measure the export concentration of the exports of goods, an index that is a component of the EVI. The increase in the Theil index used in this chapter gives a better measure of export diversification than the decrease in the UNCTAD index,<sup>18</sup> mainly because of the level of product disaggregation we use. The index calculated by the UNCTAD is at the SITC-3 digit level (249 products). However, the calculation of concentration/diversification indices is very sensitive to the level of disaggregation: the more disaggregated the trade data, the better concentration/diversification are captured. Within one of the 249 SITC-3 categories, it is very different if exports are diversified over all the export sub-categories or concentrated on one. It is then relevant to use the most disaggregated level of exports available.<sup>19</sup>

*Are LDCs specific?*

To check if there is an LDC specificity, we follow Cadot et al. (2011) and consider the location of the LDC’s Theil index in relation to its GDP per capita. Figure 6.7 reports the average Theil index over 1988–2008 as a function of GDP per capita (estimated at PPP). The curve represents the corresponding quadratic adjustment (with a confidence interval at 95 percent-grey area). Keeping aside the main oil exporters, LDCs do not

FIGURE 6.7  
**Theil index as a function of GDP per capita, 1988–2008**



Note: Theil as a quadratic function of GDP per capita (PPP), estimated with the between estimator over the whole sample, with being the Theil index. We report only the “zoom” for countries with a GDP per capita lower than \$5,000.  
Source: Authors’ computation based on Cadot, Carrère and Strauss-Khan (2011).

appear to be relatively less diversified than other developing countries at similar incomes per capita. This is confirmed when estimating the following equation:

$$Y_i = \alpha_0 + \alpha_1 GDPpc_i + \alpha_2 GDPpc_i^2 + \alpha_3 LDC_i + v_i \tag{2}$$

with  $Y_i$  the Theil index,  $GDPpc$  per capita GDP and  $LDC$  a dummy variable equal to unity when country  $i$  is an LDC. When estimating this equation (on average over 1988–2008, using the “between estimator”) on a sample of 151 countries, the estimated coefficient  $\alpha_3$  is equal to 1.1 and is significant at the 1 percent level when all LDCs are included in the LDC dummy. But when the five main oil exporters are excluded from the LDC category, the same coefficient is equal to 0.6 and is no longer significant at the 10 percent level. This suggests that, controlling for income per capita, LDC exports are not more concentrated than those of other developing countries. This finding is not in favor of retaining export concentration as a component in the economic vulnerability index (EVI) used for the identification of LDCs. Actually, taking into account per capita GDP is sufficient, since no LDC-specific pattern in diversification emerges when controlling for per capita GDP, except for the five main oil exporters. The inclusion into EVI has already been debated in the companion volume,

particularly the view that oil exports should not give an advantage for being included in the list of LDCs.

### **Developed country policies impacting LDCs' market access**

The *raison d'être* of the LDC category is their structural handicaps, legitimizing special and differential treatment (SDT). If effective, SDT measures should increase market access in destination markets. We identify three quantifiable measures:

- The actual market access granted by the EU and US to LDCs given preferential tariffs also granted to non-LDC competitors.
- The restrictiveness of the origin requirements that can deny effective market access supposedly granted by preferential access.
- The extent to which non-tariff measures in partner markets implemented since the financial crisis disproportionately affect LDC exports.

#### *Preference erosion in the EU and US markets*

*Measuring effective preferences.* To ascertain the preferential market access, we use data as disaggregated as possible on a comparable basis that include all preferential regimes, reciprocal and nonreciprocal, of the EU and the US. The data also take into account reasonable measures of the tariff equivalent of non-tariff measures (such as tariff quotas for agriculture and the special regime for EU preferences accorded to ACP countries). For the EU we use Eurostat data for 2012 at the HS-8 level that takes into account all preferential regimes of the EU-27.<sup>20</sup> For the US we rely on the US ITC, also for 2012, at the HS-8 level. All preferential regimes are also taken into account when computing the tariff applied by the US.<sup>21</sup> Canada, Japan and some emerging countries also extend preferential access on a nonreciprocal basis to LDCs. These are becoming increasingly important markets for LDCs but are not covered here.<sup>22</sup>

LDCs face different tariffs in the EU and the US:

- In the EU-27 market LDCs have duty-free quota-free (DFQF) access on all products under the EBA ("Everything but arms") regime applied since 2001 (chapter 93 "Arms and Ammunitions" is not included in our sample).
- In the US market LDCs receive different preferences, not designed with regard to the LDC status. As a group LDCs on average have DFQF access for 82.5 per cent of US tariff lines (see Odari 2013). AGOA members (including LDCs) get duty-free quota-free access but other LDCs get GSP preferences, which for some products are the most-favoured-nation (MFN) tariffs.

Because of the numerous FTAs negotiated by the EU and US, LDC effective market access is greatly reduced. As a result, the adjusted preferential market access for product  $k$ ,  $\bar{\tau}_{LDC}^k$ , in the EU market is given by:

$$\bar{\tau}_{LDC}^k = \frac{t_{LDC}^{EFF,k} - t_{LDC}^{LDC,k}}{1 + t_{LDC}^{LDC,k}}; \quad (3)$$

$$t_{LDC}^{EFF,k} = \sum_{j \notin LDC} (\theta_j^k t_j^k); \theta_j^k \equiv M_j^k / \sum_{j \notin LDC} M_j^k$$

$\bar{\tau}_{j \notin LDC}^k$  being the *effectively applied tariff* on imports of product  $k$  from the non-LDC country  $j$  and  $M$  the import value to the importing market (EU or US). As a result, in the EU (US) market, whereas the unadjusted preferential margin for product  $k$  is  $\tau_{LDC}^k = t_{MFN}^k - t_{LDC}^k$ , the adjusted preferential margin in expression (3) is reduced by the preferences accorded to other non-LDC partners exporting product  $k$ .

*When adjusted, preferences margins are low.* Figure 6.8 contrasts unadjusted and adjusted preferential margins in the EU and US markets, taking a trade-weighted average over all products at the HS-8 level. For the EU, market access is reduced by half to around 3 percent once preferences granted to non-LDC partners are taken into account. For the US the LDC unadjusted preferential margin is only 2 percent, and on an adjusted basis exports have a negative market access of -1.3 percent. This means that LDCs are discriminated against in the US market for the main products they sell there because the US has FTAs with trade partners that compete with them in the US market and have greater preferential access than under GSP preferences. The very low figure for the US (despite AGOA) is because the preferences on textiles & apparel and other products are excluded from the GSP and DFQF access. Put in perspective, these preferential margins are very low for both partners especially if one takes into account that complying with rules of origin requirements have been estimated in the range of 2–3 percent of the value of exports.

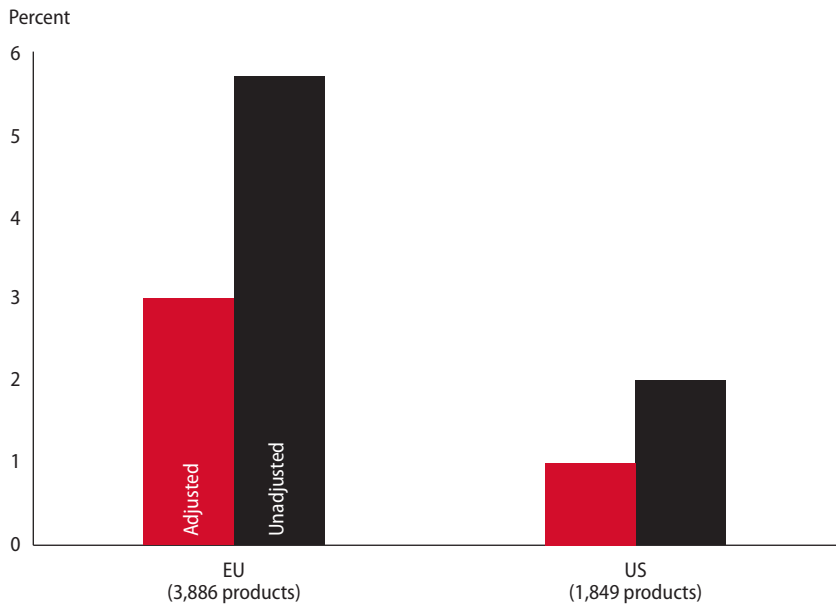
To sum up, in the US market there is room for gain in market access for LDCs. This should be done through the Doha negotiations, where duty-free, quota-free access for LDC exports to richer country markets is included since the “Geneva package” in 2008. Many countries have already implemented this, and the “Bali package”, in December 2013, says countries that have not done so for at least 97 percent of products “shall seek to” improve the number of products covered.

How much market access could one expect from the US implementing this proposal? Carrère and de Melo (2010) apply the standard partial equilibrium version of a trade model with product differentiation to answer this question. Removing tariffs on LDC exports would lower the average price of imports in the US, leading to an expansion of US imports at the product line level. In addition, there would be a substitution effect away from non-LDC suppliers towards LDCs because they receive this “97 percent duty-free” access. And within the LDC group, there would be a substitution away

from those that receive duty-free access on the US market towards LDCs now benefiting from the “97 percent duty-free” proposal. Simulations suggest that, for central elasticity estimates, LDC exports would expand by 11 percent. Going all the way to duty-free status would yield an expansion to about 15 percent.

*Factors likely to limit the impact of EBA.* Figure 6.8 also shows that more than twice as many products are exported to the EU (3,886) than to the US (1,849). Although factors other than preferences, such as market proximity and cultural or colonial links, might account for this greater diversification, it would appear that EU preferences allow LDCs to better exploit their extensive margin, even if, as for the US, the top 30 products do not benefit so much from preferences (see tables A6.1.1 and A6.1.2 in appendix A6.1). One explanation can be related to uncertainty: while EBA offers a systematic and long-term access to LDCs, AGOA is both reversible and not guaranteed for LDCs. Interestingly, even for some “big hits” like sugar, competition between LDCs and other trading partners in the EU and US markets is so intense that once adjusted for preferences also given to competitors, the MFN tariff equivalent of 71.2 percent is reduced to a preference margin of 0.5 (see table A6.1.1 line 20 in Appendix A6.1—meaning that main competitors on the EU market are benefiting from the same preferential treatment called the “Sugar protocol”).<sup>23</sup>

FIGURE 6.8  
**LDCs’ average preferential margins, unadjusted and adjusted, 2012**



Note: Weighted by the LDC export value at the product level.  
Source: Authors’ calculation.

Because the EU grants DFQF access to the LDCs in their market, unless there is a relaxation of rules of origin, market access for the LDC group will erode in the future in two ways. First, some erosion will come from a reduction in MFN tariffs generated by multilateral negotiations. This source of erosion has been extensively studied (for example Amiti and Romalis 2007 or Francois et al. 2006) and may be minimal if, as expected, the multilateral negotiations at the WTO make little progress. It is likely that the greatest erosion will be generated by the expansion of the EU's preferential schemes (Carrère 2011). Actually, even if overall trade preferences are small for LDCs on the EU market, some products such as bananas or fish still benefit from large preferential margins due to high MFN barriers applied to the main competitors of the LDCs. But these margins should be significantly eroded by the implementation of some EU FTAs with partners like MERCOSUR (Brazil is an important exporter of sugar to the EU), the ANDEAN community (Ecuador and Colombia export bananas), and ASEAN (Thailand and the Philippines export fish and tuna). So the best hope for market access is a simplification of the rules of origin requirements.

### *Rules of origin requirements*

*Complexity and measurement of rules of origin.* All countries engaged in preferential trading schemes short of a full customs union use rules of origin (RoOs) to prevent trade deflection—that is, importing from the low-tariff partner and then exporting to other countries in the preferential zone. RoOs also apply to the nonreciprocal preferences granted under the GSP, EBA or AGOA. These elaborate requirements include regime-wide rules and product-specific rules of origin (PSROs) that vary greatly across products and sometimes across partners for the same product.<sup>24</sup> Having to fulfil different requirements for the same product when exporting to different destinations increases the overall costs of exporting. For example, the EU has over 500 different PSROs. While the US has fewer PSROs than the EU, they too are complex and often vary across partners for the same product. This complexity is often conveniently summarized by an overall restrictiveness “R-index” that is used in table 6.3.<sup>25</sup>

Rules of origin as a factor limiting the impact of higher preferences. To see if requirements vary systematically with preferential margins, table 6.3 splits tariff lines at the HS-6 level into three categories: high, medium and low preference margins and reports average values for preferential margins and for the R-index for each category of tariff lines. The average value of the R-index is higher for the tariff lines with high preference margins (with preferential margin peaks). This confirms that preferences serve as protectionist devices and that nonreciprocal preferential schemes amount to giving market access with one hand and taking it away with another through restrictive RoOs.

*Impact of change and prospects for reform.* With two exceptions relating to origin requirements for textiles & apparel, once in place, RoOs are rarely changed. Under AGOA,

TABLE 6.3

**LDC Preferential margins and the RoO index**

EU

|  | Lines with positive LDC export <sup>a</sup> | Weighted average preference margin (percent) | Weighted average R-index value |
|--|---|--|--------------------------------|
| Preferential margin peaks <sup>b</sup> | 570   | 17.13%                                       | 6.08                           |
| Low preferential margin <sup>b</sup>   | 824   | 0.01%  | 3.19                           |
| Total number of tariff lines           | 3,509                                       | 4.64%  | 3.93                           |

US

|  | Lines with positive LDC export <sup>a</sup> | Weighted average preference margin (percent) | Weighted average R-index value |
|--|---|--|--------------------------------|
| Preferential margin peaks <sup>b</sup> | 267   | 8.08   | 6.64                           |
| Low preferential margin <sup>b</sup>   | 1,009                                       | 0.002  | 6.10                           |
| Total number of tariff lines           | 1,783                                       | 0.86   | 6.33                           |

- a. LDCs as a group.
- b. The preferential margin tariff peaks are defined for tariff lines with preference margins in excess of 12 percent (EU) or 3 percent (US) and low margins for tariff lines below 1 percent (EU) or 0.05 percent (US) preferential margins.

Source: Carrère and de Melo (2010) table 1.

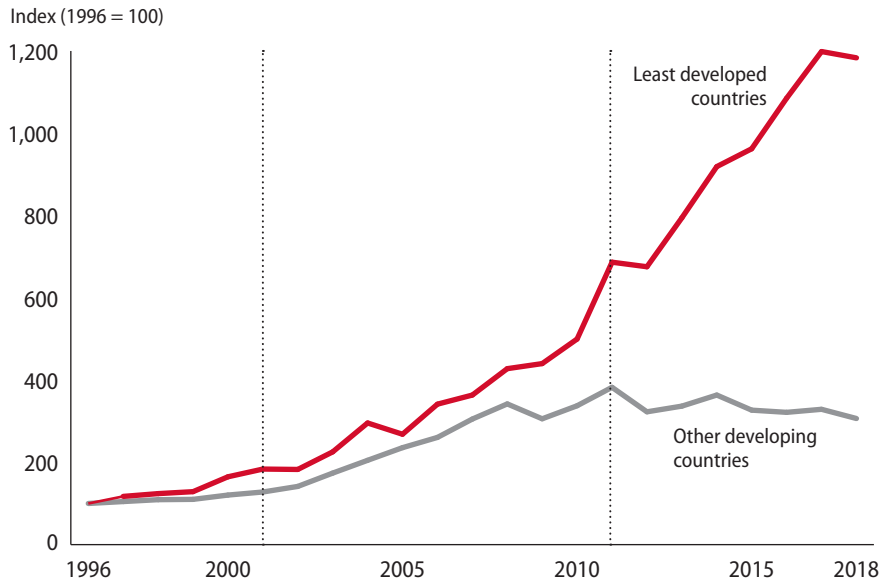
starting around 2001, the US changed the technical requirement from a triple to a simple transformation while the EU changed its technical requirement from a double to a simple transformation requirement in 2011.<sup>26</sup> As explained by Elliott (2016), “Bangladesh had developed backward linkages in the knitwear industry, so it had been able to take advantage of duty-free status for those apparel products even under the double transformation rule. But growth was much less for Bangladeshi woven garments and for Cambodian apparel exports overall”. Figure 6.9 confirms that for all LDCs after the RoO rule was changed in 2010, textile and clothing exports from these countries to the EU jumped sharply.

But EBA still offers very limited accumulation, ignoring the globally integrated supply chains used to manufacture finished goods today. Canada’s scheme, by contrast, is the most generous, allowing all work completed in any developing country to count towards its value threshold (it allows for full accumulation). This subtle difference provides exporters in small countries, which might be competitive at producing components but not final goods, a greater chance to integrate into global production chains.

A useful step in the direction of less costly and more transparent RoOs was taken at the WTO ministerial in Nairobi in December 2015. As part of the Doha round negotiations, it was agreed that a set of binding multilateral provisions on preferential



FIGURE 6.9  
**EU textile and clothing imports, 1996–2014 (index, 1996 = 100)**



Source: Authors’ calculation based on UN COMTRADE.

RoOs for LDCs would be implemented by December 2016. In the decision an LDC export would qualify for preferential treatment, with non-originating materials making up to 75 percent of the final value of the product. This significant step should help LDCs integrate with the so-called global value chain (now many thresholds allow only up to 40 percent non-originating materials). Yet, a 75 percent non-originating material threshold may still be prohibitive in some cases because production stages in global chains call for very little domestic content.

*Non-tariff measures*

Non-tariff measures (NTMs) have acquired growing importance as tariffs have been brought down. The trend is away from protecting producers from foreign competition towards attaining a broad range of public policy objectives that include health, safety and environmental protection. In short we are witnessing a move from protection to precaution (WTO 2012). Evidence on how this move affects LDC exports is fragmentary both because of difficulties in establishing an adequate single NTM classification and because the notification system is largely voluntary since WTO members do not want to shoot themselves in the foot by providing information that could be used against them.<sup>27</sup>

Overall, the evidence from case studies is that SPS regulations in the EU and US markets are inhibiting developing-country exports, especially from LDCs. The bulk of

agricultural imports by the EU and the US is moving towards a dual structure, with the bulk of imports procured from a shrinking number of large suppliers. For small suppliers, many in LDCs, the move from the fringe to the mainstream is limited by hurdles in building up reputations. Cadot and de Melo (2014b) note that the weak sanitary control systems in LDCs are likely to be self-perpetuating and have strong regional externalities highlighting the benefits from a regional approach to upgrading where Aid for Trade could play a key role.

At the international level, the lack of regulatory harmonization towards the standards established by the ISO is well documented. Czubala et al. (2009) estimate that over 1995–2003, the EU standards harmonized to international norms exert a less negative impact on Sub-Saharan exports than those not harmonized. This would suggest that harmonisation of national standards with international norms would help LDC exports to developed-country partners. However, by distinguishing North-South trade from South-South trade in a bilateral model of trade that takes into account membership in regional trade agreements, Cadot et al. (2015) warn about “regulatory upgrading” by developing countries to Northern standards. They find that it hinders South-South trade.

Actually, the compliance of the Southern partner with Northern standards can confer indirect benefits by raising the quality of exported products and encouraging improved management and production processes. But these benefits typically come at a cost, even if that cost is sometimes reduced by technical assistance programs such as the European Pesticides Initiative Program. And the higher cost and changed market positioning may price those exports out of other Southern markets. The Southern partner will then redirect its exports to the Northern partner, a trade deflection that may hurt actual or potential South-South trade. These conclusions are likely to carry over to LDCs, if they envisage moving towards reciprocal trade integration arrangements with Northern partners like the Economic Partnership Agreements (EPAs) recently signed with the EU.

The Global Trade Alert (GTA) database provides direct evidence on trade barriers facing LDCs.<sup>28</sup> It uses a traffic light system to categorize how the more than 6,000 trade measures taken since the 2008 crisis affect the commercial interests of trading partners (red for discriminating, amber if likely to discriminate and green if it improves or has no effect). Evenett and Fritz (2015) track specifically how these measures have affected the interests of LDCs in a gravity equation estimated over 2009–13. They show that the number of harmful measures always exceeded every year the number of benign or beneficial measures. Drawing on trade data at the HS-4 level they estimate that more than 40 percent of the harmful measures are a combination of tariff increases, export restrictions and local-content requirements.

Of the 494 measures that distort LDC commercial interests only 12 are from other LDCs while the 28 EU members account for 13 percent, and Japan and the US account

for 10 measures each. Despite India's frequent claim to represent the interests of LDCs, it alone represents 20 percent of worldwide measures harming the interests of LDCs. Using a difference-in-difference approach to eliminate time-invariant effects typically included in gravity models, Evenett and Fritz estimate that the protective measures have reduced the growth of LDC exports by \$265 billion over 2009–13, equivalent to 31 percent of the total value of LDC exports.

### **Beyond market access: international support and LDC policies impacting their exports<sup>29</sup>**

The foregoing policies help explain why the preferences specifically given to LDCs have not avoided the decline of LDCs in world trade, with the recent reversal mainly due to the exports of fuels and metals. Other policies may have had an impact on the trade trends of LDC exports or may have an impact in the future. Besides international measures, like the policies previously considered, are the policies of the LDCs, indeed essential. International measures can also help LDC trade policies. Besides LDC access to the markets of developed countries, the international community can help LDCs lower their trade costs and enhance their export growth in two ways. One takes place within the special and differential treatment (SDT) given to LDCs. The other, not specific to LDCs, includes policy measures of particular interest to the LDCs.

#### ***Special and differential treatment of LDCs: impact and link with their policies***

The aim and origin of the numerous trade-related measures specifically taken for the LDCs, including the accession of LDCs to the WTO, as well as the provisions facilitating their participation in the WTO, were examined in depth in the previous chapter. While each measure deserves a separate assessment, as done in chapter 5, particularly for the Integrated Framework and Enhanced Integrated Framework, their impact on LDC exports is briefly discussed in the framework of this chapter.

The trade-related measures beyond market access aim at facilitating the integration of the LDCs in the multilateral trade system. They are not directly targeted to the expansion of their exports. But by liberalising their trade, LDCs may expect lower import costs and more competitiveness for their exports. So the trade-related measures should contribute to the expansion of imports needed for exports, then to exports and then to enhanced economic growth.

In several studies, WTO membership has been estimated to increase the volume of trade. For instance, from an examination of data for all developing countries between 1980 and 2001, Tan and Wei (2009) estimate that GATT/WTO accession tends to raise income temporarily (growth and investment accelerate for five years leading to an economy permanently larger by 20 percent), but only for countries with poor governance, the case for many LDCs (chapter 2). Some other authors argue that the impact of WTO accession on trade (exports) is higher when the negotiation has been long and

rigorous (Allee and Scalera 2012; Davis and Wilf 2014). It may also have been the case for new accessions of LDCs (see chapter 5).

A major expected effect of facilitating WTO accession for LDCs was to push trade policy reforms where they are the most needed, making accession more likely to boost exports. But the impact of special and differential treatment on the pace of reform is difficult to assess. There are no universal political economy rules in this regard. The acceptable pace of reform is not the same in all LDCs and all the reforms are not equally valuable in all countries, bringing into question the effectiveness of the single undertaking approach (Finger 1999; Finger and Schuler 2000).

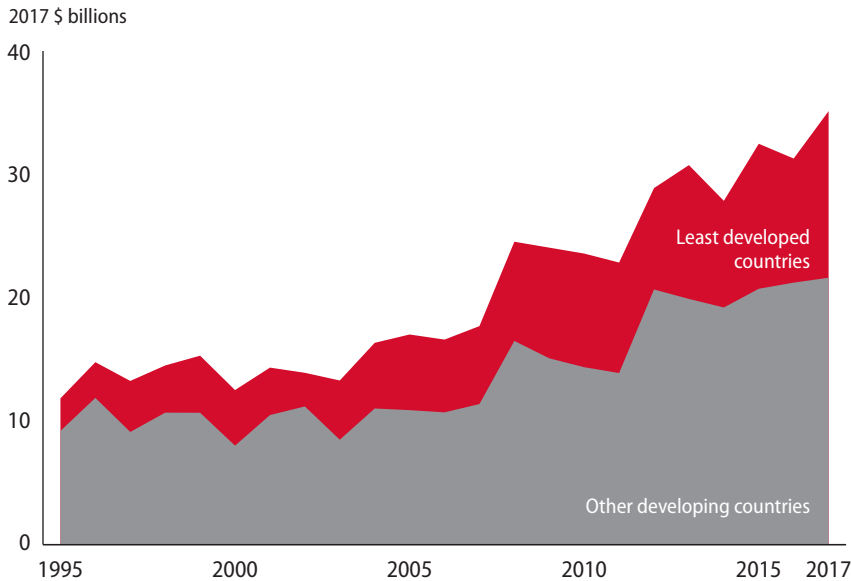
### *Not specific to LDCs but of particular interest to them: Aid for Trade*

Besides measures specifically designed for LDCs, some trade-related measures not exclusively adopted for LDCs are of particular interest for increasing their capacity to export. That is the case for Aid for Trade (AFT), discussed in chapters 3 and 5, and for the new Trade Facilitation Agreement (TFA).

The AFT initiative was launched in 2005, when the Doha Round negotiations were showing a lack of progress. Although the initiative indeed did not exclusively concern LDCs, it focused on the infrastructure and trade capacity building, both relevant for LDCs. At this time LDCs felt they had taken on board the single undertaking during the Uruguay Round against promises of market access in the future and of funding for special assistance. They were unconvinced that a rule-based globalisation would be the engine for growth and poverty reduction that it had been for East Asian economies and more recently China. So the AFT initiative seemed to meet their concerns, already reflected in the IF. Nonetheless, the average per capita AFT commitment to LDCs, according to the OECD definition, did increase substantially, reaching an average of \$14 per capita during the AFT period (2005–14).<sup>30</sup> They rose much less for other developing countries (excluding upper-middle income countries) during the period, so that AFT commitments fit the IPoA objective of raising the LDC share of AFT funds. But as noted in chapter 5 the LDC share in total AFT funds is still low, only 28.5 percent in 2014 (31.2 percent on average 2006–14). And as noted in chapter 3 the share of AFT in total ODA received by LDCs is still weak.

What has been the impact of AFT on LDCs' exports? A WTO AFT task force was set up in 2006 to implement the "positive agenda" to enhance competitiveness. Multiple goals were adopted, but clear guidelines on how to conduct evaluations were largely absent even though pressure was mounting for greater accountability. After three biennial reviews organized around the OECD–WTO task force, Cadot and de Melo (2014a, 2014b) looked at what we know about AFT effectiveness. They noted that a discussion of approaches and methods led to a Managing for Development Results (MfDR) approach along a results chain to enable evidence-based evaluation based on firm definitions and clear objectives. There are very few cross-country econometric

FIGURE 6.10  
**Aid-for-Trade commitments**



Source: OECD data

estimations of the impact of AFT on exports, a major exception being that of Vijil and Wagner (2012). The quest to improve accountability has produced case studies and a digest of a large collection of projects and case stories—many voluntarily supplied and thus heavily selected. Meta-analyses have been built by word counting, but while AFT is of special interest for LDCs, evaluations do not specifically focus on LDCs.

As noted in chapter 5 for the EIF, estimation confronts all the problems that besiege impact evaluations. These were summarized by Pascal Lamy’s remarks on the “monitoring dilemma” at a December 2012 workshop on evaluating AFT: “Focusing on just the outcomes of Aid for Trade is perhaps too limiting a focus. This is fundamentally because the Aid for Trade initiative is first and foremost about coherence. It is about winning the argument on mainstreaming trade in national development strategies. It is about helping countries and the decisionmakers and policymakers (and policy takers) in these countries to see the wisdom of integrating the different strands of the economy.... Trade is not a sector. It cuts across all sectors of the economy” ([http://www.wto.org/english/news\\_e/sppl\\_e/sppl260\\_e.htm](http://www.wto.org/english/news_e/sppl_e/sppl260_e.htm)).

In effect these remarks echo other critical evaluations. For example, in a similar vein, at the end of his evaluation of AFT, Hallaert (2012, p. 11) concludes: “No stakeholder has an incentive to report failures or problems. Donors want to herald their successes (especially when the fiscal crisis threatens aid budgets). Recipient countries are afraid that reporting problems would lead to a reallocation of resources. The WTO

needs to show success (especially when the Doha Round faces a difficult time). This flaw in the monitoring framework was particularly visible in one of the innovations of the 2011 monitoring exercise: the case stories. About 270 case stories were submitted but it is hard to find critics or failures reported. At best, this ‘beauty contest’ allowed learning from success but not from failure”.

The impact of AFT on LDCs’ trade outcomes is not only the physical result of the AFT expenditures—it is also linked to the policy reforms associated with this kind of support. Infrastructure provided with the support of AFT also brings an opportunity to improve the regulatory framework and ensure competition in the provision of services. Improving the soft institutional and regulatory infrastructure will require less funding but is an integral part of trade costs. This is what the Trade Facilitation Agreement is about.

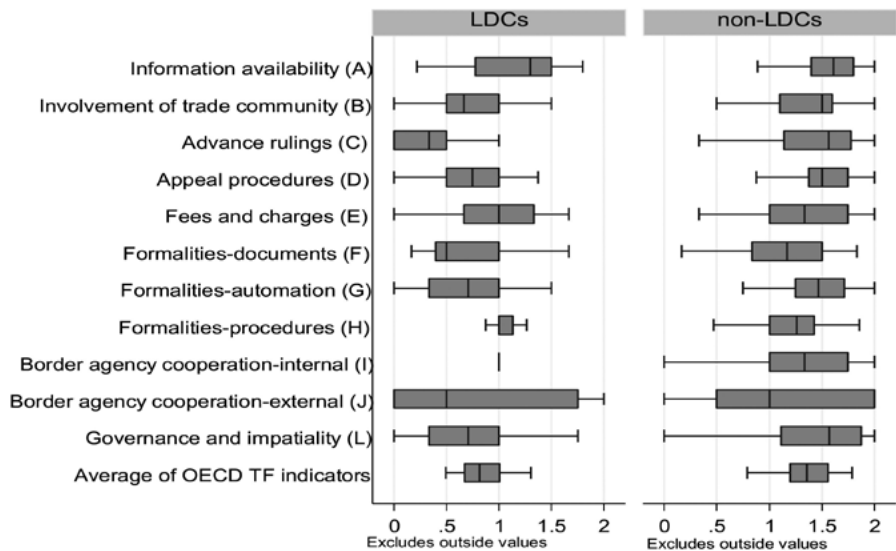
### *Not specific to LDCs: the Trade Facilitation Agreement*

The Trade Facilitation Agreement (TFA), signed in December 2013, is part of the so-called Bali package. “The Trade Facilitation Agreement contains provisions for expediting the movement, release and clearance of goods, including goods in transit. It also sets out measures for effective cooperation between customs and other appropriate authorities on trade facilitation and customs compliance issues. It further contains provisions for technical assistance and capacity building in this area” (WTO website). Provisions are foreseen for developing countries and particularly for LDCs. When implemented, they become a part of SDT. While the TFA can have an impact on LDCs’ exports only in the future, the trade costs linked to customs management it aims at reducing are particularly high in LDCs and contribute to explaining their observed export trends.

The OECD has produced and released a series of 11 Trade Facilitation Indicators (TFIs) with complete data in 2015 for 116 countries. These TFIs are also indicators of trade costs. Figure 6.11 compares the box plots for each indicator averaged over two groups of countries (number of countries in parenthesis), the LDC (18) and other developing (56). The TFI2015 variable in the bottom of the figure is the simple average of the 11 indicators and is substantially higher for the non-LDC group. These indicators are relatively easy to monitor, and it is expected that their accuracy will be improved as the TFA is implemented.

Two measurable outcome variables of interest to monitor in implementing the TFA are export volumes and their characteristics and time in customs. First, greater diversification in exports is expected from a reduction in trade costs—so one would expect that trade facilitation measures would expand both existing exports (intensive margin effect) and create new trade flows (extensive margin effect). Controlling for other factors affecting bilateral trade, Moïse and Sorescu (2013) find a positive correlation between bilateral trade flows and higher values for the TFIs for 2012. Using the same

FIGURE 6.11  
**OECD Trade Facilitation Indicators**



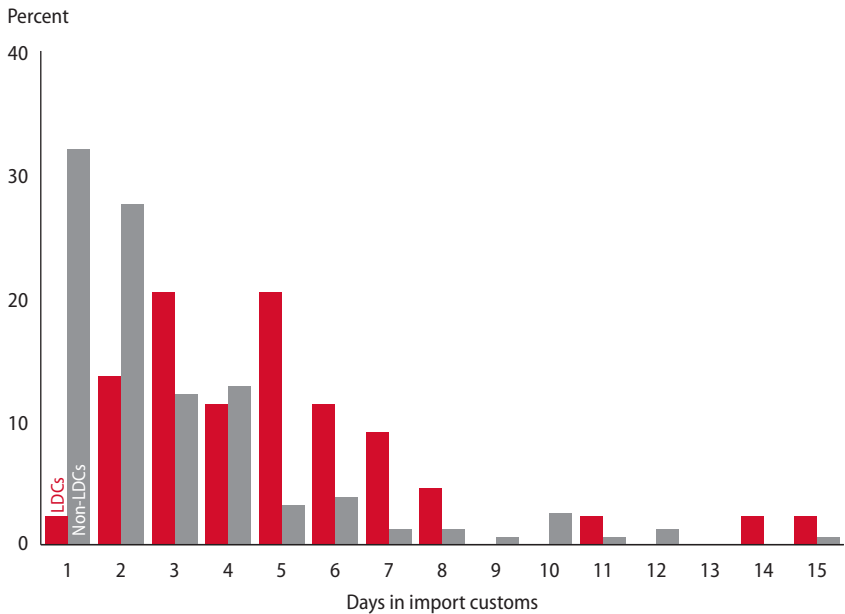
Source: OECD 2015 data.

data Beverelli et al. (2015) estimate that gains in the number of products exported by destination and in the number of destinations are associated with higher values for the TFIs. They estimate that the largest gains occurred for Sub-Saharan Africa and Latin America.

