Aid for Trade

What Have We Learnt?
Which Way Ahead?

edited by
Olivier Cadot and Jaime de Melo

AID FOR TRADE:
WHAT HAVE WE LEARNT? WHICH WAY AHEAD?

Centre for Economic Policy Research

The Centre for Economic Policy Research is a network of over 800 Research Fellows and Affiliates, based primarily in European universities. The Centre coordinates the research activities of its Fellows and Affiliates and communicates the results to the public and private sectors. CEPR is an entrepreneur, developing research initiatives with the producers, consumers and sponsors of research. Established in 1983, CEPR is a European economics research organization with uniquely wide-ranging scope and activities.

The Centre is pluralist and non-partisan, bringing economic research to bear on the analysis of medium- and long-run policy questions. CEPR research may include views on policy, but the Executive Committee of the Centre does not give prior review to its publications, and the Centre takes no institutional policy positions.

Fondation pour les études et recherches sur le développement international

The Fondation pour les études et recherches sur le développement international (FERDI) was created in 2003 at the initiative of CERDI (Centre d'études et de recherches sur le développement international, University of Auvergne and CNRS). Its mission is to promote a fuller understanding of international economic development and the factors that influence it.

With its network of over 150 experts, FERDI supports research activities that use the most directly relevant instruments and methods to study development and seeks to strengthen the potential of the French-speaking world in this area.

FERDI endeavours to promote the contribution of French and European work to the international debate on major development issues, in particular on how Southern and Northern economic policies can best assist development by broadening the capacity for individual choice and by developing equality of opportunity among nations. FERDI wishes to contribute to improving these policies and providing information for companies whose business depends on world markets and their outlook.

Aid for Trade:
What Have We Learnt?
Which Way Ahead?

edited by

Olivier Cadot
University of Lausanne

and

Jaime de Melo
*Fondation pour les études et recherches sur le développement international
(FERDI)*

Acknowledgements

Contents

List of Tables

List of Figures

About the Authors

Paul Brenton is the Trade Practice Leader for the Africa Region of the World Bank. He leads the regions' analytical work and technical assistance on trade and regional integration. Recent volumes from the Africa Trade Practice include *De-Fragmenting Africa: Deepening Regional Integration in Goods and Services, Africa Can Help Feed Africa*, and *Women and Trade in Africa: Realizing the Potential*. Previously he worked in the Trade Department of the Bank where he worked on issues related to trade reform and regional integration with extensive experience in Africa, East and Central Asia, Eastern Europe and the Middle East. Paul joined the Bank in 2002, having been Senior Research Fellow and Head of the Trade Policy Unit at the Centre for European Policy Studies in Brussels. Before that was a lecturer in economics at the University of Birmingham in the UK. He has a PhD in Economics from the University of East Anglia.

Olivier Cadot is a professor of International Economics and director of the Institute of Applied Economics at the University of Lausanne. Prior to taking up his position at Lausanne, he was Associate Professor of Economics at INSEAD. He has held visiting appointments at UCLA, McGill University, New York University, Université d'Auvergne, Koç University, the Paris School of Economics and the Institut d'Etudes Politiques de Paris. He was a Senior Economist in the World Bank's Trade Department between 2009 and 2011 and has advised the French Government, the Swiss Federal Government, the Government of Costa Rica and the European Commission on trade-policy matters. He also worked for the OECD and the International Monetary Fund. He was elected best teacher at HEC Lausanne and was nominated three times for the Outstanding Teacher Award at INSEAD. He has contributed regularly to international executive programs. He is a Research Fellow of the Centre for Economic Policy Research in London, a Senior Fellow and Board member of the FERDI and Associate Scholar at CEPREMAP. He also serves on the editorial board of the *Revue d'Economie du Developpement*. He has published numerous scholarly papers on international trade and economic development. Prof. Cadot holds a Ph.D in Economics from Princeton University and a Masters in Economic History from McGill University.

Jaime de Melo is Scientific director at FERDI. A CEPR fellow, a member of EU-GDN, he is a founding member of the World Trade Institute in Bern. He worked at USAID from 1972 to 1976, taught at Georgetown University from 1976-80 and at the University of Geneva from 1993-2012. From 1980 to 1993, he held various positions in the research Department at the World Bank. He serves on several editorial boards and was editor-in-chief of the *World Bank Economic Review*, 2005-2010. He holds a PhD in economics from The Johns Hopkins Unversity.

Ian Gillson is a Senior Trade Economist in the International Trade Department. Previously he worked in the Africa Region of the World Bank as the Regional Trade Coordinator for Southern Africa (2006-2011) after joining the Bank as a Young Professional working in the Gender and Development Unit (2005). Prior to this he was a Research Fellow at the Overseas Development Institute where he developed work programmes on services trade, tariff preferences and trade in agricultural commodities (2002-2005). He has also worked as an economist on tax policy in the Ministry of Finance in Malawi (2000-2002). His recent policy work focuses on regional integration and non-tariff measures.

Richard Newfarmer works with the International Growth Centre as the Country Director for Rwanda, Uganda, and South Sudan. He is also a Senior Fellow (non-resident) at the World Trade Institute in Bern, Switzerland, a Distinguished Researcher at the North-South Institute (Canada), and Member of Evian Group Brain Trust (Switzerland). Prior to this, he was the World Bank's Special Representative to the United Nations and World Trade Organization, and was previously Economic Advisor in the International Trade Department and in the Prospects Group of the World Bank. Before joining the Bank, Mr. Newfarmer was a Senior Fellow at the Overseas Development Council, and was on the Economics faculty at the University of Notre Dame. He is on the Advisory Board for the Chairs Program of the World Trade Organization. He has also served on the NAFTA Commission for Environmental Cooperation's Advisory Group on Assessing the Environmental Effects of Trade, on the Advisory Board for the Center for Global Development's Project on 'Commitment to Development Index', and on the Board of Directors of the Washington Office on Latin America.

Acronyms and Abbreviations

ADB	Asian Development Bank
AFT	Aid for Trade
AGOA	African Growth & Opportunity Act
AM	Action Matrix
APEC	Asia-Pacific Economic Cooperation
ASYCUDA	Automated SYstem for CUstoms DAta
AVE	ad valorem equivalent
CIF	Cost, insurance and freight
CPAF	Common Performance Assessment Framework
CPIA	World Bank Country Policy and Institutional Assessment
CRS	Creditor Reporting System
DB	Doing Business
DFQF	duty-free and quota-free
DID	difference-in-differences
DIME	World Bank Development Impact Evaluation Initiative
DPAF	Donor Performance Assessment Framework
DTIS	Diagnostic Trade Integration Study
EAC	East African Community
ECA	Europe and Central Asia
ECOWAS	Economic Community of West African States
EIF	Enhanced Integrated Framework for Trade-Related Assistance
EPA	export promotion agency
ESCAP UN	Economic and Social Commission for Asia and the Pacific
FA	factor analysis
FOB	free on board
GATT	General Agreement on Tariffs and Trade
IADB	Inter-American Development Bank
ICTSD	International Centre for Trade and Sustainable Development
IDA	World Bank International Development Association
IE	impact evaluation
IF	Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries
IFAD	International Fund for Agricultural Development
IFC	World Bank International Finance Corporation
IO	industrial organisation
LDCs	least developed countries
LPI	Logistics Performance Index
LSMS	World Bank Living Standards Measurement Study
MDG	Millennium Development Goals
NIU	National Implementation Unit
NTB	non-tariff barrier

NTM	non-tariff measure
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PCA	principal component analysis
PRSP	Poverty Reduction Strategy Paper
PSM	propensity-score matching
QE	quasi experimental
RDD	regression discontinuity design
RBM	results-based management
RCT	randomised control trial
RoO	rules of origin
SC	synthetic control
SPS	Sanitary and phytosanitary
SSA	sub-Saharan Africa
SWG	Sector Working Group
TCBD	OECD-WTO Trade Capacity Building Database
TDSP	Trade Development Support Program
TFA	Trade Facilitation Agreement
TIN	tax identification number
TRAINS	Trade Analysis and Information System
UNCTAD	United Nations Conference on Trade and Development
WBG	World Bank Group
WGI	Worldwide Governance Indicators
WTO	World Trade Organization

Foreword

It has been widely accepted by the development community that trade competitiveness is a necessary ingredient in an economy's development strategy, especially in the least developed countries (LDCs). This has been recognised explicitly in the Istanbul Program of Action (IPoA), which has targeted a doubling of the LDCs' share of world exports by 2020. Now that the most visible policy barriers to trade have been largely dismantled, policies to reduce trade costs are required, as reaching beyond their domestic market and accessing imported inputs is especially important for LDCs, many of which lack competitiveness because of their geographical characteristics (e.g. they may be landlocked, small or remote).

In contrast to the removal of traditional policy barriers that release resources, these pro-active policies that address market failures compete for scarce funds. Improving hard infrastructure to reduce trade costs requires funding and we need to know which efforts are likely to have the highest payoffs. Improving the soft institutional and regulatory infrastructure may require less funding, but it too requires identifying where to direct efforts and resources. Only with an implementable, well-designed strategy will the performance of logistics markets be improved.

The Aid for Trade initiative launched in 2005 was set up to implement this strategy. Most recently, the strong support by the private sector around the world wishing to improve the functioning of logistics markets led to the Trade Facilitation Agreement being signed in Bali in December 2013. Developing countries should be the main beneficiaries of this agreement, not least the LDCs, as effective trade facilitation will cut costs and bring greater certainty to traders, increase customs productivity, improve tax collection and help attract foreign direct investment. Key to realising this 'win-win' outcome is staged implementation over long periods, linked, where necessary, with technical assistance and support for capacity building.

Both the Aid for Trade initiative and the Trade Facilitation Agreement require effective and efficient interventions. Moving ahead, developing countries face a double challenge: taking decisions from better evidence-based advice and how to set up strategies that will help achieve country ownership which is crucial for successful implementation. Boosting developing countries' – and especially LDCs' – competitiveness is one of FERDI's pillars in its mandate to improve the equality of opportunity across nations. This up-to-date volume contributes to this quest by reviewing critically what has been learnt and suggesting steps to help improve the delivery of technical assistance needed to reach these objectives.

Patrick Guillaumont,
President, FERDI
Bort-l'Etang, April 2014

1

Aid for Trade: Looking Ahead[1]

Olivier Cadot and Jaime de Melo

Disillusion with the Uruguay Round promises …

When the Doha Round was launched, the expected benefits from the Uruguay Round had not materialised for developing countries. Access to OECD markets for their agricultural products and textiles had not improved. Neither had developed countries delivered noticeable technical assistance funding to help LDCs with the WTO Agreements they had committed to implement (customs valuation, sanitary and phytosanitary (SPS) measures, or trade-related aspects of intellectual property rights). Funding disbursements under the Integrated Framework (IF), the predecessor to the Enhanced Integrated Framework (EIF), had not reached $10 million by 2007. As an indication of the funding required to meet the WTO agreements, Finger and Schuler (2000) report that Hungary spent $40 million to upgrade the level of sanitation of its slaughterhouses and Mexico spent $30 million to upgrade intellectual property laws.