Reduced time in transit is the second source of reduction in trade costs to be expected from implementing the TFA. Indeed, according to logistics professionals, time saving in customs is the private sector’s preferred summary indicator of trade costs associated with clearing goods at the border. These gains should be greatest for LDCs that have the greatest times in transit. De Melo and Wagner (2016, figure 6.3) report a median of three days in customs for LDC containers destined for export whereas the median time for non-LDC developing countries is two days. Note that, using the Doing Business (DB) data on 20-foot containers for Sub-Saharan countries, Freund and Rocha (2011) estimate that reducing travel time by one day increases exports by 4 percent. Even larger gains in time would obtain on the import side, since the median is five days in customs for import containers for LDCs and three days for non-LDCs (figure 6.12). Of course the time lost on the import side also lowers the competitiveness of exports. However, these estimates may not be very representative of trade costs as they are based on data for a small number of freight forwarders (usually two or three per country).

De Melo and Wagner (2016) estimate the correlates of the number of days in import customs of container data from the DB 2015 data. Their estimation includes the

FIGURE 6.12  
**Number of days in customs for imports**



Source: Doing Business data.

standard control variables (GDP per capita, “Small Island Developing States” dummy, infrastructure index, world governance index) and the TFI index as computed from the TF indicators in figure 6.11. Under all specifications, including a sample restricted to developing countries, higher values of the TFI index reduce significantly (usually at the 1 percent significance level) the probability of staying longer in customs. Then, they use the estimated coefficients to simulate the impact of an improvement in the TFA, as captured by an improvement in the TFI index, on the number of days in customs. Results are reported in table 6.4.

All estimates are computed across countries relative to the medians of the relevant group. So if the TFI median value of the LDC group (5.4 days) were to reach the best performance value of the LDC group (3.2 days), this would be equivalent to a 3.9 percent reduction in trade costs. Three patterns are discernible. First, the gains are much greater for the LDC classification than for any of the other classifications, notably the LIC (13) group.<sup>31</sup> Second, in general, gains from moving to best-practice performance appear to be greatest for landlocked countries. Third, the pattern is robust to simulations when the HIC (42) group of countries is excluded from the estimation. Gains are less but still significant, and gains for landlocked LDCs become the largest.

Even though there is more to trade costs than customs management, monitoring implementation of the TFA would be a stepping stone towards the concrete trade



TABLE 6.4

**Simulated impact of the TFA on the number of days in customs**

| Categories                                 | Median time in<br>import customs<br>(in days)<br><i>Observed</i> | Median time in<br>import customs<br>(in days)<br><i>Fitted</i> | All indicators<br>at the best<br>performance of<br>their income/<br>group category | Equivalent<br>percentage<br>reduction in<br>trade costs <sup>a</sup> |
|--|--|--|--|--|
| Column                                     | 1  | 2  | 3  | 4  |
| All  | 2  | 1.6  | 1.3  | 0.4  |
| Low income                                 | 4  | 3.6  | 3.0  | 0.7  |
| Lower middle<br>income                     | 4  | 4.1  | 3.5  | 0.9  |
| Upper middle<br>income                     | 2  | 2.2  | 1.4  | 1.0  |
| High income                                | 1  | 0.2  | 0.1  | 0.1  |
| LDCs (18)                                  | 4  | 5.4  | 3.2  | 3.0 (2.4) <sup>b</sup>   |
| Landlocked<br>developing<br>countries (21) | 5  | 7.3  | 4.4  | 3.8 (3.0) <sup>b</sup>   |
| Landlocked LDCs (8)                        | 5.5  | 8.3  | 6.3  | 2.7 (4.5) <sup>b</sup>   |

a. Gain in time multiplied by the mean estimate of 1.3 percent (Hummels and Schaur 2013): (columns 2–3) × 1.3 percent. Estimates are rounded to the first decimal.

b. Figures in parentheses are from estimates that exclude high-income countries from the estimation sample.

Source: De Melo and Wagner (2016), table 4.

performance targets that have been lacking in AFT activities so far. On average, times in customs for imports and exports are significantly higher for LDCs and landlocked LDCs, suggesting that it will be difficult for them to meet the IPoA target of doubling the trade share of LDCs in world trade by 2020 without improvements in customs management reducing time in customs.

***Back to LDC policies***

Beyond market access, many international trade–related measures have an impact on LDCs’ exports through their influence on the policies of LDCs. So it is difficult to disentangle the impact of international measures and that of LDC policies. Independent of international measures the policies of LDCs remain crucial for determining their export growth. We illustrate this point with trade promotion organizations, before underlining the importance of domestic institutions for trade.<sup>32</sup>

*Trade promotion organizations.* For exporters in general, but particularly for pioneers in low-income countries, information about foreign markets and export insurance is typically underprovided, justifying government-supported trade promotion organizations (TPOs) that aim at internalizing information spillovers and solving coordination

failures. They have been in existence since the beginning of the 20th century. In an early study Rose (2005) estimated that a diplomatic presence increased bilateral exports by 6 to 10 percent. He argued for the plausibility of this strong effect as other motives for representation are losing in importance because of falling communication costs. In follow-up cross-country work, Lederman et al. (2010) using a World Bank survey in which 21 percent of the (67) low-income (upper-middle and high-income) countries had TPO offices abroad, also estimated large export elasticities to TPO funds. Having controlled for a host of factors (GDP per capita, restrictiveness and geography determinants of exports) they estimate that a 1 percent increase in the export promotion budget leads to a 0.04 percent increase in exports, results likely to be subject to omitted variable bias.

Olarreaga et al. (2016) also estimate the returns to export promotion budgets from a larger sample with panel data for low-income and high-income (defined as upper-middle and high-income countries) countries. The median TPO budget share in GDP is 0.037 percent in high-income countries and 0.021 percent in low-income countries. The median number of TPO employees is 191 in high-income countries and 50 in low-income countries.

Results from their estimation with the full sample of countries are contrasted with estimates from a restricted sample of low-income countries in table 6.5. In the full sample, a 1 percent increase results in an increase in exports of 0.051 percent (table 6.5, column 3) implying that a \$1 increase in the budget increases exports by \$59 (columns 3 and 9). The dummy variable for low-income countries is not significant, confirming the similar results obtained for the sample restricted to low-income countries in the other columns.

Columns 6 to 10 report the results of the estimation of the elasticity of GDP per capita with respect to TPO budgets. In the full sample a 1 percent increase in the TPO budget leads to a 0.058 percent increase in GDP (if one assumes that population is unaffected), a much larger impact of export promotion on GDP than on exports since, in the sample, exports are about 40 percent of GDP. This would suggest important positive externalities from the firms that benefit from TPO activities towards nonexporting firms. Perhaps some of the nonexporting firms that did not directly benefit from export programs became exporters or export booms endogenously reduced distortions in import-competing sectors.

These results notwithstanding, macro studies face the problem of omitted confounding factors, which are likely to contribute to the large results reported here. Firm-level studies are more likely to deal with confounding factors and provide greater internal validity. In a study of Peruvian exporting firms using customs data, Volpe and Carballo (2008) estimate that export promotion affects exports mainly through the extensive margins (new product and new destinations). For Chile, Volpe and Carballo (2010) estimate that small firms benefit more than large firms. When customs data are matched with firm data, it appears that export promotion helps medium-size firms enter

TABLE 6.5  
**Returns to export promotion in a sample of low-income countries**

|                         | Log of exports of goods and services |                    |                    |                    |                    | Log of GDP        |                   |                    |                   |                   |
|-------------------------|--------------------------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|--------------------|-------------------|-------------------|
|                         | (1)                                  | (2)                | (3)                | (4)                | (5)                | (6)               | (7)               | (8)                | (9)               | (10)              |
| Log of TPO budget       | 0.070*<br>(0.028)                    | 0.070*<br>(0.028)  | 0.051*<br>(0.020)  | 0.146**<br>(0.039) | 0.155**<br>(0.033) | 0.037*<br>(0.016) | 0.037*<br>(0.016) | 0.058**<br>(0.014) | 0.062*<br>(0.027) | 0.056*<br>(0.028) |
| Log of population       |                                      | 2.610**<br>(0.624) | 2.182**<br>(0.503) | 2.617**<br>(0.619) | 2.907**<br>(0.511) |                   | -0.001<br>(0.496) | 0.728*<br>(0.284)  | 0.005<br>(0.434)  | -0.159<br>(0.424) |
| Log of TPO budget × LIC |                                      |                    | -0.005<br>(0.005)  |                    |                    |                   |                   | -0.006*<br>(0.002) |                   |                   |
|                         | OLS                                  | OLS                | OLS                | IV                 | IV                 | OLS               | OLS               | OLS                | OLS               | IV                |
| Observations            | 222                                  | 222                | 530                | 222                | 210                | 236               | 236               | 549                | 236               | 224               |
| R <sup>2</sup>          | 0.993                                | 0.994              | 0.997              | 0.994              | 0.994              | 0.991             | 0.991             | 0.997              | 0.991             | 0.991             |

Note: All regressions have country and year fixed effects. Significance levels are as follows: † stands for 10 percent statistical significance; \* for 5 percent; and \*\* for 1 percent. In columns 4 and 9 the rank of the TPO budget is used as an instrument, and in columns 5 and 10 the share of the executive board seats in the hands of the private sector and the share of public funding, as well as their interaction, are used as instruments. Columns 3 and 8 use the entire sample in the World Bank 2005 and 2010 surveys. All other columns include only low-income and lower middle-income countries (LIC and LMIC). Robust standard errors are in parentheses; \* stands for significance at the 5 percent level and \*\* for significance at the 10 percent level. Median TPO budget is \$6.6 million, median exports \$7.8 billion and median GDP \$39 billion.

Source: De Melo and Olarreaga (2016), adapted from table 1 in Olarreaga et al. (2016).

export markets and small firms diversify across products (Lederman et al. 2015). Controlling for self-selection into exporting by high-productivity firms through randomization, Atkin, Khandelwal and Osman (2015) estimated that Egyptian firms producing rugs that were offered the opportunity to export high-quality carpets to retailers in the US and Europe had an increase in profits of around 20 percent and larger increases in the quality of goods they produced.

In conclusion, the magnitude of the macro-level evidence may well be inflated by omitted variable bias, but the micro-level evidence also points towards positive effects of TPOs on exports, both at the intensive and the extensive margins. These results are likely to carry over to LDCs even though weak institutional environments could reduce the effectiveness of TPOs’ activities.

*Domestic institutions.* If the proximate causes of growth and comparative advantage are technology, innovation and human capital accumulation, domestic institutions are deep determinants of comparative advantage. Two empirical regularities have emerged. First, as summarized by Nunn and Trefler (2014), several proxy measures of institutional quality in different markets (contracting in goods, labour markets and financial markets) are all separately important quantitatively and contribute more to the patterns

of comparative advantage than the combined impacts of skills and capital endowments. Second, countries with weak institutions specialize in the least contract-intensive goods (flour, petroleum, fiber, yarn and thread). This result at the sector level carries over to the firm level: within a country, firms with better access to the judicial system export more in contract-intensive goods (Ma et al. 2010). Third, countries with weak institutions are more likely to integrate vertically within countries and thus participate less in international value chains.

Cross-country evidence for LDCs is lacking but indirect evidence can be gleaned from the structural transformation literature relying on product complexity measures (Hidalgo and Hausman 2009; Felipe et al. 2012). Drawing on data over 2001–07, Felipe et al. (2012) construct a measure of product complexity for 5,017 products to rank 124 countries according to the complexity of their product basket. Of the 28 LDCs in their sample, 17 are in the lowest (least complex) quartile and 7 in the second lowest. Because complex products are likely to be more contract-intensive, this is indirect evidence that LDCs do not specialize in contract-intensive products.

Missing domestic institutions also present a hurdle for producers (especially small producers) in low-income countries. Negri and Porto (2016) study burley tobacco, which accounts for close to 60 percent of Malawi's export earnings. Using household survey data they compare the performance of producers belonging to burley tobacco clubs with nonmembers. The clubs have written documents that define rights and rules. They perform collective action, ease access to auction floors and provide other services, all contributing to lower transaction costs. Negri and Porto establish that club membership causes a significant increase in output per acre and in sales per acre, and that the difference in yields and sales generated by club membership is equivalent to increases in tobacco prices of between 37 and 54 percent. One cannot generalize from this case study, though it suggests that in the low-income environment of most LDCs where the bulk of activity is in rural areas, local nonmarket institutions can play a major role in facilitating crop production associated with exports. In effect the lack of domestic institutions is a significant barrier for agricultural producers to get goods to local markets and intermediaries, and from there, to export.

## Conclusions

The LDC category of countries was created in 1971 by the UN to recognize the obstacles to growth that many low-income countries face and extended beyond their policy choices. Since the start, special and differential treatment (SDT) has been an important vehicle supposed to help these countries develop faster including by increasing their participation in world trade, an objective re-iterated in the four UN LDC conferences and related programmes of action, in particular the Istanbul programme of action (IPoA). The evolution of the LDC export share in world trade, and that of the diversification of their exports reflects the evolution of their trade costs relative to the trade costs of other

developing countries. These trade costs, increased by the structural factors inherent to the LDC category, are expected to be lowered by the special and differential treatment given to LDCs, in particular through market access, and can vary according to the individual policies of exporter LDCs.

On overall trade performance, following a long period of decline, the export share of LDCs in world exports started to rise around 2000, first and significantly for oil exporters, then extending to other LDCs, mainly those exporting minerals. But for most LDCs, neither oil exporters nor mineral exporters, there has not been a clear reversal of decline. And aside from oil exporters, LDCs do not appear less diversified than other developing countries.

Does LDC membership matter significantly for trade performance? On average over 1995–2014 LDCs export around 30 percent less than other developing countries. Controlling for trade costs, membership in the LDC category has been stable and significantly negative over the period, notably towards the US and the EU even after the implementation of the EBA and AGOA agreements. Nor has there been a noticeable catching up of exports to the US and especially to China. LDC exports to China at the end of the period were no longer significantly different from those of other developing countries.

The EU and US, the two most important markets for LDC exports among grantors of nonreciprocal preferences, have been progressively engaging in a multitude of RTAs with developing countries, many since the early 1990s. New estimates for 2012 covering all RTAs by the EU and the US show strong erosion of preferences. For the EU the average (trade-weighted) adjusted preferences for LDCs are cut in half and stand at 3 percent. For the US the adjusted preferential margin is a negative (–1.3 percent), meaning that the LDCs are discriminated against for the products they sell in the US market.

This absence of special and differential treatment is compounded by two other measures in the policies of grantor countries. First, with the exception of a simplification of technical requirements in the apparel sector (in 2001 for AGOA beneficiaries and in 2011 for EBA beneficiaries), no effort was made by developed countries to simplify their RoO requirements for LDCs until the December 2015 decision that a product originating in an LDC will qualify for preferential treatment so long as non-originating materials do not exceed 75 percent of the final value of the product. Second, there is little specific information on how non-tariff measures (NTMs) affect LDC exports, beyond case-study evidence that SPS regulations in the US and EU are inhibiting developing-country exports. But since the 2008 crisis, over 6,000 measures collected for the Global Trade Alert database show that close to 500 distorted LDC exports are estimated to have reduced LDC exports by \$265 billion over 2009–13, equivalent to 31 percent of the total value of LDC exports.

Other important factors are behind the lack of progress in LDC trade performance, particularly deficient hard and soft infrastructure and related LDC policies. These

internal factors may be influenced by the structural features of LDCs (income, human capital and economic vulnerability), but they can also be improved with the help of the international community. The AFT initiative launched in 2005 and the TFA agreement of 2013—while not exclusively directed towards LDCs—are both largely targeted towards improving their supply capacities and trade performance.

First, the lack of appropriate domestic institutions may well be a binding constraint to exporting in LDCs with a comparative advantage in agricultural products. Second, poor performance in logistics markets has been systematically found to be the main driver of cross-country differences in trade costs, justifying the allocation of AFT funding on hard and soft infrastructure. As an illustration, it is estimated that an improvement in customs management by individual LDC group members to the group frontier could reduce trade costs for imports that are needed for exports, by 2 percent for LDCs and 3 percent for landlocked LDCs.

Third, spending on TPOs has positive effects on exports at the intensive margin (expanded volumes) and the extensive margin (new products and new partners). Greater emphasis on TPO activities should help improve the trade performance of LDCs.

## Appendix A6.1. LDCs' Top 30 exported products and adjusted market access

TABLE A6.1.1

### LDCs' top 30 exported products to the EU in 2012 (percent)

| Rank | Share of the product (HS8) in total LDC exports to EU | Tx MFN | Adjusted preferential margin | Product description   |
|------|---|--------|------------------------------|---|
| 1    | 33.54   | 0.0    | 0.0                          | Petroleum oils and oils, natural gas  |
| 2    | 6.43  | 12.0   | 5.4                          | T-shirts, singlets and other vests, knitted or crocheted, of cotton                 |
| 3    | 2.88  | 0.0    | 0.0                          | Diamonds, unworked or simply sawn, cleaved or bruted                                |
| 4    | 2.73  | 3.0    | 0.4                          | Aluminium   |
| 5    | 2.40  | 0.0    | 0.0                          | Coffee, not roasted   |
| 6    | 1.96  | 12.0   | 9.3                          | Women's or girls' apparel & clothing knitted or crocheted, of man-made fibres       |
| 7    | 1.75  | 12.0   | 9.1                          | Women's or girls' apparel & clothing knitted or crocheted, of cotton                |
| 8    | 1.75  | 0.0    | 0.0                          | Petroleum oils and oils, natural gas  |
| 9    | 1.72  | 12.0   | 6.3                          | Men's or boys' apparel & clothing knitted or crocheted, of cotton                   |
| 10   | 1.59  | 12.0   | 5.4                          | Men's or boys' apparel & clothing knitted or crocheted, of denim                    |
| 11   | 1.55  | 12.0   | 7.8                          | Men's or boys' shirts of cotton   |
| 12   | 1.42  | 0.0    | 0.0                          | Iron ores and concentrates  |
| 13   | 1.33  | 0.0    | 0.0                          | Natural uranium and its compounds   |
| 14   | 1.32  | 0.0    | 0.0                          | Aluminium ores and concentrates   |
| 15   | 1.30  | 12.0   | 8.8                          | Men's or boys' lightweight fine knit roll, polo or turtleneck jumpers and pullovers |
| 16   | 1.27  | 12.0   | 7.7                          | Men's or boys' shirts, knitted or crocheted of cotton                               |
| 17   | 1.27  | 0.0    | 0.0                          | Refined copper  |
| 18   | 1.17  | 12.0   | 6.5                          | Women's or girls' trousers, bib and brace overalls, breeches and shorts of cotton   |
| 19   | 0.96  | 12.0   | 7.3                          | Women's or girls' trousers, bib and brace overalls, breeches and shorts of cotton   |
| 20   | 0.86  | 71.25  | 0.5                          | Cane sugar  |
| 21   | 0.85  | 12.0   | 5.3                          | Shrimp  |
| 22   | 0.81  | 12.0   | 6.0                          | Women's or girls' trousers, bib and brace overalls, breeches and shorts of cotton   |
| 23   | 0.78  | 8.1    | 6.5                          | Tobacco   |
| 24   | 0.67  | 14.0   | 11.7                         | Bicycles  |
| 25   | 0.66  | 12.0   | 9.5                          | Men's or boys' trousers, bib and brace overalls, breeches and shorts of cotton      |

TABLE A6.1.1 (continued)

LDCs’ top 30 exported products to the EU in 2012 (percent)

| Rank | Share of the product (HS8) in total LDC exports to EU | Tx MFN | Adjusted preferential margin | Product description   |
|------|---|--------|------------------------------|---|
| 26   | 0.61  | 0.7    | 0.1                          | Propane   |
| 27   | 0.58  | 8.1    | 7.1                          | Tobacco   |
| 28   | 0.57  | 12.0   | 10.0                         | Babies’ garments and clothing accessories, knitted or crocheted |
| 29   | 0.56  | 8.5    | 0.0                          | Roses   |
| 30   | 0.53  | 5.5    | 1.8                          | Methanol (methyl alcohol)                                       |

Source: Authors’ computation.

TABLE A6.1.2

LDCs’ top 30 exported products to the US in 2012 (percent)

| Rank | Share of the product (HS8) in total LDC exports to US | Tx MFN | Adjusted preferential margin | Product description  |
|------|---|--------|------------------------------|--|
| 1    | 36.34   | 0.0    | 0.0                          | Petroleum oils and oils from bituminous minerals, crude, testing 25 degrees              |
| 2    | 15.26   | 0.0    | 0.0                          | Petroleum oils and oils from bituminous minerals, crude, testing under 25 degrees        |
| 3    | 6.91  | 16.6   | −6.2                         | Men’s or boys’ trousers and shorts, not bibs, not knitted or crocheted, of cotton        |
| 4    | 3.83  | 0.0    | 0.0                          | Distillate and residual fuel oil derived from petroleum or oils from bituminous minerals |
| 5    | 3.51  | 16.6   | −1.7                         | Women’s or girls’ trousers, breeches and shorts, not knitted or crocheted, of cotton     |
| 6    | 3.44  | 16.5   | −3.2                         | Sweaters, pullovers and similar articles, knitted or crocheted, of cotton, nesoi         |
| 7    | 2.50  | 19.7   | −3.0                         | Men’s or boys’ shirts, not knitted or crocheted, of cotton                               |
| 8    | 2.44  | 16.5   | −10.2                        | T-shirts, singlets, tank tops and similar garments, knitted or crocheted, of cotton      |
| 9    | 1.17  | 32.0   | −6.1                         | Sweaters, pullovers and similar articles, knitted or crocheted, of manmade fibers        |
| 10   | 1.03  | 14.9   | −0.7                         | Women’s or girls’ trousers, breeches and shorts, knitted or crocheted, of cotton         |
| 11   | 0.69  | 0.0    | 0.0                          | Coffee, not roasted, not decaffeinated   |
| 12   | 0.60  | 27.9   | −11.1                        | Men’s or boys’ trousers, breeches & shorts, of synthetic fibers                          |
| 13   | 0.60  | 19.7   | −1.4                         | Men’s or boys’ shirts, knitted or crocheted, of cotton                                   |
| 14   | 0.52  | 7.6    | −1.6                         | Women’s or girls’ briefs and panties, knitted or crocheted, of cotton                    |



TABLE A6.1.2 (continued)

LDCs’ top 30 exported products to the US in 2012 (percent)

| Rank | Share of the product (HS8) in total LDC exports to US | Tx MFN | Adjusted preferential margin | Product description  |
|------|---|--------|------------------------------|--|
| 15   | 0.51  | 0.0    | 0.0                          | Nonindustrial diamonds, unworked or simply sawn, cleaved or bruted   |
| 16   | 0.49  | 0.0    | 0.0                          | Technically specified natural rubber (TSNR), in primary forms  |
| 17   | 0.48  | 8.1    | −0.3                         | Babies’ garments and clothing accessories, knitted or crocheted, of cotton   |
| 18   | 0.46  | 15.4   | −0.4                         | Women’s or girls’ blouses and shirts, not knitted or crocheted, of cotton  |
| 19   | 0.45  | 28.2   | 2.0                          | Women’s or girls’ trousers, breeches and shorts, knitted or crocheted, of synthetic fibers   |
| 20   | 0.42  | 0.0    | 0.0                          | Aluminum ores and concentrates   |
| 21   | 0.40  | 0.0    | 0.0                          | Naphthas (exc. motor fuel/mtr fuel blend. stock) fr petroleum oils & bitumin minerals (o/ than crude) or preps 70%+ by wt. fr petroleum oils |
| 22   | 0.39  | 7.4    | −2.6                         | Men’s or boys’ underpants and briefs, knitted or crocheted, of cotton  |
| 23   | 0.39  | 32.0   | −13.7                        | T-shirts, singlets, tank tops and similar garments, knitted or crocheted   |
| 24   | 0.38  | 14.9   | −1.8                         | Babies’ trousers, breeches and shorts, not knitted or crocheted, of cotton   |
| 25   | 0.38  | 0.0    | 0.0                          | Natural gas, liquefied   |
| 26   | 0.37  | 28.2   | −5.3                         | Men’s or boys’ trousers, breeches and shorts, knitted or crocheted, of synthetic fibers  |
| 27   | 0.36  | 16.0   | −0.5                         | Women’s or girls’ nightdresses and pajamas, knitted or crocheted, of man-made fibers   |
| 28   | 0.32  | 24.9   | −2.5                         | Women’s or girls’ knitted or crocheted swimwear of synthetic fibers  |
| 29   | 0.30  | 27.4   | −15.3                        | Men’s or boys’ shirts, not knitted or crocheted, of manmade fibers   |
| 30   | 0.29  | 15.9   | −0.8                         | Women’s or girls’ overcoats, carcoats, capes, cloaks, anoraks and similar articles   |

Source: Authors’ computation.

## Notes

1. Single undertaking: Virtually every item of the negotiation is part of a whole and indivisible package and cannot be agreed separately. “Nothing is agreed until everything is agreed”.
2. Another breakdown not reported here, isolating the “Small Island Developing States” (12) among the LDC group, shows that their share in world exports stayed constant throughout the period. The “Landlocked LDCs” (16) follow the same pattern as the non-oil group although its turning point starts earlier, in 2005, because of oil exports by Chad.
3. Sudan is here former Sudan. Some other LDCs are also mainly oil exporters, but on a small scale (Timor-Leste) or significant oil exporters without being mainly oil exporters (Myanmar).
4. The model is about net exports. Where available, re-exports are netted out. Internal trade is calculated as total production minus exports so intermediate flows are not netted out. For country-year missing data, the authors use a linear interpolation. Because of the importance of re-exports, Belgium, Netherlands and Hong Kong are excluded from the lowest 10 bilateral trade costs (US, China, Germany, Japan, France, UK, Italy, Canada, Korea and Mexico).
5. In the results reported in table 6.2, more than 30 percent of potential bilateral trade flows between LDCs and partners are zero.
6. The measure of bilateral trade costs is the geometric mean of barriers to trade in both directions, so one cannot discern from the computation the source of changes in trade costs. The calibration does not account for differences in internal trade costs, which can be substantial.
7. Based on consumer price index micro data, Atkin and Donaldson (2015) estimate that the log of distance on trade costs is about four times higher in Ethiopia and Nigeria than in the US and that all the benefits from a reduction in price go to intermediaries rather to the final consumer.
8. Over 2010–13, average annual growth in South-South and North-North trade was 6.7 percent and 2.6 percent respectively.
9. Because the results are much less stable and there is no trend, we do not report results for agriculture and manufacturing separately. Using a different classification with low-income countries (LIC) and high-income countries (HIC) rather than LDCs, Arvis et al. estimate that over 1995–2009, trade costs for manufacturing goods fell by 5 percent for the LIC group and by 15 percent for the HIC group.
10. See Arvis et al. 2013, table 9.
11. See Anderson and Van Wincoop (2003), Baier and Bergstrand (2009) and Head and Mayer (2014).
12. Internet users are individuals who have used the internet (from any location) in the last 12 months. The internet can be used through a computer, mobile phone, personal digital assistant, games machine or digital TV (WB definition).
13. The larger coefficient values for manufacturing are plausible since RTAs typically give greater market access for manufactures than for agricultural products.
14. The ACP group refers to African, Caribbean and Pacific countries.
15. AGOA eligibility started with 34 Sub-Saharan countries in 2001 and was extended to 40 countries. Eligibility is reviewed each year, with some countries joining and others exiting

- (the status at the discretion of the US President with no recourse to dispute settlement when the status is revoked). For example, Madagascar lost eligibility in 2003 but regained it in 2014. See <http://agoa.info/about-agoa/country-eligibility.html>.
16. This result is at odds with Gil-Pareja et al. (2014) results based on 1960–2008 with data at four-year intervals giving a maximum time-series dimension of 13 years. So AGOA and EBA estimates are based on a maximum of two points. After controlling for the zero trade flows (PPML estimations), the study reports surprisingly high coefficients (corresponding to additional trade of 140 percent and 286 percent respectively). Concerning the ACP-EU agreement, estimates are even larger (more than 700 percent of additional trade). In the case of the ACP-EU agreement the difference is clearly due to the difference in time periods. By contrast, we are in line with Limao (2016), who finds no significant effect of an overall nonreciprocal preferential trade agreement dummy over 1965–2010.
  17. These two indexes are retrospective series set up at FERDI (and available online).
  18. The evolution of the UNCTAD export concentration index in LDCs compared with other developing countries is examined in Feindouno et al. (2016).
  19. If we compute the “Herfindahl-Hirschman export concentration index” using the Harmonized System (HS) at the 6-digit level—around 5,000 products for 2008—we find that the correlation between countries’ rank according to this index or to the Theil index used in this chapter is around 0.95. However, the ranking correlation between the UNCTAD index computed at the SITC-3 or HS-6 level is only around 0.6 in 2008.
  20. These include the European Generalized System of Preferences (GSP), the Cotonou Agreements (ACP), the “Everything But Arms” arrangement (EBA), and all other preferential agreements signed by the EU27 by 2012, such as the Economic Partnership Agreements (EPA).
  21. The preferential regimes for the US include the American Generalized System of Preferences (GSP), the “African Growth and Opportunity Act” (AGOA), and all the free trade agreements signed by the US in 2012.
  22. Brazil, China, India, Korea, Morocco and Turkey extend tariff preferences to LDCs. For example, China has extended DFQF preferences to LDCs for 97 percent of tariff lines since 2015 and Korea has for 95 percent of tariff lines since 2008.
  23. The Sugar protocol is the agreement that sets the guaranteed import prices and import levels for sugar between the countries that signed up to it and the European Union since 1973.
  24. Both types are complex, particularly PSROs. Regime-wide rules include (i) a de-minimis (or tolerance) rule that stipulates a threshold level of non-originating content below which RoOs do not apply (thus simplifying the regime’s administration; (ii) cumulation—for instance bilateral cumulation stipulates that two partners can use each other’s materials as if they were originating in the country where the processing is undertaken; (iii) absorption (or roll up)—non-originating materials are no longer taken into account in calculating value added; (iv) duty-drawback provisions or their elimination; and (v) origin certification procedures. PSROs are even more complex. Naumann (2011) and Abreu (2013) describe the different regime requirements facing LDCs. The US often has a different set of PSROs across trading partners

while the EU has the same set of PSROs under the Pan Euro Med (PEM) that is applied to all preferential trading partners. Cadot et al. (2006) compare the EU and US RoO regimes across products and partners.

25. The index is constructed at the product line level so that increasing values of the index represents a more restrictive PSRO. The ordinal index takes values in the range:  $1 \leq r_i \leq 7$  so that ( $r_i = 1$ ) corresponds to a PSRO that is easy to satisfy and ( $r_i = 7$ ) to one that is difficult to satisfy. For example, a value ( $r_i = 4$ ) corresponds either to a change of tariff classification at the Heading (HS-4) level, a VC requirement limiting non-originating inputs to 60 percent of the ex-works price, or a wholly obtained criterion accompanied by an exclusion and a technical requirement. At the lower end, ( $r_i = 1$ ) corresponds to a no change of tariff line heading, or an allowance added to one of the following single criteria: (exclusion, CTC at the subheading level, or wholly obtained). At the more restrictive end ( $r_i = 7$ ), the PSRO usually consists of three requirements including a technical requirement, and the CTC must take place at the Heading or Chapter level. See Estevaderodal et al. (2006).
26. Until the 2011 reform, EU PSROs for textiles & apparel originating from LDCs required a “double transformation rule” (yarn→textiles→apparel), apparel made from qualifying yarn (under diagonal cumulation yarn can come from any EBA member). Since the reform, as under AGOA, EBA beneficiaries have the simpler single transformation (textiles→apparel) allowing third-country fabric. De Melo and Portugal-Perez (2014) estimate that the shift to the simple transformation rule led to a fourfold increase in exports for the top seven beneficiaries of AGOA over 2001–04.
27. The introductory chapter and several contributions in Cadot and Malouche (2012) assess standards and technical barriers as trade barriers and trade facilitators for developing country exports.
28. <http://www.globaltradealert.org/>.
29. This section relies on a forthcoming FERDI working paper by Jaime de Melo analysing the trade costs facing LDCs more deeply.
30. Including funds for trade-related technical assistance and capacity building, trade-related infrastructure and building productive capacity. The concept and measurement of AFT can of course be debated.
31. With 11 (7) of the 13 (27) members in the LIC (LMIC) group being LDCs, the sample is too small to infer that there is any LDC specificity in the LIC and LMIC groups.
32. We voluntarily leave aside macroeconomic policy, which has of course a strong impact on trade performance, in particular the rate of exchange policy. Chapter 2 argued that LDCs have not evidenced more exchange rate misalignment than other developing countries.

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# **Graduation and governance**





## Graduation from the category of least developed countries: Rationale, achievement and prospects

### Introduction: a short story of the LDCs' graduation

The Least Developed Country (LDC) category was from the start meant to include low-income countries facing structural handicaps to economic growth (in the 2011 Committee for Development Policy (CDP) report economic growth has been replaced with “sustainable development”). Under various names, the structural handicaps considered for identifying the LDCs have been deficient human resources and weak economic structure. Let us recall that the LDCs are identified by three mandatory complementary criteria for inclusion into the category (CDP and UNDESA 2008; CDP 2015): income level as measured by gross national income per capita (GNIpc), and two indicators of structural handicaps, the Human Asset Index (HAI) and the Economic Vulnerability Index (EVI). Poor countries simultaneously facing these two kinds of handicaps have been described as “caught in a trap”, needing special international attention and support (Guillaumont 2009a). In the long term, with these measures' help, it should have been hoped that the countries identified as LDCs will overcome their structural handicaps and exit from the category, leading the LDC category to shrink.

### *When graduation rules were set up and what they are*

The graduation from the list of LDCs, when an LDC no longer fulfils the conditions of membership, was not considered during the first 20 years of the category. The possibility and conditions of graduation were introduced only in 1991. Since then the LDC list has undergone triennial reviews. Three benchmarks were required before an LDC could graduate: not just one, but two of

the three inclusion criteria had to cease to be met; specific graduation targets had to be met for each criteria; and the CDP would only recommend graduation after a country had been found eligible. Further, since 2004, countries can only graduate three years after the UN General Assembly endorses the CDP recommendation.<sup>1</sup> An exception to the initial “two-criteria rule” was introduced in 2005: a country can be found eligible for graduation if its GNIpc is at least twice as high as the ordinary income graduation threshold and it is deemed sustainable.<sup>2</sup> While such cases in early 2005 were considered exceptional, they appeared later not to be so, as we shall see below. In what follows we refer to these two alternative graduation rules as the “two-criteria rule” and the “income-only criterion” or “income-only rule”.

### *The pace of graduation*

The history of graduation of the least developed countries since 1991 can roughly be divided into two periods.

From 1991 to the middle of the 2000s, only one country graduated from the category according to the rules at the time, Botswana in December 1994. This modest outcome was not only due to economic trends in LDCs, but also and mainly to the precautionary graduation conditions, as indicated above and shown below. The graduation process has also been effected by the resistance of some eligible countries since the end of the 1990s (CDP, 1997, 2000, 2003, 2006; CDP and UNDESA 2008; Guillaumont 2009a).

From the mid-2000s to 2018, four countries actually graduated from the group: Cabo Verde in December 2007, Maldives in January 2011 and Samoa in January 2014, all based on their GNI per capita and human asset index, and Equatorial Guinea in 2017, only due to its high GNI per capita.<sup>3</sup> The General Assembly has already decided to graduate five other countries: Vanuatu in 2020 (after obtaining a postponement because of a huge storm), Angola in 2021, Bhutan in 2023, Solomon Islands and São Tomé and Príncipe in 2024. Four others, including three small island developing states (SIDS), have been found eligible for graduation at least twice:

- Tuvalu was found eligible at the 2003, 2006, 2009 and 2012 reviews and was recommended for graduation by the CDP only in 2012. The recommendation was confirmed in 2015 and 2018, but without being endorsed by ECOSOC, which postponed its consideration four times in 2012, 2013, 2015 and 2018 deferring its endorsement decision to no later than 2021.
- Kiribati was found eligible in 2003, 2006, 2012, 2015 and 2018, but recommended by the CDP for graduation in 2018. This recommendation was not endorsed by ECOSOC deferring its endorsement decision to no later than 2021.
- Nepal and Timor-Leste were found eligible in 2015 and 2018 but their graduation recommendation was deferred until 2021.

Nine of the 11 countries that met the graduation criteria in the last 15 years (and were recommended by the CDP) are SIDS, found eligible based on their income per

capita and human capital. Most have been reluctant to graduate, arguing for their vulnerability (appendix A7.3 shows the resistance to graduation over a quarter century).

Finally, three other countries were found eligible for the first time in 2018 (Bangladesh, Myanmar and Lao PDR), and if found so again in 2021 could be recommended for graduation (as with Nepal and Timor-Leste).

### *Change in attitudes: the Istanbul goal and beyond*

The increase in graduations since the mid-2000s is indeed due to economic improvements in LDCs (see chapter 1). Moreover, since the beginning of the 2010s, a change in LDCs' attitudes towards graduation has emerged, helped by the General Assembly's 2004 adoption of the "smooth transition" principle (A/RES/59/209), and by a General Assembly resolution in 2012, A/RES/67/221, aimed at preventing negative consequences of an abrupt category exit (see below).

The Fourth United Nations Conference on Least Developed Countries may have displayed this attitude change in 2011 when it adopted the Istanbul Programme of Action (IPoA), which underlines the aim of "enabling half of the number of LDCs to meet the criteria for graduation by 2020" (United Nations 2011) (see box 7.1 on this sentence's meaning).<sup>4</sup> But, as noted about the decisions already made, by 2020 there will not be more than 9 to 13 of the 48 countries that were LDCs in Istanbul that will have met the graduation criteria (3 of which will have graduated at that time: Samoa in 2014, Equatorial Guinea in 2017 and Vanuatu in 2020).<sup>5</sup> So that means about a fifth as opposed to the half of LDCs stated in the IPoA goal.<sup>6</sup>

#### BOX 7.1

#### **What is the real meaning of the IPoA graduation goal?**

When the IPoA states, in paragraph 28, that it wants to enable half of LDCs to meet the criteria for graduation by 2020, it was clear to many that this did not literally mean a reduction by half of LDCs by that time, though the French translation refers to the "objectif qui consiste à reclasser la moitié des PMA "hors de leur catégorie". The usual meaning of meeting the graduation criteria does not involve having already left the category. But four meanings are still possible:

- The country met the graduation threshold once.

- The country was found eligible for graduation at two successive triennial reviews, the number needed for graduation.
- The CDP has not recommended the country for graduation, which could be the case for some countries that have twice met the threshold according to the repeated principle that the criteria should not be applied mechanically.
- The General Assembly has taken note of the CDP graduation recommendation, to result in a graduation in three years.

Here we will mainly use the second meaning, often used by the CDP. New LDCs having met the criteria according to the three first meanings between May 2011 (IPoA) and 2020 are 12, 9 and 7, respectively.

### *Towards voluntary graduation?*

More LDCs are expressing their wish to graduate as soon as possible. Some have also expressed a wish to work more closely with the UN to help the countries make the needed steps to qualify for graduation. Myanmar, for instance, asked the UN “to review Myanmar as a potential candidate for graduation from the LDC status hoping that we will start identifying the necessary steps to be undertaken”.<sup>7</sup> This has been interpreted by the CDP as a request to monitor Myanmar’s progress on the graduation criteria (CDP 2015, §61).

Some LDCs may also want to graduate if the criteria are not fully met. Could this occur? Since some countries may refuse to be included as an LDC when found eligible (as done from 2006 to 2015 by Zimbabwe), it seems difficult to argue that an LDC cannot leave the category if it wants to do so. Why might it want to? From such a “voluntary graduation” the country might expect to receive the benefits from a good performance signal, worth more than the lost benefits of LDC membership. But the signal may not be effective if the country does not really meet the graduation criteria.

The sections of this chapter then show why the graduation path has been so slow, constrained by the graduation rules (section 2), investigates graduation prospects based on various hypotheses and graduation rules (section 3), and analyses the effect of LDC graduation, relying on ex-ante and ex-post assessments (section 4). The last section comments on graduation criteria.

### **Graduation constrained by the rules: impact of the asymmetry between inclusion and graduation criteria**

As explained in the introduction, in 1991, for precautionary reasons, three criteria were first established for countries to graduate. Two, not just one, of the inclusion criteria had to cease to be met; margins were set up between inclusion and graduation thresholds for each criterion, that is, to be qualified for graduation for a given criterion, a country should perform better than the inclusion threshold and reach the graduation one; and the CDP could also recommend countries for graduation only after they had been found eligible at two successive triennial reviews. Countries can be recommended for inclusion, however, as soon as they are found eligible (CDP 1991). These differences have affected graduation and created an unequal treatment of countries in similar situations.<sup>8</sup>

#### *Effect of the rule of two criteria ceased to be met instead of one*

At the first triennial review in 1991, it was decided that a country should exit the category if it has exceeded the cut-off point for two of the three graduation criteria. This rule reduced the number LDCs eligible to graduate. In the 1991 review, 13 LDCs ceased to meet the inclusion criteria, but only five ceased to meet at least two criteria (table 1). The move to two criteria instead of one divided the “potential graduating countries” by more

TABLE 7.1

**Inclusion criteria no longer met and graduation criteria met by 52 current or former LDCs, at successive triennial reviews**

[illegible]

TABLE 7.1 (continued)

**Inclusion criteria no longer met and graduation criteria met by 52 current of former LDCs, at successive triennial reviews**

| Country   | 1991 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2012 | 2015         | 2018         |
|---|------|------|------|------|------|------|------|------|--------------|--------------|
| Rwanda  |      |      |      |      |      |      |      |      |              |              |
| Samoa   | Y H  | Y h  | Y Hv | yH   | Y H  | Y H  | Y+ H | Y+ H | —<br>(grad.) | —<br>(grad.) |
| Senegal   | —    | —    | —    |      |      | v    | V    | y    | v            | v            |
| Sierra Leone  |      |      |      |      |      |      |      |      |              |              |
| São Tomé and Príncipe   |      |      | H    |      | h    | h    | H    | y H  | Y H          | YH           |
| Solomon Islands   |      |      | H    |      |      | H    | h    | y h  | Y H          | YH           |
| Somalia   |      |      |      |      |      |      |      |      |              |              |
| South Sudan   | —    | —    | —    | —    | —    | —    | —    |      |              | Y            |
| Sudan   |      |      |      |      |      |      |      | Y    | Y            | Y            |
| Tanzania  |      |      |      |      | V    | V    | V    | V    | V            | V            |
| Timor-Leste   |      |      |      |      |      |      | y    | Y    | Y+           | Y+H          |
| Togo  |      |      |      |      |      |      |      | v    | v            | hV           |
| Tuvalu  | H    | yH   | yH   | Y    | Y H  | Y H  | Y+ H | Y+ H | Y+ H         | Y+H          |
| Uganda  |      |      |      |      |      |      |      |      | V            | V            |
| Vanuatu   | Y h  | Y H  | Y H  | Y h  | Y h  | Y H  | Y H  | Y+ H | Y+ H         | Y+H          |
| Yemen, Rep.   | y    |      | y    |      |      |      |      | y    | yV           |              |
| Zambia  |      |      |      |      |      |      |      | y    | Y            | Y            |
| Number of LDCs  | 48   | 50   | 49   | 50   | 50   | 50   | 49   | 49   | 48           | 47           |
| Number of LDCs meeting inclusion criteria   | 35   | 36   | 32   | 37   | 36   | 29   | 26   | 23   | 15           | 16           |
| Number of LDCs no longer meeting inclusion criteria   | 13   | 14   | 17   | 13   | 14   | 21   | 23   | 26   | 33           | 31           |
| Number of LDCs meeting graduation criteria  | 2    | 3    | 5    | 2    | 5    | 7    | 5    | 6    | 10           | 12           |
| Number of LDCs meeting neither inclusion nor graduation criteria  | 11   | 11   | 12   | 11   | 9    | 14   | 18   | 20   | 23           | 19           |
| Number of non-LDCs meeting neither inclusion nor graduation criteria  | 4    | 5    | 9    | 11   | 19   | 8    | 7    | 7    | 8            | 0            |
| Number of LICs/non-LDCs (no transition nor large countries) meeting neither inclusion nor graduation criteria | 1    | 3    | 7    | 9    | 10   | 5    | 4    | 2    | 1            | 0            |

Note: y: countries ceasing to fulfil inclusion condition for the income criterion; h: countries ceasing to fulfil inclusion condition for the human capital criterion; v: countries ceasing to fulfil inclusion condition for the vulnerability criterion; Y: countries that reached graduation threshold for the income criterion; H: countries that reached graduation threshold for the human capital criterion; V: countries that reached graduation threshold for the vulnerability criterion; Y+: countries that reached the income only graduation condition since 2006; —: not LDC at this review.

than two during all triennial reviews (from 13 to 5 LDCs at the first review in 1991, from 33 to 12 in 2015, and from 31 to 14 in 2018). During the 2006, 2009 and 2012 reviews, less than one third of LDCs not fulfilling inclusion conditions ceased to meet at least two inclusion criteria.

Another effect of this asymmetry has been fewer graduated countries falling back into the category. Had countries graduated after ceasing to fill only one criterion, the LDC list would have become unstable, with countries leaving and falling back into the group (since many countries close to the thresholds showed unstable performance). As for the income per capita criterion, Yemen ceased meeting it in 1991, 1997, 2012 and 2015, but not at the other reviews. Djibouti ceased filling the criterion from 1994 to 2018, except in 2000. Liberia would have been eligible for graduation only in 1997 and 2000, and Afghanistan in 1997. On the human capital criterion, Madagascar, Laos and the Solomon Islands would have been immediately eligible to graduate, but would have likely fallen back into the category. This would also have been the case for Haiti, Mozambique and Lesotho with respect to the EVI criterion.

*Effect of the margins between inclusion and graduation thresholds<sup>9</sup>*

As indicated, margins were set up between inclusion and graduation thresholds; countries have to perform better than the inclusion threshold and reach the graduation one. The margins chosen at the 1991 triennial review were \$100 for the GDP criterion, and

TABLE 7.2  
Inclusion and graduation thresholds through triennial reviews

| Review year | GDP/GNI per capita |                 |              | APQLI/HAI      |                 |            | EDI/EVI        |                 |            |
|-------------|--------------------|-----------------|--------------|----------------|-----------------|------------|----------------|-----------------|------------|
|             | Inclusion (\$)     | Graduation (\$) | Margins      | Inclusion (\$) | Graduation (\$) | Margins    | Inclusion (\$) | Graduation (\$) | Margins    |
| 1991        | 600                | 700             | 100          | 47             | 52              | 5          | 22             | 25              | 3          |
| 1994        | 699                | 799             | 100          | 47             | 52              | 5          | 26             | 29              | 3          |
| 1997        | 800                | 900             | 100          | 47             | 52              | 5          | 26             | 29              | 3          |
| 2000        | 900                | 1035            | 135<br>(15%) | 59             | 68              | 9<br>(15%) | 36             | 31              | 5<br>(15%) |
| 2003        | 750                | 900             | 150<br>(20%) | 55             | 61              | 6<br>(10%) | 37             | 33              | 4<br>(10%) |
| 2006        | 745                | 900             | 155<br>(20%) | 58             | 64              | 6<br>(10%) | 42             | 38              | 4<br>(10%) |
| 2009        | 905                | 1,086           | 181<br>(20%) | 60             | 66              | 6<br>(10%) | 42             | 38              | 4<br>(10%) |
| 2012        | 992                | 1,190           | 198<br>(20%) | 60             | 66              | 6<br>(10%) | 36             | 32              | 4<br>(10%) |
| 2015        | 1,035              | 1,242           | 207<br>(20%) | 60             | 66              | 6<br>(10%) | 36             | 32              | 4<br>(10%) |
| 2018        | 1,025              | 1,230           | 205<br>(20%) | 60             | 66              | 6<br>(10%) | 36             | 32              | 4<br>(10%) |



5 and 3 points for APQLI and EDI respectively (table 7.2). These margins were kept at the reviews in 1994 and 1997. In 2000, the CDP chose a 15 percent margin between the inclusion and graduation thresholds for all three criteria. These percentages were modified in 2003, and since then the graduation threshold for income per capita is 20 percent higher than the inclusion threshold, while for HAI it is 10 percent higher and for EVI 10 percent lower than the inclusion ones.

These margins have of course reduced the countries eligible to graduate. Their effect on the number of countries fulfilling the graduation conditions is not as high as that of the choice of “two criteria instead of one”, but it is not negligible. The difference (due to the margin) between the number of countries that ceased to meet inclusion conditions and those that met the graduation threshold for at least one criterion ranged from 1 in 1994 to 11 in 2012. Moreover, keeping the two-criteria condition, if margins had not been set up between inclusion and graduation thresholds, five additional countries would have been eligible for graduation in 2015 (four at the 1994 review, three at the 1991, 2009, 2012 and 2018 reviews, two at the 1997 and 2000 reviews, and one at the 2003 review), as shown in table 1.

The margins also prevented countries that graduated from falling back into the LDC category. Indeed, within countries that have ceased to meet inclusion conditions without reaching the graduation threshold in any criterion, eight have again fulfilled inclusion conditions in subsequent reviews: Afghanistan, Djibouti, Haiti, Lesotho, Madagascar, Mauritania, Mozambique and Yemen. Without the margins (and the “two-criteria” rule), these countries would have left the LDC category then fallen back into it.<sup>10</sup>

### *Effect of the need to be eligible at two successive triennial reviews*

Due to the CDP’s decision, in 1991, that LDCs had to be eligible to graduate for at least three years (two consecutive reviews), some LDCs’ graduations have been slowed and in some cases postponed (when a country was not found eligible at both reviews). First-graduated Botswana left the category in 1994 instead of 1991, when it first fulfilled graduation conditions. Without the need to fulfil the graduation conditions for two consecutive triennial reviews, Vanuatu could have left the category in 1994, Maldives, Samoa and Cabo Verde in 1997, Samoa in 2003, Kiribati and Equatorial Guinea in 2006, Tuvalu and Angola in 2012, Bhutan, São Tomé and Príncipe, Solomon Islands, Timor-Leste and Nepal in 2015, and Bangladesh, Myanmar and Lao PDR in 2018. Eighteen countries could have been recommended for graduation from the category instead of four.<sup>11</sup>

Each of the three sources of the asymmetry between inclusion and graduation criteria has reduced the countries meeting the graduation criteria and stabilized the group. At the 2012 review, among the 49 LDCs under consideration, 26 no longer met the inclusion criteria. At the 2015 review the number was 33 of the 48 LDCs, and 31 of 47 in 2018. Within these 31 LDCs, 17 ceased to fulfil only one inclusion criterion, six did

TABLE 7.3  
**LDCs that reached the graduation threshold for at least one criterion, and graduated and graduating countries, through triennial reviews**

| Country                  | 1991      | 1994               | 1997       | 2000             | 2003               | 2006      | 2009              | 2012      | 2015              | 2018       |
|--------------------------|-----------|--------------------|------------|------------------|--------------------|-----------|-------------------|-----------|-------------------|------------|
| Afghanistan              |           |                    |            |                  |                    |           |                   |           |                   |            |
| Angola                   |           |                    |            |                  |                    |           |                   | r (Y)     | R,<br>e, E<br>(Y) |            |
| Bangladesh               |           |                    |            |                  |                    |           |                   |           |                   | r(yhv)     |
| Benin                    |           |                    |            |                  |                    |           |                   |           |                   |            |
| Bhutan                   |           |                    |            |                  |                    |           |                   |           | r<br>(yh)         | R(yh)      |
| Botswana                 | r<br>(yh) | R,<br>e, E<br>(yh) |            |                  |                    |           |                   |           |                   |            |
| Burkina Faso             |           |                    |            |                  |                    |           |                   |           |                   |            |
| Burundi                  |           |                    |            |                  |                    |           |                   |           |                   |            |
| Cabo Verde               |           | Nr<br>(yh)         | r<br>(yh)  | NR<br>(yh)       | R,<br>e, E<br>(yh) |           |                   |           |                   |            |
| Cambodia                 |           |                    |            |                  |                    |           |                   |           |                   |            |
| Central African Republic |           |                    |            |                  |                    |           |                   |           |                   |            |
| Chad                     |           |                    |            |                  |                    |           |                   |           |                   |            |
| Comoros                  |           |                    |            |                  |                    |           |                   |           |                   |            |
| Congo, Dem. Rep.         |           |                    |            |                  |                    |           |                   |           |                   |            |
| Djibouti                 |           |                    |            |                  |                    |           |                   |           |                   |            |
| Equatorial Guinea        |           |                    |            |                  |                    | r (Y)     | R,<br>e, E<br>(Y) |           |                   |            |
| Eritrea                  |           |                    |            |                  |                    |           |                   |           |                   |            |
| Ethiopia                 |           |                    |            |                  |                    |           |                   |           |                   |            |
| Gambia, The              |           |                    |            |                  |                    |           |                   |           |                   |            |
| Guinea                   |           |                    |            |                  |                    |           |                   |           |                   |            |
| Guinea-Bissau            |           |                    |            |                  |                    |           |                   |           |                   |            |
| Haiti                    |           |                    |            |                  |                    |           |                   |           |                   |            |
| Kiribati                 |           |                    |            |                  | Nr<br>(yh)         | r<br>(yh) |                   | r<br>(yh) | NR<br>(yh)        | Ne<br>(Yh) |
| Lao PDR                  |           |                    |            |                  |                    |           |                   |           |                   | r(yh)      |
| Lesotho                  |           |                    |            |                  |                    |           |                   |           |                   |            |
| Liberia                  |           |                    |            |                  |                    |           |                   |           |                   |            |
| Madagascar               |           |                    |            |                  |                    |           |                   |           |                   |            |
| Malawi                   |           |                    |            |                  |                    |           |                   |           |                   |            |
| Maldives                 |           |                    | r<br>(yhv) | R,<br>Ne<br>(yh) | R,<br>e, E<br>(Yh) |           |                   |           |                   |            |

TABLE 7.3 (continued)

**LDCs that reached the graduation threshold for at least one criterion, and graduated and graduating countries, through triennial reviews**

| Country               | 1991       | 1994      | 1997                | 2000 | 2003       | 2006               | 2009       | 2012               | 2015         | 2018       |
|-----------------------|------------|-----------|---------------------|------|------------|--------------------|------------|--------------------|--------------|------------|
| Mali                  |            |           |                     |      |            |                    |            |                    |              |            |
| Mauritania            |            |           |                     |      |            |                    |            |                    |              |            |
| Mozambique            |            |           |                     |      |            |                    |            |                    |              |            |
| Myanmar               |            |           | Nr<br>(yh)          |      |            |                    |            |                    |              | r(yhv)     |
| Nepal                 |            |           |                     |      |            |                    |            |                    | r<br>(hv)    | NR(hv)     |
| Niger                 |            |           |                     |      |            |                    |            |                    |              |            |
| Rwanda                |            |           |                     |      |            |                    |            |                    |              |            |
| Samoa                 | Nr<br>(yh) |           | r<br>(yh)           |      | r<br>(yh)  | R,<br>e, E<br>(yh) |            |                    |              |            |
| Senegal               |            |           |                     |      |            |                    |            |                    |              |            |
| Sierra Leone          |            |           |                     |      |            |                    |            |                    |              |            |
| São Tomé and Príncipe |            |           |                     |      |            |                    |            |                    | r<br>(yh)    | R(yh)      |
| Solomon Islands       |            |           |                     |      |            |                    |            |                    | r<br>(yh)    | R(yh)      |
| Somalia               |            |           |                     |      |            |                    |            |                    |              |            |
| South Sudan           |            |           |                     |      |            |                    |            |                    |              |            |
| Sudan                 |            |           |                     |      |            |                    |            |                    |              |            |
| Tanzania              |            |           |                     |      |            |                    |            |                    |              |            |
| Timor-Leste           |            |           |                     |      |            |                    |            |                    | r (Y)        | NR(Yh)     |
| Togo                  |            |           |                     |      |            |                    |            |                    |              |            |
| Tuvalu                |            |           |                     |      | Nr<br>(yh) | Nr<br>(yh)         | Nr<br>(yh) | R<br>(Yh)          | R, e<br>(Yh) | Ne<br>(Yh) |
| Uganda                |            |           |                     |      |            |                    |            |                    |              |            |
| Vanuatu               |            | r<br>(yh) | R, e,<br>NE<br>(yh) |      |            | r<br>(yh)          | NR<br>(yh) | R,<br>e, E<br>(Yh) |              |            |
| Yemen, Rep.           |            |           |                     |      |            |                    |            |                    |              |            |
| Zambia                |            |           |                     |      |            |                    |            |                    |              |            |

Note : r: eligibility recognized by CDP; Nr: eligibility not recognized by CDP; R: graduation recommended by CDP; NR: graduation not recommended by CDP; e: graduation endorsed by ECOSOC; Ne: graduation not endorsed by ECOSOC; E: graduation agreed by GA (when it takes note of the CDP recommendation); NE: graduation not yet agreed by GA; y: GDP/GNI per capita; h: Human Asset Index (HAI); v: Economic Vulnerability Index (EVI); Y: income only criterion reached.

Source: Author compilation.

not reach the graduation threshold for any criterion, and three met eligibility to graduate for the first time.<sup>12</sup> This means that without the present asymmetry the IPoA goal (enabling half of the LDCs to meet the graduation criteria by 2020) would have already been reached, and even over-reached.

### *Effect of the change in the design of criteria*

The criteria indices' design is a last factor related to graduation rules that may have also affected graduation paths, without resulting from an asymmetry between inclusion and graduation criteria. For instance Samoa, which met graduation eligibility in 1997, did not meet it in 2000 because its per capita GDP fell back below the graduation threshold due to its GDP's stagnation in real terms "while the lower threshold for graduation had risen relatively to the upper threshold for identification by the World Bank as a low-income country" (see Guillaumont 2009, p. 73). When in 2012 a new component (low elevated coastal areas) was added to EVI at the expense of the population size component, it mechanically lowered the EVI in some countries (small countries or countries without a large share of population living in low coastal areas). But in that case without an immediate impact on eligibility. In 2015 when the threshold levels of EVI and HAI were taken at their absolute 2012 level, they became easier to reach, making three countries eligible that would not have been had the thresholds been designed at the quartile level as before (Bhutan, Nepal, Solomon Islands; see below and appendix A7.2).

### *To sum up: relative impact of the various factors*

After the 2018 review, there were two countries (Angola and Vanuatu) that the General Assembly had allowed to graduate but had yet to do so.

This number would be nine (adding Bhutan, Kiribati, Nepal, São Tomé and Príncipe, Solomon Islands, Timor-Leste and Tuvalu) if the graduation criteria had been mechanically applied by the CDP and the ECOSOC. It would have been 12 if meeting the criteria had not been required at two successive triennial reviews (adding Bangladesh, Myanmar and Lao PDR).

It would have been 15 without the margins between inclusion and graduation thresholds (adding Cambodia, Lesotho and Togo). It would have been 25 without the two-criteria requirement (adding Comoros, Democratic Republic of Congo, Djibouti, Guinea, Haiti, South Sudan, Sudan, Tanzania, Uganda and Zambia). And finally, it would have been 31 countries without the margins and the two-criteria condition being applied simultaneously (with Benin, Central African Republic, Ethiopia, Mauritania, Niger and Senegal).

### **LDC graduation trends and prospects: back to the category rationale**

To examine these prospects (as done in Drabo and Guillaumont 2014), we assume that the graduation criteria remain unchanged: two criteria to no longer be met (initial and

BOX 7.2

**The resulting composition of the category and its evolution**

From the previous analysis and the data given in the bottom of table 7.1, it is possible to show the evolution of category membership since 1991 when graduation rules were designed. The upper part of the figure below represents the evolution of three groups of LDCs within the LDC category, from 1991 to 2018:

- 1. The total number of LDCs: stable, decreasing slightly during the last decade.
- 2. The LDCs not meeting the graduation criteria (at least a first time): significantly decreasing from 48 in 2000 to 35 in 2018, so the LDCs meeting the graduation criteria (but not yet graduated) has been increasing.
- 3. The LDCs still meeting the inclusion criteria: after staying stable from 1991 to 2000 it has been sharply decreasing from 37 in 2000 to 15 in 2018 (still half the total LDCs in 2009, but less than one-third since 2015).

Since the decrease of item 3 has been stronger than that of item 2, the LDCs

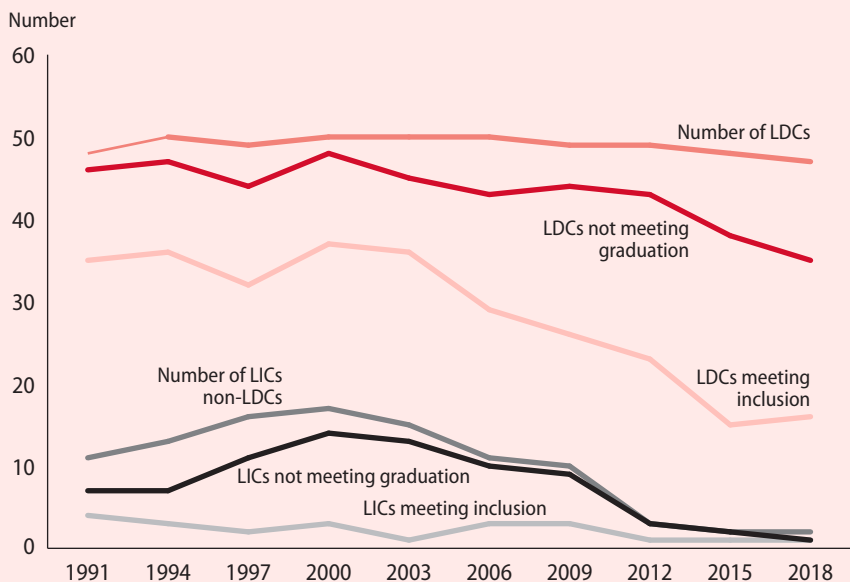
meeting neither inclusion nor graduation criteria, “discordant countries”, has been growing slightly (except in 2008), weakening the category’s consistency.

And the lower part of figure 1 represents:

- 4. The other low-income countries (OLICs), those that are not LDCs: after increasing from 11 in 1991 to 17 in 2000, they have strongly decreased to 2.
- 5. The OLICs not meeting the graduation criteria (had they been LDCs): as with the total of OLICs, still high in 2000, they have nearly disappeared in 2018.
- 6. The OLICs meeting the inclusion criteria, but not included, having refused: always very low and now reduced to 1 (Zimbabwe).

The gap between items 5 and 6 represents the OLICs meeting neither inclusion nor graduation criteria, a similar position to the LDCs called “discordant” above. Their number after reaching 12 countries in 2003 has now disappeared (only one). Thus, only the discordant LDCs, which numbered nearly half of the LDCs in 2015, still weakens the consistency of the LDC category.

**Inclusion and graduation: how the category composition has evolved**



general rule) or the income per capita only criterion (added in 2005), with a margin for the inclusion threshold. After recalling the prospects in 2020 at the end of IPoA, we consider the longer term graduation prospects according to the two-criteria rule, then according to the income-only criterion.

### *Graduation in the Istanbul timeframe*

After Istanbul, while one country has been added to the LDC list (South Sudan, in 2012), only two countries have graduated (Samoa in 2014 and Equatorial Guinea in 2017). Five others have already been granted graduation (by the GA), to be effective later: Vanuatu (in 2020), Angola (in 2021), Bhutan (in 2023), Solomon Islands and São Tomé and Príncipe (in 2024). Four other ones, having been twice eligible, have already met the criteria: Tuvalu (in 2012, then again in 2015 and 2018; CDP recommended it for graduation in 2012, but ECOSOC has deferred consideration of its endorsement to no later than 2021); Kiribati (not recommended by the CDP in 2015 but recommended in 2018 at its third consecutive fulfilment of the graduation condition. However, the ECOSOC has deferred its endorsement to no later than 2021); and Nepal and Timor-Leste (the CDP has deferred recommendation despite their having met the graduation criteria for the second consecutive time). Three other countries have been found eligible for the first time in 2018, and are likely to be found so again in 2021, but could not “meet the criteria before 2020”: Bangladesh, Myanmar and Lao PDR. Thus at the decade’s end, 13 of the 48 LDCs of the IPoA could meet the graduation criteria (3 of which are likely to have graduated), so around one fifth instead of the IPoA goal of one half. Although graduation prospects are substantial, they are significantly lagging behind the IPoA goal.

We recall that since 2004 graduation is effective only three years after the General Assembly has “taken note of” the CDP recommendation to graduate a country (a recommendation proposed only after the CDP has found the country eligible at two successive triennial reviews). So, after the CDP has recommended that a country graduate, at least three more years are needed for the graduation to be effective. For a country to actually graduate in 2020, for example, it should already have been found eligible a first time no later than in 2012, and a second time in 2015, before being recommended for graduation. If the recommendation is rapidly endorsed by ECOSOC and the General Assembly, it could graduate at best in 2018. So in 2020, the 48 countries listed during the IPoA (49 in December 2012 after the General Assembly’s decision to include South Sudan) will not be less than 46 (initial list + South Sudan – Samoa – Equatorial Guinea – Vanuatu).

Angola has received final approval for graduation in 2021. According to the present rules (and without a new inclusion or “voluntary graduation”) the minimum number of countries staying on the LDC list in 2021 would be 45, a decrease of four (less than 10 percent of the LDCs in 2011).

### *Graduation process and prospects according to the “two-criteria” principle*

Impact of absolute versus relative thresholds. According to the two-criteria rule for graduation, a country is eligible for graduation if it reaches the graduation threshold for at least two of the three criteria. For GNIpc, it must be 20 percent above the absolute level used by the World Bank (and measured by the Atlas method), the threshold the World Bank uses to separate low-income and middle-income countries (LICs and MICs). This inclusion threshold is an absolute level, constant over time (find a history of this criterion in Guillaumont 2009a).

As noted, for HAI and EVI the graduation threshold is by 10 percent respectively above and below the inclusion one. HAI and EVI are composite indices, scaled, then assessed on maximum and minimum values of a reference group (values possibly bounded to limit the effect of outliers on the index). Until 2012 the EVI and HAI inclusion thresholds were determined by the quartile value of a reference group, making the corresponding criteria clearly relative. Since 2015 the thresholds' values have remained at the level of the 2012 review, with the aim of making the HAI and EVI criteria “absolute” like the GNIpc criterion. It only partially does so (see box 7.3).