For LDCs, these WTO Agreements were rules derived from international conventions developed by industrial countries that were well beyond their needs in their current stage of institutional development. As an example, improving customs valuation to comply with the WTO Agreement was 'an inch of the whole yard of problems these countries face' (Finger, 1999, p. 429). Drawing on World Bank project experience, Finger concludes that the WTO Agreements neither correctly diagnosed the problems nor prescribed the appropriate remedies. Finger and Schuler (2000) also estimated that implementing these inappropriate commitments would cost up to a year's budget for eight of the 12 LDCs they examined.

By the time of the Aid for Trade (AFT) initiative's launch around 2005,[2] the outlook of developing countries towards the WTO-based world trading system appeared bleak: no market access in OECD markets (dirty tariffication in agriculture and quota elimination in textiles concentrated in 2005); systematic preference erosion as free trade deals signed by OECD countries were proliferating; and paltry funding for technical assistance. In their eyes, they had engaged in the Uruguay Round against promises of market access in the

---

1   Thanks to Jean-Jacques Hallaert, Bernard Hoekman and Richard Newfarmer for comments.
2   The Hong-Kong Ministerial Declaration was issued in 2005, but the Task Force issued its recommendations in July 2006 and work started at the WTO later in 2006. For convenience, we will keep 2005 as the AFT initiative's start date.

future and of funding for technical assistance, neither of which materialised. Understandably, they entered Doha negotiations with a good dose of skepticism. Even though the round was christened the Doha Development Agenda, developing countries were unconvinced that a 'rules-based' globalisation would be the engine for growth and poverty-reduction that it had been for East Asian economies and, more recently, China.

... LED TO THE AID-FOR-TRADE INITIATIVE AND ITS CHALLENGES

At its launch, the AFT initiative was to help donors scale up aid to meet the Millenium Development Goals and assist the WTO in addressing two challenges plaguing the Doha negotiations: (i) to provide assistance – financial and technical – to help developing countries, particularly LDCs, build the needed supply-side capacity to 'implement and benefit from WTO agreements'; (ii) to raise and disburse rapidly substantial funds needed to gain support for and breathe new life into the stalled Doha negotiations.

Substantial funding meant raising amounts beyond those that could be expected from the EIF. The second challenge was met,[3] but for a variety of reasons negotiators decided to deliver AFT through existing channels rather than creating a new dedicated fund for delivery, the compromise being that AFT would remain part of regular official development assistance (ODA) but that efforts would be made to make it more effective through improved mechanisms for coordination and the establishment of a global AFT monitoring and evaluation framework. While this decision helped maximise resource mobilisation, the choice of existing channels led to confusion in classification: an existing infrastructure project could now be branded as AFT by donors, while recipients reported that they did not receive any AFT (Hallaert, 2013a, p. 659). Thus, from the start of the initiative, the attribution problem that plagues the evaluations discussed in this report (i.e. can the improvement in an outcome – say, more women engaging in trade – be attributed to targeted project financing?) extended even to the definition of what was to be understood as AFT. By the time the decisions about the reporting of AFT flows in the OECD's Credit Reporting System were finalised, 30% of all sector-allocable ODA was potentially attributable to aid for trade. Not surprisingly, from the start, confidence lacked that resources were actually spent on trade-related projects.

---

3   The original IF was launched in 1997, but initial Diagnostic Trade Integration Studies (DTIS) were only launched in 2001. The EIF was supported by 23 donors who pledged $250 million over a five-year period starting in 2007. By contrast, aid-for-trade commitments were $40 million in 2009 alone compared with an average of $25 million over the period 2002-05 (Hein, 2013). However, raising funds beyond levels in the IF fell short of negotiators' ambitions of negotiating additional funds. This was a practical impossibility because (a) countries each decide the allocation of funds; (b) donors would not surrender, could not surrender, development effectiveness criteria; and (c) new funds would have required a new institution since all of the donors and IFIs had rules written into their charters.

PRESSURES FOR ACCOUNTABILITY TURNED EVALUATION INTO A 'BEAUTY CONTEST'…

As to the first challenge – to help build the supply-side capacity needed to 'implement and benefit from WTO agreements' – four global reviews have struggled to show that AFT effectively helped countries build their supply-side capacities. Under the haste to raise funds to support the Doha negotiations, little effort was spent on coordination and on how to conduct evaluations. With funding becoming scarce as the financial crisis unravelled, showing results became more important. The focus of evaluation shifted from accountability to outcomes, but progress was slowed by donors using different yardsticks in their monitoring, all based on self-reporting and self-assessment. At their successive biennial reviews, the OECD-WTO task force produced a discussion of approaches and a digest of projects and case stories, all voluntarily supplied, turning the whole evaluation process into a 'beauty contest' where learning was to come from success but not from failure.

… AND TO PROJECTS ON A CHRISTMAS TREE

What did we really learn from these reviews? In his opening remarks at a workshop evaluating AFT that served as the launching pad for this report, having praised the need to focus on outcomes and the willingness to experiment with evaluation methods and, in a period of diminishing resources, the need to take budget decisions based on evidence both 'quantitatively and qualitatively rich', Pascal Lamy took a more holistic tone (Lamy, 2012):

> 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 the national development strategies.

But is this holistic vision sufficient to build the support that AFT needs? We do know that, after controlling for a host of other factors that determine trade, all components of trade costs, however measured, reduce the volume of trade. We also know that 85% of AFT funds go to finance hard infrastructure projects (the most expensive); however, we still do not know whether funds should go to building more roads, to rehabilitating them, or to improving competition in service provision. Or should scarce funds go towards reducing transport costs or towards custom reform? And should funds for customs reform go towards providing incentives for greater integrity or for computerising processes? Answers will have a context-specific component but, as shown in this report, a large variety of methods are now available to complement the current monitoring framework used in the WTO-OECD reviews (OECD, 2013).

Successive biennial reviews broadened the spectrum of outcomes of interest, adding gender empowerment, private-sector development, green growth and

climate change, and finally, at the July 2013 review, 'connecting to value chains' to the agenda. A cynical observer might argue that this 'Christmas tree' approach – reminiscent of the long list of conditions attached to loan disbursement under structural adjustment programmes – increases the chances of success when the latter is measured by implementation rates (Berg, 1991). Unfortunately for evaluation, as the causal chain from projects to outcomes gets longer, this expansion in scope makes it harder to carry out the convincing assessments that will be needed to maintain donor support. As Paul Brenton and Ian Gillson put it succinctly in their contribution to this report, DTISs should deliver an 'Action Matrix that leads to actions' rather than to a host of exhortations, some weakly linked to trade, over which trade ministries have little control and which are bound to be ignored.[4]

THE BALI TRADE FACILITATION AGREEMENT CALLS FOR TECHNICAL ASSISTANCE TO THE LEAST DEVELOPED COUNTRIES

In the end, the AFT reviews turned out to be more about mobilising resources, expanding the agenda, and talking about results than about showing them. Indeed, with negotiations at Doha stalled, resource mobilisation was staying centre-stage, with Lamy emphasising at the second Global Review of AFT in 2009 that '[resource mobilisation]…must remain central' (quoted in Hallaert, 2013a p. 656). By the time the Trade Facilitation Agreement (TFA) was signed in Bali in December 2013, the AFT initiative had increased donors' and developing countries' awareness of the role trade can play in a development strategy, but the donors' own impact evaluations had failed to provide convincing evidence about AFT's effectiveness. The TFA suggests a rather clear road map for where to focus efforts: identify the measures that will contribute most to reducing red tape and increase predictability in customs clearance (fees, formalities, transit).[5]

The relevance of focusing on trade facilitation is clear: it was the centrepiece of the Bali package and the only item on the Doha agenda that had all-round business support, which is undoubtedly a reflection of the shift towards a low trade-cost environment brought about by the success of GATT rounds and the fall in communication costs. Vertical integration is losing traction as firms diversify their sourcing and organise their production globally, and business support for trade liberalisation is waning as firms can 'work around' the remaining obstacles. What matters for firms is lowering practical obstacles to moving goods, services, capital, people and know-how. In this networked environment, the price wedge created by a tariff is less important: participating in a value chain requires firms to find ways to add value by innovating with other links in the chain. In short, 21st century trade policy is essentially about improving the 'programmability' of the environment in which cross-border supply chains operate, i.e. the simplification

---

4   According to the EIF, the 'Action Matrix' should present 'the prioritised strategic objectives and key actions that will be needed to address the main constraints to trade'.

5   For a description of the obstacles to be removed along the global value chain, see World Economic Forum (2013).

of trade procedures and increased predictability in customs regulations to reduce trade costs (which are still high even among longstanding free-trading high-income countries).[6]

LESSONS SO FAR

The achievements of the AFT initiative are at risk: development budgets are under pressure and, given the broad definition of aid for trade, much funding has gone to projects only remotely related to trade. Expanding the scope of AFT helped maintain donor interest, but so far it has failed to show robust results. The alternative suggested by Hallaert and others, and now offered by the Trade Facilitation Agreement, is to streamline the initiative to help deliver more robust evaluation. The contributions in this report lend support to that view and suggest leads on how to go about it.

   In Chapter 2, Olivier Cadot and Jaime de Melo first show that trade deserves to be aided, as the longstanding controversy on trade as an engine of growth is coming to a close, with all recent work pointing to causation running from trade to growth (and thus to job creation and poverty reduction). They then review the evidence on the importance of trade costs and their impact on trade, noting that macro evaluations have found improvements in trade facilitation to be more important than reductions in policy-imposed barriers at the border. There is still much debate, though, on the relative importance of 'hard' versus 'soft' infrastructure, not least because causal links are tenuous, as trade-cost proxies are ad hoc averages of indicators which, more often than not, measure intermediate outcomes rather than project or policy levers.

   Unfortunately, macro studies suffer from a common attribution problem, as they all lack a convincing counterfactual. Cadot and Melo discuss the possibilities for improved evaluation from the growing toolkit of impact evaluation techniques and review studies drawing on experimental and quasi-experimental techniques. Taken together, this 'collection' of studies using different approaches contributes towards building a strong case for incorporating into project design the basic ingredients of impact evaluation (essentially, a baseline survey and a sufficiently large group of individuals left untreated to ensure internal validity – i.e. the ability to establish a causal relation between outcomes and treatment). But not all trade reforms lend themselves to these impact evaluation methods. Problems include incentives (there is an obvious incentive problem when project managers decide on a voluntary basis whether or not to carry out evaluations), funding (impact evaluations represent high fixed costs relative to the typically small scale of AFT projects), and the broader political economy of evaluation.[7] In addition, there will always remain an inescapable trade-off between the internal validity

---

6   Sending a small parcel from Washington, D.C. to Los Angeles (4,000km) costs $5.60, while sending the same parcel 1,500km to Canada costs $19.95 (Horlick, 2013, p.27)

7   The Paris Principles are sometimes invoked to push back on evaluation, the idea being that impact evaluation leading to shifts in priorities on the basis of results and cost-effectiveness would interfere with alignment and country identification of needs.

that can be obtained from carefully designed impact evaluations and the sought-after ability to draw general policy propositions from evaluation results.

So far, the biennial OECD-WTO reviews have been nourished by a large number of case studies, some launched by think tanks. Richard Newfarmer distils this collection in Chapter 3, focusing successively on a large collection (269) of case stories, narratives of projects voluntarily supplied to the OECD-WTO reviews, on country-level case studies carried out by multilaterals and/or think tanks, and finally on the donors' reviews of their own individual aid programmes. Because of the wide definition of aid for trade and the fact that aid for trade enjoys no local counterpart outside the narrow ambit of trade ministries, case study visitors often found that in-country people had no knowledge of aid for trade. At the same time, this wide definition made it difficult for evaluators to draw boundaries around their projects.

Notwithstanding these drawbacks, the large number of narratives does provide insights supporting the importance of adhering to the 'Paris Principles' (ownership, alignment of aid with national priorities, coordination among donors and a focus on results and mutual accountability). An important lesson from six OECD-sponsored case studies focusing on government management systems was their diversity, with only two countries (Rwanda and Colombia) relying on systematic monitoring and evaluation systems. It is hard to escape the conclusion that Rwanda's results-based management system, which includes multiple outcome and policy indicators at various levels of government, has been instrumental in the country's capacity to absorb productively aid flows equivalent to 20% of GDP.

Measures of the mainstreaming of trade in national policy priorities based on word counts in public speeches and documents, for all their shortcomings, also illustrate the rising profile of trade issues in national policy agendas, a concern for past and present director generals of the WTO. At the same time, even if AFT is now on the map, Newfarmer notes that donors and governments have often spawned multiple Action Matrices (see below) with insufficient follow-up by the economic cabinet and by donors working together. The agency formally tasked with trade oversight, namely the trade ministry, does not have supervisory authority over infrastructure and other projects that make up aid for trade. Moreover, governments and donors have often adopted as the main common yardstick of problems and performance across countries the World Bank's Doing Business indicators, but at the country level these are too general and too often fail to incorporate the most binding constraints to a given country's exports. It should be possible to reach a sufficiently flexible common framework across donors and recipients to allow for learning through feedback loops during the evaluation.

The Integrated Framework and its successor, the Enhanced Integrated Framework, is where the push for integrating the LDCs into the WTO-based world trading system started. In chapter 4, Paul Brenton and Ian Gillson review lessons from a decade of Diagnostic Trade Integration Studies (DTISs) and suggest leads to strengthen the process. DTISs are analytical documents prepared

by one of the EIF partners as the executing agency (e.g. the World Bank or UNCTAD) in collaboration with the EIF focal point located in the country's trade ministry. A DTIS typically includes a combination of sector-specific and cross-cutting diagnostics (e.g. trade policy, facilitation, customs, and a limited number of key sector studies) and, most importantly, an Action Matrix (AM). The AM is a catalogue of recommendations together with a tentative schedule, monitoring indicators, and identified national agencies expected to take the lead in their implementation. The DTIS and its AM are discussed and endorsed at a national validation workshop set up by the focal point, after which donors are expected to form a roundtable with the government to implement recommendations and monitor progress. After a first round of DTISs was completed, a round of updates has been initiated and is ongoing.

Brenton and Gillson's detailed assessment suggests that, by and large, DTISs and their updates have delivered high quality analytical input with three main contributions. First, the documents typically take stock of both the constraints that stand in the way of better trade integration and the policy initiatives (or absence thereof) to alleviate those constraints. While many of the constraints are known, no other document provides in-depth analytical assessments of all of them together. Second, the DTISs make trade integration the common thread of a wide set of issues rarely seen from a trade angle, including energy, infrastructure, labour force skills, and so on. Thus, DTISs provide a first step toward the elaboration of the national competitiveness strategies that have been at the heart of successful globalisers' vision. Finally, DTISs have, at least in some cases, visibly contributed to 'mainstreaming trade' in national development strategies; for instance, priorities set out in Zambia's 2005 DTIS AM were later on incorporated in the country's 5th National Development Plan.

However, Brenton and Gillson's critical review also highlights a number of weaknesses. First, the DTIS is often seen as an obligation undertaken to access EIF funds rather than as a guide to policy. Most importantly, it rarely has a strong ownership because it is seen as a trade ministry document even though its important policy recommendations typically span multiple (and more powerful) ministries. Moreover, as Newfarmer notes, DTISs rarely enjoy a singular champion among donors as they each have ongoing projects in one or another of the DTIS policy domains, such as agriculture, private sector development, transport or electric power. EIF focal points were intended to be the internal champions of the DTISs, but are located in typically weak trade ministries. With the sharp reduction of the visible policy barriers to trade that distort incentives, modern trade policy now spans a wide range of issues under the purview of many ministries and agencies (think of non-tariff measures encompassing technical and SPS regulations under the competence of agriculture and health ministries, standards bureaus, industry ministries, and so on), and rarely does the trade ministry have the clout to set up any effective coordination mechanism. All too often in LDCs, it does not even have the skills or the will, raising the issue of how coordination could be improved without creating additional redundant structures.

A second issue, also noted by Newfarmer, has to do with ownership, which DTIS-executing agencies have tried to improve through small-scale initiatives like hiring local consultants as contributors, but with limited success, especially in sub-Saharan Africa where the involvement of local consultants sometimes had more to do with rent-seeking than anything else. Beyond anecdote, there is a trade-off between the objective of shared ownership, which may imply treading lightly on sensitive issues, and that of laying bare all issues, including the sensitive political economy ones that would help understand stumbling blocks to implementation. Counter-examples where the trade-off takes place on more favourable terms include Cambodia, where the process was led by the government.

DTISs have also suffered from a visibility and implementation gap. Donor awareness of DTISs is sometimes limited and AM take-up has not proceeded as energetically as one would have hoped for. In other words, the flip side to Lamy's exhortation to mainstream trade in national development strategies, namely to mainstream it in donor assistance strategies as well, has met limited success. Moreover, implementation remains largely un-monitored and even less evaluated (see supra). DTIS updates now include AM implementation status scorecards, but those scorecards remain crude monitoring instruments as governments sometimes report actions as 'ongoing' when a few emails have been sent. As for real, hard-nosed evaluation, as already discussed, it has so far largely eschewed the process altogether.

Brenton and Gillson also highlight two issues that have reduced the effectiveness of DTISs. One is the issue of scope, as the first generation typically spanned many issues leading to recommendations across a wide range of areas such as energy, infrastructure, or regulatory reform where donor-government dialogue was already ongoing and there was little scope for saying new things. Second-generation DTISs have started addressing the issue, giving way to more streamlined AMs focused on key constraints over which trade ministries have leverage. The other is that DTISs have been largely country-level exercises with limited emphasis on regional integration (although updates such as those for Uganda and Malawi gave centre-stage to regional integration issues). Brenton and Gillson recommend timing coordination at the regional level and a stronger emphasis on deep integration issues where large efficiency gains remain untapped (for instance, the 'cost of non-regionalism' was highlighted by the food price spikes of 2008 when countries adopted beggar-thy-neighbour export restrictions that proved highly disruptive for regional markets and aggravated the crisis).

THE WAY AHEAD

In spite of the many shortcomings recounted in the chapters that follow, since the start of the aid-for-trade initiative resources have been mobilised and, as the case studies show, in several countries trade has come to occupy a more important role in national development strategies. However, four biennial OECD-WTO

reviews down the road, little progress in showing results is evident. Here are steps to improve the delivery.

First, while expanding the scope of AFT has helped maintain donor interest, it has complicated assessment and it has failed to show robust results. The alternative, already suggested and now offered by the Trade Facilitation Agreement (TFA), is to streamline the initiative to help deliver more robust evaluation. The TFA offers a new opportunity for the application of the growing toolkit of impact evaluation methods discussed in Chapter 2. For example, among the commitments of the TFA, do prior publication and consultation or advance rulings make a difference? What impact can one expect from implementation of the revised principles of the 1974 Kyoto Convention for simplified formalities for transit?

Second, in sub-Saharan Africa where the returns to successful regional integration are the highest because of the complementarities across countries along many dimensions (resource-rich vs. resource-poor, landlocked vs. coastal, large vs. small), future DTISs should be coordinated at the regional level to help realise the gains from deeper integration to internalise the regional spillovers. In this regard, a new generation of regional-level DTISs that would be designed at the regional level to build the needed coordination across countries should be pushed for.

Third, and perhaps most importantly, since resources are concentrated in low-income countries with limited institutional capabilities, permanent (but implementable) monitoring and evaluation procedures should be put in place without creating additional structures. As shown in Chapter 2, management systems have been successfully implemented in low-income countries. A corollary is that the Action Matrices need to be streamlined both to bring them closer to the purview of the trade ministries and for ease of monitoring. Only with an improved implementation record will private sector participation – needed for ownership – take place.

REFERENCES

Berg, E. (1991), "Comments" on W. McCleary "The Design and Implementation of Conditionality", in V. Thomas, A. Chibber, M. Dailami, and J. de Melo (eds), *Restructuring Economies in Distress: Policy Reform and the World Bank*, Washington, DC: World Bank.

Finger, J.M. (1999), "The WTO's Special Burden on Less Developed Countries", *Cato Journal* 19(3), 425-37.

Finger, J.M. and P. Schuler (2000), "Implementation of the Uruguay Round: The Development Challenge", *The World Economy* 23(4), 511-525.

Hallaert, J.J. (2013a), "The Future of Aid for Trade: Challenges and Options", *World Trade Review* 12(4), pp. 653-68.

Hallaert, J.J. (2013b), "Revamping Aid for Trade for the Post Bali Agenda", in S. Evenett and A. Jara (eds), *Building on Bali: A Work Programme for the WTO*, A VoxEU eBook.

Hein, P. (2013), "The Integrated Framework for Trade-Related assistance to the Least-Developed Countries: A Promising Initiative", FERDI Working Paper #70.

Horlick, G. (2013), "The Post Bali Agenda", in S. Evenett and A. Jara (eds), *Building on Bali: A Work Programme for the WTO*, A VoxEU eBook.

Lamy, P. (2012), Opening Remarks at the FERDI/ITC/WB workshop "Aid for Trade: What Have we Learnt? Which Way Ahead?", available at http://www.wto.org/english/news_e/sppl_e/sppl260_e.htm.

OECD (2013), *Aid for Trade and Development Results: A Management Framework,The Development Dimension,* Paris: OECD.

World Economic Forum (2013), *Enabling Trade: Valuing Growth Opportunities*, Geneva: World Economic Forum.

2

Evaluation in Aid for Trade:
From Case Study Counting to Measuring[1]

OLIVIER CADOT AND JAIME DE MELO

1   INTRODUCTION

At their annual conference in Hong Kong in 2005, WTO trade ministers called
for expansion of Aid for Trade (AFT) to help 'developing countries, particularly
LDCs, to build the supply side capacity and trade-related infrastructure that they
need to implement and benefit from the WTO Agreements and more broadly
to expand trade'. Besides the objective of generating support to help the Doha
negotiations move forward, this expansion of AFT reflected a recognition that
internal constraints –trade-related infrastructure (ports, roads and transport, or
'hard' infrastructure) and trade-related institutions (customs or standard agencies,
policies and regulations or 'soft' infrastructure) – that discourage trade were
becoming more important than those resulting from policy barriers at the border,
which have been drastically reduced by the 'negative agenda' built around the
reduction of the traditional (tariffs and quotas) external barriers.