This change in the definition of the EVI and HAI thresholds affects graduation prospects. When EVI and HAI improve in developing countries, a fixed threshold level makes graduation easier (and inclusion more difficult). Indeed, had the previous

#### BOX 7.3

#### **Have HAI and EVI become really “absolute”?**

In 2015 a change occurred in how the HAI and EVI inclusion and graduation thresholds are determined, with significant implications for graduation. From 1991 to 2015, there was indeed an important difference between the GNIpc criterion, designed by an absolute threshold in constant dollars, and the EVI and HAI thresholds, designed by the quartile value of a reference group, making EVI and HAI criteria “relative”. In 2015 the HAI and EVI thresholds have been kept at their 2012 value, suggesting they are now absolute and constant thresholds.

But EVI and HAI are composite indices averaging component indices that are by essence relative indices, a given (constant) value of which has no intrinsic meaning (it

is a relative value at a given point of time). If any change occurs in the measurement of a component (new data, new design or new calculation method), the meaning of the supposed absolute EVI or HAI threshold will change. In other words, the new thresholds remain relative to the way components have been measured and to how their maximum and minimum values have been determined. When the measurement of each component changes (if there is an updating of the previous data on which they rely), the unchanged thresholds no longer correspond to absolute constant index values.

Moreover, one may wonder whether in a globalized world it is more meaningful to express poor countries' handicaps in absolute terms, rather than in relative ones. Competitiveness is a relative concept, and handicaps likely too. (See in appendix A7.2 how the issue of the reference group could have been addressed).

determination of the thresholds from the quartile value of a reference group been maintained at the size of the 2012 review, three countries (Bhutan, Nepal and Solomon Islands) of the four found eligible for the first time in 2015 on the two-criteria rule (the fourth being São Tomé and Príncipe) would not have been so.<sup>13</sup> So, without changing the HAI (and EVI) threshold measurement, the number of the 48 IPoA LDCs likely to meet the graduation criteria by 2020 would not be 13 as assessed above, but 7, or one seventh instead of one fifth, lagging even more behind the goal of one half. (For a discussion on how the issue raised by the reference group could be managed, see appendix A7.2).

The position of these three countries on the criteria strongly differed. Bhutan was close to the income-only criterion (and even closer in 2018). São Tomé and Príncipe, like most previous graduating countries, has a middle level of income and a rather high level of HAI, but is still a vulnerable small island. Nepal is atypical, being the first country with low income per capita found eligible based on the two structural handicap criteria, HAI and EVI. We return later to this special case.

To assess the progress towards graduation with regard to the two-criteria rule, three kinds of empirical exercises have been carried out. The first aims to give a global view on the evolution of LDCs' positions on each of the three criteria of GNI, HAI and EVI. The other aims to give a country by country view on the evolution of the relative position on the three criteria (see appendix 7.1). The third considers whether the evolution of the structural handicap indicators shows a structural transformation deserving graduation.

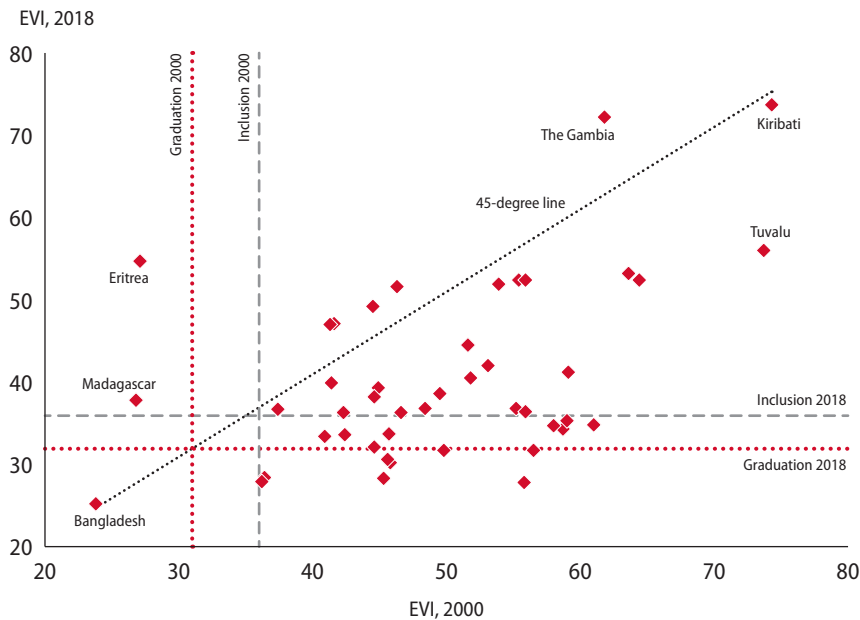
*How have relative positions been globally changing?* The first exercise, considering all LDCs, and successively for each criterion, compares the position of the countries with respect to graduation thresholds at different review years. For a relevant comparison, the review years 2000 and 2018 have been chosen since the EVI criterion was introduced in 2000. But the composition of EVI (more than that of the HAI) changed during this period, particularly at the 2006 and 2012 reviews (Guillaumont 2009a and 2013). In 2012, the definition of EVI changed in that the weight given to the small population size component was reduced by half, and a new component was added reflecting the population share in low coastal areas. Moreover, as explained above, the design of the inclusion and graduation thresholds changed in 2015. For these reasons, we also compared the evolution from 2006 to 2012 of an EVI with an unchanged definition from the 2006 and 2009 reviews, that is, using an EVI calculated in 2012 based on the 2006–09 definition.

Figure 7.2 presents the results for EVI, figure 7.3 for HAI. The red and thick dash lines represent the graduation thresholds for both years, while the blue and thin dash lines represent the inclusion thresholds.

In figure 7.2, the progress towards the EVI graduation threshold between 2000 and 2018 appears weak. Among the countries that met the EVI graduation threshold in



FIGURE 7.1  
**Positions of LDCs with regard to EVI, 2000 and 2018**

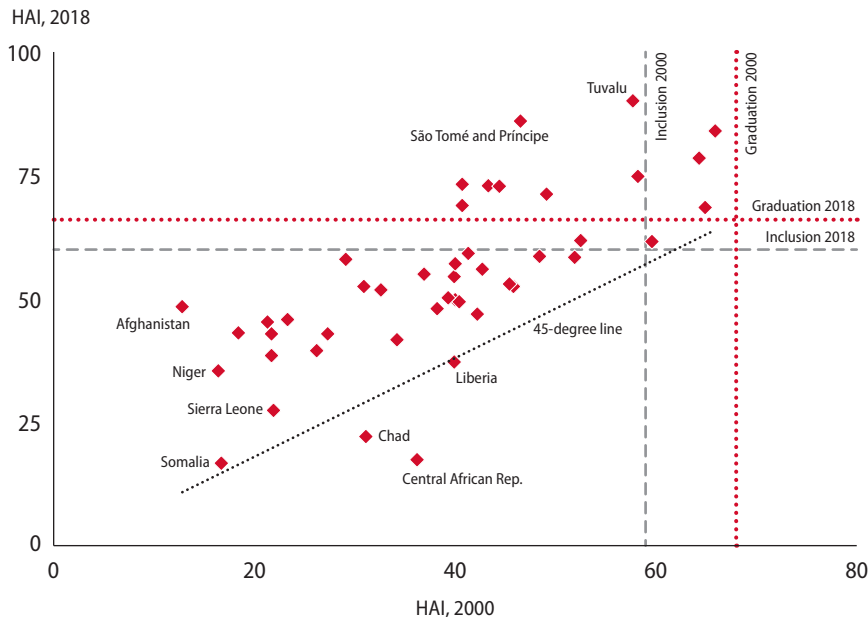


Note: The 45-degree line has been drawn from the intersection of the graduation threshold lines. It does not go through the inclusion thresholds intersection because the margins between the graduation and inclusion thresholds have changed.

2000—Eritrea, Madagascar, and Bangladesh—only the last met it in 2018. Seven others that did not fulfil this criterion in 2000 do it in 2018, five doing so clearly: Guinea, Haiti, Nepal, Tanzania and Togo. Three others were very slightly over the threshold, and, thanks to the new design of a fix threshold, Ethiopia, Myanmar, and Uganda were just on the borderline. But most LDCs have come closer to the graduation threshold, as shown by their position with respect to the 45-degree line, and seven of them stay between the inclusion and graduation thresholds.

The results of the HAI criterion are in figure 7.3. Since the changes brought in the composition of HAI (still named APQLI, Augmented Physical Quality of Life Index, in 2000) have been smaller than for EVI, the comparison from 2000 to 2018 is easier. A relative improvement clearly appears for this indicator. More LDCs (12) reach the graduation threshold in 2018 than in 2000 (0): Samoa (graduated in 2014, reaching it in 2000) was joined in 2012 by Kiribati, Myanmar, São Tomé and Príncipe, Tuvalu, and Vanuatu, plus (and on the borderline) three others in 2015, due to the change in the threshold definition, Nepal, Bhutan, Cambodia. Four additional LDCs joined in 2018: Bangladesh, Lao PDR, Solomon Islands and Timor-Leste. This improvement in the location of countries in the graph probably would have not been possible without real developmental progress. But until 2012 it may also have been enhanced by

FIGURE 7.2  
**Positions of LDCs with regard to graduation thresholds of HAI (APQLI), 2000 and 2018**



Note: The 45-degree line has been drawn from the intersection of the graduation threshold lines. It does not go through the inclusion thresholds intersection because the margins between the graduation and inclusion thresholds have changed.

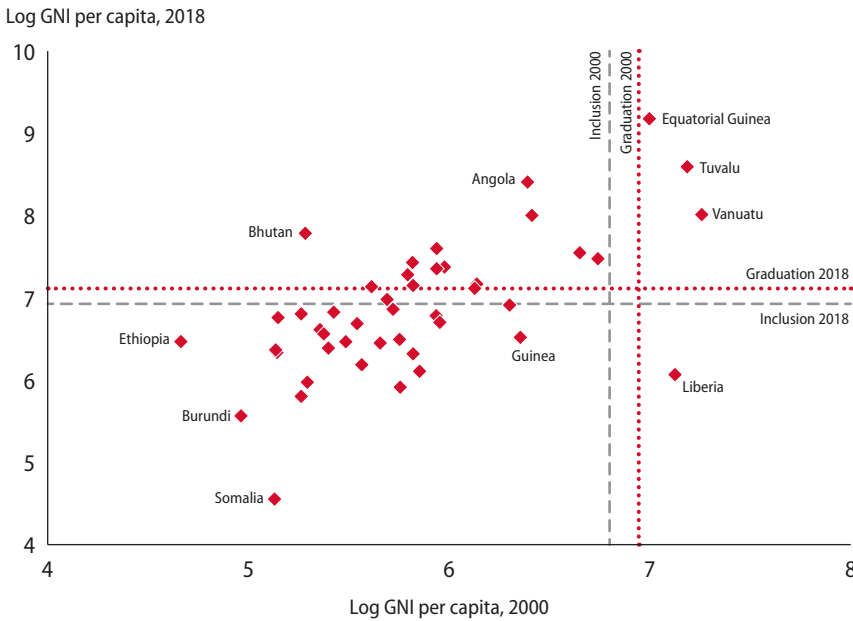
the endogenous effect of the reduction in the reference group, or, less likely, by small changes introduced in measuring the index components.

On the GNIpc criterion, the results (figure 7.4) show a global move towards the graduation threshold from 2000 to 2018. Seventeen countries fulfilled the threshold in 2018 (14 in 2015, 9 in 2012), compared with only four in 2000. Only one country (Liberia) met the threshold in 2000 without meeting it in 2018.<sup>14</sup>

The results show that during the last 15 years the two-criteria based graduation eligibility has stemmed from GNIpc and HAI in the cases of Bangladesh, Bhutan, Kiribati, Lao PDR, Maldives, Myanmar, Samoa, São Tomé and Príncipe, Solomon Islands, Tuvalu and Vanuatu, and in only one case from HAI and EVI, in Nepal.

The changes in countries' positions with respect to HAI and EVI should not be considered the real change in human assets or economic vulnerability. This would require setting up a homogenous series of these two indices, as seen in chapter 1. They show an evolution with regard to moving thresholds, depending on the definition of the indicators at each review. From the graphs, it is possible to identify which countries are closer to meeting two graduation criteria at the next review. It seems that there are only two or three, Lesotho (which already meets the GNIpc criterion and is

FIGURE 7.3  
**Positions of LDCs with regard to log of GNIpc, 2000 and 2018**



close to the HAI threshold), Togo (already meeting the EVI criterion and close to the HAI threshold), and possibly Cambodia (already meeting the HAI criterion and not far from the GNIpc and EVI thresholds). And the chance of these countries moving towards graduation thresholds should also be assessed on the trend in their relative position since 2015, when the absolute levels of the EVI and HAI thresholds remain unchanged.

*Do graduation prospects relying on the two-criteria rule reflect structural transformation?*

The evolution of the criteria indicators does not measure structural change per se, as it can be done with the retrospective EVI and HAI series, calculated at FERDI over a long period (1970–2014). It only shows how much closer a country is coming to the current graduation criteria. To check the correspondence between coming closer to the EVI and HAI thresholds for graduation with structural transformation, we need to use a time series of the EVI and HAI indices measured with the same methods and data, as we did elsewhere (Cariolle, Goujon and Guillaumont 2015; see chapter 1).

Since low human capital and high economic vulnerability are considered the main structural handicaps to development (they are the basic assumptions underlying the LDC category), enhancing human capital and reducing vulnerability should be the basis of a structural change likely to transform the countries and allow them to move “out of the trap”.

## BOX 7.4

**EVI moves away and towards the graduation threshold: a Bangladesh puzzle**

Due to its large size and diversification potential at the 2009 review of the list of the least developed countries, Bangladesh had the lowest EVI for an LDC (23.2), putting it quite beyond (–39%) the graduation criterion (set at 38). Its structural vulnerability had been declining since 2003. But at the 2012 review its position suddenly changed: with a sharp EVI increase, estimated at 32.4, Bangladesh no longer met the new graduation threshold of 32. But the lower graduation threshold cannot explain this dramatic change in position. The change resulted from three factors, mainly the revision in EVI definition between 2009 and 2012. This can be shown by comparing the reviews indices with those resulting from a calculation of an unchanged EVI definition according to the same method and data (FERDI calculations). Let us consider the evolution from 2006 to 2012 of the Bangladesh EVI.

Illustrated on a longer period, from the 2006 to the 2012 review: while the review

EVI increased from 25.8 to 32.4 (+6.6), the unchanged EVI decreased from 23.5 to 19.1 (–4.4), based on the 2006–09 review definition, showing a structural progress. The change in the composition (or weighting) of the review EVI contributed by 8.4, more (by 1.8) than the official increase (of 6.6). The change in the way some components have been calculated also helped increase the EVI by 4.5 (in particular the index of natural shock was calculated in 2006–09 from the homeless indicator and in 2012 from the broader indicator of the share of population victimized by natural disaster). Furthermore, some updating of data when the retrospective EVI were calculated had a small impact in the opposite direction (by –1.9).

Taken together these three factors ( $8.4 + 4.5 - 1.9 = 11$ ) explain the gap between the increase by 6.6 of the review EVI and the decrease by 4.4 of the EVI calculated based on the 2006 definition, a decrease that may reflect a structural economic change, a change which did occur in Bangladesh, although moderately (calculations made at FERDI with Joël Cariolle).

***Graduation prospects according to the income-only rule***

According to the income only criterion rule introduced in 2005, a country can be eligible for graduation when it reaches twice the ordinary income graduation threshold, that is, when its income per capita is at least 240 percent of the inclusion threshold (which is the low-income threshold used by the World Bank). Since Istanbul, one LDC (Equatorial Guinea) has graduated based on this rule, and among LDCs not yet graduated, four countries have been meeting this criterion. At the 2015 review, Angola, found eligible a second time based just on this criterion, was recommended for graduation. It will not graduate before 2021, however, since the GA made a rare decision in January 2016 to add an additional two-year postponement for Angola. Kiribati, as seen above, eligible for the third time on the two-criteria ordinary rule, while meeting the income-only criterion a second time, was recommended only in 2018. Timor-Leste, eligible for the second time on the income-only criterion, was not recommended in 2018. Tuvalu, recommended for graduation since 2012, has also met and still meets the income-only criterion.

What LDCs are now likely to reach the income-only criterion at the next reviews before 2030? These prospects rely on hypotheses of countries' growth prospects. Results are summarized in tables 7.4 and 7.5.

*Assuming that each LDC grows as it has in the previous 15 years.* If we suppose that LDCs maintain the rates of growth that they've had in the past 15 years, the results are at the top of table 7.4.<sup>15</sup> They show that seven LDCs are likely to reach 2.4 times the low-income (LI) threshold in 2021.<sup>16</sup>

In 2024, the year of the next review, these countries would be joined by Lao PDR, Sudan and Zambia. In 2027 they would be joined by São Tomé and Príncipe and Solomon Islands, and in 2030 by Cambodia. This would mean that 13 current LDCs would reach the income-only criterion in 2030, seven more than in 2020. If graduation was to be expected essentially based on this criterion and in the extrapolated growth hypothesis, the IPoA goal for 2020 would not be reached in 2030.

A variant of this analysis is to consider a situation in which the previous average (extrapolated) growth rate of each LDC per year is uniformly increased by 1 percent. This might be considered an optimistic result of LDCs' implementation of IPoA. Table 7.4 presents the results of this analysis. They are similar to the previous figure for 2018, but three additional countries would likely reach 2.4 times the LI threshold in 2030: Bangladesh, Djibouti and Lesotho.

Another approach to this analysis is to assess in how many years each LDC is likely to reach the threshold according to the present income per capita and the estimated growth rate (shown in table 7.5). Based only on the income rule and on the above assumptions, LDCs not meeting this graduation criterion would decrease by half just before 2050. Those countries with very low or even negative growth rates during the last decade would not be able to meet the income-only criterion during this century, unless their economic growth increases.

*Assuming IPoA is fully effective and each LDC grows at the 7 percent target rate.* One of IPoA's objectives is to achieve "sustained, equitable and inclusive economic growth in least developed countries, to at least at the level of 7 per cent per annum" (United Nations 2011, p. 6). What does 7 percent mean? In the context of this sentence it seems to refer to GDP growth. But 7 percent GDP per capita would be different since many LDC have high population growth rates.

To assess the consistency between the graduation goal (just the income-only criterion) and GDP growth, we first identified countries on track to reach the income graduation criterion if their average GDP growth rate was 7 percent a year, starting from 2014.<sup>17</sup> We assumed that the LDCs keep their population growth rate of the last 15 years and calculate the per capita growth rate as the difference between the 7 percent and their population growth rate. We then extrapolate the GNI per capita from the latest available GNI per capita (2014). The number of LDCs meeting the criterion in 2018 remains the

TABLE 7.4

Countries likely to meet the income-only graduation threshold at the next five reviews if growth rates stays the same as 2001–14 or grow at the 7 percent IPOA target

| Review years   | 2021   | 2024  | 2027   | 2030   |
|--|--|---|--|--|
| Countries likely to reach the income-only graduation threshold if their per capita growth rates remain those of 2001–14                      | Angola<br>Bhutan<br>Kiribati<br>Myanmar<br>Timor-Leste<br>Tuvalu<br>Vanuatu<br>(7 countries)   | Idem as 2021 + 3<br>Lao PDR<br>Sudan<br>Zambia<br>(10 countries)                                      | Idem as 2024 + 2<br>São Tomé and Príncipe<br>Solomon Islands<br>(12 countries) | Idem as 2027 + 1<br>Cambodia<br>(13 countries)   |
| Countries likely to reach the income-only graduation threshold if their economic growth rates increase by 1%, compared with those of 2001–14 | Idem as above + 1<br>Lao PDR<br>(8 countries)  | Idem as above + 2<br>São Tomé and Príncipe<br>Solomon Islands<br>(12 countries)                       | Idem as above + 1<br>Djibouti<br>(13 countries)                                | Idem as above + 3<br>Bangladesh<br>Djibouti<br>Lesotho<br>(16 countries)                   |
| Countries likely to reach the income-only graduation threshold if their economic growth rates are 7%   | Idem as above –1 + 1<br>+ Solomon Islands<br>– Myanmar<br>(8 countries)  | Idem as 2021 + 5<br>Djibouti<br>Lao PDR<br>São Tomé and Príncipe<br>Sudan<br>Zambia<br>(13 countries) | Idem as 2024 + 2<br>Lesotho<br>Myanmar<br>(15 countries)                       | Idem as 2027 + 3<br>Bangladesh<br>Mauritania<br>Yemen, Rep.<br>(18 countries)              |
| Countries likely to reach the income-only graduation threshold if their per capita economic growth rates are 7%                              | Idem as above – 1 + 6<br>– Myanmar<br>+ Djibouti<br>+ Lao PDR<br>+ São Tomé and Príncipe<br>+ Solomon Islands<br>+ Sudan<br>+ Zambia<br>(12 countries) | Idem as 2021 + 4<br>Lesotho<br>Mauritania<br>Myanmar<br>Yemen, Rep.<br>(16 countries)                 | Idem as 2024 + 2<br>Bangladesh<br>Senegal<br>(18 countries)                    | Idem as 2027 + 5<br>Benin<br>Cambodia<br>Chad<br>South Sudan<br>Tanzania<br>(23 countries) |

Note: Countries in italics were found eligible for the first time based on two graduation criteria in 2015.

same, seven, when compared with the result from extrapolated growth. And only one country, Mauritania, would be added to the 17 countries reaching the threshold in 2030.

But let us suppose that the 7 percent target refers to the per capita GDP growth rate, a very high rate indeed, reached during the 2000s only by two oil exporters (Angola and Equatorial Guinea). The result, summarized in the fourth and last row of table 7.1 is of course better. Thirteen LDCs would be likely to reach the income criterion threshold by 2021, and 24 by 2030.

It should be noted that in all these simulations all the countries found eligible in 2018 based on the traditional two-criteria rule also appear to meet the income-only criterion between 2020 and 2030, except Nepal, a special case.

TABLE 7.5

**Year (before 2050) at which each LDC is likely to meet the GNI per capita graduation threshold, with same growth rate as 2001–14, starting at 2014**

| Country           | Years to reach graduation threshold | Country               | Years to reach graduation threshold | Country      | Years to reach graduation threshold |
|-------------------|-------------------------------------|-----------------------|-------------------------------------|--------------|-------------------------------------|
| Angola            | Already reached                     | Myanmar               | 2021                                | Djibouti     | 2034                                |
| Bhutan            | Already reached                     | Lao PDR               | 2022                                | Chad         | 2035                                |
| Equatorial Guinea | Already reached                     | Zambia                | 2023                                | Ethiopia     | 2037                                |
| Timor-Leste       | Already reached                     | Sudan                 | 2023                                | Afghanistan  | 2038                                |
| Tuvalu            | Already reached                     | Solomon Islands       | 2024                                | Rwanda       | 2040                                |
| Vanuatu           | Already reached                     | São Tomé and Príncipe | 2027                                | Mauritania   | 2041                                |
|                   |                                     | Cambodia              | 2030                                | Sierra Leone | 2044                                |
|                   |                                     | Bangladesh            | 2033                                | Tanzania     | 2044                                |
|                   |                                     | Lesotho               | 2033                                | Mozambique   | 2047                                |
|                   |                                     |                       |                                     | Uganda       | 2050                                |

Note: Countries in italics were found eligible for the first time based on two graduation criteria in 2015.

*Back to the category’s rationale*

The previous results should be considered with regard to the LDC category’s rationale.

*The structural likelihood to graduate.* LDCs have traditionally been defined as low-income countries (LICs) with structural handicaps to growth (more recently to sustainable development). They were the countries the most likely to stay poor. Their “least development” can be expressed as their natural expected income, from combining the indices of the three criteria, combined with their present income per capita, human capital and economic vulnerability. As explained in Guillaumont (2009a),<sup>18</sup> the expected natural per capita income is the per capita income that could be expected if each country’s structural handicaps remained constant, and their marginal impact on growth remained unchanged, all other factors affecting growth being identical across all countries. In other words, it is the future per capita income calculated from its present per capita income, and its present human capital and economic vulnerability. Countries can be ranked by their risk of having a per capita income below a certain level in a given future for reasons not depending on their present and future policy. The reverse order corresponds to a ranking in a structural probability to be graduated in *x* years. The advantages of this approach come from its ability to take into account the three structural criteria identifying the LDCs, and to be able to rank LDCs in 2020 (or later) according to this index.

## BOX 7.5

**Assuming each LDC grows at its expected structural or natural rate**

Methodologically, as done in Guillaumont (2009a), economic growth is regressed on the logarithmic forms of initial per capita income ( $Y_0$ ), the economic vulnerability index ( $EVI$ ) and the complement to 100 of the human asset index ( $100 - HAI$ ) as follows:<sup>1</sup>

$$growth(Y) = \alpha \log(Y_0) + \beta \log(EVI) + \delta \log(100 - HAI) + \varepsilon$$

The estimated coefficients obtained (assumed unchanged) are used to project a virtual future (“natural”) income from the latest value of the three variables (present income and handicaps assumed unchanged).

New estimations of the effect of the structural handicaps (and convergence factor) on per capita income growth have been run with the same specification of the criteria variables as in Guillaumont (2009a), still over 1970–2010 to capture the factors at work before the IpoA’s adoption, but with GMM estimations on a panel of five-year periods.<sup>2</sup> The coefficients of the logarithmic form of initial GNI per capita, the 100-Human Asset Index, and the Economic

Vulnerability Index are negative and significant, still consistent with the previous findings of Guillaumont (2009a). The sample of 73 countries includes 29 LDCs.

This result underlines the important role of (low) HAI and EVI as relative handicaps in economic growth, and the existence of conditional economic convergence among developing countries (including LDCs) when these variables are considered.

The growth of per capita income to 2020 and 2030 has thus been simulated, starting from the level of the criteria variables used at the 2012 review, except for EVI, recalculated according to the 2006–09 method, more appropriate for this exercise.<sup>3</sup> The results are in table 7.7.

**Notes**

1. The logarithmic specification captures the interaction between the two handicaps, as assumed by the identification through complementarity criteria (mutual reinforcement of handicaps).
2. The results from the regression are the following, with absolute  $t$  statistics in parentheses:  $growth(Y) = 0.328(3.93) - 0.025(3.22)Y_0 - 0.010(1.96)(\log EVI) - 0.032(3.80)(\log 100 - HAI)$ .
3. The use of the 2006–09 definition instead of the 2012 one is legitimate because the new component added (low coastal area population) reflects a risk for long-term and sustainable development, but would weaken the relationship of EVI with growth, as estimated on the past and still relevant for the next two decades.

This method should not be seen as assuming that there is no IpoA impact on the growth rate. As the previous methods applied relying on extrapolation of past growth, possibly increased by a given and uniform rate, it only supposes that its impact on growth is the same among LDCs.

*The half of LDCs likely to reach the highest income at the end of the decade, when taking into account their structural handicaps.* Let us first look at the 10 countries most likely to graduate: they include, after Equatorial Guinea, already graduated, the two currently graduating countries (Angola and Vanuatu), five other LDCs already found at least twice eligible (Kiribati and Tuvalu and, since 2018, Bhutan, São Tomé and Príncipe and Timor-Leste), then Djibouti and Sudan, close to the income-only criterion, three of seven not yet graduating that are oil exporters.



The half of the 48 LDCs most likely to graduate for structural reasons include these 10 countries, and 14 others (SIDS, landlocked countries, mineral and manufactures exporters), but not Nepal, found eligible a first time despite low GNI per capita. Among the following countries, some may catch up to the top group due to rapidly increasing exports of fuels or minerals recently discovered (such as Mozambique). This again underlines that the present exercise shows the factors at work, and is not a forecast. Graduation prospects are indeed determined by those structural variables featuring the least developed countries, but also on new exogenous factors not captured in the criteria indicators, on the respective quality of policies implemented by the countries, and on the benefits they can draw from international support measures.

*A step further: revising or simply refining graduation criteria?* Indeed, it would have been possible to revise the graduation criteria so that they will be met in 2020 by half the countries still LDCs during the Istanbul Conference. But this was not the IpoA’s goal. As we have seen, some change has occurred in the design of the HAI and EVI graduation thresholds, leading three additional countries to reach the goal (for their HAI).<sup>19</sup> Any revision should be consistent with the category principles, and, at least to some extent, be equitable over time with regard to the previous graduation practices. It moreover might make graduation easier. This should be done before the 5th UN Conference

TABLE 7.6  
**2020 expected natural income ranking of the 48 Istanbul LDCs**

| Country             | 2020 ranking | Country      | 2020 ranking | Country              | 2020 ranking |
|---------------------|--------------|--------------|--------------|----------------------|--------------|
| Equatorial Guinea   | 1            | Myanmar      | 17           | Guinea-Bissau        | 33           |
| Tuvalu              | 2            | Senegal      | 18           | Mozambique           | 34           |
| Angola              | 3            | Bangladesh   | 19           | Gambia               | 35           |
| Timor-Leste         | 4            | Comoros      | 20           | Togo                 | 36           |
| Vanuatu             | 5            | Cambodia     | 21           | Guinea               | 37           |
| Kiribati            | 6            | Tanzania     | 22           | Chad                 | 38           |
| Bhutan              | 7            | Benin        | 23           | Eritrea              | 39           |
| Djibouti            | 8            | Haiti        | 24           | Central African Rep. | 40           |
| Sudan               | 9            | Afghanistan  | 25           | Madagascar           | 41           |
| São Tomé & Príncipe | 10           | Mali         | 26           | Malawi               | 42           |
| Solomon Islands     | 11           | Burkina Faso | 27           | Ethiopia             | 43           |
| Lesotho             | 12           | Uganda       | 28           | Niger                | 44           |
| Zambia              | 13           | Nepal        | 29           | Congo, Dem. Rep.     | 45           |
| Mauritania          | 14           | Rwanda       | 30           | Liberia              | 46           |
| Yemen               | 15           | South Sudan  | 31           | Burundi              | 47           |
| Lao PDR             | 16           | Sierra Leone | 32           | Somalia              | 48           |

on LDCs, which will correspond to 50th anniversary of the category, and a possible adoption of a new graduation goal.

The previous illustrative exercises stick to the category's principles by simultaneously considering present income per capita and the two structural handicaps to growth. The expected natural income could be used as an augmented income-only criterion, with an appropriate threshold to be determined. Since it would not be acceptable to rely on an econometric estimation, always debatable, another composite index averaging the three indicators of low income per capita, low human capital and economic vulnerability, as presented in *Caught in a Trap*, could also be used. It would also be available for more countries than the LDC group. But to some extent it could involve a revision of the inclusion criteria as well.

One minor revision applicable only to graduation has already occurred. The CDP agreed in 2005 to consider two structural handicaps (HAI and EVI) simultaneously to take into account some substitutability among the criteria and the possible combined effect of the handicaps captured by the HAI and EVI (CDP 2005). In 2006, before recommending Samoa for graduation, it noted that the average of the two indices (100-HAI) and EVI was "at a level similar to that of Cabo Verde, whose graduation has been decided by the General Assembly".

This additional information could become a more formal graduation rule (or an additional one). Let us call "structural handicap index" (SHI), as in *Caught in trap*, the combined level of (100-HAI) and EVI. It is possible to determine graduation thresholds in the same way it has been or is done for each of the two present HAI and EVI indices, either by applying the quartile rule to a reference group of the usual size, as done in 2012 and before, or by keeping a fixed threshold from the 2012 values, as done in 2015. The measurement more consistent with what was done in 2012–15 is first to measure the SHI threshold for 2012 applying the quartile rule to the reference group used at that time, then to keep this value as an "absolute value" for the SHI threshold of 2015.<sup>20</sup>

The SHI index has been calculated here as an arithmetic average, supposing the substitutability between the two handicaps in a simple manner. Two ways of averaging would have to be considered. The geometric average would give higher impact to the lower handicap: it is closer to the present practice of the two criteria of graduation (generally the income per capita and the weaker of the two structural handicaps). The quadratic average would give greater weight to the stronger handicap: it corresponds to a limited substitutability between handicaps (supposed to interact to make growth more difficult) and is more consistent with the category's rationale (where each criterion of handicap should be met for inclusion).<sup>21</sup>

Staying in the present graduation spirit, there could again be a "two-criteria rule" with the new SHI criterion replacing the two HAI and EVI criteria, used as a

complementary graduation criterion of the GNIpc, and an income-only criterion. (It would be also conceivable to have a SHI-only criterion with a higher threshold).

Let us apply the SHI graduation criterion to the figures of the 2015 and 2018 reviews and examine how it would have affected eligibility for graduation for the five new eligible countries:

- Timor-Leste would have already been eligible based on the income-only criterion.
- São Tomé and Príncipe would have still been eligible based on the two-criteria rule, whatever the measurement of the SHI threshold.
- Bhutan would have been so only with the use of a quadratic average in 2015 (Bhutan also being close to the income-only criterion) and whatever the measurement of the SHI threshold in 2018.
- Solomon Islands would not have been so, whatever the average used and the review year.
- Nepal, though meeting the SHI graduation criterion (at a level close to that of Bangladesh and Myanmar), would still be a low-income country and thus ineligible.