   In brief, AFT was to reduce trade costs. An OECD-WTO AFT task force was
set up in 2006 to implement this 'positive agenda' to enhance competitiveness.
Multiple goals were adopted, but clear guidelines on how to conduct evaluations
were largely absent.[2] Evaluation has progressed slowly from accountability
(making sure that infrastructure has been built) to outcomes (assessing whether
performance has improved), but with no agreement as to the main yardsticks
to be used to measure outcomes. Progress has also been slowed by donors

2   According to OECD (2011), the AFT agenda has been classified under six categories: (i) trade policy
    and regulation; (ii) trade development; (iii) trade-related infrastructure; (iv) building productive
    capacity; (v) trade-related adjustment; (vi) other trade-related needs. Also according to OECD
    (2011), 80% of donors use the DAC principles for evaluating programmes and projects (see Box 1
    for the five criteria: relevance (suitable), effectiveness (achieves objectives), efficiency (least-cost
    approach), impact, sustainability).

(multilateral, bilateral and NGOs) using different evaluation frameworks, by a lack of information, and by context specificity.

So far, the task force and three biennial reviews have produced a useful discussion of approaches and methods and a digest of a large collection of projects and case stories – many voluntarily supplied – feeding into meta-analyses built around word counting. For example, the meta-evaluation of 162 projects in Ghana and Vietnam (not all with a trade emphasis) revealed that terms relating to trade matters (like 'imports', 'exports' or 'regulatory reform') were rarely mentioned. It also highlighted that project evaluators often lacked the baseline data against which to measure progress. A review of case stories, rich in project details, indicated a lack of quantitative indicators and revealed large gaps in emphasis (only three out of 269 reported on aid for trade adjustment, and few reported on investments in infrastructure even though 80% of AFT in low-income countries is assigned to infrastructure development).[3]

To intervene more effectively, donors and recipients need more rigorous assessments of AFT projects. As shown by the case studies reported in Cadot et al. (2011) and those discussed here, many of the interventions described in these case studies – be they technical assistance, export promotion, or programmes targeted at women entrepreneurs/traders – could be evaluated rigorously, provided that impact evaluation is part of programme design from the outset and that donors and beneficiaries are willing to commit the resources necessary to undertake the work. But impact evaluations, while indispensable in tackling the attribution problem, are resource-intensive and raise doubts when it comes to generalisations to other environments. Data collection across countries that are amenable to cross-country economy-wide (macro) evaluations are therefore a useful complement to the (micro) impact evaluations. When controlling for other intervening factors, the macro studies help detect the regularities across countries. Reviewing the results from these macro studies establishes a few stylised facts. For example, regardless of measures and estimation methods, improvements in trade facilitation have been found to be more important determinants of export performance than policy-imposed barriers at the border.

We now have in hand a large portfolio of macro cross-country estimates of trade costs and their impact on aggregate export performance. With a few exceptions, the missing link is an estimate of AFT on performance (volume of trade, diversification, or growth), in part because the aid flows are not categorised along the categories identified in the AFT objectives and, in any case, have multiple impacts, some of which are hard to measure – a far-reaching regulatory reform may not necessitate large technical assistance.[4] While pointing in the direction that AFT results in more favourable indices of trade costs that are then associated with better trade performance, the results from these macro

---

3   The meta-evaluation was carried out by Delpeuch et al. (2010), and the case stories by Folletti and Newfarmer (2010). These are reported in OECD (2009) and OECD (2011).

4   The WTO Task force listed as objectives: 'increasing trade, diversifying exports, maximizing linkages with the rest of the economy, increasing adjustment capacities, regional integration, and contributing to inclusive growth and poverty reduction' (OECD, 2011, p. 17)

studies do not address the attribution problem because of the lack of a convincing counterfactual. This is where the growing number of impact evaluations is helpful due to their ability to net out confounding influences.

The survey follows this script. As a start, Section 2 revisits the 'trade as an engine of growth' debate, concluding that trade should be aided on the grounds that the evidence shows a positive and causal link between reduction in trade costs and the volume of trade. Section 3 discusses the changing nature of trade costs and trade barriers that are the target of AFT activities. Section 4 reviews the evidence on trade costs from indirect model-based estimates and direct measures of such costs. The relative importance of improvements in 'hard' versus 'soft' infrastructure in aggregate trade costs is discussed in Section 5. Drawing on aggregate data, Section 6 looks for evidence that AFT makes a difference, including in economy-wide studies linking AFT flows to outcome measures. Section 7 describes the circumstances in which impact evaluation methods are appropriate to measure the success of AFT projects. Section 8 discusses results from studies of export promotion agencies and border costs. Section 9 concludes with remarks on the appropriateness of impact evaluation techniques for assessing trade interventions.

2   SHOULD TRADE BE AIDED?

2.1   *Trade as an engine of growth: The evidence*

Whether and to what extent the reduction of trade barriers provides a boost to growth has been the subject of a long controversy. The controversy's main challenge has always been to identify the effects of trade openness in itself on growth, as opposed to those of a host of other country characteristics – including physical characteristics, macroeconomic policy, governance and institutions – likely to affect growth.

The first strand of trade-and-growth studies relied on cross-sections of countries, with all the weaknesses that come with this. In a seminal contribution, Sachs and Warner (1995) devised a binary index of openness to trade (open = 1, closed = 0) aggregating information on tariff and non-tariff barriers, exchange-rate distortions, the existence of export monopolies (prevalent in the 1980s, in particular in Africa), and a general socialist versus market economy label. Growth regressions showed that open economies grew and converged robustly compared to closed ones. Although a host of other studies pointed in the same direction (for a review, see Edwards, 1998), a critical study by Rodriguez and Rodrik (2001) showed that the genuinely trade-related components of Sachs and Warner's index (tariff and non-tariff barriers) contributed none of the cross-country variation in growth performance, which was entirely explained by exchange-rate distortions and the presence of export monopolies (or, equivalently, by Latin America and Africa dummies). Their deconstruction exercise suggested that the message delivered by cross-country econometrics was merely that Latin America and Africa had grown more slowly than the rest, hardly a scoop.

Following the accumulation of data and a general trend in empirical studies, the second strand of trade-and-growth studies relied on panel-data techniques with data organised around 'events' (see the vertical bars in Figure 2.1), which consist of piling up several years of cross-country data and controlling for country heterogeneity via country markers called 'fixed effects'. Carefully identifying the dates of trade liberalisation in each country, Wacziarg and Welch (2008) showed that the evolution of growth rates before versus after liberalisation upheld Sachs and Warner's findings: liberalising countries experienced growth accelerations – albeit modest, of the order of 2% per annum – after liberalisation. Moreover, the growth accelerations were accompanied by a surge in investment, suggesting that the growth acceleration was fuelled not only by total factor productivity (more efficient use of productive inputs) but also by faster accumulation.

Although a significant advance over cross-section studies, Wacziarg and Welch's exercise was still vulnerable to confounding influences as trade liberalisation episodes were typically concomitant with broader reform packages, making it difficult to completely disentangle the effect of trade liberalisation *per se* from that of other, simultaneous policy reforms (exchange rate changes, customs reforms, privatisations and the like).

Figure 2.1 *Growth and investment around the date of trade liberalisation*
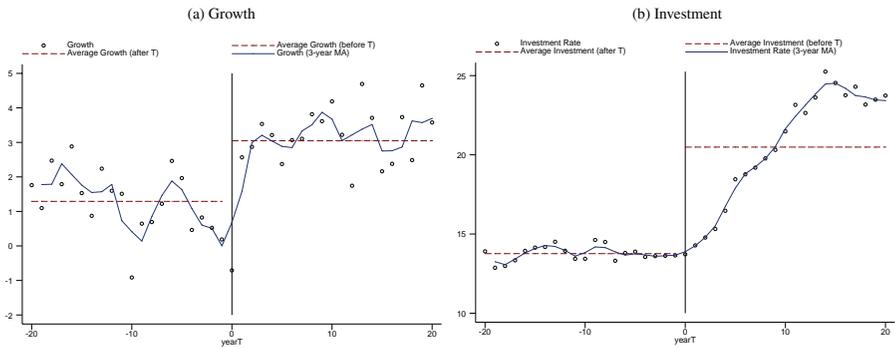
Source: Wacziarg and Welsh (2008).

A third strand of studies resorted to instrumental variable techniques in order to further filter out omitted variable and reverse causality biases. In a widely cited study, Frankel and Romer (1999) showed that when the geographical determinants of trade typically used in gravity equations were used as instrumental variables to trade (geography being the one exogenous factor in the whole growth-trade nexus), trade correlated with income levels (i.e. with accumulated growth). Frankel and Romer's results were later shown not to be robust to the inclusion of latitude and institution quality variables in the second-stage equation – the one 'explaining' growth by trade.

The basic identification problem that was left unsolved by Frankel and Romer's approach was that instruments given by geography were static and therefore 'confoundable' with many other country characteristics. Feyrer (2009a)

proposed an original solution to that problem: using the fact that transport costs have gone down more rapidly for air than sea transport over the last half-century, he reasoned that country pairs with long sea routes compared to great circle (air) routes would be more affected by the cost reduction. Thus, he used the interaction of technology, varying over time but common to all countries, with geographical position, which was time-invariant but varying across countries, to obtain an instrument that would vary both over time and across countries. Based on this identification strategy, he estimated that 17% of the variation of income growth across countries between 1960 and 1995 was attributable to technology-induced (exogenous) trade expansion, with an elasticity of income growth to trade growth of about 0.7. In a follow-up paper (Feyrer 2009b), he used the surprise closure of the Suez Canal after the 1967 Six Day War as a natural experiment, allowing him to filter out all confounding influences other than trade in goods – the relevant magnitude if one thinks of policy implications in terms of trade infrastructure. In accordance with intuition, the countries for which the canal closing raised sea route distances the most recorded the strongest drops when it closed and recoveries when it re-opened in 1975, with a somewhat lower trade elasticity of income (between 0.15 and 0.25).

Most recently, Estevadeordal and Taylor (2008) applied a treatment effects approach to tariff reductions on capital equipment after the Uruguay Round, instrumenting them with historical events that would make countries more or less willing to liberalise. Again, the hypothesis that trade liberalisation had a small but positive growth effect was upheld.

Thus, by and large it is fair to say that after years of controversy, the presumed linkage between trade liberalisation and growth has withstood the econometric pounding. The effect is small and there is no miracle, but it is there. This has largely vindicated, although *ex post*, the drive to take down the high tariff and non-tariff barriers that many LDCs were imposing until the 1980s. Beyond its obvious policy implications, the 'trade causes growth' finding also implies that any type of trade barrier, whether policy-induced or not, is bound to hamper growth. These and other findings have prompted a wider exploration of the factors that hamper trade, in particular for LDCs, which we discuss in the next section.

In parallel to the trade and growth debate, a voluminous literature has sought to provide estimates of trade adjustment costs. A recent paper (Artuc et al., 2013) provides an interesting update on the issue, using the reaction of intersectoral labour flows to wage differentials to estimate average (economy-wide) labour adjustment costs across countries. The authors then observe – without unduly pushing the argument – correlations between country characteristics and estimated adjustment costs. In general, poor countries have higher adjustment costs than industrial ones, lacking efficient labour market institutions to reduce search-and-matching costs; indeed, adjustment costs correlate with the incidence of poverty, reflecting the lack of opportunities available to the poor. Interestingly, whereas the usual suspects – firing costs – correlate poorly with adjustment costs, proxies for the economy's bureaucratic inefficiency – such as,

for example, the Doing Business estimate of time to export – correlate strongly (Figure 2.2), suggesting that assistance in reducing bureaucratic burdens (e.g. through customs modernisation programmes) may not only benefit export-oriented sectors, but may also make the whole economy more agile in adjusting to shocks.