Nepal's special case, raising conceptual issues about graduation, as discussed in box 7.4. Kiribati and Tuvalu would not have been eligible (either with the arithmetic or the quadratic average), and Tuvalu would not have been so with the quadratic average.<sup>22</sup>

### **Impact of graduation: assessments and monitoring**

The impact of graduation has two faces. It first can be seen as a reverse of the effect of LDC membership, and be negative since the effect of membership (examined throughout this book) is positive. But since graduating countries are in a different situation than most LDCs, its impact is not symmetrical to the average impact of membership: a country is graduating because it is supposed to have overcome the structural handicaps that locked it into a trap. Thus, it may have less need for the special measures linked to membership than a current LDC. Graduation, by showing the country has reached new development potential, may also increase its attractiveness.

This section considers two main effects of graduation. First, the several kinds of assessments conducted for graduation are reviewed. Second, drawing on the lessons from the few cases of graduation observed (four to five cases in a short period), some rough evidence of the actual effect is described.

#### *Examining the effects of graduation*

The CDP, before recommending graduation, wanted to consider information about its expected effects. These effects have been examined in three main ways, from “vulnerability profiles” to “ex-ante assessments” and to monitoring.

BOX 7.6

### **The Nepalese exception and its implications for the meaning of graduation: measuring vulnerability matters**

In all but one case LDCs have been considered eligible for graduation either for their income per capita and HAI, based on the two graduation criteria rule, or based on the income-only criterion. The exception is Nepal, which was found eligible in 2015 after crossing the HAI and EVI graduation thresholds, but was still a low-income country (with an income per capita 36 below the graduation threshold).

Nepal's exception seems paradoxical. If the category's rationale is valid, a country that has overcome its structural handicaps would no longer be locked in a low-level trap. All other eligible countries had indeed become middle-income countries. There may be two kinds of reasons for this Nepalese exception.

One would be that Nepal suffered from obstacles to economic growth that were not structural, but linked to poor policy. It does not seem that the other countries found graduation-eligible did apply significantly better policies (as assessed by the World Bank CPIA). But Nepal ranks poorly on indicators of socio-political vulnerability and state fragility (Guillaumont 2017). Are these factors not exogenous, independent of current economic policy, and part of the structural vulnerability of Nepal?

Another and better reason for the exception is that Nepal's structural obstacles to growth are not fairly reflected in the HAI and

EVI indicators, due to their scope or the way they are measured.<sup>1</sup> Let us note four factors of underestimation of the genuine structural economic vulnerability of Nepal by the EVI:

- The measurement of export instability of goods and services does not take into account the instability of remittances, which are especially high in Nepal.
- The measurement of the concentration of merchandise exportation only considers the concentration by product, not the concentration by destination, which is very high in Nepal due to its links with India. The two kinds of concentration reinforce the risk they raise.
- The new EVI component LECZ introduced in 2012 leads to a biased treatment of the risk of flooding due to global warming: this risk results not only from the sea rise, but also in a country such as Nepal (or Bhutan) from glacial lake outburst flood (GLOF).
- The period covered by the calculation of EVI in 2015 could not permit taking into account the vulnerability due to the earthquakes in Nepal. The April 2015 earthquake was not yet fully taken into account in the EVI of 2018, due to statistical lags and the measurement of shocks on long periods.

Nepal's case shows the need to supplement the mechanic application of the criteria indicators for graduation with an assessment of structural handicaps, which the vulnerability profile is expected to do.

#### **Note**

1. See the paragraph "What the EVI does not tell us" in Guillaumont (2017).

In 1999, when adopting the new EVI criterion in place of the former EDI (Economic Diversification Index), the CDP recognized that the indicators used did not capture all the development impediments. It thus proposed to consider a "vulnerability profile" to be prepared by UNCTAD for LDCs found graduation-eligible for the

first time. The profile, looking at vulnerability factors not necessarily well captured by the EVI, was meant to help the CDP make its graduation decision. Maldives was the first country to have a “vulnerability profile”, prepared for the 2000 triennial review, where, fulfilling two graduation criteria (HAI and GNIpc), the CDP recommended it for graduation. After ECOSOC’s decision to defer the Maldives graduation, the CDP requested UNCTAD to prepare a new Maldives vulnerability profile for the 2003 triennial review. Since the 2003 triennial review, 13 other vulnerability profiles have been prepared: for Maldives and Cabo Verde in 2003, Samoa in 2006, Equatorial Guinea in 2009, Tuvalu and Vanuatu in 2009 and 2012, Kiribati in 2009, 2015 and 2018, Angola in 2015, and Bhutan, Nepal, São Tomé and Príncipe, Solomon Islands and Timor-Leste in 2018.

In addition to the vulnerability profile, the year preceding the second triennial review after the first eligibility for graduation, the UNDESA (CDP Secretariat) prepares an ex-ante impact assessment. It examines the likely economic and social consequences of graduation on the country that could result from losing special LDC support measures.<sup>23</sup>

*The vulnerability profile, as a graduation warning.* UNCTAD has been preparing a vulnerability profile for all the 13 LDCs that have met graduation criteria for the first time, nine of which were SIDS (Cabo Verde, Kiribati, Maldives, Samoa, São Tomé and Príncipe, Solomon Islands, Timor-Leste, Tuvalu, Vanuatu) and two of which were oil exporters (Angola and Equatorial Guinea). These profiles show the historical and institutional context of each country, provide an overview of the country on each of the graduation indicators (per capita GNI, HAI and EVI), and analyses the overall vulnerability including aspects not covered by EVI. They also highlight the impediments to development for these countries that are likely to slow down their progress after they leave the category.

The vulnerability profiles recognized that the countries had registered solid progress in income per capita. This pushed them above the corresponding graduation threshold. In the case of SIDS, the relevance of some concepts and data used by the CDP to assess the performance of the graduating countries was discussed several times when their HAI was above the graduation threshold. This could include use of GNI instead of GDP, consideration of income distribution, and environmental degradation).<sup>24,25,26</sup> Above all they highlighted the importance of the vulnerabilities in the graduating countries, reflected, for example, in high EVI.

For Cabo Verde, Kiribati, Maldives, Samoa, São Tomé and Príncipe, Solomon Islands, Timor-Leste, Tuvalu and Vanuatu, the profiles showed that their EVI was far below the graduation threshold (and even the inclusion one). They also showed that these countries are highly exposed to natural disasters and to the handicaps of small population size, remoteness, and the instability of agricultural production.<sup>27</sup> Maldives

and the Solomon Islands, they noted, are also affected by beach erosion, deforestation, high population density, the dumping of solid waste on beaches, and leaching of toilet waste into groundwater.

In Bhutan's case, though EVI was lower, the profile noted that its improvement was hampered by two of its eight components: agricultural instability and small population. The vulnerability profiles of Angola and Equatorial Guinea were different, since their graduation was based on the income-only criterion, due to natural resources availability. They had a per capita GNI three or four times the graduation threshold, while the threshold for HAI and EVI were not reached. But the profiles noted that Angola and Equatorial Guinea were vulnerable to the oil market, remoteness and export concentration, and they were still poor. Nepal, as noted, is different from the other graduating countries, since its eligibility for graduation in 2015 was based on the HAI and EVI, while its GNIPc is still very low. So, the vulnerability profile, while recognizing that Nepal is less vulnerable than other LDCs, made several references to the 2015 earthquakes, but underlined that its income is mainly dependent on remittances from Nepalese living abroad (see other arguments in box 7.6).

All 13 countries were said to have difficulties achieving structural transformation and thus sustaining their progress. The profiles argued that immediate graduation would harm Cabo Verde, Maldives and Samoa through less advantageous international trade and reduced development financing and technical and financial assistance.<sup>28</sup> To address these potential consequences, the profile, for Maldives, for instance, proposed special graduation treatment. It suggested letting the country enjoy full market access for export to EU under the EBA provision for about 10 years and gradually phasing out concessionary measures, among other steps.

Finally, the UNCTAD vulnerability profiles appear to have been mainly an effort to highlight the vulnerability of countries likely to be able to graduate based on criteria other than their vulnerability. They describe the risks of graduation for some countries. Still, none of them mentioned the risk that, after losing benefits from LDC status, they would deteriorate and again become eligible for LDC inclusion.<sup>29</sup>

*The CDP ex-ante impact assessments.*<sup>30</sup> The CDP Secretariat created the impact assessments to assess the possible consequences for LDCs of graduation, an issue not really addressed by the vulnerability profiles. Development and trading partners provide LDCs with special or preferential treatment in trade, official development assistance and other areas (see chapters three to six). But once the country has graduated from the category, it may no longer obtain preferential treatment. The main objectives of the ex-ante assessment are to see if and when partners would introduce changes in their aid or trade policies towards the country after the graduation and to evaluate likely effects of such changes. The impact assessment emphasizes examining the potential effects of the discontinuation of the special support measures LDCs can receive. Research included gathering information, including

contacting development and trading partners through questionnaires to collect information on the future behaviour of the partners after the country graduates: do they intend to postpone the end of special measures or to take new measures to replace the old ones?

In response to the request by ECOSOC, the CDP Secretariat has so far undertaken ex-ante impact assessments on 10 countries: Equatorial Guinea (2009), Kiribati (2009, 2015, 2018), Tuvalu (2009, 2012), Vanuatu (2009, 2012), Angola (2015), Bhutan (2018), Nepal (2018), São Tomé and Príncipe, Solomon Islands (2018) and Timor-Leste (2018). The CDP recommended that the 10 graduate from being LDCs from 2009 to 2018.

The CDP's assessments did not use model-based quantitative methods. They rely on a more descriptive methodology focused on each LDC special measure that a graduating country may cease to receive. This approach appeared to be more adapted to the issue examined and the data availability as well. To assess the importance of the socio-economic implications of probable changes in special or preferential treatment, the first task was to identify the support measures available to the country based on its LDC status. The second was to quantitatively or qualitatively examine their importance in the country's economic activities and social development. The third was to identify likely changes in special or preferential treatments to be made by development and trade partners. This was done by asking the partners through a questionnaire and by reviewing rules and commitments made by them on graduating LDCs.

But this approach had limitations, well summarized in CDP Secretariat documents, concerning the difficulty of measuring LDC status. First, some measures or treatments may not necessarily be specific to LDCs, but are development assistance or treatments for developing countries in general, which can nonetheless be affected by graduation.<sup>31</sup> Second, there can be multiple or wide ranging effects of a single support measure. For example, trade preferences for LDCs from developed countries can help the country increase exports, access foreign exchange, and boost employment and economic growth. Without a macroeconometric or simulation model, total effects of the loss of trade preferences are not easily estimated. Other support measures, such as the special consideration given to an LDC when becoming a WTO member, can also be hard to measure.

Given these limitations, every effort has been made by the CDP Secretariat to collect the latest information from national, regional and international sources on socio-economic data on the LDCs concerned and on trade, tariff rates and external aid data of their development and trade partners (Kawamura 2010).

The conclusion drawn from these, as presented by Kawamura (2010), are still valid, even when updated to take into account the results of more recent ex-ante assessments.

“Graduation of Angola, Equatorial Guinea, Kiribati, Tuvalu and Vanuatu from the list of LDCs does not appear to significantly influence development paths of these countries at least in the short to medium terms, except a few areas, such as higher tariffs on copra and tuna exports to the EU and Japan,



access to the Least Developed Country Fund (LDCF) under the UNFCCC/GEF and expected higher contributions to the UN peacekeeping operations. The limited impact of graduation on their development paths is largely due to two factors: (i) trade liberalization at the global level since the 1980s has eroded preferences given to LDCs relative to non-LDCs as a result of reduced tariff differentials between the two groups of countries, and (ii) major bilateral donors and some multilateral institutions have their own aid policies and criteria for aid allocations among recipient countries and LDC status is merely one of many factors that they consider when offering aid.

The exercise of the ex-ante assessment has revealed not only the limited impact of graduation, but also the complex web of arrangements for implementing various support measures for LDCs. For example, it had to go around many ministries in donor countries to find out likely impact of graduation of the five countries.... Because of this decentralized structure in regard to administering and implementing support measures for LDCs, it took rather longer time to receive a comprehensive reply from them on likely changes that donor countries would introduce when a country becomes a non-LDC....

Second, various programmes and funds in the UN Secretariat and UN specialized agencies and programmes have special clauses or fund allocations for LDCs to receive technical cooperation at favourable terms or to attend assemblies and conferences under their auspices. But there is no centralized unit in the UN to monitor how these special clauses and funds are utilized. It is difficult (if not impossible) to see to what extent LDCs are aware of these and, more importantly, they fully use the funds for their advantage.

Third, it is about the timing of conducting an ex-ante assessment. It is undertaken after an LDC is considered to be eligible for graduation for the first time and, therefore, it takes at least three years for this LDC to actually graduate. The CDP Secretariat has to ask donors a rather 'hypothetical' question, i.e. 'what if a country graduates from the list of LDCs three (or longer) years from now?' In many cases, because aid-policy frameworks or multilateral or regional trade agreements that are currently in place are often to be expired or amended within 3 years, donors are unable to provide concrete answers to the inquiries by the CDP Secretariat".

In short, while the vulnerability profiles showed that graduating countries were and remained vulnerable in ways that were independent of their graduation, the ex-ante impact assessments did not reach clear conclusions about the negative effects of the countries' graduation. To be noted, in the report on the twenty-first session (11–15 March 2019) the CDP recommended that the impact assessments and the vulnerability profiles "be merged into one consolidated document—a graduation assessment—and enriched with inputs" from several sources and coordinated by the secretariat of the committee.



*CDP monitoring alongside smooth transition.* Since some LDCs fulfilling graduation conditions are confronted by vulnerabilities that may hamper their development, it was necessary to check whether graduation, due to the loss of benefits linked to the status, would not disrupt their development status. To avoid this situation the GA adopted resolution 59/209 in December 2004 (the “smooth transition strategy”) aimed at making graduation successful and effective. The resolution outlined how a country should proceed from fulfilling graduation requirements to total exit. It was recalled and reinforced by the resolution 67/221 in December 2012. The need for a new resolution had risen both from the fear and resistance of the countries recommended or found eligible for graduation during the previous years and from the perspective of an increase in graduations, an IPoA goal.

The resolution particularly stressed the need for a monitoring mechanism of graduation and the graduating countries. In the three years following the GA’s decision to graduate an LDC, the country remains a member of the group and benefits from the advantages of the status. A transition strategy should be prepared during these three years with development partners. These resolutions also highlighted the need to monitor the development progress of graduated LDCs. These monitorings and assessments are mainly based on the evolution of the three graduation criteria.

At the request of ECOSOC resolutions 2008/12, 2011/20 and 2013/20, the CDP has been monitoring since 2009 the development progress of graduating countries and has included the findings in its annual report. During the last four triennial reviews (2009, 2012, 2015, 2018), the CDP presented the monitoring reports of five graduating LDCs: Angola, Equatorial Guinea, Maldives, Samoa and Vanuatu.

- The 2009 review presented Maldives’ situation as a graduating LDC. The country showed good performance on GNI per capita and HAI score compared with other LDCs and developing countries. But the relatively high EVI score was harmed by the tsunami’s effect.
- Samoa was found to have improved in the three indicators (GNI, EVI and HAI) from 2009 to 2018. The country had handled the consequences of the tsunami well, though its vulnerability, shown in its EVI score, remained high.
- A monitoring report of Equatorial Guinea was prepared for the 2012, 2015 and 2018 triennial reviews. The country, which graduated based on its GNI per capita, was judged sustainable due to its oil resources.
- Progress has been noted in the GNI and HAI criteria on which Vanuatu’s graduation recommendation was based. But the country was hit by Cyclone Pam in March 2015, which devastated the country and cast doubt on its graduation.
- Angola’s monitoring report was prepared for the first time in the 2018 triennial review, and shows that while the per capita GNI remained stable and sustainable despite decreasing oil production and prices, the HAI and EVI have been deteriorating.

The development progress of graduated countries has been monitored since 2009 based on smooth transition resolutions 59/209 and 67/221, with a goal of assessing a possible deterioration in development. The results of this phase of monitoring are summarized below.

### *A rough ex-post assessment on countries' graduation*

*Results of CDP ex-post monitoring.* The CDP examined four graduated countries: Cabo Verde (in 2009 and 2012), Maldives (in 2012, 2015 and 2018), Samoa (in 2015 and 2018), and Equatorial Guinea (in 2018). The CDP found that none of these countries had reversed their progress.

- The reports on Cabo Verde, graduated in 2007, argued that the country had largely improved in each of the three graduation criteria and that economic growth had been robust, despite remaining economic vulnerability. They noted that sustained efforts were needed to move towards structural transformation and to upgrade the economy.
- Maldives, graduated in 2011, progressed since graduation in GNI per capita and EVI. But the HAI had declined slightly due to a decline in the gross enrolment ratio in secondary schools, and the EVI had remained high. The termination of trade preferences had been well managed by the country through market reorientation and had not affected fish exports.
- As for Samoa, graduated in 2014, the 2015 monitoring reported that the country had progressed since graduation and had almost completely recovered from the effects of the cyclone, improving its income and maintaining its high HAI score, but remaining vulnerable to economic and environmental shocks.
- Equatorial Guinea, which graduated in 2018, still faces serious challenges due to low oil production and prices. The GNI per capita remains highly above the graduation threshold, but 27 percent below the previous year. The HAI is improving and the EVI remains below graduation threshold.

*Short-term macroeconomic change in graduated countries: comparison with other LDCs.* It is difficult to draw general conclusions about the actual effects of graduation since only four LDCs have graduated and then been observed afterwards, and for a relatively short period. Moreover, each of the five countries that exited the LDC category (Botswana and these four) is different, and they graduated at different periods and in different international environments. For this reason, the difference between “before” and “after” (the graduation) should be compared with the difference over the same period in non-graduated LDCs. The comparison covers a relatively short period, due to the recent graduation dates.<sup>32</sup> Five years of observation have been retained both for the period before and the period after the graduation.

This double difference approach is applied to the following variables: the rate of GDP growth, the trade to GDP ratio, the ODA to GDP ratio, the same ratio extended

TABLE 7.7

**Relevant variables before and after graduation: four graduated countries compared with remaining LDCs**

|   |   | Botswana | Cabo Verde | Maldives | Samoa |
|---|---|----------|------------|----------|-------|
| Graduation year                           |   | 1994     | 2007       | 2011     | 2014  |
| Annual average per capita GDP growth rate | Five years before graduation (1)          | 3.41     | 7.70       | 5.93     | -1.54 |
|   | Five years after graduation (2)           | 2.72     | 1.57       | 2.69     | 0.67  |
|   | Difference for the graduated (3)=(2)-(1)  | -0.69    | -6.13      | -3.24    | 2.21  |
|   | Remaining LDCs before graduation (4)      | -0.73    | 3.26       | 3.02     | 2.43  |
|   | Remaining LDCs after graduation (5)       | 3.23     | 2.60       | 1.88     | 1.07  |
|   | Difference for remaining LDCs (6)=(5)-(4) | 3.96     | -0.66      | -1.14    | -1.36 |
|   | Double difference (7)=(3)-(6)             | -4.66    | -5.48      | -2.10    | 3.57  |
| Average trade to GDP ratio                | Five years before graduation (1)          | 52.52    | 36.46      | 83.09    | 29.00 |
|   | Five years after graduation (2)           | 52.53    | 35.32      | 101.76   | 27.72 |
|   | Difference for the graduated (3)=(2)-(1)  | 0.01     | -1.14      | 18.68    | -1.28 |
|   | Remaining LDCs before graduation (4)      | 21.74    | 28.70      | 28.01    | 28.75 |
|   | Remaining LDCs after graduation (5)       | 26.69    | 28.51      | 27.61    | 26.11 |
|   | Difference for remaining LDCs (6)=(5)-(4) | 4.95     | -0.19      | -0.40    | -2.64 |
|   | Double difference (7)=(3)-(6)             | -4.94    | -0.95      | 19.08    | 1.36  |
| Average ODA to GDP ratio                  | Five years before graduation (1)          | 3.62     | 14.74      | 2.74     | 14.39 |
|   | Five years after graduation (2)           | 2.01     | 14.21      | 1.35     | 11.84 |
|   | Difference for the graduated (3)=(2)-(1)  | -1.60    | -0.53      | -1.39    | -2.55 |

to all official capital flows, and the debt to GDP ratio. The results (table 7.7) should be considered cautiously. The average evolution of the ratios in other LDCs may not give a fair counterfactual of the exogenous and often specific factors likely to affect the performance of countries after their graduation.

Comparing the five-year averages before and after graduation, the growth of GDP per capita has increased after graduation for Samoa while it has decreased for Botswana, Cabo Verde and Maldives (for Samoa a two-year period is used since it just graduated in early 2014). The decline in GDP growth rates of Cabo Verde, but not of Maldives, might be due to the coincidence of the graduation with the 2008 global economic crisis. When the difference is compared with the same difference during the same period in remaining LDCs, only Samoa appears to have succeeded in keeping its advance after graduation. The three other countries' relative growth slows after graduation. Applying

TABLE 7.7 (continued)  
**Relevant variables before and after graduation: four graduated countries compared with remaining LDCs**

|   |   | Botswana | Cabo Verde | Maldives | Samoa |
|---|---|----------|------------|----------|-------|
| Average ODA to GDP ratio                                    | Remaining LDCs before graduation (4)          | 22.23    | 14.79      | 15.31    | 12.12 |
|   | Remaining LDCs after graduation (5)           | 18.54    | 14.31      | 12.99    | 13.28 |
|   | Difference for remaining LDCs (6)=(5)-(4)     | -3.70    | -0.48      | -2.32    | 1.16  |
|   | Double difference (7)=(3)-(6)                 | 2.10     | -0.05      | 0.93     | -3.71 |
| Average ODA and other official capital inflows to GDP ratio | Five years before graduation (1)              | 3.69     | 14.81      | 3.45     | 14.51 |
|   | Five years after graduation (2)               | 1.69     | 16.03      | 0.65     | 11.92 |
|   | Difference for the graduated (3)=(2)-(1)      | -2.00    | 1.23       | -2.80    | -2.59 |
|   | The remaining LDCs before graduation (4)      | 22.35    | 15.06      | 15.27    | 12.26 |
|   | The remaining LDCs after graduation (5)       | 18.59    | 14.49      | 13.07    | 13.33 |
|   | Difference for the remaining LDCs (6)=(5)-(4) | -3.77    | -0.57      | -2.20    | 1.07  |
|   | Double difference (7)=(3)-(6)                 | 1.76     | 1.79       | -0.60    | -3.66 |
| Debt to GDP ratio   | Five years before graduation                  | 17.83    | 54.23      | 37.55    |       |
|   | Three years before graduation                 | 15.54    | 49.12      | 54.38    | 52.59 |
|   | Just before graduation                        | 15.96    | 38.35      | 39.45    | 56.2  |
|   | Three years after graduation                  | 12.92    | 53.62      | 32.22    | 57.48 |
|   | Five years after graduation                   | 11.11    | 71.06      | 27.45    |       |
|   | For 2015                                      | 14.92    | 94.82      | 27.45    | 57.48 |

Source: Author's calculation from various sources (OECD, United Nations).

the double difference method to such a short period shows its limitation: growth rates should be considered in the long term (not possible in these cases), but even on long-term growth the convergence process involves a slowdown in growth rate. There may also be specific exogenous factors acting in the case of these few countries.

The export of goods and services as a percentage of GDP slightly decreased after graduation in Cabo Verde and Samoa and remained constant in Botswana, while in Maldives it largely increased from 83 percent before to 102 percent after graduation. That all four countries had a higher export ratio than the average of the remaining LDCs should be kept in mind to interpret the results of the double difference, negative for Botswana and Cabo Verde, positive for Maldives and Samoa.

Let us now consider ODA as percentage of GDP (as done in chapter 3). It slightly decreased in all four countries after graduation. But it also decreased in other LDCs

in the same periods (except during Samoa's short period), so that the double difference gives positive results for Botswana and Maldives, nil for Cabo Verde and negative for Samoa. Here again this method, applied to short periods and without taking into account other exogenous factors, is not really conclusive. And in the longer term, a relative decline, if not too sharp, in the ODA to GDP ratio of countries where the relative income per capita has increased is not a shortfall of graduation, and may be compensated by new external finance sources. But when other official capital inflows are added, the ratio comparison remains similar, except in Cabo Verde where the ratio of official capital inflows slightly increased after graduation.

The evolution of the debt to GDP ratio is consistent with these last findings. It shows decreasing trends in Botswana and Maldives and increasing trends in Cabo Verde and Samoa.<sup>33</sup> The Cabo Verde debt evolution is the most worrying. Its debt ratio, after decreasing from 54 percent five years before graduation to 38 percent just before graduation, began to increase again after graduation, reaching more than 70 percent five years after and about 95 percent in 2015, showing the use of non-concessional capital inflows.

*Graduated countries long term: have they achieved “structural transformation”?* For former LDCs, by definition, the most relevant structural transformation is the alleviation of the structural handicaps that hamper their economic growth, so that growth becomes sustained, and more broadly that development becomes sustainable. The first indicators of structural transformation are given by the criteria of identification of LDCs (see chapter 1). In this context, the results obtained by the last three graduated countries show continuous progress, not only for the income per capita level, but also through their EVI and HAI position (table 8). A comparison with Botswana here is not relevant since its evolution can be observed over a longer period, featuring rapid economic growth despite vulnerability to HIV not linked to graduation.

To assess the evolution of graduated LDCs on LDC criteria, table 7.8 shows the GDP (or GNI) per capita and the gap with the graduation threshold of EVI and HAI in the triennial reviews following the CDP's graduation recommendation. After the decision, all four countries kept improving their income and human capital relative to the graduation threshold, criteria that let them graduate. But they remain vulnerable since none of them reached the graduation threshold many years after graduating from the category.

But the change in the three criteria indicators may give too narrow a vision of the structural transformation expected before and after the graduation, as it is underlined in the IPoA. Let us then consider their graduation in a broader perspective.

On the origins of their graduation, Botswana's was one step in a long-term development strategy implemented with a prudent economic policy. Since the country's independence in 1966, policymakers adopted and implemented the National Development Plan (NDP) later reinforced in 1996 by the “Vision 2016—Prosperity for All”.

TABLE 7.8  
LDC criteria before and after graduation in the last three graduated countries

|                                   |                                 | Cabo Verde | Year | Maldives | Year | Samoa | Year |
|-----------------------------------|---------------------------------|------------|------|----------|------|-------|------|
| GNI per capita                    | When recommended for graduation | 1,323      | 2003 | 1,983    | 2003 | 1,596 | 2006 |
|                                   | First review after graduation   | 1,486      | 2006 | 2,320    | 2006 | 2,240 | 2009 |
|                                   | Second review after graduation  | 2,180      | 2009 | 2,940    | 2009 | 2,880 | 2012 |
|                                   |                                 | 3,010      | 2012 | 5,473    | 2012 | 3,319 | 2015 |
|                                   |                                 | 3,595      | 2015 | 6,645    | 2015 |       |      |
| EVI gap with graduation threshold | When recommended for graduation | 22.54      | 2003 | 0.57     | 2003 | 26.65 | 2006 |
|                                   | First review after graduation   | 19.92      | 2006 | 12.51    | 2006 | 26.28 | 2009 |
|                                   | Second review after graduation  | 10.05      | 2009 | 20.18    | 2009 | 19.05 | 2012 |
|                                   |                                 | 3.17       | 2012 | 23.17    | 2012 | 11.9  | 2015 |
|                                   |                                 | 4.2        | 2015 | 17.5     | 2015 |       |      |
| HAI gap with graduation threshold | When recommended for graduation | 11.02      | 2003 | 4.24     | 2003 | 26.41 | 2006 |
|                                   | First review after graduation   | 18.11      | 2006 | 17.94    | 2006 | 26.22 | 2009 |
|                                   | Second review after graduation  | 15.85      | 2009 | 21.53    | 2009 | 26.78 | 2012 |
|                                   |                                 | 20.78      | 2012 | 25.73    | 2012 | 28.4  | 2015 |
|                                   |                                 | 22.6       | 2015 | 25.3     | 2015 |       |      |

Source: Drawn from various CDP reports.

These plans provide the development strategies and programme to be implemented in the short, middle and long term guided by the principles of democracy, development, dignity, and discipline (IST-Africa, 2011). The leadership of national policymakers helped improve trade competitiveness, management and development of the mining sector, monetary management, the fiscal sector, and employment. Botswana avoided the Dutch disease thanks to good exchange rate policies sustaining the trading sectors.<sup>34</sup> The country invested the resources generated by the mineral sector and other economic activities in growth promotion, human development, and infrastructure building. Despite the huge HIV shock, the country seems to have fully outgrown its LDC features.

Cabo Verde graduated from the category in 2007, taking advantage of tourism and capital inflows from various sources. These resources have helped it address some of the impediments in its institutions and infrastructure. The long-term national development strategies promoting economic transformation and poverty reduction since 1990

focused on maximizing the effects of ODA and remittances by means including modernizing public financial and macroeconomic management. These policies coupled with infrastructure development financed essentially by ODA not only increased economic growth and employment, but also encouraged remittances and foreign capital inflows, causing a high debt issue. Moreover, the long-term development vision operationalized through Growth and Poverty Reduction Strategies puts the services sector at the core of the development strategies. The competitiveness of the country's tourist sector due to its integration into the global economy with the accession to the WTO in 1999 led the services sector to be the driver of economic growth and development (70 percent of GDP in 2007). The geographical location at the crossroad of different continents and its large coastline provide Cabo Verde with a natural advantage for fisheries and tourism. This country seems to have moved out of the low-income trap.

Maldives's graduation also stems from the development of its world-class tourism sector and fisheries. Indeed, since the 1980s the country has invested considerably in tourism infrastructure, raising the sector's contribution to more than two thirds of GDP in 2013. The government has also encouraged foreign private sector investment through incentives and strategies. Since 1990, the country has implemented policies leading to the modernization of fishing, the traditional leader of its economy. The success of tourism and fishing have been reinforced by prudent macroeconomic policy and effective investment in social sectors. Maldives seems to have overcome the traditional impediments to growth, reaching income per capita three times the low-income threshold. But it is a country highly vulnerable to climate change.

Diversification of the agricultural sector and tourism promotion are the main policies that let Samoa graduate. Samoa's economy is mainly based on agricultural production (cacao, coconut, banana, fish and crayfish, among others) and processing as well as tourism and remittances. To boost agricultural production, the sector employing most Samoans, the government implemented agricultural diversification strategies by encouraging the combination of production for local consumption and commercial investment in high-value crops. By promoting the Samoan culture and traditions, by constructing infrastructure and by encouraging foreign and domestic investment, the Samoan government helped make tourism important in the country's graduation. But, as with Maldives, it is still vulnerable to climate change.

Is the next step in these countries' development after graduating reaching "industrial economy" status? They have some common features regarding development opportunities, including their small size. All of them successfully invested in human capital and infrastructure, helping to boost the services sector.

But graduated countries have many differences. Even though tourism is a common resource for each, its size in the economy is different for each state. It is the largest part of the economy in Cabo Verde and Maldives, but Botswana is dominated by mining and Samoa by agriculture. But the contribution of manufacturing to GDP remains low



in these graduated countries and diversification of their narrow economies is a challenge. The heavy reliance on tourism of Cabo Verde, Maldives and even Samoa (along with agriculture in this country) exposes them to external shocks. These three countries are thus highly dependent on the economic prospects in developed countries and climatic shocks, and Botswana is dependent on commodity prices, especially diamonds, and the emergence of artificial diamonds.

So, these countries' structural transformation will rely on (or be reinforced by) their capacity to adopt and implement appropriate policies to face exogenous shocks, external or natural, particularly on countercyclical policies, supported by the international community.

*International support for smooth transitions.* There are several ways the international community can help the transition out of the LDC category.

One is to continue preferential practices when such practices exist without any particular rule. This is roughly what has been observed above with ODA, a support easier to continue since graduating countries have been small.

Second, some binary support measures, explicitly for LDCs, could be officially maintained after graduation. A current example is the three-year postponement of the end of Everything but Arms offered by the EU after graduation. Others are postponements in benefits from the UN Capital Development Fund, the Global Environment Facility's Least Developed Countries Fund, and the Enhanced Integrated Framework. This way to maintain some benefits of LDC status could be general (valid for all graduated LDCs, as in the examples given just above) or given on a case by case basis. Postponement should in any case be transitory, or graduation would lose its meaning.

Non-binary support measures, or those that can be applied on a continuous basis, such as ODA allocation, could be applied using the criteria identifying LDCs (income per capita, HAI and EVI) for a consistent way to make the transition smoother (as suggested in Guillaumont 2009 and 2013). This would also permit taking into account the remaining vulnerability of most of the graduated or graduating countries. The General Assembly recommended this approach in its Resolution A/RES/67/221, adopted in December 2012. And it has been implemented by the EU, which, with the support of Ferdi, retained these three criteria among the four used in allocations from the European Development Fund and the Development Cooperation Instrument.<sup>35</sup>

If this principle is extended to take into account the vulnerability to climate change in allocating aid and concessional resources, it will greatly assist the graduation of small islands and other vulnerable LDCs. The countries vulnerable to climate change, either graduated LDCs or not, require appropriate support.



## Conclusion

The LDC category was created to help countries develop more quickly, so that they can leave the category. But the graduation of LDCs has been successively forgotten, feared, and desired. During the first 20 years of the category, from 1971 to 1991, no graduation rules were established. During the following 20 years, countries mainly saw graduating as a risk to be postponed. In 2011 when the 4th UN Conference on LDCs met in Istanbul, graduating half of the LDCs became a goal by 2020, an ambitious, though unreachable target designed in the IPoA.

The LDCs' graduation has been slow and recent. This stems from two main factors besides the countries' own resistance. One has been LDCs' long-lasting growth lag, as shown in chapter 1, which reversed somewhat since the mid-1990s. The other major one has been the strong asymmetry between inclusion and graduation criteria. To avoid any risk of reversibility, precautionary conditions had been set up before the CDP recommended an LDC for graduation. Criteria had to be met not only at one, but at two successive triennial reviews, with margins set up between the inclusion and graduation thresholds of the criteria indicators. Two criteria had to cease to be met, while three complementary criteria were needed for inclusion). Moreover, an additional three-year period was set up after graduation has been decided but before it becomes effective. As a result, in 2018, 31 of the 47 LDCs were no longer meeting the inclusion criteria without being graduated (that is, only 16 of the 47 LDCs still met the inclusion criteria). Moreover, while the goal of the IPoA was that half of the 48 LDCs would meet the graduation criteria in 2020, there will only be less than one-fifth. They will include two countries that are already graduated (Equatorial Guinea, Samoa), five countries that are set to graduate (Vanuatu in 2020, Angola in 2021, Bhutan in 2023, Solomon Islands and São Tomé and Príncipe in 2024). For two countries (Tuvalu and Kiribati) the recommendation of the committee has not been endorsed by ECOSOC, which has deferred its decision to 2021. To be noted, most countries that have graduated, been recommended for graduation, or are likely to be so, from 2007 to 2020, are SIDS (9 of 14), all still vulnerable countries.

This asymmetry between inclusion and graduation criteria has weakened the category's consistency and calls for changes to the criteria for graduation and inclusion. Several proposals have been presented in this chapter, the simplest relying on identifying LDCs from two instead of three criteria, with the EVI and HAI criteria merged into a structural handicaps index (SHI). It would take each into account, and could be designed so that it would still reflect the interaction between the two kinds of structural handicaps. A structural handicaps index could be used for inclusion and graduation or only for graduation.

The various studies conducted before or after graduation and reviewed in this chapter do not show a significant negative effect of graduation on the few graduated countries. They do not show them being at risk of falling back into the category. The pace of

development that led them to graduation does not appear to slow down, despite significant remaining vulnerability.

Is this a paradox? All the previous chapters of this book tried to show the positive effect that LDC membership has or could have on the development of countries through the special measures they receive. One might expect that exiting the category would have a symmetrically negative impact. But the effect of the special support measures is probably highest when the country is “least” developed, or far from graduation and most needing those measures. And smooth transition strategies have eased the change in status by means such as the continuation of some special measures or access to new sources of finance. The international context, supporting the economic growth of several LDCs close to the income threshold such as Bhutan, has probably also made the transition easier. This can of course change in the future due to exogenous shocks, particularly the price of commodities. And the graduation, by alleviating the LDCs’ structural handicaps (in the case of the few graduated countries, diminishing poverty and human capital improvement), also involves some structural transformation of the economy likely to make its development sustainable.

The limited graduations in the period covered by the IPoA should be an incentive to implement and reinforce the support measures progressively adopted and agreed upon in Istanbul. These measures are not just for potentially graduating countries, but for all LDCs. The major issue is not the effect of graduating from the LDC list, but the effect of being included into the list.

### Appendix A7.1. Some country evolutions with regard to the set of criteria

It is possible to present for each country on a graph its position with respect to the graduation and inclusion thresholds over the last seven triennial reviews.<sup>36</sup> For each country, and each criterion indicator, we transform its value into the relative deviation with respect to the inclusion threshold as follows:

$$RelativeX_{it} = \frac{100 \times (absoluteX_{it} - inclusion_t)}{inclusion_t}$$

where  $RelativeX_{it}$  and  $absoluteX_{it}$  are respectively the relative and absolute value of variable  $X$  (EVI, HAI or per capita GNI country level value, inclusion and graduation thresholds) of LDC  $i$  at time  $t$  (2000, 2003, 2006, 2009, 2012, 2015 or 2018). Here “inclusion” represents the inclusion threshold of the indicator considered. Since an increase in the index is an improvement for HAI and the reverse for EVI, the difference (100-EVI) is instead used for this criterion to help with interpretation.<sup>37</sup> Thus, all inclusion thresholds are represented on a horizontal line at zero on the vertical scale: a country does not fulfil the inclusion criterion if its relative value is below this line. All the graduation thresholds before 2003 are represented by a horizontal line scaled at 15 (since before 2003 the margin between the inclusion and graduation thresholds was 15 percent for all three criteria). From 2003 the horizontal line representing the graduation thresholds of EVI and HAI is 10, and that of per capita GNI is 20 (according to the respective margins of 10 percent and 20 percent applied from this time).

The country meets the graduation criterion if its relative value is above the horizontal line representing the graduation threshold. Similarly, the horizontal line scaled at 140 is the graduation threshold applied with the income-only rule (according to which, countries reaching 2.4 times the per capita GNI inclusion threshold may be considered eligible for graduation). All the per capita GNI above 140 are brought back to 140 to make the graph readable, meaning that above 140, the graph does not indicate actual scores.

The evolution of EVI is affected by the changes in the index definition: an example is given by Bangladesh where for 2012 we can seemingly observe an increase of vulnerability on its graph as well as a decrease of the positive deviation of EVI from the graduation threshold clearly due to the change in the EVI definition (see Box 3).

The detailed country results obtained from this exercise is illustrated here by only three graphs, each representing a pattern of trends towards graduation.<sup>38</sup> Graphs are given here for:

- Bhutan on figure A7.1.1: positive trend of GNI per capita and HAI criteria (similar trends found for Cambodia, Kiribati, Lesotho, Solomon Islands, Tuvalu, Vanuatu and Yemen).
- Benin on figure A7.1.2: positive trend of GNI per capita and EVI.

FIGURE A7.1.1  
**Relative evolution of Bhutan's position on the graduation and inclusion thresholds over the last six triennial reviews**

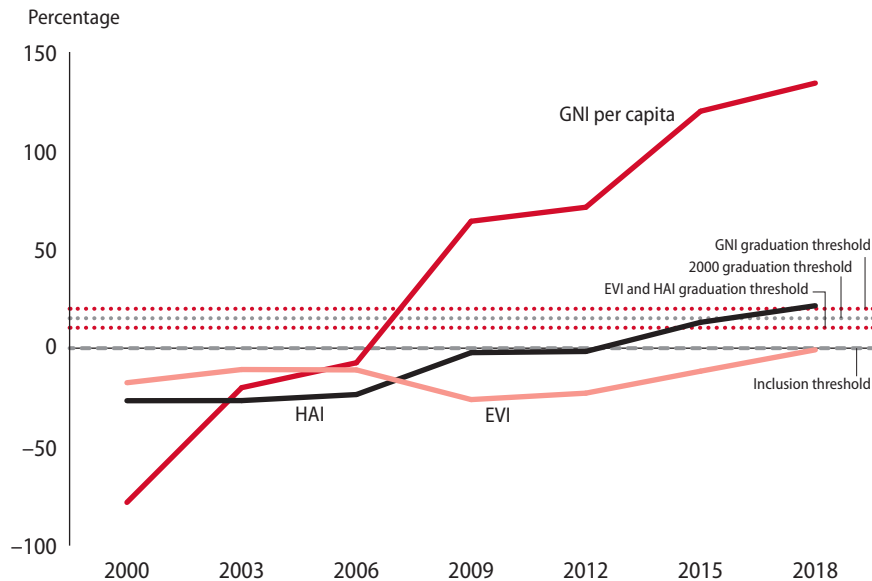
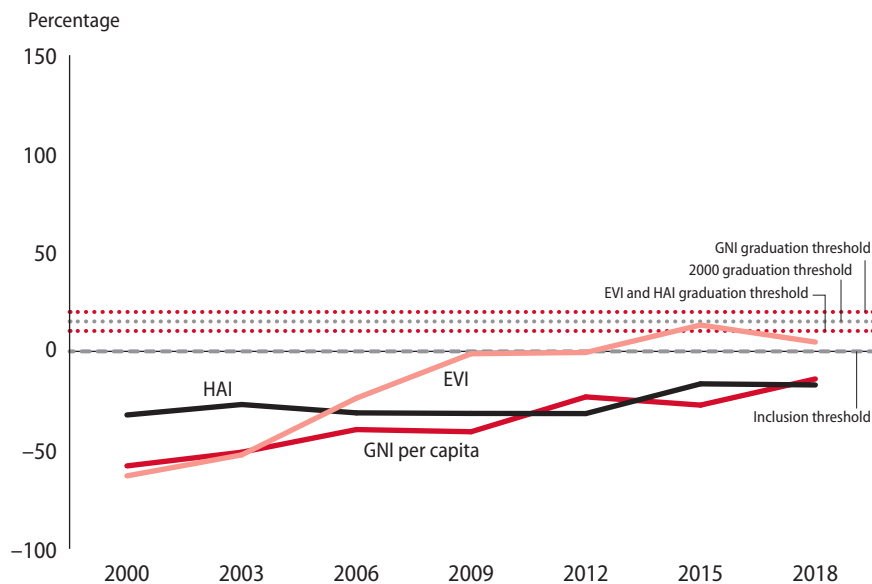


FIGURE A7.1.2  
**Relative evolution of Benin's position on the graduation and inclusion thresholds over the last six triennial reviews**



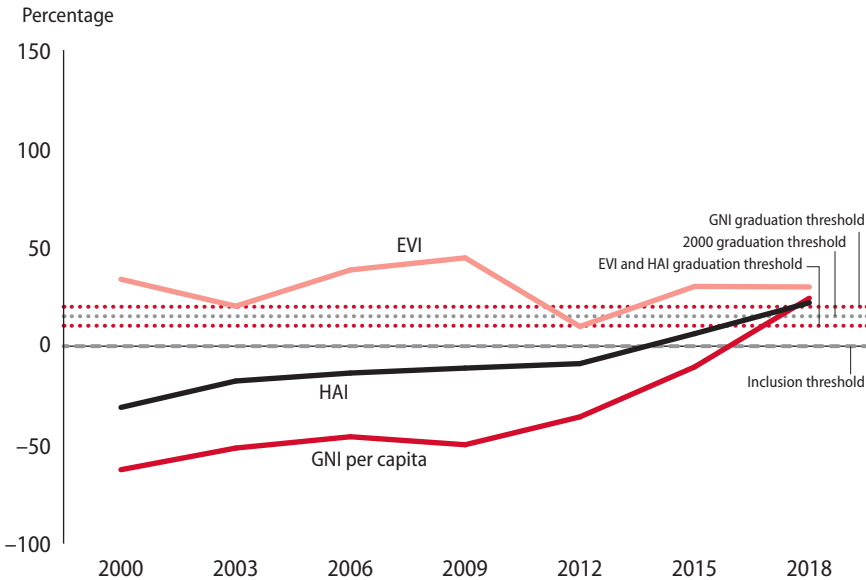
- Bangladesh on graph A7.1.3: positive trend of EVI and HAI criteria (similar trends found for Nepal).

A positive trend for the three criteria is also found for Lao PDR, São Tomé and Príncipe and Senegal.

The shape and interpretation of these trends changed in 2015 with the new design of the threshold values for EVI and HAI, a design meant to make the thresholds no longer relative, but absolute. From 2012 to 2018 the evolution no longer represents a change in the distance to a quartile value (depending on the distribution of the indicator values within a reference group of countries), but in the distance to the value of the quartile in 2012 maintained constant.

These trends' effect on the likelihood to graduate depends on the level already reached. A positive trend gives a relevant indication of this likelihood if the country is already close to the graduation threshold for the criterion considered. It then leads us to come back to the results of the beginning of this section. Few LDCs are both close to two graduation thresholds and showing positive trends towards them, despite the upward move of 2015 due to the change in the design of the thresholds. There are still many LDCs that, even if they are close to one graduation threshold, remain far from the two other ones (particularly countries close to the EVI one and far from the HAI and the income ones).

FIGURE A7.1.3  
**Relative evolution of Bangladesh's position on the graduation and inclusion thresholds over the last six triennial reviews**



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Because GNIpc and HAI are more closely correlated than GNIpc and EVI, the association between the income and HAI criteria has led to most graduation eligibilities. Double graduation criteria have mainly been met by countries benefitting from relatively strong human capital, which has supported their economic growth, exceptions being the three oil exporting LDCs.

## **Appendix A7.2. The issue raised by the reference group and how it could have been addressed**

The LDCs' likelihood of meeting a relative graduation criterion depended on the size of the reference group and on the location of the threshold to identify LDCs. The reference group had traditionally included all LDCs and other LICs, and the threshold for inclusion had traditionally been put at the (better) quartile of the reference group. The more LICs in the reference group which were not LDCs (but had relatively good EVI or HAI indices), the lower the probability that an LDC was in the better quartile.

More and more former non-LDC LICs have become MICs since 2000.<sup>39</sup> So, the reference group had been shrinking (from a maximum of 67 in 2000 to a minimum of 60 in 2009 and 2012), making reaching the graduation threshold easier.<sup>40</sup> If there were no longer non-LDC LICs, the reference group would have become the LDC group itself. Then, with about one quarter not reaching the inclusion threshold, a slightly smaller proportion (due to the margin between inclusion and graduation thresholds), but still significant, would have necessarily reached the graduation threshold whatever the evolution of HAI and EVI for the whole set of countries. With graduation occurring, it would correspond to a renewed set of LDCs, resulting in an endogenous graduation process, whatever the rate of improvement in the indicators on which HAI and EVI rely.<sup>41</sup>

Indeed, it was not logical that, with the reduction in non-LDC LICs, the reference group would be reduced to all LDCs, designed as the poor countries suffering the most from structural handicaps. The category's purpose from its beginning was to differentiate between LDCs and other developing countries. That's why the CDP extended the group's design at the 2012 review, when there were only three non-LDC LICs (Democratic People's Republic of Korea, Kenya and Zimbabwe). The reference group has then included all the LDCs and "all other developing countries whose per capita income in any of the three years used to determine average incomes (2008–10) was less than 20 percent above the low-income threshold determined by the World Bank" (CDP 2012). This extension led to the inclusion of nine additional countries, without which the reference group (according to its previous definition) would have fallen to 51 (instead of 60 in 2009), and made the probability to attain the relative graduation criteria higher.<sup>42</sup>

Retaining in 2015 and in 2018 the same principle as in 2012 for extending the reference group would not have kept the reference group from shrinking.<sup>43</sup> This raises again the question of revising the reference group: it could have occurred by several simple ways, consistent with previous practice and the rationale of the relative criteria of handicaps. For instance by including in the reference group all LDCs and the number of other developing countries, ranked by increasing order of income per capita, needed to reach 60 or 64, the approximate number of the reviews until 2012. Whatever the choice, with the quartile rule applied to a reference group of 60 to 64, Bhutan, Nepal and Solomon Islands would not have met the HAI graduation threshold in 2015 and would not have been eligible.

### **Appendix A7.3. Resistance to graduation from the LDC category over a quarter of century has dampened during the last decade**

Applying graduation rules have been influenced by the resistance of some LDCs fearing the loss of the benefits linked to LDC status. Early after adopting graduation rules, the CDP did not recommend graduation for some countries fulfilling the criteria because of this fear and a lack of a clear assessment of the situation. This was the case for Samoa in 1991, Cabo Verde in 1994 and Myanmar in 1997 for an “artificial” GDP expansion (due to increasing aid flows and real exchange rate appreciation), and Cabo Verde in 2000 because of the high vulnerability.

The CDP recommended that Maldives graduate in 2000, but ECOSOC asked the CDP to re-examine the recommendation at the 2003 review. Maldives had sent letters to the president of ECOSOC in 1999, 2000 and 2001, explaining that human development had been overestimated and vulnerability underestimated. The CDP recommended Vanuatu for graduation in 1997, which ECOSOC endorsed, but the GA did not grant acceptance due to the country’s high vulnerability. Vanuatu had expressed its opposition to the graduation through a letter to the ECOSOC president, asking him to defer the review by the committee of Vanuatu’s status as a least developed country until 2000.

Most countries resisted graduation, as the early part of this chapter indicates. Samoa, Maldives, Equatorial Guinea and Vanuatu had significant lags and postponements between the finding that they were meeting the criteria and the final decision. And the cases of Tuvalu and Kiribati, each in its own way, still show resistance to graduation despite the new IPoA context. The vulnerability profile and the ex-ante assessment were supposed to help guide the choice at the different steps of the graduation decision (CDP, ECOSOC and GA), and possibly reduce graduating LDCs’ complaints.

Adopting and implementing smooth transition resolutions in 2004 and 2012, bringing monitoring after endorsement of the graduation decision, seems to have given LDCs more confidence in exiting from the category. It also amplified the focus of the development community on accelerating graduation.

From 1991 to the mid-2000s, only one country graduated from the category according to the rule prevailing at the time, Botswana in December 1994. After the smooth transition resolutions, graduation accelerated: four countries exited the category: Cabo Verde in 2007, Maldives in 2011, Samoa in 2014, and Equatorial Guinea in 2017.<sup>44</sup> Graduation has been decided for two other LDCs: Vanuatu and Angola.

At the 2012 triennial review Tuvalu and Vanuatu were found eligible for the third consecutive time and only then recommended for graduation by the CDP. ECOSOC has postponed considering the recommendation for Tuvalu three times, in 2012, 2013 and 2015. At the 2015 review, the CDP reiterated that Tuvalu was eligible to graduate, but it no longer recommends it. The 2012 recommendation to graduate Vanuatu was endorsed by ECOSOC but took time to be considered by the General Assembly.



Vanuatu requested a postponement based on climatic circumstances, as was previously obtained by Maldives and Samoa, due to a tsunami.

In December 2013, the General Assembly granted a short year-long postponement called an “additional preparatory period on an exceptional basis” for Equatorial Guinea, which it also gave an additional preparatory period of six months “on an exceptional basis”, without any explicit reason. It then gave Vanuatu permission to graduate at the end of 2017, and Equatorial Guinea permission at mid-2017. But based on the huge damage to Vanuatu from Cyclone Pam in March 2015, the General Assembly adopted in December 2015 a new resolution extending “the preparatory period preceding the graduation” of this country by an additional three years, until 4 December 2020.

At the 2012 review, Angola and Kiribati were also found to meet the eligibility criteria for graduation for the first time, and for a second time at the 2015 review. But only Angola has been recommended for graduation (CDP 2012, 2015), and the GA decided its graduation would be effective in 2021. The CDP finally recommended Kiribati for graduation in 2018, along with a wish to create a category for countries facing extreme vulnerability to climate change.

The ex-ante assessments and monitoring exercises, by bringing regular information and flexibility into the graduation process, may have dampened resistance to graduation and regulated the pace of actual graduation.

Appendix A7.4. Ranking of LDCs, graduated LDCs and reference group according to the Least Development Index

(Quadratic average of 100-HAI, 100-normalised GNI and EVI)

| Country                          | LDI rank | Country                                | LDI rank |
|----------------------------------|----------|--|----------|
| Somalia                          | 1        | Lesotho                                | 34       |
| Central African Republic         | 2        | Timor-Leste                            | 35       |
| Gambia                           | 3        | Zambia                                 | 36       |
| Sierra Leone                     | 4        | Côte D'Ivoire*                         | 37       |
| Chad                             | 5        | Solomon Islands                        | 38       |
| Burundi                          | 6        | Nepal                                  | 39       |
| Liberia                          | 7        | Cambodia                               | 40       |
| South Sudan                      | 8        | Democratic People's Republic of Korea* | 41       |
| Niger                            | 9        | Nigeria*                               | 42       |
| Guinea-Bissau                    | 10       | Djibouti                               | 43       |
| Malawi                           | 11       | Pakistan*                              | 44       |
| Eritrea                          | 12       | Myanmar                                | 45       |
| Democratic Republic of the Congo | 13       | Ghana*                                 | 46       |
| Burkina Faso                     | 14       | Kenya*                                 | 47       |
| Mozambique                       | 15       | Angola                                 | 48       |
| Guinea                           | 16       | Papua New Guinea*                      | 49       |
| Zimbabwe*                        | 17       | Cameroon*                              | 50       |
| Afghanistan                      | 18       | Sao Tome and Principe                  | 51       |
| Mali                             | 19       | Bangladesh                             | 52       |
| Madagascar                       | 20       | Vanuatu                                | 53       |
| Ethiopia                         | 21       | Lao People's Democratic Republic       | 54       |
| Comoros                          | 22       | Tuvalu                                 | 55       |
| Uganda                           | 23       | Bhutan                                 | 56       |
| Rwanda                           | 24       | India*                                 | 57       |
| Haiti                            | 25       | Nicaragua*                             | 58       |
| Mauritania                       | 26       | Viet Nam*                              | 59       |
| Benin                            | 27       | Botswana**                             | 60       |
| Sudan                            | 28       | Maldives**                             | 61       |
| Kiribati                         | 29       | Cabo Verde**                           | 62       |
| Togo                             | 30       | Bolivia (Plurinational State of)*      | 63       |
| Yemen                            | 31       | Samoa**                                | 64       |
| Senegal                          | 32       | Equatorial Guinea**                    | 65       |
| United Republic of Tanzania      | 33       |  |          |

Note: \*\* Graduated LDC, \* Non-LDC.

## Notes

- 1 United Nations General Assembly resolution A/RES/59/209.
- 2 Report of the Committee for Development Policy on the seventh session (14–18 March 2005), Official Records of the Economic and Social Council, 2005, Supplement No. 33 (E/2005/33).
- 3 These three least developed countries had resisted graduation and obtained some postponements (legitimated in the case of Maldives and Samoa by the occurrence of natural disasters through General Assembly resolutions A/RES/60/33 and A/RES/64/295 respectively).
- 4 Not, as it was sometimes said, a goal of reducing LDCs by half.
- 5 They were 49 in 2012, after the inclusion of South Sudan.
- 6 These LDCs are Equatorial Guinea and Samoa (already meeting the criteria in 2011), and Angola, Bhutan, Kiribati, São Tomé and Príncipe, Solomon Islands, Tuvalu, and Vanuatu (all founded twice eligible and recommended for graduation), while two countries found twice eligible have not been recommended.
- 7 Letter of the President of Republic of the Union of Myanmar to H.E. the Secretary-General of the UN, 8 August 2014.
- 8 The number of “discordant” countries, meeting neither inclusion nor graduation criteria, and its evolution are analysed in *Caught in a Trap* (Guillaumont 2009).
- 9 This issue is analysed in more detail for 1991–2009 in Guillaumont (2009).
- 10 But it should be added that nine countries that met the graduation threshold stopped fulfilling the inclusion conditions in the following reviews: Laos in 1994; Afghanistan, Solomon Islands, and São Tomé and Príncipe in 1997; Equatorial Guinea, Eritrea and Liberia in 2000; and Madagascar and Senegal in 2009. Moreover, among countries that stopped fulfilling two inclusion criteria, only Lesotho met inclusion conditions again, showing that the choice of two criteria is more important in helping graduated countries avoid falling back into the category than the margins.
- 11 Without taking into account Myanmar, which the CDP did not recommend for graduation in 1997 despite its having fulfilled the conditions (see table 3).
- 12 See the bottom lines of table 1 for more details.
- 13 Their 2015 HAI level met the 2012 graduation threshold, but would not have with a graduation threshold 10 percent above the quartile value of a constant size reference group.
- 14 It is not relevant here to draw the 45-degree line, to show an increase in the level of GNI<sub>pc</sub>, because the 2000 and 2018 values are in current dollars.
- 15 Also supposing that the growth rate of GNI is similar to that of the gross domestic product (GDP), we first estimate the growth rate of the per capita GDP from 2001 to 2014 by the ordinary least squares method and from data of the online World Development Indicators. Using these growth rates, we then extrapolate the GNI per capita from the latest available GNI per capita.
- 16 Including two countries that should graduate by 2021 at the latest, since it has already been decided by the GA (Angola and Vanuatu); one that already reached this threshold a second time in 2018 (Timor-Leste); one already close to the threshold and recommended for

- graduation based on two criteria (Bhutan); two already reaching this threshold that have been recommended for graduation; and one found eligible for graduation for the first time in 2018 (Myanmar).
- 17 In a previous assessment of graduation prospects we started from 2011 (Drabo and Guillaumont 2014).
  - 18 Guillaumont (2009a), chapter 9.
  - 19 This reform is discussed in Guillaumont (2014).
  - 20 This seems preferable to measure the SHI threshold of 2015 by the average of the EVI and 100-HAI “absolute value” thresholds as designed in the 2012 and 2015 Reviews, with 32 for EVI and 34 for 100-HAI, the simple average of which is 33.
  - 21 Or a reverse geometric average, as done in *Caught in a Trap*.
  - 22 Using the additional rule would make it more feasible for Bangladesh to implement the “atypical approach” suggested by Bhattacharya and Borgatti (2012) to become rapidly eligible by accelerating the improvement of its human capital.
  - 23 Concerned countries are also invited to provide comments on the two documents and can make oral presentation at the expert group meeting prior to the triennial review and provide a written statement. Since 2009, assessment notes have been produced for ten countries: Angola, Bhutan, Tuvalu, Equatorial Guinea, Kiribati, Vanuatu, Nepal, São Tomé and Príncipe, Solomon Islands and Timor-Leste.
  - 24 The incomes of graduating SIDS improved well relative to the graduation threshold, ranging from 163 percent of the threshold in 1997 to 220 percent in 2003 for Maldives; 98.6 percent in 2000 to 161 percent in 2006 for Samoa; 104.6 percent in 1997 to 147 percent in 2003 for Cabo Verde; 120 percent in 2003 to 213 percent in 2012 for Vanuatu; 141 percent in 2006 to 419 percent in 2012 for Tuvalu; and 96.5 percent in 2009 to 163 percent in 2012 for Kiribati.
  - 25 In Cabo Verde, Kiribati, Maldives, Samoa, and Vanuatu, the GNI has generally been smaller than the GDP due to net payments abroad of investment income, but the gap has been decreasing. For Kiribati and Tuvalu the GNI exceeded the GDP.
  - 26 Environmental degradation is not taken into account because of the scarcity of data. Moreover, income inequality is not used as an indicator for the identification and graduation of LDCs because it can be considered a policy variable, and the human capital indicators (APQLI and HAI) indirectly reflect poverty and income distribution situations.
  - 27 Maldives in 1997 curiously reached the Economic Diversification Index (EDI) threshold, which since 2000 has been a good argument to replace the EDI by the EVI.
  - 28 On international trade, their exit from the category was supposed to lead to their loss of competitiveness compared with LDCs and non-LDCs mainly through the loss of preferential market access, loss of the rules of origin, loss of implementation delays regarding the WTO obligations for Maldives due to the limited institutional capacities, and the slow down of accession to the WTO for Cabo Verde and Samoa. For the development financing issue the graduating countries feared reduction in concessional financing due to the interpretation of graduation as a signal of enhanced country capacity. The vulnerability profiles of these

- countries also anticipated disqualification from applying for trade-related technical assistance under the Integrated Framework and the loss of travel coverage for important global events effecting the government budget.
- 29 The main threat evidenced (for some SIDS) was the risk of being flooded due to sea-level rise or devastated by hurricanes.
  - 30 This paragraph relies heavily on the work of the CDP Secretariat, particularly Hiroshi Kawamura, who prepared a note for this book.
  - 31 “For example, whereas the European Union’s “Everything but arms” initiative and the UN financial support for LDCs to the UN General Assembly are easily identified and specific to LDCs, at least some part of ODA given to an LDC by donor countries or multilateral institutions are not solely based on its LDC status, but are not identifiable (many donors send development assistance to LDCs not solely because of their LDC status, but because of donors’ own political, historical or humanitarian reasons)”.
  - 32 Though a longer period of observation is available for Botswana, the same length has been applied to it for the sake of comparison and because the longer the period observed after the graduation the stronger the possible weight of exogenous factors, independent of the graduation (HIV for instance in Botswana). For Samoa only two years have been taken into account after graduation.
  - 33 In Botswana, the debt level went from 17.8 percent of GDP five years before its graduation to 16 percent just before graduation and 11.1 percent five years after graduation. But it went up last year and reach 14.9 percent in 2015, still a very moderate ratio. The Botswana government’s willingness to reduce debt and rely on diamond resources and the “Pula fund” are the main reasons. In Maldives, the debt level increased from 38 percent of GDP five years before graduation to 54 percent three years before graduation and kept decreasing since then, reaching 39 percent just before graduation, 32 percent three years after and 27 percent five years after leaving the category. The Samoa post-graduation situation should be analysed with caution since it just left the LDC group in 2014 and we do not have enough time for assessment.
  - 34 As part of its diamonds revenue, Botswana has established a pooled fund called “the Pula fund”, a sovereign fund that keeps the country floating during difficult times, helps avoid foreign debt, and protects the next generation from indebtedness by sharing revenue with future generations.
  - 35 See the following link: [https://ec.europa.eu/europeaid/sites/devco/files/allocation-methodology\\_en\\_3.pdf](https://ec.europa.eu/europeaid/sites/devco/files/allocation-methodology_en_3.pdf)
  - 36 This exercise is similar to graphs set up at UNCTAD and recently updated (2013, forthcoming), but slightly different since here all the indicator values are presented on the same graph, normalized with respect to the inclusion thresholds...and expressed in the same direction.
  - 37 See footnote 1 above for the definition of HAI and EVI.
  - 38 Others are available on request.
  - 39 More LDCs have also become MICs.
  - 40 After being expanded from the 1991 first triennial review, when there were 58, to 2000. It was 65 in the 2003 and 2006 reviews (Guillaumont, 2009a, p. 54), and 60 in 2009.

- 41 More precisely for the countries in the better quartile of the distribution.
- 42 The quartile rule applied to a reference group of 51 countries would have led Bangladesh to meet the EVI graduation criterion and Solomon Islands to meet the HAI graduation criterion, but not to make them eligible since they would not meet another criterion. In 2015, with the definition of the reference group prevailing until 2009, the group would have become even smaller (50) due to the graduation of Samoa.
- 43 This is because in 2015 six of the nine countries added in 2012 would have crossed the line located 20 percent above the low-income threshold (Ghana, India, Nicaragua, Nigeria, Papua New Guinea, Vietnam), reducing the group to no more than 54 countries.
- 44 The graduation of Equatorial Guinea, recommended by the CDP in March 2009 and agreed by ECOSOC in July 2009 (Resolution 2009/35), has been waiting for the decision by the General Assembly for an unusually long time, being repeatedly considered as imminent. After having been agreed upon at the end of May 2013 (A/67/L.XX, compilation text agreed ad ref, based on A/67/L.31), the adoption of that resolution was postponed to September 2013 at the request of Equatorial Guinea, then adopted on 4 December 2013 (A/RES/68/18).

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## LDCs and global economic governance

### Introduction: LDCs—affected by global governance or influencing it?

It has become common to distinguish three aspects of poverty: lack of income, lack of opportunity and lack of power (World Bank 2000). Combating poverty therefore implies empowerment at both a national and individual level. LDCs, or “Least Developed Countries”, poor in income and handicapped by low human capital, also lack the power to influence international decision-making, particularly in the economic sphere.

Global economic governance can be defined as the set of international decisionmaking processes likely to have repercussions beyond the countries that actually make decisions. Globalisation has increased the interdependence of economies and placed ever-greater constraints on national economic policies. There is no question of establishing a global government with the power to make decisions for the whole planet. But there is a need to organize international cooperation to coordinate national policies and make decisions on collective actions. This view of global governance requires strong political will, since it involves reconciling the often divergent interests of national governments determined to protect their own sovereignty. However difficult the task may be, few governments dispute the necessity for international cooperation, a sentiment only strengthened by the last economic and financial crisis.

Excluding LDCs from global economic governance would be all the more paradoxical since collective decisionmaking has a significant influence on their economies. It does so in two ways—first, through its effects on the global economy, which LDCs depend on, and second, that a number of international decisions concern LDCs directly, particularly true of trade and financial matters.<sup>1</sup>

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Chapter written by Sylviane Guillaumont Jeanneney and Patrick Guillaumont mainly on the basis of information available in 2017.



*Some channels through which global governance indirectly affects LDCs*

In fact, fluctuations in the growth of developed and main emerging economies often have even greater repercussions on LDCs. These repercussions generally relate to variations in the prices of raw materials, which tend to be much more volatile than those of manufactured goods. Because many LDCs still are primarily exporters of raw materials and because their limited size naturally opens them to the outside world, they are particularly exposed to price shocks caused by instability in the global economy.

Instability in the exchange rates of the world's major currencies (dollar, euro, yen, sterling and yuan), which accompanies instability in the global economy and reflects shortcomings in global governance, has a particularly significant impact on LDCs. Given the geographical diversity of foreign trade of many LDCs, the volatility of these major exchange rates causes instability in bilateral exchange rates between LDCs and their trading partners, which they cannot remedy through their own foreign exchange policies. Even if they manage to stabilise their exchange rates against a reference currency, they have to accept that their exchange rates in relation to other currencies will vary uncontrollably. And if they peg their currency to a basket of currencies, they stabilise their exchange rate on average, but then all their exchange rates are unstable. As most economic agents in LDCs do not have the mechanisms to protect them from exchange rate risk which exist in developed and emerging economies (such as hedging), the development of foreign trade is slower. In addition, the instability of exchange rates makes calculating the profitability of activities very unreliable and therefore increases the risk of investment decisions, thus hampering growth (Guillaumont and Jeanneney 2015).