Figure 2.2   *Correlates of labour adjustment costs at the country level*

(a) Poverty   (b) Doing Business estimate of time to export
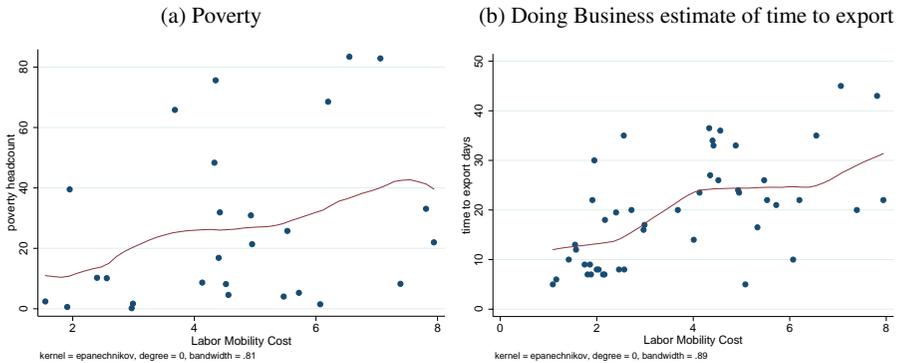
Source: Artuc et al. (2013).

2.2   *AFT and trade: The channels*

Figure 2.3 indicates the links between AFT activities and quantifiable outcomes. AFT is at the bottom, directed to several components of trade costs that determine trade flows (an approximate average breakdown of AFT expenditures over 2006-10 is given next to the corresponding arrows). The thickness of the solid lines is suggestive of the relative importance of the linkages that have emerged across studies or, in the case of AFT flows, of the relative size of the flows.[5] Solid arrows indicate the direction of causality that is generally recognised in the studies and the dashed arrows indicate (occasional) attempts at handling two-way causality. For example, many studies find that indicators of geography and hard infrastructure capture a larger portion of the variance in trade costs than indicators of border and behind-the-border policies. Most studies also find that differences in the values of indicators of the quality of hard infrastructure contribute more towards accounting for differences in trade costs than differences in geography.

Note the two boxes from which no arrows emerge. First are political commitments that are essential to the ownership and success of AFT projects – key to follow-through and close monitoring of AFT activities at the country level – but that are not quantifiable in a meaningful way, except in case studies as shown by Newfarmer in his contribution to this volume. Second are macroeconomic policies which have been shown to be an important influence on exports but that

---

5   Motivation and allocation of AFT across countries is discussed in Section 5.1.

are not considered in the trade cost evaluation literature, except occasionally through time fixed effects in panel studies.[6]

AFT expenditures at the bottom of the figure intervene to reduce trade costs through improved infrastructure ('hard' and 'soft') and technical assistance to improve policies at the border and behind. Average AFT disbursement shares targeted to these objectives (according to a modified OECD classification – see Annex Table A2.2) over the period 2006-10 are indicated next to the arrows. They show that the lion's share of AFT (63%) goes to hard infrastructure.

Four aspects of these linkages deserve attention. First, as indicated in the top-left corner and discussed above, there is a strong two-way causality between trade and income not discussed in the AFT literature, where the concern is the causality running from AFT to trade income or growth (via improved infrastructure and policies).[7] Second, the main channel investigated is the causality running from hard infrastructure and geography to trade costs after controlling, if possible, for other determinants (language, trade policies, various behind-the-border policies). Third, except for a few studies, the causality running in the other direction is not taken into account, thereby contaminating the estimates.[8] Fourth, logistics 'markets' in the middle of the figure usually do not figure explicitly in the evaluation, so that the underlying cause of high freight rates along a trip remain unknown.[9]

---

6   Freund and Pierola (2012) show that export surges are strongly correlated with sustained real exchange rate depreciations and that this is particularly so for the extensive (new products) margin, perhaps because market failures affect tradables more than non-tradables. Given the importance attached to the diversification of exports in AFT objectives, this should be taken into account.

7   After reviewing 97 studies, Doucougliagos and Paldam (2011) conclude that the literature on aid efficiency has failed to establish a causal link from aid to growth. These results are echoed in Bourguignon and Sundberg (2007, p. 317) who ask 'if a dollar of aid produces little discernible change, was the objective ill-defined, the service delivery inefficient, bureaucratic measures inadequate, or was money diverted?'.

8   Often researchers are careful not to read causality in their results. For example, Brenton and von Uexkull (2009), conclude that 'while questions remain on the issue of causality, there can be little doubt that, on average export development programmes have coincided with or predated stronger export performance in the targeted commodities' (p. 250). In contrast, reporting on these results, the OECD report on strengthening accountability states that 'the authors concluded that exports increase as a result of export development programmes and projects" (OECD, 2011, p. 22). In effect, the issue of whether or not fast-growing exports attracted funding for the 86 export development projects they studied remains.

9   Logistics costs extend beyond transport costs to include transaction costs, financial and non-financial costs, and would be measured by the price paid at the point of consumption.

Figure 2.3 *From AFT to trade: Hard and soft linkages*[a]
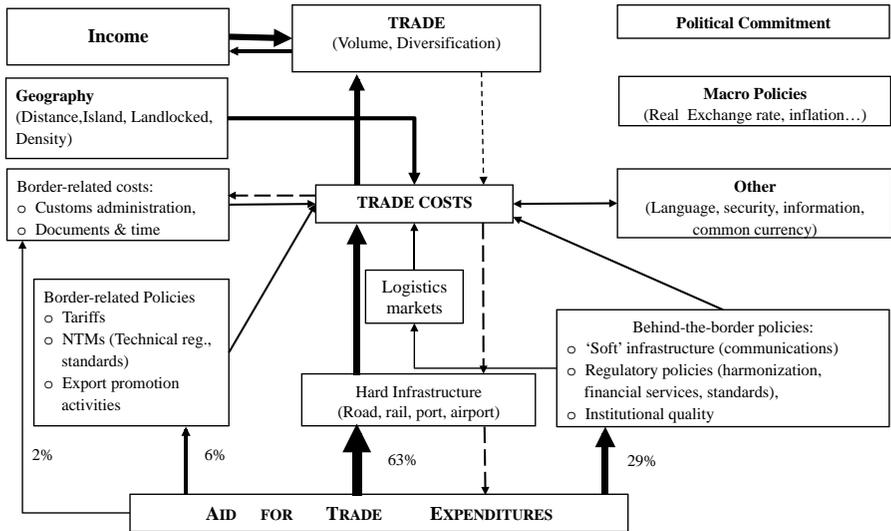
Notes: [a]AFT disbursements (Credit Reporting System (CRS) source - see Appendix): Average percentage shares (2006-2010) exclude AFT for energy and productive sectors.

Source: Adapted from Cadot and Melo (2014).

3   THE CHANGING NATURE OF TRADE BARRIERS

Following the third global review, evaluation of AFT is to adopt a 'results chains' approach where activities give rise to project outputs (better quality hard infrastructure or better indicator values for soft infrastructure) that contribute to final outcomes measured by increased trade which, as discussed above, is expected to lead to higher growth and to other objectives (e.g. reduced poverty) that are even harder to attribute to increased trade. We discuss how tariffs have lost importance relative to non-tariff barriers and regulatory measures, both of which are harder to measure.

3.1   *LDCs face much reduced tariffs barriers…*

Over the last decades, a number of deep preference schemes have been offered to LDCs, many of which are now essentially duty-free and quota-free (DFQF), in order to offset structural impediments to trade with enhanced market access.[10] These schemes give LDC exports a cost advantage over competitors from non-eligible countries and some have been successful in encouraging the emergence of light manufacturing industries, especially in the textile and apparel sector.

---

10 Although all these schemes are ostensibly aimed at all LDCs, eligibility varies across schemes with no clear pattern. In some cases, strings attached in terms of governance lead to temporary exclusions (e.g. Madagascar from AGOA); in other cases, graduating countries like Cape Verde are kept in preferential regimes in order to avoid penalising them.

The US' African Growth & Opportunity Act (AGOA), enacted in 2001, offers DFQF treatment to 41 countries for 98% of existing tariff lines, of which 26 also benefit from relaxed rules of origin (RoO) in the textile and apparel sector, a key provision (see below). The EU's sister initiative, Everything but Arms (EBA), extended similar treatment to 50 LDCs, including the phased elimination of quotas in sugar, rice and bananas. For African, Caribbean and Pacific (ACP) countries, the EBA initiative came on top of existing preferences under the Cotonou Convention, itself to be transformed into Economic Partnership Agreements (EPAs).[11] Recently, Southern countries with large markets have also turned to offering DFQF treatment to LDCs. For instance, India offers DFQF treatment to Bhutan and Nepal under the SAFTA regime; Korea has extended DFQF treatment to LDCs since 2009 on 4,043 items representing 80% of its imports; and most importantly, China started offering DFQF treatment to 40 LDCs in July 2010 on 60% of tariff lines,[12] with plans to extend coverage to 97% of tariff lines in the near future, in accordance with pledges made in Annex F of the Hong-Kong Ministerial Declaration.[13]

So not only have LDCs faced low tariff barriers on their exports, they have also been the recipients of 'positive discrimination' putting their exporters at a relative advantage compared to exporters from other countries. How effective have special market access provisions been for LDCs in fostering export-led growth? The lack of incentive for reforms implied by non-reciprocal preferences such as the Lomé/Cotonou Convention has long been recognised, leading, together with the need to comply with GATT Article XXIV and the Enabling clause, to a shift towards reciprocal preferences embodied in the EU's EPAs.

In addition, a number of features of the special market access provisions of industrial countries seem to have worked at cross-purposes with tariff/QR elimination, limiting their benefits. First, rules of origin were not initially relaxed under all schemes. AGOA's relaxation of the triple 'transformation rule' (cotton→yarn→textile→apparel) in textiles and apparel (T&A) between 2001 and 2002 proved key to improving preference uptake, as beneficiary countries were allowed to claim AGOA treatment for garments assembled from imported fabric (i.e. a single transformation rule: fabric→apparel). The EU's EBA initiative did not initially include a specific relaxation of RoO as T&A continued to be subject to a double transformation rule (yarn→textile→apparel), so that in spite of similar preferential market access rates of 11% for the EU and 11.5% for the US, EBA was much less used than AGOA (Figure 2.4). De Melo

---

11   The overlap between EBA and EPA preferences for LDCs has complicated negotiations on the latter, as LDCs were less eager to sign than non-LDCs because their 'threat point' (EBA) was much more advantageous than the Generalized System of Preferences (GSP), reducing the attractiveness of the EPA package, especially in view of its reciprocity.

12   Eligible countries must have established diplomatic relations with China in order to benefit from the scheme.

13   Under the China-ASEAN Free Trade Agreement, China also offers preferential treatment on 90% of all tariff lines to Cambodia, Lao People's Democratic Republic and Myanmar (see Sekkel, 2009).

and Portugal-Perez (2014) exploit this quasi-experimental situation to estimate that this simplification contributed to an increase in export volume of 168% for the top seven beneficiaries, or approximately four times as much as the growth effect of the 44% preferential margin granted under AGOA without the single transformation.