The consequences of the 2008 economic and financial crisis in United States and Europe are a good illustration of the sensitivity of LDCs to the economic situation of industrialised countries (UNCTAD 2010).<sup>2</sup> Considerable emphasis has been placed on the fact that LDCs were less at risk of being affected by the banking crisis because their national financial systems are still relatively closed to the outside world and their financial markets relatively undeveloped. Even so, growth in bank lending has stopped in several LDCs where the banks are subsidiaries of foreign banks. The slowdown in the global economy has affected them primarily through the decrease in their export revenues (by an average of 26 percent between 2008 and 2009), particularly in oil-exporting countries. LDCs whose exports are destined primarily for industrialised countries have been affected more than those engaged in trade within the developing world. Tourism and maritime transport have been the export services most severely affected. The decline in exports has been accompanied by a decrease in direct foreign investments and in transfers of migrant workers to their home country.<sup>3</sup> Moreover this crisis was accompanied, as might have been feared, by considerable instability in exchange rates, in particular the dollar–euro rate.<sup>4</sup>

The strong volatility of major exchange rates is one of the reasons the major powers included reform of the international monetary system on the G20's 2011 agenda. But

it was unfair for LDCs to be seen as having no say in financial regulation and international monetary reform, when the malfunctioning of the financial institutions of industrialised countries and the instability of the world's major currencies cause them great difficulties.

More striking, since the creation of the LDC category in 1971, numerous international decisions in both trade and finance have been taken to support them without LDC governments really having their say. These measures encompass trade preferences, treatment of external debt and conditions of public aid (see the other chapters of this book). No doubt the limited influence of LDCs in global governance has reduced the effectiveness of measures designed to support them and sometimes strengthened external control over their national policies.

### *Why the weight of LDCs in the global governance is weak*

The marginal role of LDCs in international governance is evidently due to the small weight of LDCs in the world economy: they are a subset of 48 countries among the 192 United Nations member states and around 130 developing countries. Although their number has almost doubled from the original 25, their numerical influence in the international community remains modest. In addition, they are generally small or medium-sized countries. Most have small or even very small populations (many are island states): 11 have fewer than one million inhabitants, and 18 fewer than five million. The majority of people in LDCs are concentrated in Bangladesh (156 million), Ethiopia (94), the Democratic Republic of Congo (67), Myanmar (53) and Tanzania (49). In total, LDCs represent 12 percent of the world population.<sup>5</sup>

LDCs, by definition, are countries with low incomes: their per capita income is one criterion for their inclusion. Their low per capita income, combined with their limited populations, means that their share of world income is less than 2 percent of world GDP and 1 percent of world trade.<sup>6</sup> In general LDCs are very open to the outside world, which in part explains their structural vulnerability, another criterion for identifying them. But their (non-oil) exports stayed around 0.3 percent of global exports, evidencing their marginalisation in global trade, a trend that has since reversed in the past 10 years.<sup>7</sup> Finally, their low human capital (the third criterion for identifying them) makes them less likely to act in international bodies. But there are some signs of a stronger LDC influence in global cooperation.

The next sections of this chapter aim at understanding how LDCs tend to be excluded from global governance. We shall see that the mechanisms differ from one international institution to another. First we consider the position of LDCs in the global governance of general or transboundary issues, and whether it is in the United Nations system or in another and more informal context, such as the "Global Economic Forum" in the form of the G5 and its successors. Second we examine the position of LDCs in the global governance on specialized issues, implemented by such bodies

as multilateral financial institutions, the World Trade Organization and the United Nations Convention of Parties (for climate change), and how it differs from one case to another.

### **LDCs and global governance on general issues**

Since LDCs are a UN category, identified and monitored by the UN, the first question is about their role in global governance guided by the UN system. Although limited, that role is not negligible. But it is limited in other global forums.

#### ***Misleading picture of the LDCs' number at the United Nations***

*The LDCs in the United Nations system.* The UN is the organization that recognizes the existence of LDCs; the LDC category is a UN category and the only official one within the group of developing countries. Prepared by the UN Committee for Development Policy (CDP), the decisions for inclusion of a country into the list of LDCs or for a graduation from the list are finally taken by the General Assembly of the United Nations (see chapter 7 and the CDP Handbook; UN 2015).<sup>8</sup>

The United Nations Conference on Trade and Development (UNCTAD), a UN agency, has paid close attention to LDCs from the outset. It has 194 members, including all the LDCs, and more than 33 of them sit on the 155-member Trade and Development Board, the Conference's body. But the three functions of UNCTAD (organizing international forums, producing research on trade and development issues and providing technical assistance to developing countries) do not make it either a decisionmaking or funding organization. UNCTAD was tasked by the UN General Assembly with organizing three conferences on the Least Developed Countries to meet the specific needs of LDCs—in Paris in 1981 and in 1990, with the results incorporated in the “Paris Declaration” and the action plan for the Least Developed Countries for the 1990s, and in Brussels in 2001. The Secretariat of UNCTAD is still very active in providing technical assistance to LDCs and publishes a report on LDCs every year.

Following the Brussels Conference the UN General Assembly set up the Office of the High Level Representative for the Least Developed Countries, Landlocked Developing Countries and Small Islands States (UN-OHRLLS). Its mandate is monitoring UN activities directed towards LDCs, having a role of advocacy for the LDCs and preparing important meetings related to LDCs (as well SIDS and LLDCs). OHRLLS was in charge of organizing the Fourth UN conference on LDCs in Istanbul in 2011. This Conference adopted the Programme of Action for the Least Developed Countries for the Decade 2011–20—the so-called Istanbul Programme of Action (IPoA). OHRLLS also had to prepare the Mid-term Review of the IPoA and is giving support to the UN Secretary-General for the yearly report of the General Assembly on the implementation of this Programme (see, for instance, UN 2015d).

Among other UN institutions, only few are exclusively devoted to the LDCs, such as the United Nations Capital Development Fund (UNCDF) or the LDC Fund for climate set up within the Global Environment Fund, but most of them pay special attention to the LDCs, as is apparent in the report on the implementation of the IPoA (UN 2015d). But as seen in chapter 4 the amount of resources transferred to the LDCs through the UN system is more limited than other sources of support, either bilateral or even multilateral. (The specific role of ECOSOC for LDCs is examined later.)

*Resumed recognition of LDCs needs in the Sustainable Development Agenda.* Since the beginning of the preparation of the post-2015 development agenda, to follow the (2000–15) agenda of the Millennium Development Goals (MDGs), and to go to 2030, it became clear that this agenda will differ somewhat from the previous one: it is “universal” (not limited to developing countries) and it covers a broader set of goals, including more environmental ones. Stressing the universality of the agenda might be interpreted as not recognizing that some groups of countries, in particular the LDCs, should deserve special treatment. But it soon became apparent that paying special attention to the LDCs was fully consistent with the universality principle, as in the rationale for the LDC category (Guillaumont 2013). Since LDCs are poor countries specifically facing structural handicaps to development, it was logical to give them special treatment in the new development goals and related targets.

The evolution of references to LDCs (often with the additional mention “and vulnerable countries”) in the main documents prepared for the adoption of the Sustainable Development Goals (SDGs) in September 2015 illustrates a reversal of attitudes, or at least a move in ideas. In the seminal report of the High Level Panel on the Post-2015 Development Agenda (UN 2013a), there is only one reference to LDCs, the same as in the Report of the Sustainable Development Solutions Network (UN 2014a). The report of the UN Secretary-General on the development agenda beyond 2015 (UN 2013b) refers five times to LDCs. One year later the report of the so-called Open Working Group (OWG) refers to them 26 times (UN 2014b). This number goes up to 37 in the Declaration of the 4th UN Conference on Financing Development, the Addis Ababa Agenda for Action (AAAA) (UN 2015a). Finally, it appears 14 times in the (shorter) Declaration of the UN General Assembly on the SDGs in September 2015 (UN 2015b).

*LDCs voting power in the UN.* Within the United Nations, LDCs are well represented in relation to their demographic and economic importance, because of the one nation, one vote principle.<sup>9</sup> At 48, they have 25 percent of the votes at the United Nations, about twice their share in the world population (12 percent). The important decisions (except those of the Security Council) are taken at the General Assembly on the basis of a two-thirds majority of members present and voting.<sup>10</sup> LDCs as a group cannot therefore constitute a blocking minority.

The main economic body of the United Nations is the Economic and Social Council (ECOSOC), which comprises 54 members elected by the General Assembly, with the breakdown of seats based on the principle of geographical representation. There currently are 9 members from LDCs, 17 percent, significantly less than their representation in the General Assembly.

This simple calculation suggests that even within the United Nations, where the category is actively recognized, the collective weight of LDCs seems limited, as does their ability to influence international decisions—for two reasons.<sup>11</sup>

The first relates to the limited role of the United Nations in world economic affairs, particularly in ECOSOC.<sup>12</sup> According to the Charter of the United Nations, ECOSOC should play a coordination role for the multiple institutions and specialist agencies operating in the economic field. Even though the usefulness of this role has been reaffirmed on many occasions in various international conferences, the influence of ECOSOC remains limited, both within the UN system and outside. Indeed, all the recommendations of the Committee for Development Policy (CDP) related to the LDCs go to the General Assembly through ECOSOC, but all ECOSOC resolutions on the LDCs are submitted to the General Assembly.<sup>13</sup>

Since 2008 ECOSOC has tried to enhance its role in the world debate on development cooperation in all areas by setting up the Development Cooperation Forum (DCF), with a plenary meeting organized every two years (2008, 2010, 2012, 2014, 2016 and so on) and gathering high-level development stakeholders and civil society representatives. This has been a rather good forum for the LDCs, individually and as a group. But in 2011—when after Roma, Paris and Accra, the 4th forum on aid effectiveness led by the OECD met in Busan—the mandate of the aid effectiveness forum was broadened so that it became the “Global Partnership for Comprehensive Development” (GPCT), where aid was only one aspect of the partnership.

The mandate of the GPCT is very close to the DCF mandate. Ironically, the final declaration of this important conference, seven months after the Istanbul 4th UN conference on LDCs and the adoption of the IPoA, makes no mention of the LDCs (Guillemont 2011). The 2nd meeting of the Global Partnership for Effective Development Co-operation in Mexico in April 2014, under the leadership of the OECD joined by the UNDP, had no more special focus on LDCs and refers to them only twice (GPCT 2014). Indeed the Development Forum of ECOSOC pays more specific attention to LDCs in its biannual plenary meetings and intermediary meetings.

The second reason is the difficulty LDCs face in defending their own identity or specific needs within a heterogeneous category of developing countries. Historically the first group of developing countries created alongside groups of industrialised countries was the Group of 77, created in 1964 following the session of UNCTAD held in Geneva.<sup>14</sup> Its aim was to promote the common economic interests of its members and build their capacity to negotiate within the United Nations system. The composition

of the G77 has gradually been extended but its name has remained the same. The 134 members who now make up the group include all the LDCs except for Tuvalu; LDCs therefore represent 35 percent of the total.

The Group of 24, an offshoot of the Group of 77, was set up in 1971 to coordinate the positions of developing countries on questions relating to the international monetary and financial system. It meets twice a year to discuss the points on the agenda of the Monetary and Financial Committee and the Development Committee, the two consultative bodies of the IMF and World Bank. But it included only two LDCs (now three with Haiti, the Democratic Republic of Congo and Ethiopia), or just 8 percent of the group.

There is a tendency for LDCs to be merged with developing countries. For example, at the United Nations Conference on LDCs in Brussels in May 2001, which brought together all the member states of the United Nations, the LDC group was largely ignored in favour of the Group of 77. The latter, already active in dialogues with the industrialised nations, was to some extent tasked with defending the interests of LDCs, even where these ran counter to those of non-LDC developing countries. The consequence of this uneasy situation was the inclusion in the Declaration, at the end of the conference, of a desire to see a specific structure within the United Nations with responsibility for LDCs, under the authority of a senior representative of the Secretary-General and reporting directly to him.<sup>15</sup> The Istanbul Conference in May 2011 ran into a similar problem: emerging countries refused to be seen as “development partners for LDCs” in the way that industrialised nations are.<sup>16</sup>

### *A conspicuous absence of LDCs from global forums: the G5, G7, G8 and G20*

*From G5 to G8 and the participation of LDCs.* The G5–G7 meetings arose from the inability of official or traditional international cooperation bodies to deal swiftly with major global challenges, such as recurrent economic crises. Originally, in March 1973, Georges Shultz, then Secretary of the Treasury, invited the German, British and French finance ministers to Washington for informal talks on the consequences of the abolition of the gold standard by the United States.<sup>17</sup> The Japanese Finance Minister was then invited to join the G4, which became a ministerial G5.

After the first oil crisis, in 1975, Valéry Giscard d’Estaing, President of the French Republic, (who had taken part in the previous ministerial meetings as Minister of Economy and Finance) decided to arrange a meeting of the heads of state or government of these same countries, plus Italy, in the Château de Rambouillet. His aim was to bring together the main world leaders and their ministers of foreign affairs, without an army of advisers, so that they could get to know each other and discuss matters freely away from the constraints of protocol and provide leadership for collective action.<sup>18</sup> Canada joined the summit in 1976 (the G7) followed by Russia officially in 1998 (the G8), which kept aside and later left the group in 2014 (renamed G7). Since 1978 Europe



has taken part in the meetings represented by the President of the European Commission and by the President of the European Council. Invitations are extended informally to the Secretary-General of the United Nations, the President of the World Bank, the Managing Director of the International Monetary Fund and the Director of the World Trade Organization.

The G8 excluded *de facto* the small countries. It had no permanent secretariat, further confirming its informal nature. The same is now true of the G20. It is the job of the President of the Group, who changes each year by rotation, to determine the agenda and organize more frequent ministerial meetings depending on current events, alongside the meeting of heads of state. The President of the Group is also free to invite countries from outside the G8 (in particular developing countries) to take part in the discussions but outside the official meetings: these are known as “dialogue meetings” or “teatime meetings”, to adopt the expression used for the 2003 summit, held in Evian during the French Presidency. A number of heads of state or government from LDCs have thus been able to take part in these parallel meetings.

Since the Genoa summit in 2001, African heads of state involved in the New Partnership for Africa's Development (NEPAD)<sup>19</sup> have been invited to meet the members of the G8 to discuss the initiative and the support that G8 countries could provide for it. Contact between the G8 and African governments through NEPAD has become a regular occurrence.<sup>20</sup> Half the main management body of NEPAD, the 20-member Heads of State and Government Orientation Committee, are representatives from LDCs.

*No direct access of LDCs to the G20.* The gradual extension of the G8 to other countries in sessions alongside the main meeting of G8 heads of state heralded the creation of the G20.<sup>21</sup> The G20 met for the first time in Berlin in December 1999, following the crisis in Asia in 1997–98. The meeting of heads of state was followed by a series of ministerial meetings. The recent crisis led to the return of summit meetings since 2008, once in 2008, twice in 2009 and 2010, and one time each year until now. The next summit will be in China at Hangzhou. The G20 has not spelled the end of the G8 or G7 which continues to meet each year,<sup>22</sup> though the G20 has taken over some of the G8's prerogatives. Initially, it dealt more specifically with financial problems, but its area of responsibility has broadened to encompass economic questions, to the extent that the G8 now deals more with social problems. Neither group claims to dictate obligatory rules, but they do set out major policy guidelines, some implemented by international institutions (primarily the World Bank and the IMF).

The composition of the G20 reflects its initial financial orientation: over the years, the G8 countries have come to represent a smaller proportion of global income and the currency reserves of the central banks.<sup>23</sup> The major emerging countries have therefore been added to the G8. As a result, the G20 consists of the members of the G8 plus Argentina, Australia, Brazil, China, India, Indonesia, Republic of Korea, Mexico, Saudi

Arabia, South Africa, Turkey and the European Union (represented by the President of the Council of the European Union and the Governor of the European Central Bank). International institutions are also invited to its meetings, namely the International Monetary Fund, the International Monetary and Financial Committee, the World Bank and the Development Committee. The Council on Financial Stability and the OECD also attend meetings of the G20.<sup>24</sup>

The country that holds the presidency can also invite other participants. South Korea, for example, invited three other international organizations (the United Nations, the International Labour Organization and the World Trade Organization), two countries selected because of their systemic importance (Singapore and Spain) and four regional organizations (the Association of South-East Asian Nations, the New Partnership for Africa's Development, the African Union and the Intergovernmental Group of 24 for international monetary questions and development) to contribute to the work of the G20. The LDCs are indirectly represented by the representative of NEPAD but not really by the representative of the group of 24, which includes only two LDCs.<sup>25</sup>

As it could appear on a map,<sup>26</sup> the composition of the G8 and G20, with the G8 based mainly in Europe and North America and the G20 extending into Asia and Latin America. Africa (where most LDCs are located) has been largely neglected apart from South Africa, which is atypical of the continent in its population and development level. The absence of LDCs is all the more problematic in that the G20 often addresses issues extremely important for the future of LDCs. Beyond the recurring theme of financial regulation, examples would be the recommendations of the G20 relating to increases in development aid, debt relief for poor countries, food security and the role of innovative funding mechanisms, efforts to combat excessive volatility in commodity prices, various African development plans, measures to combat infectious diseases (in particular with the Fund to fight HIV/AIDS, malaria and tuberculosis), schemes to promote education in developing countries, reducing the digital divide, efforts to combat the dissemination of weapons and materials of mass destruction, and the fight against terrorism, combating climate change, combating corruption and other actions to support development.

For instance, at the G7 meeting in Elmau, Germany, in June 2015; in Shima, Japan, in 2016; in Taormina, Italy, in 2017; and in La Malbaie, Canada, in 2018, numerous subjects debated directly concern LDCs, such as biodiversity, long-term climate finance, women's entrepreneurship, action to combat antimicrobial resistance or marine litter, climate risk insurance, renewable energy in Africa and broader food security. The same apply to the following G7 meetings.<sup>27</sup> Parallel consultations with governments in LDCs are no substitute for direct participation in summit talks.

### **The LDCs and global governance on major specialized issues**

Global governance also addresses major specialized issues, mostly related to finance, trade and climate, with the participation of LDCs quite heterogeneous.



### *Limited representation for LDCs in Bretton Woods institutions*

For a long time, the entire category of LDCs was ignored in the Bretton Woods institutions, even though many LDCs were the focus of attention through other country groupings. For the World Bank this includes countries eligible for IDA (International Development Association),<sup>28</sup> and for the International Monetary Fund this includes countries eligible for the Poverty Reduction and Growth Trust.<sup>29</sup> In fact, the participation in 1997 of the Bretton Woods institutions—alongside the World Trade Organization (WTO), UNCTAD, the International Trade Centre (ITC) and the United Nations Development Programme (UNDP)—in the “integrated framework for trade-related technical assistance for LDCs” resulted in the category finally being included by name in the activities of these institutions. A further step was taken in this direction when this “framework” was re-examined in April 2000, when the participating institutions decided that the “integration effort would be led and coordinated by the World Bank”.<sup>30</sup>

Given that the Bretton Woods institutions play a dominant role in external funding and technical assistance for LDCs, their decisionmaking power and influence is essential in assessing their participation in global governance.

*Despite the recent revision of IMF quotas the power of LDCs remains low.* In principle, the main IMF decisionmaking body is the Council of Governors, on which all the member states have a seat. Each member state’s voting rights are determined by its quota—that is, the level of its subscription to the capital of the fund. Quotas are revised at least once every five years, with revisions requiring the support of 85 percent of the votes. They are calculated based on a mathematical formula<sup>31</sup> that takes account of gross national income (50 percent), openness to the outside world (receipts and expenditures in relation to the balance of payments) (30 percent), variability of receipts and capital flows (15 percent), and foreign exchange reserves (5 percent). A compression factor of 95 percent is applied to a combination of the four variables in order to reduce the dispersal of quotas and slightly modify the influence of scale in the formula. A fixed proportion of “basic votes”, however, favours smaller countries and therefore LDCs.<sup>32</sup> Even so, the voting system remains largely based on contributions and therefore on the relative economic size of countries.

In November 2010 the Executive Board approved the 14th revision of quotas and recommended its approval by the Board of Governors. This revision became effective on 21 January 2016 as a sufficient numbers of members have accepted it (in percent of voting powers and of quotas). The revision doubles the existing quotas and transfers 6 percent of them to emerging countries, so that Brazil, China, India and Russia are among the 10 largest holders of quotas. The share of poor countries (defined by the IMF as having a per capita income less than \$1135 in 2008<sup>33</sup>) is only maintained, as is the share of LDCs.

The number of LDC votes represents 3.04 percent of the total,<sup>34</sup> obviously lower than the LDC proportion of global population (12 percent) but significantly higher than the share of global GDP (less than 2 percent).

The annual meeting of the Board of Governors is a rather formal occasion, and decisions on the Fund's activities are largely delegated to the Executive Board, which has 24 members. Five are appointed by their governments (France, Germany, Japan, the United Kingdom and the United States) plus *de facto* representatives from China, Russia and Saudi Arabia, with a further 16 elected in regional constituencies by the various countries concerned. As a result, the 48 LDC members of the IMF<sup>35</sup> are represented by eight board members, who, except for the two African members, are responsible for a large majority of non-LDC members; the weight of their votes is similar to that in the Board of Governors.

Alongside these two boards (the Board of Governors and the Executive Board) are two committees. The International Monetary and Financial Committee, responsible for questions relating to the global economy, and the Development Committee, in charge of issues relating to development and the financial resources required for economic growth in developing countries. The function of both committees is to offer advice, the first to the IMF and the second to the IMF and the World Bank.<sup>36</sup> Both committees have 24 members. But the first has no members from LDCs, and the second, which deals with questions which are fundamental to LDCs, has just one representative from an LDC, Uganda.

*A rather similar situation in the World Bank group.* The World Bank group consists of two main institutions, the International Bank for Reconstruction and Development (IBRD), which acts in countries with middle incomes and solvent countries with low incomes, and the International Development Association (IDA), which operates in the poorest countries (77 countries) and is therefore of direct interest to LDCs. The governance of both these institutions is similar to that of the IMF, with a Board of Governors (which includes a representative from each of the member states (188 for the IBRD and 173 for IDA)<sup>37</sup> and a Board of Directors, which currently has 25 members.

LDC representation in the World Bank group poses a broadly similar problem to that of their representation in the IMF. Each of the 188 members has basic votes and plus one vote for each share held in capital,<sup>38</sup> which depends on its quota in the IMF, so LDCs have 3.79 percent of the votes in the IBRD, or slightly more than they have in the International Monetary Fund. Their voting power is, however, higher in IDA, to which all LDCs belong. Members of IDA have 500 votes plus one vote for every \$5,000 of their initial subscription. Additional subscriptions with voting rights attached can be authorised by the Board of Governors. LDC votes thus represent 10.2 percent, slightly less than the proportion of inhabitants of LDCs in the global population. Only two executive directors of 25 are currently from an LDC, along with two alternates.

There is a question mark over the legitimacy of the Bretton Woods institutions in the eyes of developing countries, which see western nations as over-represented. The United States has 16.74 percent of the votes on the Executive Board of the IMF, giving it the ability to veto such major decisions as quota revisions, which have to be passed with an 85 percent majority. France and Germany together have 10.1 percent. The re-balancing following the reform of 2010 is solely to the advantage of the major emerging nations, notably China,<sup>39</sup> following the example of the G20.

*The unequal share of power between creditors and debtors.* Should power within the Bretton Woods institutions be reserved for donors or shared with debtors and funding recipients. While the former provide the institutions with the resources they need, their activities are driven by the latter, and it is to some extent the interests and commissions they pay that finance the management costs of the institutions. The proportion of LDCs that are “clients” of the IMF—58 percent in 2007, 45 percent in 2010 and 53 percent in 2015 (18 LDCs)—is out of proportion with the share of votes of LDCs in the IMF (3.04 percent). Despite the small size of LDCs, which limits the value of received loans, the proportion of total funding for LDCs is also higher. While the proportion of total funding for LDCs was 7.4 percent in 2007, it fell to 5.1 percent in 2010—because of the needs of countries in Eastern Europe and the former Soviet Union as a result of the financial crisis of 2007–08, which affected them particularly severely—and to 4.1 percent in 2015—because of the financial situations in Greece, Pakistan and Ukraine.<sup>40</sup> LDCs account for a higher proportion of IDA funding since it targets countries with low incomes. In 2015 LDCs represented 40 percent of countries with outstanding development credits approved by the IDA and 36.7 percent of its total funding.<sup>41</sup> The proportion for IBRD and IDA projects together is 35.3 percent.

### *Looking for a consensus to support LDCs in the World Trade Organization*

The situation of LDCs in the WTO—which legally is not formally part of the United Nations system but only affiliated to it—is different again. The organization, created in 1994, was the successor to the GATT (General Agreement on Tariffs and Trade), and it is open to all countries that wish to implement a multilateral trade system. Of 162 members, 34 are LDCs and 8 are negotiating their membership (see chapter 5).

*Friendliness of the WTO to LDCs.* Several factors contribute to making the situation of LDCs in the WTO more favourable than in other international institutions.<sup>42</sup>

First, decisions at the WTO are, in principle, adopted by consensus, and all countries take part in the Ministerial Conference, the organization’s highest authority (which meets at least every two years) and the General Council, which between meetings of the Ministerial Conference deals with ongoing matters and serves as a dispute settlement and trade policy examination body. The principle of consensus should allow

every country, and therefore every LDC, to ensure that its interests are taken into account. When it proves impossible to reach a consensus, of course, the WTO has the option of putting the question to a vote. But each member has one vote, the majorities required are three-quarters or two-thirds, and this option is used only for specific areas such as interpreting an agreement, exemptions in favour of a particular country, amendments to multilateral agreements and admissions of new members (WTO 2016).

Second, the LDC category is officially recognized at the WTO. A *Decision on LDCs* was taken at the Marrakesh Conference (1994) at the conclusion of the Uruguay Round, regarding their joining the new WTO and according to which they would “only be required to undertake commitments and concessions to the extent consistent with their individual development, financial and trade needs, or their administrative and institutional capabilities”.<sup>43</sup> Once the WTO had been created (1995) the Ministerial Conference in Singapore (1996) saw the member states adopt a “global integrated plan to support LDCs”, including measures relating to the accession and obligations of LDCs, to access to the market and to capacity building.

The following year (1997) saw the adoption in Geneva of an “integrated framework (IF) for trade-related technical assistance for LDCs”, the “IF” followed in 2005 by the “enhanced integrated framework” (EIF), both examined in chapter 5. This framework is designed to enable six international organizations (the IMF, ITC, WTO, World Bank, UNCTAD and UNDP) to provide LDCs with specific technical assistance to facilitate their involvement in global trade.<sup>44</sup> A Trade and Development Committee, assisted by a subcommittee for the Least Developed Countries, examines the specific needs of developing countries in general and LDCs in particular; its primary role is to implement measures in the agreements to support LDCs and technical cooperation.

The Nairobi Ministerial Declaration of the 10th and last Ministerial Conference in December 2015 recognizes “the contribution of the Enhanced Integrated Framework (EIF) in mainstreaming trade in development policies of LDCs and building their trade capacity and confirms the will to further intensify the efforts to secure the necessary level of financial contributions to the program”. Three issues, of great importance for LDCs, were treated particularly: preferential rules of origin, the effective implementation of preferential treatment in favour of service suppliers for LDCs and the cotton issues.

The influence of LDCs within the WTO, however, is limited by some practical considerations. Trade negotiations are complex, and LDCs do not have access to all the desirable experts.<sup>45</sup> The WTO has therefore introduced a technical cooperation system and a series of training seminars. In addition, decisions by consensus imply long negotiations, which take place in various specialist committees and sometimes informally, in “green rooms”. Maintaining a permanent office in Geneva is expensive, and only some LDCs have one.<sup>46</sup> So, in 1997–98 “the WTO set up reference centres in 40 trade ministries in the capitals of the Least Developed Countries, providing computers and

internet access to enable ministry officials to keep abreast of events in Geneva through online access to the WTO's immense database of official documents and other material" (WTO 2009).

The WTO advocates a multilateral system based on the application of rules, which must be accompanied by means of settling disputes if it is to be effective. Thus, "Dispute settlement is the central pillar of the multilateral trading system, and the WTO's unique contribution to the stability of the global economy".<sup>47</sup> A dispute arises when one country adopts a trade policy measure that one or more WTO members consider to be breaking the WTO agreements. Settling disputes is the responsibility of the Dispute Settlement Body (the General Council in another guise), which consists of all WTO members. It has sole power to establish "special groups", made up of experts examining the case, and to adopt or to reject the conclusions of special groups or the results of any appeals procedures. It also has the power to authorise the adoption of retaliatory measures if a country fails to comply with a decision. The difficulty for LDCs arises at this level. Sanctions consist of authorising the suspension of the application of concessions or other obligations of the offending country. In general, however, such sanctions do not carry enough weight to have anything other than a very limited impact, given that most LDCs have small economies.<sup>48</sup>

*Limitations of LDCs' collective action as shown by the cotton issue.* One solution could be for several LDCs to act together, and this possibility seems to have come to the fore with the actions of the C4 group on cotton, bringing together four countries in the Sahel with a particular interest in cotton trade policy. The case is emblematic of the difficulty LDCs face in enforcing their rights.

LDCs are particularly affected by the agricultural negotiations in the WTO, given the importance of the agricultural sector for their economies. The Agreement on Agriculture was negotiated as part of the Uruguay Round between 1986 and 1994. Originally the intention was to improve access for LDCs to markets in developed countries and reduce the multiple subsidies for agriculture in developed or emerging countries, a source of major distortions of competition. The negotiations began only in 2000 and were included in the general programme of negotiations established at the Ministerial Conference in Doha in 2001. At the time it was predicted that the negotiations would end by January 2005—yet they are still ongoing!

In 2003, given the slow progress of the negotiations, Benin, Burkina Faso, Chad and Mali presented a series of proposals pertaining to cotton, called the "C4 cotton initiative" (WTO 2003).<sup>49</sup> Cotton is the main crop exported by all four countries and provides a living for a significant proportion of the population. Cotton production in Africa fell by half between 2003 and 2009, and half the decline was in countries in the franc zone (Gruere 2009).<sup>50</sup> Since the subsidies for cotton producers in the several exporting countries are particularly damaging, the C4 cotton initiative had two parts.<sup>51</sup>

The first was a reduction of the subsidies granted by developed countries to their cotton producers, to take place over three years until they were eliminated, either in the form of export subsidies or support for domestic production. The second was granting transitional aid to cotton-producing LDCs, corresponding to the capital loss arising from the subsidies. This was valued at a loss to producers of \$250 million a year and, including the indirect effects on other people living from cotton production and exports, a total loss of \$1 billion.

The main outcome was the July 2004 creation of a committee specifically responsible for cotton and tasked with dealing with the issue “ambitiously, expeditiously and specifically within the agriculture negotiations”. LDCs have found it easy to get free access to markets in developed countries for cotton, as well as support for their producers, without this being a significant concession from developed countries. Although exports of cotton are essential for certain LDCs, they are negligible compared with total world exports. Little progress has been made, however, in reducing the subsidies paid by developed countries. Assistance for the development of the cotton sector in LDCs has essentially taken the form of technical cooperation and technology transfers. Evidence of the lack of progress is in the minutes of the meeting of the committee responsible for cotton in October 2010.<sup>52</sup>

The four states of the “Initiative” refer to the Dispute Settlement Body, for two reasons. The first is the complexity of the WTO rules laid down in the 1995 Agreement on Agriculture, which means they can be evaded by a whole series of subtle manoeuvres. For subsidies, the agreement distinguishes between export subsidies, which are seen as the most distorting, and support for production.<sup>53</sup> The Agreement provides for a decline in the budgets allocated to export subsidies and a decline in the volume of subsidised exports. Export subsidies enable agricultural products to be exported at prices lower than those of the domestic market. They are direct export subsidies, subsidies to reduce the costs of marketing exports and transport subsidies for exported goods. Conversely, export credits and credit guarantees, export promotion programmes and food aid are not taken into account.

The regulations on support for production are even more complex. The Agreement on Agriculture distinguishes three types of production support, divided into “boxes” based on the extent to which they are supposed to have a distorting effect on trade. The decision to classify a type of aid in which box is obviously uncertain and subject to dispute.

- The amber box primarily contains price support measures, designed to maintain high prices or act as price regulation mechanisms. These are seen as highly distorting in terms of trade and must be reduced. Equalisation and stabilisation funds are both included in the amber box. The *de minimis* clause, however, allows exceptions to the obligation to reduce support in the amber box. Support is allowed if its value for a given product is less than 10 percent of the total



production of the product or if the value of support which is not specific to a particular product is less than 10 percent of the country's total agricultural production.

- The blue box contains forms of aid that are decoupled from product-related amounts and allocated to producers as part of a programme to limit production.<sup>54</sup> In principle, none of these forms of aid can increase.
- The green box contains types of support that are not supposed to have distorting effects, such as public service programmes (research, training, infrastructure, combating parasites, holding public stocks for food security purposes, domestic food aid and so on), revenue support which is decoupled from production or the use of production factors (for example, insurance mechanisms to cover climatic events and loss of revenues), environmental protection programmes and programmes to help disadvantaged areas. The amounts allocated to aid in the green box can increase.

Referring to the Dispute Settlement Body may be a very long, complicated and expensive process. The history of the dispute between Brazil and the United States over US cotton subsidies provides in this respect a number of valuable lessons. The proceedings lasted seven years, from when Brazil submitted its request for consultation to the WTO (2002) to when it was authorised to implement sanctions against the United States (2009). The United States used every possible means to delay the proceedings, so in the end it required the involvement of two special groups, two appeal bodies and an arbitration procedure before Brazil won.