Figure 2.4   *US vs EU apparel imports from AGOA/EBA beneficiaries, 2001-04*
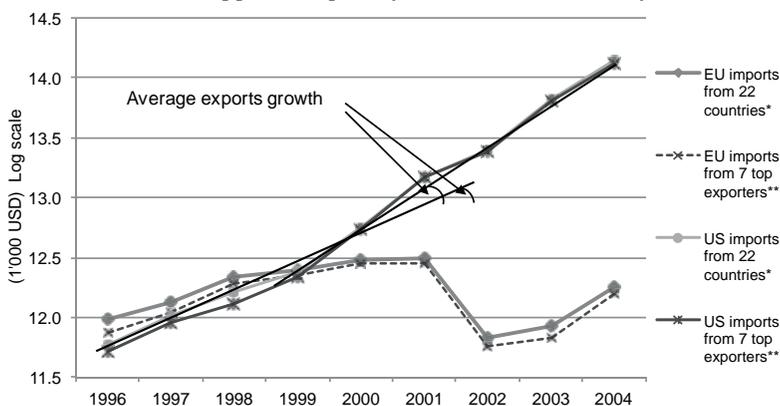
Notes: * Yearly data from 1996 to 2004. The 22 sub-Saharan countries benefiting from AGOA-SR by 2004 as well as ACP are: Benin, Botswana, Cameroon, Cape Verde, Ethiopia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Swaziland, Tanzania, Uganda, and Zambia. **The top 7 exporters are : Botswana, Cameroon, Ghana, Kenya, Lesotho, Madagascar, Namibia, Nigeria, and Swaziland.

Source: de Melo and Portugal-Perez (2014).

Second, several studies (Low et al., 2009; Carrère et al., 2010; Hoekman and Nicita, 2011,; Fugazza and Nicita, 2011) have shown that preference erosion through the proliferation of preferential trade agreements has reduced 'adjusted' preference margins (relative not just to MFN tariffs, but to a weighted average of the tariffs applied by the destination country to all of its partners) to very small orders of magnitude or even negative margins, even for LDCs (e.g. 2.8% for Madagascar and -1.4% for Malawi, according to Fugazza and Nicita).[14]

   All in all, it is fair to say that tariff barriers are largely non-existent for LDCs on Northern markets, and increasingly so on large Southern markets. Where tariff barriers still matter is in regional South-South trade where, as the gravity tells us, much trade should take place. Reducing those barriers is not directly within the reach of donor countries except when, like RoO, they are the price to pay to get market access; however, AFT can play a role in advocacy and policy dialogue towards more effective regional integration, as well as in the provision of incentives. Moreover, the reality on the ground is sometimes quite different

---

14   According to WTO (2011), full utilisation of preferences together would reduce the global trade-weighted tariff from 3% to 2% with a drop of only 0.1% due to the non-reciprocal preferences mentioned here.

from what a cursory look at tariff schedules would suggest; for instance, at Nigeria's borders with Cameroon and Benin, duty payments are negotiated between traders and customs officers, and tariffs only play the role of 'threat points' in negotiations where border posts are pitched by traders against one another.[15]

3.2   … but they face a host of non-tariff barriers

3.2.1   *Northern regulations unwittingly create hurdles for LDC exports...*
Although most regulations – be they sanitary or technical – are imposed primarily for non-trade purposes, such as the preservation of public health or the environment, they can create hurdles for LDC exports and can easily degenerate into *de facto* trade barriers unless adequate technical assistance is provided.

This was illustrated in a much-cited series of studies in which Otsuki, Wilson and Sewadeh (2001b) simulated the effect of the harmonisation at a stringent level of the EU's aflatoxin regulation on African exports. They predicted an export loss of $670 million against negligible gains in terms of mortality reduction, suggesting that Africa was paying a stiff price for something that appeared to merely assuage exaggerated fears. Their findings were later confirmed for South Africa by Gebrehiwet (2007). Interestingly, however, Xiong and Beghin (2011) found that Africa's groundnut exports to the EU had not suffered from the harmonisation; essentially, domestic supply constraints were to blame for export shortfalls. Indeed, estimates of the ad valorem equivalent (AVE) of non-tariff measures (NTMs) by Cadot and Gourdon (2014) suggest that the 'aflatoxin syndrome' may well be unrepresentative, as AVEs for the EU's SPS measures turn out to be quite low.

Notwithstanding the aflatoxin controversy, a number of case studies have looked at how SPS regulations affected developing country agri-food exports and found a trade-inhibiting effect, especially for LDCs.[16] Cadot, Jaud and Suwa-Eisenmann (forthcoming) show that EU agrifood imports had a dual structure, with the bulk of imports procured from a shrinking number of large suppliers while the rest was sourced from a rotating fringe, including LDC-based exporters. Movement from the fringe to the mainstream was limited, largely due to hurdles in building up reputations. An analysis of US import refusals on SPS grounds by Jouanjean et al. (2012) confirmed the existence of strong externalities

---

15 See Amin and Hoppe (2013).
16 See, for example, Musonda and Mbowe (2001); Henson, Saquib and Rajasenan (2004); Henson and Mitullah (2004). The most exhaustive assessment of the effect of technical regulations on agricultural trade was carried out by Disdier et al. (2008), who regressed disaggregated bilateral trade flows in a gravity framework on coverage ratios and, in some specifications, on AVEs as well, controlling for tariffs. In accordance with the case studies and with the work of (inter alia) Moenius (2004), Maskus et al. (2005), and Essaji (2008), they found significant trade-inhibiting effects. A small number of papers looked at how the enforcement of SPS measures affects developing-country exports; Alberini et al. (2008) examined the enforcement of the FDA's seafood plant inspection programme, while Baylis, Nogueira and Pace (2011) used the standard gravity methodology to demonstrate the trade-reducing effect of E.U. import refusals.

and reputational effects. A record of refusals in one product raises the probability of refusals in other products after controlling for country heterogeneity via fixed effects, and a record of refusals for one country raises the probability of refusals for neighboring countries. Thus, weak sanitary control systems in LDCs are self-perpetuating and have strong regional externalities, highlighting the case for systemic (cross-product/regional) approaches to the upgrading of sanitary systems in LDCs, areas in which AFT can play a key role.

Equally relevant for AFT, if product standards and technical regulations can act as trade inhibitors, recent empirical work suggests they can also act as trade facilitators, especially when accompanied by technical assistance (often the case with the EU).[17] For instance, they can alleviate asymmetric information problems (moral hazard and adverse selection in terms of product quality) by subjecting all producers to a common quality standard and encouraging them to invest in quality.[18]

3.2.2   *… and LDC governments are faced with complex regulatory issues*
'Regulatory upgrading' can be a way for LDCs to nudge their exporters to raise their quality to acceptable international standards, but the issues are complex, especially for governments with limited capabilities. Donor assistance can help sort out the issues and take the right policy decisions.

In general, international standards appear less trade-restrictive than regional ones (Chen and Mattoo, 2008) and hurt LDCs less (Shepherd 2007; Czubala, Shepherd and Wilson 2009). Thus, a minimal form of AFT would be for Northern countries to limit the use of regional, idiosyncratic standards. Adopting international standards can be an effective way for low- and middle-income countries to promote their exports (Mangelsdorf et al., 2012).

Harmonisation, an approach widely credited with reducing regulatory fragmentation of markets, appears to be a double-edged sword. In some cases, such as pellets, the case for harmonisation is straightforward (Raballand and Aldaz-Carroll, 2007). In other cases, not so. For instance, the EU's harmonisation of electronics standards in the 1990s induced entry by US producers, making the market more competitive, but in so doing crowded out developing country exports. Thus, assistance may be needed when markets become tougher because of changes in the competitive or regulatory environment. North-South harmonisation also raises complex issues. Cadot, Disdier and Fontagné (2011) show that premature harmonisation with stiff Northern standards can penalise Southern producers by pricing them out of other Southern markets where those standards confer neither improved market access nor consumer recognition. Harmonisation can also be hijacked by special interests. Jensen and Keyser (2011) showed that the harmonisation of EAC milk standards at the stiff EU

---

17   For an early discussion, see Jaffee and Henson (2004).
18   Maertens and Swinnen (2009) provide a detailed account of this effect in Senegal; see also Jaffee (2003, 2005) and Dovis and Jaud (2014).

level was pushed by large operators to get rid of smaller ones, while the public health benefits were unclear given local consumption habits.

4   MEASURING TRADE COSTS

Here we are concerned with measuring trade costs and obtaining the data needed to enable evidence-based evaluation at the macro level. Reduction in trade costs is the first stage of the evaluation process.[19] For ease of exposition and clarity, we associate AFT outputs with a reduction in trade costs and associate final outcomes with increases in exports (greater diversification could be another final outcome). Section 4.1 shows how the workhorse gravity model provides the required link between aggregate trade costs and exports volumes. Section 4.2 discusses how gravity-based studies have given evidence of the various components of the trade costs that are then reviewed in Section 5.

  While tariffs and non-tariff measures do not appear to be prohibitive barriers for LDC exports, cross-border transactions face a whole array of other costs, including transportation and informational barriers. Two approaches are used to the estimate these costs. The first, 'top-down' approach, which goes back to the work of Head and Ries (2001), starts from the gravity equation, a ubiquitous model to estimate trade flows, and puts it on its head to infer visible and invisible barriers from the variation of cross-border transactions relative to intra-national ones. This is essentially a revealed-preference approach (if two countries trade less, it must be because there is a barrier) whose main drawback is that it can catch many things on the supply and demand side, including variations in home bias, which have little to do with policy-relevant trade costs. The alternative, 'bottom-up' approach consists of aggregating up direct estimates of each component (transport, etc.) to an overall figure.[20] Its main limitations are that (i) direct information on even such basic things as the cost of shipping a standard

---

19 The DAC criteria for evaluating programmes and projects accepted by over 80% of donors are the following:

  - Relevance (suitability, e.g. increase exports and diversify the export base)
  - Effectiveness (achieves objectives, e.g. reduce protection, improve road network, reform customs)
  - Efficiency (least-cost approach, e.g. maintenance of existing road network rather than expansion)
  - Impact (appropriate indicators, e.g. trade costs and trade volumes)
  - Sustainability (benefits continue after donor funding ends)

  In a survey administered to evaluators of projects, 50% of respondents answered that assigning trade outcomes to the programme presented them with the most difficult way ahead for the other criteria listed above (see OECD, 2011, Figure 1.1).

20 For instance, Anderson and van Wincoop (2004) estimated a 44% AVE of trade costs between the US and Canada, two adjacent countries under free trade that share a common language and a largely common heritage. The breakdown was 8% on policy, 7% on language, 14% on currency, 6% on information, and 3% on security. These high costs to cross the Canada-US border are confirmed by price differences in products defined at the barcode level sold by large retail stores on both sides of the border, where wholesale and retail prices of the same product differ by 24% across the border (Gopinath et al. 2011).

container over a given distance is only fragmentary; and (ii) it is likely to miss or underestimate intangibles such as search costs. We consider each in turn in the next and following sections.

4.1   Taking 'gravity' at face value: Simulation results

To show the gravity equation can be used to infer trade costs, we follow Novy (2013), taking as a starting point the basic formulation in Anderson and van Wincoop (2004). Let Y_i and Y_j be respectively the GDPs of two trading countries i and j; Y_W the world's GDP, x_{ij} the dollar value of exports from i to j, and t_{ij} the bilateral trade cost between the two. Also let P_j be the aggregate price index in destination country j and Π_i a weighted average of country i's bilateral trade costs with all of its partners, variables sometimes referred to respectively as inward and outward 'multilateral resistance' terms. The gravity equation states that[21]

$$x_{ij} = \left(\frac{Y_i Y_j}{Y^W} \right) \left(\frac{t_{ij}}{\Pi_i P_j} \right)^{1-\sigma} \tag{1}$$

where $\sigma > 1$ is the elasticity of substitution between imports from different countries. Three expressions similar to (1) can be derived from the gravity equation: (i) its 'mirror' expression for x_{ji}, (ii) an expression for i's internal trade x_{ii}, and (iii) an expression for j's internal trade x_{jj}. Multiplying (1) by (i), dividing by the product of (ii) and (iii), and rearranging leads to a very simple equation relating relative trade costs to relative trade flows:

$$\frac{t_{ij} t_{ji}}{t_{ii} t_{jj}} = \left(\frac{x_{ii} x_{jj}}{x_{ij} x_{ji}} \right)^{\frac{1}{\sigma-1}} \tag{2}$$

where t_{ii} and t_{jj} are (unobservable) domestic trade costs. This can finally be rearranged to get an ad valorem expression for the geometric average of the one-way bilateral trade costs between i and j, t_{ij} and t_{ji}, relative to i and j's domestic trade costs, t_{ii} and t_{jj}:

$$\tau_{ij} \equiv \sqrt{\left(\frac{t_{ij}}{t_{ii}} \right)^2 \left(\frac{t_{ji}}{t_{jj}} \right)^2} - 1 = \left(\frac{x_{ii} x_{jj}}{x_{ij} x_{ji}} \right)^{\frac{1}{2(\sigma-1)}} - 1 \tag{3}$$

This expression becomes operational after constructing intra-national trade flows obtained by taking services and exports out of GDP. Thus, (3) provides an ad-

---

21   Head and Mayer (2013) refer to this formulation with the appropriate handling of the multilateral resistance terms as 'structural gravity'.

valorem equivalent (AVE) of total bilateral trade costs (tariffs, language barriers, currency barriers, the equivalent of NTMs, etc.) without observing directly trade costs or even specifying their functional form.[22]

Arvis et al. (2013) extend Novy's approach to a larger sample of 91 countries over 1996-2009, calculating a 'standard' estimate of trade costs based on (3) but using, for each country, a fixed and common panel of large trading partners in order to minimise composition effects. Strikingly, they show that trade costs have fallen everywhere, but more slowly for low-income countries than for others, confirming the 'border puzzle' estimates in Carrère et al. (2013) (see Figure 2.5).

Figure 2.5 *Gravity-simulated trade costs around the world, 1996-2009*
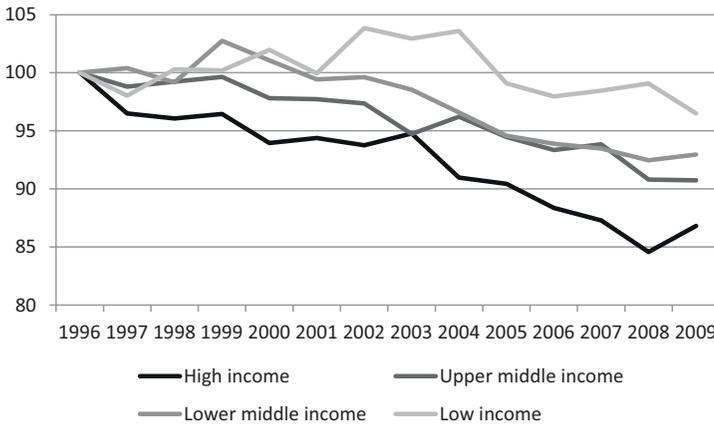
Source: Arvis et al. (2013).

What can explain the slow decline of trade costs for low-income countries? There can be many answers, some coming from their own policy choices, and some from the evolution of technology. For instance, Feyrer (2009a) shows that (i) the share of air transport in US imports correlates positively with the exporter's income (as high-tech products are more typically transported by air than others), and (ii) the relative cost of air transport has gone down dramatically compared to sea transport (Figure 2.6). Thus, because of their initial positioning in the product ladder, low-income countries stood to gain less from the reduction in air transport costs and did gain less.

---

22   However, the approach suffers from a problem that none of the existing studies addresses, namely the existence of zero flows (country pairs whose trade costs are prohibitive) for which (3) cannot be used. Thus, the approach captures only non-prohibitive barriers, which biases the aggregate downwards.

Figure 2.6   *Why low-income countries gained less from the reduction in transport costs*

(a) Air freight share and exporter income   (b) Distance elasticity of trade[a]
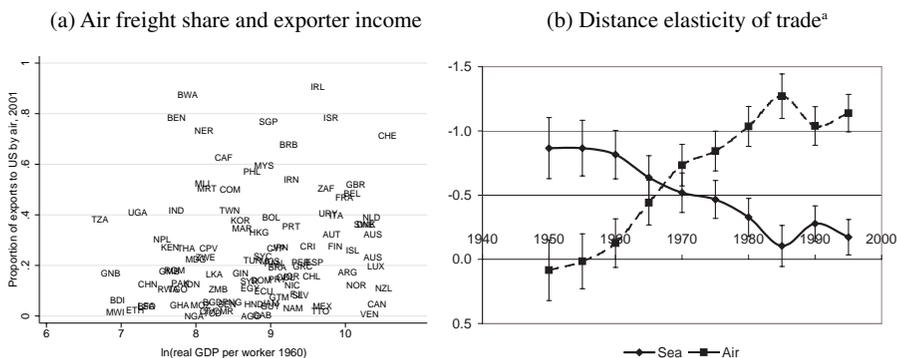
Notes: a/ Gravity estimates of the elasticity of trade to air distance (shortest route) and sea distance (real maritime routes taking geography and currents into account). In 1950, predicted trade does not vary with air distance because little freight goes by air; by contrast, it goes down by 1% for every 1% increase in air distance. In 2000, the positions have reversed: trade goes down 1% for every 1% increase in air distance, while sea distance has become inconsequential.

Source: Feyrer (2009).

Although the primary driver of this relative marginalisation of low-income countries is technological, it is not completely out of the reach of policy and aid. For instance, many low-income countries have maintained unnecessarily restrictive service-trade restrictions, have failed to provide adequate support services for air transport, and have failed to maximise the accessibility of air transport to their own exporters (e.g. by not providing adequate cold-chain facilities at airports for horticulture products, etc.).[23]

4.2   *Direct measurement of trade cost components*

4.2.1   *First stage: Building trade cost proxies.*
The first step in the 'bottom-up' approach to the estimation of trade costs consists in getting a handle on their direct measurement through a limited set of components, as outlined in Figure 2.3:

- A vector $\mathbf{z}_{ij}$ of geographic and historic attributes of country pair (i, j) as they typically appear in a gravity equation: distance, common language, common colony, etc.

---

23   An extreme case of this syndrome is Sao Tomé & Principe, which until recently had not managed to light its single runway, forcing airlines to re-route flights when they were late. To this day, the runway is in such bad shape that airplane tires have to be changed every four landings, and most of the airlines serving the country are blacklisted by the EU for safety lapses; all this in a country for which tourism could be a primary growth driver. Borchert et al. (2012) find that high transport costs for landlocked countries are largely due to their respective transport policies.

- A vector $\boldsymbol{\tau}_{ij}$ of trade policy factors affecting bilateral flows, including applied tariffs ($\boldsymbol{\tau}_{ij}$) and non-tariff barriers (n_{ij}).

- A pair of vectors $\mathbf{b}_i$, $\mathbf{b}_j$ subsuming relevant attributes of each country in the pair, including landlockedness, infrastructure quality, the investment climate, and AFT flows.

The trade cost function t_{ij} aggregates these four broad components to give:

$$t_{ij} = \phi(\mathbf{z}_{ij}, \boldsymbol{\tau}_{ij}, \mathbf{b}_i, \mathbf{b}_j) \tag{4}$$

How about measurement? Typically, gravity variables in $\mathbf{z}_{ij}$ are widely available (e.g. from the CEPII website). As for shipping costs, there are several possible routes. One is to use distance as a proxy; the other consists of following the pioneering work of Limão and Venables (2000) and use direct quotes from an international shipping line (more on this below). Both approaches suffer from the same drawback: as we have seen, the elasticity of freight costs to distance has evolved with the rise of air freight, although at present there is no database on bilateral air freight costs (and nonlinearities in airline pricing policies may make such a database impossible to assemble in a reliable way). Alternatively, some researchers have used CIF/FOB ratios, but those have proved fatally unreliable as measures of trade costs.[24]

Tariffs are easily (although incompletely) available from the Trade Analysis and Information System (TRAINS). Non-tariff measures are available from 65 countries in a currently expanding database collected under UNCTAD's coordination.

As for trade-relevant country characteristics ($\mathbf{b}_i$ and $\mathbf{b}_j$), there has been much progress over the last decade, as the World Bank and other institutions have compiled data on trade facilitation, the investment climate, customs delays, clearance costs and administrative procedures. These have been compiled and elaborated into several composite indices such as the Logistics Performance Index (LPI) database, Doing Business (DB) Surveys, and World Bank Enterprise Surveys. Typically, gravity-based estimates either use the raw data from those surveys (Chen et al., 2006; Portugal-Perez and Wilson, 2008) or rankings/indices (Hoekman and Nicita, 2008). Information on non-tariff measures, available on TRAINS, has been used as dummy variables (Chen et al., 2006; Helbe et al., 2007) or after estimating AVEs (Hoekman and Nicita, 2008; Portugal-Perez and Wilson, 2008). Several studies apply principal component analysis (PCA) or factor analysis (FA) on different indicators to generate composite indices (see, for example, Helbe et al. (2009) for their transparency index, and Wilson et al. (2003), Balchin and Edwards (2008) or Francois and Machin (2013) for their

---

24 Measurement error and holes in the data are rife; moreover, under/overinvoicing is not independent from the level of governance in the trading countries (Limão and Venables, 2000; Hummels and Lugovskyy, 2006).

infrastructure and institution index). Finally, some studies have relied on their own survey of freight forwarders or experts (Djankov et al., 2010; Duval, 2006).[25]

Notwithstanding statistical issues – such as large changes in a country's ranking that turn out to be statistically insignificant, as is sometimes the case with the LPI and Worldwide Governance Indicators (WGI), for example – the basic drawback of indices and rankings is that they are composite with arbitrary weights and ad hoc aggregators, making it difficult to relate changes in their scores to changes in measurable and policy-relevant underlying components.