The second reason for the failure of the C4 is the lack of influence of LDCs on the global economy, which as already noted compromises the effectiveness of appeals by LDCs to the WTO's Dispute Settlement Body. Even in a decision that supports LDCs, retaliatory trade measures by LDCs against the industrialised country found guilty would have little chance of persuading it to change its agricultural policy. While Brazil's gross national product represents 3 percent of world product—50 times that of Benin, Burkina Faso, Chad and Mali together (0.06 percent),<sup>55</sup> its preference, at least in the short term, was to accept financial compensation rather than embark on a trade war with the United States. In 2010 the two countries established a framework for a mutually agreed solution. The United States paid Brazil \$147 million in compensation and limited its cotton subsidies as part of the reform of the "Farm Bill", while Brazil suspended its retaliatory measures. The four African States of the "Initiative" feared reprisals for attacking the United States, such as a reduction of American aid or the risk of not being eligible for AGOA (Diouf 2011).<sup>56</sup>

At their meeting in January 2011 the African, Caribbean and Pacific (ACP) countries<sup>57</sup> stated that the agreement between Brazil and the United States "only serves to reinforce inequality of treatment and prejudice the interests of other producers". Benin and Chad had joined Brazil as third parties. This allowed them to be heard during the

different steps of the process. But only Brazil had the right to negotiate for financial compensation from the United States.

During the last five years the declining trend of cotton production in Sahel countries has fortunately been reversed, with an increase of about 30 percent, the result of high world prices in 2011–12, although transitory, better producer prices, good rainfall, input subsidies and productivity improvements. The failure of negotiations for Sahel countries may have been an incentive to increase productivity in order to avoid production losses, but a quite larger expansion of production with strong effect on poverty reduction would have been possible in Sahel countries if the WTO had applied trade rules in this sector fairly.

The 10th Ministerial Conference in Nairobi on 19 December 2015 recognized that cotton is vitally important for a number of developing economies, particularly LDCs. It also noted that over the past few years cotton has been one of the most contentious issues at the World Trade Organization (WTO), both in the trade negotiations and in the dispute settlement process, due to the lack of progress in the cotton negotiations. The Ministerial Decision on Cotton includes three elements: market access, domestic support and export competition. First, it calls for cotton from LDCs to be given duty-free and quota-free access to the markets of developed countries—and to those of developing countries declaring that they are able to do so—from 1 January 2016. Second, it acknowledges the efforts by some members to reform their domestic cotton policies, but simultaneously indicates that more efforts remain to be made and that transparency must be provided through regular notifications and the subsequent review process in the Committee on Agriculture. Third, it mandates that developed countries prohibit cotton export subsidies immediately and that developing countries do so at a later date. Much is still left to the good will of countries, especially on the recurrent question of support for domestic production and exports.

In short, even if LDCs were to act as a specific group, they would still have limited influence. Nor do LDCs all have the same trade interests, and their feeling of belonging to a group may not be strong enough for them to act as one.

***LDCs “pampered” by climate negotiations, but largely absent from the discussions***

Climate change illustrates the position of LDCs in global governance: while they are greatly affected by climate change, they have little influence over it or international negotiations on the topic.

*The LDCs, greatly affected by climate change, have little influence.* The situation of LDCs in relation to climate change is peculiar. Their low level of development means they have low levels of greenhouse gas emissions and do not feel obliged to reduce them. But given that they are often located in arid or coastal areas, they are at risk of being particularly affected by climate change.<sup>58</sup> They are often said to be highly vulnerable to



climate change, without clear evidence of their specificity in this respect. Indeed, they are highly vulnerable for two reasons. First, their physical exogenous<sup>59</sup> vulnerability, as measured by FERDI's "Physical Vulnerability to Climate Change Index", is higher than in other developing countries. Second, because they are poor, their capacity to cope with the climatic shocks—both before and after—is weaker.

*The Conference of Parties and the LDCs: the finance issue.* International negotiations on combating climate change began with the treaty instituting the "United Nations Framework Convention on Climate Change", adopted in Rio de Janeiro in 1992 at the third Earth Summit, which came into effect in 1994. The "Conference of the Parties" (COP) is the governing body of the Convention. LDCs are parties to the Convention just as all the 195 countries that signed it, and can therefore send representatives to the "Conferences of the Parties". It is clear that they are hardly in a position to exert influence on the negotiations for reducing greenhouse gas emissions. Yet they are also a source of concern for industrialised countries. Since 1995 there have been 21 conferences in different cities, often with some success. For the future of LDCs, three conferences have been especially important: Marrakesh, Cancún and Paris.

The concern of members of the Convention on Climate Change for the Least Developed Countries was manifested early on by the creation of the "Least Developed Countries Expert Group" (LEG) at the seventh COP in November 2001 in Marrakesh. This body provides analysis and consultancy on adaptation to climate change for LDCs, and its term has been regularly extended, as it was again in Cancún for another five years. The group now consists of 12 experts—9 from LDCs and 3 from developed countries. The committee contributes to the "National Adaptation Programmes of Action" (NAPA), which each LDC is entitled to draw up in order to specify which measures are required most urgently to adapt to climate risk. NAPAs are submitted to the Secretariat of the Convention on Climate Change, which allows the LDC to become eligible for financing from the "LDC Fund" managed by the Global Environment Facility. The fund is intended to cover the costs of drawing up NAPAs and more generally to enhance understanding of the vulnerability of LDCs as a result of climate change and the means of tackling it, along with building analytical and management capacity among those in positions of power in LDCs. Nearly all LDCs have elaborated and submitted a NAPA (UN 2016).<sup>60</sup>

After the failure of the COP in Copenhagen, the 16th meeting in Cancún in 2010 got the negotiations back on track and resulted in an agreement on the target of reducing greenhouse gas emissions by 25 to 45 percent by 2050, in order to comply with a maximum rise in the average temperature of the planet of 2 percent. But it was not able to settle a new quantified commitment by countries after the expiration of the Kyoto Protocol in 2012. For LDCs the finance agreement in Cancún was an important aspect of the recognition of the peculiar situation of LDCs. Developed countries "commit[ed]

to provide new and additional resources, including forestry and investments through international institutions, approaching \$30 billion for the period 2010–12, with a balanced allocation between adaptation and mitigation; funding for adaptation will be prioritized for the most vulnerable developing countries, such as the least developed countries, small islands developing States and Africa”.

They also committed to jointly mobilize \$100 billion a year by 2020 to address the needs of developing countries, with the funds coming from a variety of public and private sources. It was decided that a significant share of new multilateral funding for adaptation should flow through a Green Climate Fund targeting long-term needs in developing countries in relation to climate change adaptation, an important issue for LDCs. A “Transitional Committee for the Green Climate Fund” had been set up, comprising representatives from 15 industrialised nations and 25 developing countries. Among the 25 members of the committee from developing countries, 6 were from LDCs.<sup>61</sup>

To some extent these points were defined in the AAAA declaration of the 4th UN Conference on Financing Development, a few months before the COP21. The Declaration, after recalling the commitment of 100 billions of dollars a year for climate finance in developing countries from 2020, and the need for transparency in these matters, acknowledges the implementation of the Green Fund and its decision “to aim for a 50–50 balance between mitigation and adaptation over time on a grant equivalent basis and to aim for a floor of 50 percent of the adaptation allocation for particularly vulnerable countries, including LDCs, SIDS, and African Countries” (UN 2015). But these rules of allocation focused on LDCs (and other vulnerable countries) were limited to the Green Fund, which itself is a small part of the \$100 billion. No formal progress occurred on this side at the COP21, where more importance was attached to the total amount of finance likely to be mobilised for climate than to its allocation.<sup>62</sup>

*The LDCs at the COP21.* The Paris Agreement adopted at the end of the COP21 in Paris on 12 December 2015 has been recognized as historical. It confirms the target of keeping the rise in temperature below 2°C. It even establishes, for the first time, aiming for 1.5°C to protect island states, the most threatened by the rise in sea levels. By 12 December 2015, 186 countries had published their action plan which sets out the way they intend to reduce their greenhouse gas emissions. But the evaluation of these contributions by the UNFCCC (United Nations Framework Convention on Climate Change) had shown that despite the unprecedented mobilisation by states, at this rate global warming would still be between 2.7°C and 3°C, or above the threshold set by scientists. The Paris Agreement therefore asks all countries to review these contributions every five years from 2020; they will not be able to lower their targets and are encouraged to raise them. In addition, emissions should peak as soon as possible, and countries will aim for carbon neutrality in the second half of the century.

One of the main principles of these last climate negotiations is that countries have common but differentiated responsibilities for climate change, depending on their wealth in particular. This is an important point for developing countries, especially LDCs. The agreement obliges industrialised countries to fund climate finance for poor countries and invites developing countries to contribute voluntarily. Again, the agreement acknowledges that \$100 billion (in loans and donations) will need to be raised each year from 2020 to finance projects that enable developing countries to adapt to the impacts of climate change (rise in sea level, droughts, and so on) or reduce greenhouse gas emissions. The agreement schedules an initial meeting in 2025, where further quantified commitments will be made regarding assistance to the poorest countries. For transparency, a stronger system for tracking commitments, which allows developing countries a certain amount of flexibility, has also been set up to keep track of everyone's efforts.<sup>63</sup>

The Paris agreement leaves pending important issues for LDCs—in particular the issue of financing—that have made little progress since Cancún. How will contributors—public and private, multilateral or national—share the obligations of financing? Will the public funds be additional to development aid? This is a crucial point as all development projects cannot produce a double dividend (growth and mitigation or adaptation to climate change), without additional cost. A good example is the aid for education or health, which is still highly important for the development of LDCs handicapped by low human capital. How will funds be divided for mitigation and adaptation to climate change, as LDCs, which are not responsible for climate change, are more worried about adaptation than mitigation? And how will the funds for adaptation be allocated between poor countries, especially LDCs?<sup>64</sup>

## Conclusion

LDCs have benefited from a series of trade and finance initiatives by the international community. The previous chapters have shown that the actual implementation and permanence of these measures—and to some extent their effectiveness—remained below expectations. This contradicts resolutions and commitments agreed on by development partners of LDCs during global conferences and the four UN conferences on LDCs. Part of the explanation may be the lack of representation of LDCs in global governance. No LDCs participate directly in the G7 or G20. The two most important global organizations for LDCs—the IMF and the World Bank—are precisely those where power is linked to contributions. Indeed, the LDCs' situation appears to be more positive at the WTO, but systematic attempts to reach consensus there favour countries able to be represented on a continuous basis, while the treatment of disputes favours those in a position to implement credible retaliatory measures. At the COP21 the issues of financing, essential for LDCs, have been largely put aside so as to not compromise adoption of the Paris Agreement by consensus.

The lack of LDC representation in major international institutions helps explain the mistrust that LDC leaders feel towards them. It is not fair to advocate strengthening democracy in the poorest countries while refusing them the opportunity to participate in the decisions which concern them at a global level. Increasing the involvement of LDCs in the international architecture is, however, a difficult task that does not currently appear to be a priority for the international community. Can LDCs hope to participate in meetings at the G20 summit? Will their participation in the Bretton Woods institutions be decoupled from their quotas and wealth? The extension of global governance to areas such as the environment and social policy should be an opportunity to think about the participation of LDCs.

The legitimacy of their participation and that of the international support measures of course depends on the rationale of the category, and of the identification criteria on which it relies. While several support measures can be designed according to the criteria, making the graduation smoother, the participation to the global governance still needs to refer to the category. This can be managed whatever the speed of decrease in the number of LDCs. Graduations from the list of LDCs are likely to enhance the consistency of the category, and making a better place for LDCs in global governance will also accelerate graduation. It is also conceivable that a better design of the category and its criteria with respect to structural handicaps to sustainable development can help reinforce their rationale and legitimacy.

## Notes

1. Guillaumont and Guillaumont Jeanneney 2002.
2. UNCTAD 2010 (p. 19–24) from which the following statistics are drawn. See also chapter 1.
3. Except Bangladesh and Nepal, which have simply seen a slowdown in the growth of transfers in comparison with previous years.
4. At its highest level (June 2010), the dollar was 1.29 times its lowest value (July 2008). The euro depreciated strongly against the dollar in 2014–15 (20 percent between June 2014 and February 2015).
5. UNCTAD.org/en/Pages/ALCD/Least Developed Countries (LDCs).
6. *Idem*.
7. See chapter 6 in this book.
8. See Guillaumont (2009) on the history of the category and the role of the Committee for Policy Development.
9. Article 18 of the *Charter of the United Nations*.
10. Important issues are questions such as: recommendations on maintaining international peace and security, election of non-permanent members of the Security Council, election of members of the Economic and Social Council, election of members of the Trusteeship Council in accordance with paragraph 1c of Article 86, admission of new members to the UN,

- suspension of members' rights and privileges, exclusion of members, questions relating to the trusteeship scheme and budget issues.
11. It is true that on certain occasions, a very small LDC (such as Vanuatu or the Maldives) may have had significant influence within the United Nations to avoid their graduating from the list. But this was only an action designed to maintain their individual position.
  12. Soret 2010, p. 43–45.
  13. Specialized programmes or funds, such as the United Nations Development Programme (UNDP), UNICEF and specialized agencies such as the International Labour Organization (ILO), the Food and Agriculture Organization (FAO) and UNCTAD have their own decisionmaking bodies.
  14. IMF 2011.
  15. Until then, monitoring of the programme to support LDCs had been carried out by UNCTAD.
  16. Again in Busan at the 4th “High Level Forum on the Aid Effectiveness”, emerging countries, notably China, claimed their membership to the “south countries”. China’s agreement to the final declaration was only obtained thanks to the mention that the role of emerging countries is different from that of developed ones.
  17. According to Valéry Giscard d’Estaing, the ministers, brought together in the library of the White House decided “de se retrouver périodiquement, sans publicité et sans bruit, pour surveiller l’évolution du système international. Ainsi naissait le groupe des ‘bibliothécaires’ qui a survécu depuis sous le nom de groupe des cinq” (Giscard d’Estaing 1988, p.125).
  18. « Nous étions tous les invités d’une partie de campagne. Cela facilitait la simplicité et l’intimité de nos discussions. Je ne sais pas si de telles circonstances pourront se reproduire ailleurs » (Giscard d’Estaing 2006, p. 88). The present meetings of the G8 or G20 are not so private!
  19. NEPAD was adopted by the African Heads of State and Government of the Organisation of African Unity (OAU) in 2001 and ratified by the African Union (AU) in 2002 to resolve Africa’s development problems based on a new paradigm. The main objectives of NEPAD are to reduce poverty, put Africa on the path to sustainable development, end its marginalisation and give women greater autonomy. The NEPAD process tends to be accepted not only by African countries but also by Africa’s development partners as a general framework for development efforts.
  20. The G8 meeting in Deauville in 2011, for example, was preceded by a meeting of members of the G8 with their African counterparts (G5+3)—the five founders of NEPAD plus its President, the President of the Commission of the African Union and the President of NEPAD’s Heads of State and Government Orientation Committee. Three representatives of LDCs took part in this “African” G8, from Senegal as founder, Equatorial Guinea as President of the AU and Ethiopia as President of the NEPAD Orientation Committee. An agreement was reached on the main points to be discussed, namely security and conflicts, investment and the development of the private sector, health and food security in Africa.
  21. The G20 was preceded by the G22, created in November 1997 and comprising finance ministers and the governors of central banks, who came together to discuss the structure of the

- international monetary system. It was made up of the members of the G7 and 15 other developed or developing countries, with no LDCs. The same applied to the G33, which replaced the G22 in 1999, just before the creation of the G20.
22. In 2014 the summit in Sochi (Russia) was suspended, and the following summits were limited to the G7 participants (without Russia).
  23. G20 2008. In 1980 the G7 countries represented 54 percent of global GDP (expressed in purchasing power parity) while the other countries of the future G20 made up 21 percent; in 1996 they represented 46 percent and 30 percent respectively, and in 2006 40 percent and 36 percent (data for Russia are not available for 1980). Similarly in 1991 the G7 countries held 32 percent of currency reserves and the other countries in the G20 14 percent; in 2006 these percentages were 22 percent and 43 percent respectively.
  24. The Monetary and Financial Committee was created by the G20 in 2009; this body follows the “Financial Stability Forum”. It includes all the members of the G20 plus Spain, Switzerland, Singapore and Hong Kong. It aims at identifying the vulnerabilities of the international financial system and at proposing measures to correct them.
  25. See below for the composition of the Group of 24, an offshoot of the Group of 77 representing developing countries.
  26. <https://www.ladocumentationfrancaise.fr/cartes/monde/c001817-pays-membres-du-g8-et-du-g20>.
  27. See the G20 and G8 Information Centre.
  28. Countries whose gross national income (GNI) per head in 2011 was less than \$1,165, except for small island states, to which this limit does not apply.
  29. The Poverty Reduction and Growth Trust has three concessional windows since 2010. The Extended Credit facility provides sustainable engagements over the medium to long term. The Standby Credit Facility provides flexible support to countries with short-term financing needs. And the Rapid Credit Facility provides rapid financial support without conditionality to countries facing urgent financial needs and offers successive drawings for countries in post-conflict or other fragile situations. With the Catastrophe Containment and Relief Trust (2015) the IMF joins international debt relief efforts when poor countries are hit by the most catastrophic of natural disaster or are battling with public health disasters (such as Ebola). In 2015 the IMF decided to increase access to all its concessional facilities by 50 percent in favour of countries that embark on pursuing the new Sustainable Development Goals.
  30. The category of LDC is explicitly mentioned in World Bank (2002).
  31. Revised in 2008; IMF 2008.
  32. They tripled in 2008.
  33. The figure is multiplied by three for small countries.
  34. IMF 2016.
  35. Three LDCs did not take part in the appointment of board members in 2010 (Guinea, Madagascar and Somalia).
  36. IMF 2011.

37. Countries must be a member of the IMF to have a stake in the capital of the IBRD—and be a member of the IBRD to take part in the IDA. Each Governor and Alternate Governor of the Bank appointed by a member of the Bank, which is also a member of the Association, shall *ex officio* be a Governor and Alternate Governor, respectively, of the Association. The Executive Directors of the Association shall be composed *ex officio* of each Executive Director of the Bank who shall have been appointed by a member of the Bank, which is also a member of the Association, or elected in an election in which the votes of at least one member of the Bank which is also a member of the Association shall have counted towards his election.
38. Each member receives votes consisting of share votes (one vote for each share of the Bank's capital stock held by the member) plus basic votes (calculated so that the sum of all basic votes is equal to 5.55 percent of the sum of basic votes and share votes for all 662 members).
39. China now has 2.74 percent of the total votes, Russia 1.72, India 1.70 and Brazil 1.2.
40. In the form of purchases and loans. See IMF *Annual Reports* (2007, 2010 and 2016), Appendix Table II4 "Purchases and loans from the IMF".
41. World Bank *Annual Report* (2015), Financial data table: "Development credits outstanding", 30 June 2015.
42. See chapter 5 of this book.
43. *Agreement establishing the World Trade Organisation* Article XI 2.
44. For an overview of the "integrated framework" and actions to support LDCs, see chapter 5 in this book.
45. Srinivasan 2009, p. 104.
46. Further to negotiations aimed at establishing the WTO's office in Geneva, the Swiss government agreed to provide subsidised premises for use as offices by the delegations from the Least Developed Countries. A number of members of the WTO have also provided financial support to ministers from the Least Developed Countries and the civil servants who accompany them to help them participate in the WTO's Ministerial Conferences.
47. WTO 2016.
48. Srinivasan (2009) also emphasises the technical difficulty LDCs encounter in following any complex dispute resolution procedures.
49. See "Poverty Reduction: Sectoral Initiative on Cotton. Joint proposal by Benin, Burkina Faso, Mali and Chad" presented in June 2003 to the Trade Negotiations Committee and in July to the Agriculture Committee, and included on the agenda of the fifth WTO Ministerial Conference in Cancún.
50. The United States had a tendency to ignore its responsibilities in the difficulties of the cotton activity of Sahel countries in the franc zone by adducing an overvaluation of the CFA franc, which is pegged to the euro. Even if this possible overvaluation—which was, in fact, due primarily to the depreciation of the US dollar—was part of the explanation, it did not entirely release the US government from its responsibilities due to subsidy policy.



51. Assistance granted to agricultural producers by developed countries leads not only to a decline in international prices but also to a high level of price instability. Since the prices paid to agricultural producers by industrialised countries do not track international prices, supply is not influenced by fluctuations in world demand, thus leading to increased price instability (Winters 1994).
52. WTO website. Mr Koné, Minister of Trade for Burkina Faso and the representative of the four countries behind the “C4 cotton initiative” asked “How we can allay the concerns of millions of cotton producers and end the financial haemorrhage and its budget repercussions?” In his view, “If no solution is found swiftly through multilateral negotiation, the cotton sector will be doomed to failure. The C4 wants the negotiations to continue and accelerate, so that trade-distorting subsidies are reduced and eliminated within a reasonable period of time. I call now on developed countries which offer trade-distorting subsidies to their producers to eliminate or substantially reduce them and to prioritise the application of WTO rules”.
53. Sustainable Development Network PASA note “National agricultural policies and WTO commitments”, Agricultural Policy and Food Security Working Group.
54. The blue box was, in fact, created by the United States and the European Union to manage the transition between price support and direct support to producers.
55. GDP at market prices (current US dollars) in the 2014 *World Development Indicators*.
56. The African Growth and Opportunity Act (AGOA) was signed into law on 18 May 2000 as Title 1 of The Trade and Development Act of 2000. AGOA provides reforming African countries with the most liberal access to the US market available to any country or region with which the United States does not have a free trade agreement.
57. Agritrade 2011.
58. Guillaumont and Simonet (2014) and Guillaumont (2015); these papers use a “physical vulnerability to climate change index” (PVCCI) set up at FERDI.
59. The PVCCI covers both the progressive shocks resulting from climate change (such as sea level rise) and the intensification of recurrent shocks in rainfall, temperature and storms, and takes into account the exposure or initial position of the countries with respect to these shocks.
60. There are 50 NAPAs, including those of two countries now graduated.
61. Another decision from the Cancún meeting was the REDD+ mechanism (based on the Copenhagen agreement) which added a forest management aspect to the REDD “Reducing emissions from deforestation and forest degradation” programme. The UN-REDD programme supports 64 partner countries, 26 of them LDCs (18 in Africa and 8 in Asia-Pacific).
62. This is additional to existing development finance, although it is denied by many developed countries, a divergence not clearly addressed.
63. The agreement was opened for signing in New York on 22 April 2016, when 175 parties signed. It can enter into force only once it has been ratified by 55 countries, representing at least 55 percent of emissions.
64. See Guillaumont 2015. See also chapter 3.



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## Evolution of the inclusion and graduation criteria

|                   |                       |   |  |
|-------------------|-----------------------|---|--|
| 2015              |                       | LDCs are low-income countries suffering from the most severe structural impediments to sustainable development.   |  |
| <i>Criteria</i>   |                       | <i>Human asset index</i>  | <i>Economic vulnerability index</i>  |
| <i>Indicators</i> | GNI per capita        | a) Percentage of population undernourished<br>b) Under five mortality rate<br>c) <b>Maternal mortality rate</b><br>d) Gross secondary enrolment ratio<br>e) Adult literacy rate | a) Population<br>b) Remoteness<br>c) Merchandise export concentration<br>d) Share of agriculture, forestry and fisheries in GDP<br>e) Share of population in low elevated coastal zones<br>f) Victims of natural disasters<br>g) Instability of agriculture production<br>h) Instability of exports of goods and services        |
| 2011              |                       | LDCs are low-income countries suffering from the most severe structural impediments to sustainable development.   |  |
| <i>Criteria</i>   |                       | <i>Human asset index</i>  | <i>Economic vulnerability index</i>  |
| <i>Indicators</i> | GNI per capita        | a) Percentage of population undernourished<br>b) Under five mortality rate<br>c) Gross secondary enrolment ratio<br>d) Adult literacy rate                                      | a) Population<br>b) Remoteness<br>c) Merchandise export concentration<br>d) Share of agriculture, forestry and fisheries in GDP<br>e) <b>Share of population in low elevated coastal zones</b><br>f) Victims of natural disasters<br>g) Instability of agriculture production<br>h) Instability of exports of goods and services |
| 2005              |                       | LDCs are low-income countries suffering from low level of human resources and a high degree of economic vulnerability.  |  |
| <i>Criteria</i>   |                       | <i>Human asset index</i>  | <i>Economic vulnerability index</i>  |
| <i>Indicators</i> | GNI per capita        | a) <b>Percentage of population undernourished</b><br>b) Under five mortality rate<br>c) Gross secondary enrolment ratio<br>d) Adult literacy rate                               | a) Population<br>b) <b>Remoteness</b><br>c) Merchandise export concentration<br>d) <b>Share of agriculture, forestry and fisheries in GDP</b><br>e) <b>Homelessness due to natural disasters</b><br>f) Instability of agriculture production<br>g) Instability of exports of goods and services                                  |
| 2002              |                       | LDCs are low-income countries suffering from low level of human resources and a high degree of economic vulnerability.  |  |
| <i>Criteria</i>   |                       | <i>Human asset index</i>  | <i>Economic vulnerability index</i>  |
| <i>Indicators</i> | <b>GNI per capita</b> | a) Average calorie intake per capita as a percentage of the requirement<br>b) Under five mortality rate<br>c) Gross secondary enrolment ratio<br>d) Adult literacy rate         | a) Population<br>b) Export concentration<br>c) Share of manufacturing and modern services in GDP<br>d) Instability of agriculture production<br>e) Instability of exports of goods and services  |

|            |                       |  |  |
|------------|-----------------------|--|--|
| 1999       |                       | LDCs are low-income countries suffering from low level of human resources and a high degree of economic vulnerability.   |  |
| Criteria   |                       | Augmented physical quality of life   | Economic vulnerability index   |
| Indicators | GDP per capita        | a) Average calorie intake per capita as percentage of the requirement<br>c) <b>Under five mortality rate</b><br>d) Combined primary and secondary school enrolment ratio<br>e) Adult literacy rate | a) <b>Population</b><br>b) Export concentration<br>c) Share of manufacturing and modern services in GDP<br>d) <b>Instability of agriculture production</b><br>e) <b>Instability of exports of goods and services</b> |
| 1991       |                       | LDCs are low-income countries suffering from long-term handicaps to growth, in particular, low levels of human resource development and/or severe structural weaknesses.                           |  |
| Criteria   |                       | Augmented physical quality of life   | Economic vulnerability index   |
| Indicators | <b>GDP per capita</b> | a) <b>Per capita calorie supply</b><br>b) <b>Life expectancy at birth</b><br>c) <b>Combined primary and secondary school enrolment ratio</b><br>d) Adult literacy rate                             | a) <b>Export concentration</b><br>b) Share of manufacturing and modern services in GDP<br>c) <b>Share of employment in industry</b><br>d) <b>Per capita electricity consumption</b>                                  |
| 1971       |                       | LDCs are countries with very low levels of per capita gross domestic product facing the most severe obstacles to development.  |  |
| Criteria   |                       | Adult literacy rate  | Share of manufacturing in GDP  |
| Indicators | <b>GDP per capita</b> |  |  |

Note: Changes are highlighted in bold.  
Source: CDP and UNDESA (2015).

## Evolution of the programmes of action

| Programme of Action   | SNPA | PPoA | BPoA | IPoA |
|---|------|------|------|------|
| Analysis of the situation of the LDCs   | x    | x    | x    | x    |
| Review and assessment of previous programme of action: the objectives and goals not achieved.   |      | x    | x    | x    |
| Objective   |      |      |      |      |
| Achieving sustained development, accelerating economic growth   | x    | x    | x    | x    |
| Improving the socioeconomic situation in LDCs   | x    | x    | x    | x    |
| Make substantial progress toward halving the proportion of people living in extreme poverty and suffering from hunger by 2015                   |      |      | x    | x    |
| Strive to attain a GDP growth rate of at least 7 per cent per annum   |      |      | x    | x    |
| Increase the ratio of investment to GDP to 25 per cent per annum  |      |      | x    | x    |
| Reduce the vulnerability of least developed countries to economic, natural and environmental shocks and disasters                               |      |      |      | x    |
| Enable half the number of least developed countries to meet the criteria for graduation by 2020   |      |      |      | x    |
| Reinforce the productive capacity of LDCs   |      |      |      |      |
| Infrastructure development  | x    | x    | x    | x    |
| Energy promotion  | x    | x    | x    | x    |
| Transfer and development of technology  | x    | x    | x    | x    |
| Technical assistance and cooperation  | x    | x    | x    | x    |
| Development of entrepreneurship   |      | x    | x    | x    |
| Agriculture, food security and rural development  |      |      |      |      |
| Expand food production  | x    | x    | x    | x    |
| Food security   | x    | x    | x    | x    |
| Industrial sector development   |      |      |      |      |
| Mobilization of the complete range of potential available   |      | x    | x    | x    |
| Expansion and transformation of the economic base   | x    | x    | x    | x    |
| Public enterprises should continue to play an important but supportive role through for example the promotion of public and private partnership | x    | x    | x    | x    |
| The development of service sector   |      | x    | x    | x    |
| Development of a sustainable tourism sector   |      |      | x    | x    |
| Trade issue   |      |      |      |      |
| Access to adequate markets by LDCs  | x    | x    | x    | x    |
| Export development and promotion  | x    | x    | x    | x    |
| Facilitation of the accession process of LDCs to WTO  |      |      | x    | x    |
| The diversification of trade  |      | x    | x    | x    |

| Programme of Action  | SNPA | PPoA | BPoA | IPoA |
|--|------|------|------|------|
| Reinforce human resources for social development   |      |      |      |      |
| Education, training, health  | x    | x    | x    | x    |
| Water and sanitation   | x    | x    | x    | x    |
| Social protection  |      |      |      | x    |
| Gender equality and the empowerment of women   | x    | x    | x    | x    |
| Urban and housing development plans  | x    | x    | x    | x    |
| Youth development and social protection  |      |      |      | x    |
| Development should be human-centred and broadly based  |      | x    | x    | x    |
| Multiple crises and other emerging challenges  |      |      |      |      |
| Reduction of the vulnerability   | x    | x    | x    | x    |
| Management of environment and natural resources  | x    | x    | x    | x    |
| Disaster assistance  | x    | x    | x    | x    |
| Reduction of the impact of external economic shocks  |      |      | x    | x    |
| The mobilization of domestic financial resources for development and capacity-building   |      |      |      |      |
| Implementation of adequate policies  |      | x    | x    | x    |
| Stable domestic environment  |      | x    | x    | x    |
| Appropriate legal and administrative institutions in order to promote domestic savings   |      | x    | x    | x    |
| Reduce capital flight and encourage the repatriation of flight capital   |      | x    | x    | x    |
| Substantial increase in official development assistance  |      |      |      |      |
| Increase in official development assistance in real terms to reach 0.15% of the GNP of the partner countries                   | x    | x    | x    | x    |
| Concessional multilateral assistance should be significantly increased   | x    | x    |      |      |
| Concrete measures for external debt alleviation  |      | x    | x    | x    |
| Investment need for structural transformations   | x    | x    | x    | x    |
| Mobilization of remittances in LDCs  |      |      |      | x    |
| Good governance  |      |      |      |      |
| Democracy promotion, and observance of the rule of law   |      | x    | x    | x    |
| Promotion of a comprehensive and integrated information base, including through strengthening of national statistical systems. |      |      | x    | x    |
| The effectiveness of NGOs in promoting participatory development   |      | x    |      |      |
| Special attention should be given to land-locked and island least developed countries.   | x    | x    | x    | x    |
| Arrangements for implementation, follow-up and monitoring and review at national, regional and global level.                   | x    | x    | x    | x    |

x means the presence of the item in the programme.

SNPA: Substantial New Programme of Action for the 1980s. PPoA: Paris Programme of Action.

BPoA: Brussels Programme of Action. IPoA: Istanbul Programme of Action.

Source: Authors' construction.









The Least Developed Countries (LDCs), presently 47, a category of countries created at the United Nations in 1971, are identified as poor countries facing structural handicaps to growth and sustainable development. As such they deserve a special treatment from the international community, progressively implemented both through aid and trade. Every ten years a UN international conference designs a programme of action for these countries, the last one being that of Istanbul in 2011. A previous book *Caught in a trap. Identifying the least developed countries* scrutinized the rationale of the category and the criteria on which it relies. This new book examines the effectiveness of the international measures taken to support the Least Developed Countries. Through the contributions of many experts in the field, it is the first overall assessment of the five decade aid and trade measures to help LDCs to move “out of the trap”. It aims at disentangling the outcome of the international special support and of the structural handicaps faced by LDCs. It enlightens the international policy reforms needed for LDCs in the framework of the post-2015 agenda.

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*“The book is both important and timely, as it could contribute to the discussions on the content and contours of commitments towards the least developed countries for the next decade”.* Fekita Utoikamanu, UN Under Secretary General, High Representative for Least Developed Countries, Landlocked developing Countries and Small States Island States.

*“Poverty is a fact but not a fate in LDCs. The book explores the challenges and measures to help LDCs escape the poverty trap. A must read for development economists and practitioners”.* Justin Yifu Lin, Dean, Institute of South-South Cooperation and Development, Peking University, Former Chief Economist, the World Bank .

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