4.2.2   *Second stage: From costs to trade.*
With trade cost estimates in hand, the second stage relates trade flows to trade costs (only in a few studies discussed in Section 6 are trade costs related to AFT flows, as suggested above). This is typically done, again, using the gravity model. Assuming a log-linear functional form for t_{ij} and, as is often the case in actual estimation, a single component in b_i (b_j),

$$\ln t_{ij} = \ln[\mathbf{z}_{ij}\mathbf{a}_1 + \boldsymbol{\tau}_{ij}\mathbf{a}_2 + a_3 b_i b_j];\qquad\qquad(5)$$

Log-linearising (1), substituting (5), and estimating on a cross-section of countries gives an estimation equation of the form:[26]

$$\ln x_{ij} = c + \delta_i + \delta_j + \boldsymbol{\beta}_1\mathbf{z}_{ij} + \boldsymbol{\beta}_2\boldsymbol{\tau}_{ij} + \beta_3(b_i \times b_j) + \ln u_{ij}\qquad\qquad(6)$$

where

$$
\begin{aligned}
c &= -\log Y^W \\
\delta_i &= \log Y_i - \log\textstyle\prod_i + b_i \qquad\qquad(7)\\
\delta_j &= \log Y_j - \log P_j + b_j.
\end{aligned}
$$

In (6), all country-specific variables are subsumed in country fixed effects δ_i and δ_j, precluding the estimation of the direct effect of b_i and b_j – an unfortunate drawback of the gravity equation, although typically variables like customs costs/delays or DB scores are entered in interaction form, as in (6), transforming them into a bilateral variable. Identification is improved when (6) is estimated on a panel of countries, but as Baldwin and Taglioni (2006) argued, estimation should then involve country-time effects which would similarly absorb time-

---

25 Djankov et al. (2010) collected their data on time to transport from a survey administered to 345 freight forwarders in 126 countries for 2005. The data give the time it takes for a 20ft standard container carrying three categories of standard goods (textiles and apparel, coffee, tea and spices) to carry out four stages of exporting procedures (pre-shipment activities, inland carriage, port handling, customs and technical control). Their estimates used several approaches to deal with the endogeneity of trade costs to the volume of trade. Regrettably, the limited number of freight forwards in each country is unlikely to be representative of trade costs (see Volpe and Graziano, 2012).

26 This way of writing the equation is somewhat misleading as it ignores zero flows. Santos Silva and Tenreyro (2006) have shown that the Poisson or negative binomial estimators (and their zero-inflated variants) are the most appropriate to handle both zero flows and heteroskedastic errors.

variant country characteristics. In addition, dyad fixed effects δ_{ij} would absorb all time-invariant country-pair characteristics. Finally, many of the trade cost proxies as well as NTM dummies are available for one year only.[27]

What about AFT in all this? AFT enters (4) via two channels: (i) by reducing trade barriers and improving indicators of soft infrastructure (tariffs, NTM measures, harmonised standards) through technical assistance activities; and (ii) by improving the quality of hard infrastructure. Unfortunately, only the latter channel can be credibly measured, hence 'the fear [by the development community] that requiring that every initiative be justified in this way [basing policies on hard evidence] will bias decisions on what is measurable and easy to evaluate' (OECD, 2011, p. 33).

5 INFRASTRUCTURE, FACILITATION, AND TRADE

5.1 The 'hard' side: Roads and ports

The plan was to carry 1,600 crates of Guinness and other drinks from the factory in Douala where they were brewed to Bertoua, a small town in Cameroon's south-eastern rainforest. According to a rather optimistic schedule, it should have taken 20 hours, including an overnight rest. It took four days. When the truck arrived, it was carrying only two-thirds of its original load. …we were stopped at road-blocks 47 times. … Our road was rendered impassable by rain three times, causing delays of up to four hours. The Cameroonian government has tried to grapple with the problem of rain eroding roads by erecting a series of barriers … that stop heavy trucks from passing while it is pouring. … Early on the second evening … we met a [locked] rain barrier in the middle of the forest. It was dark, and the man with the key was not there. … he returned shortly before midnight. The hold-up was irritating, but in the end made no difference. Early the next morning, a driver coming in the opposite direction told us that the bridge ahead had collapsed, so we had to turn back.[28]

Beyond longstanding interest in the question of how transport costs – especially maritime costs, which account for 80% of world trade – have evolved (see Moneta, 1959, or more recently Hummels, 1998), attention has turned to the constraints on LDC exports created by poor infrastructure. This emphasis arose from observing of Africa's poor export performance in the late 1990s despite

---

27 There are fixes to this problem, for example by taking variables that vary only by exporter or importer and transforming them artificially so that they vary bilaterally. These fixes come at a cost, as one can no longer link results to an underlying model. Random effects estimation is not a solution either as it requires strong assumptions about the unobserved heterogeneity in the data (i.e. the multilateral resistance terms should be normally distributed).

28 Anecdote reported in *The Economist* in 2002, cited in Buys et al. (2006).

wide-ranging structural adjustment reforms.[29] For instance, in an early study, Amjadi and Yeats (1995) found that over 40% of the export earnings of some of Africa's landlocked countries were absorbed by freight and insurance payments, with a continent-wide average of 15% (against 5.8% for all developing countries).

Limão and Venables' (2000) pioneering study used shipping company quotes for a 40ft container carrying standard goods as a measure of trade costs and combined it with a composite index of road, rail and communication infrastructure, which they showed contributed half the variation in freight rates, while distance itself contributed only 10%.[30] Although we know from Feyrer's recent work that their distance variable was mismeasured (as it was great circle distance, which is relevant for air transport but not for maritime transport and should thus be expected to be a poor correlate of maritime freight rates), their results were important in that they highlighted the role of country infrastructure.[31] In addition to confirming the high costs of being landlocked, their work highlighted higher costs for overland travel (1,000km of overland distance added on average $1,380 to container freight costs, against only $190 by sea), costs that were compounded by border delays and uncertainty. Their transport cost estimate performed very well in a standard gravity equation, implying that a 10% reduction in trade costs raised trade by 30%.[32] Their key finding was that 'hard' infrastructure accounted for nearly half of the transport cost penalty borne by intra-SSA trade, with poor infrastructure overexplaining the continent's undertrading. Coulibaly and Fontagné (2006) confirmed their results on aggregate and disaggregated trade flows in West Africa, predicting that if all roads were paved in the region, trade would almost treble.

This work provided support to a 'big-push' approach to AFT in which donors should build infrastructure in order to unlock Africa's trade and growth. Buys et al. (2006) built on Coulibaly and Fontagné's results to explore the returns on a pan-African programme of road infrastructure development. They identified

---

29 Frankel (1997) found that 'under-trading' was particularly acute in the case of intra-regional trade. Classic papers by Collier (1995) and Collier and Gunning (1999) attributed Africa's under-trading to the disastrous policies – including (inter alia) protectionism, currency overvaluation and export monopolies – adopted roughly between the mid-1970s and mid-1990s. However, Foroutan and Pritchett (1993), Coe and Hoffmaister (1998), and Rodrik (1998) argued that size, income and other gravity determinants largely explained Africa's low trade volumes.

30 As noted by Limaõ and Venables (2000), who were the first to introduce a composite index of infrastructure, taking a linear combination of these components assumes that these inputs are perfect substitutes. Bundling up with capital and labour in a Cobb-Douglas function gives a cost function for transport costs.

31 Using geo-referenced data on firm-level trade data and distance to the Inca road network as instruments to address the potential endogeneity of transportation infrastructure to trade and employment, Volpe et al. (2013) find that improvments in infrastructure have had a positive significant impact on firms' exports and thereby on job creation.

32 If is the trade elasticity to a trade cost variable (say, distance or infrastructure in i) and $\hat{\delta} = \partial \tau_{ij} / \partial x_{ij}$ is the CIF/FOB elasticity to the same variable, the estimated effect of CIF/FOB margins on trade is $\hat{\phi} / \hat{\delta}$. Alternatively, they used the determinants of CIF/FOB margins as instruments in a two-step approach. Both approaches yielded elasticities of around three, i.e. very strong inhibiting effects of transport costs on trade.

inter-city corridors for road investment using spatial network software and used gravity coefficients to estimate the investment programme's impact on trade. Finally, they used World Bank data on the cost of road improvement and rehabilitation ($127,000/km for the median project) to perform a cost-benefit analysis. After several ad hoc adjustments for local variations in costs (e.g. due to rainfall) and efficiency (e.g. due to bad governance), the results were stunning: the payback horizon was barely over one year, with $254 billion of additional trade generated over the project's estimated lifetime at a cost of about $32 billion. A similar exercise, in which trade was disaggregated by sector, was performed by Shepherd and Wilson (2006) for the Europe and Central Asia (ECA) region. Interestingly, trade elasticities to infrastructure were substantially lower than to other variables, such as tariffs; however, the scope for road improvements were such that it remained an extremely favourable policy proposition. For instance, a complete upgrading of the road infrastructure in Hungary, Romania and Albania (at about $227,000/km) would generate an 'on-impact' (annual) trade increase of over $35 billion for a one-time cost of $3 billion.

These very high rates of return on infrastructure investments were, although higher, consistent with rate-of-return estimates in the macro growth literature – typically over 200% – which put road investments on top of other types of infrastructure investments such as telecommunications or energy (see Estache (2007) and references therein).[33] Thus, after almost two decades of multilateral donor emphasis on structural adjustment and policy reform, by the mid-2000s empirical research was suggesting that the pendulum should swing back towards (infrastructure) capital accumulation.[34]

5.2   The 'soft' side: Facilitation, regulation and competition

While evidence accumulated on the strong effect of infrastructure on trade costs, whether the right policy response was a 'big push' in infrastructure investment was questioned by Shantayanan Devarajan, the World Bank's Chief Economist for Africa, in his foreword to Teravaninthorn and Raballand (2008):

One of the few things that African policy makers, development partners, civil society, and policy researchers agree on is that Africa has a serious infrastructure deficit. […]While everyone agrees on the problem, there are different approaches to a solution. One view is that, if Africa has an

---

33   These too-good-to-be-true rates of return were reminiscent of the 'Aschauer debate' on infrastructure and growth (see Estache and Fay (2007) and references therein for an overview). An internal evaluation of World Bank infrastructure projects over 1999-2003 produced an economic rate of return of 43%, by all means a respectable rate but nowhere near the miracles suggested by the literature (Estache, 2007). However, the ranking of rates of return also put road investments on top, suggesting the same lending priorities.

34   Meanwhile, the attention of development economists had shifted from policies (endogenous variables in the political economy literature) to institutions, with a literature setting up 'horse races' between institutions and geography as explanatory factors for trade performance (Redding and Venables, 2003; Francois and Manchin, 2013).

infrastructure deficit, the solution is to plug that deficit by investing in infrastructure—build new roads, power plants, and irrigation canals. Another is to identify the causes of Africa's infrastructure deficit and address them directly. For, if the problem is policy or institutional failures that prevent infrastructure from being productive—irrational power tariffs, weak regulations, inadequate operations, and poor maintenance—then simply building new infrastructure without addressing these problems will not improve the situation. Africa will still have an infrastructure deficit—but with higher debt. (pp. xi-xii)

This preoccupation reflects a new awareness of the importance of the 'logistics markets' in Figure 2.3. Responding to concerns of this type, in parallel to the literature on infrastructure and trade, another strand of the literature had developed in the 1990s on the regulation of infrastructure and transportation services. An early study by Bennathan et al. (1989) drew lessons from Chile's deregulation of its shipping industry, which until 1979 had been regulated by a cargo reservation system dating back to the 1950s, increasingly at odds with the Pinochet government's pro-market orientation. Like a number of other Chilean policy experiments, this one proved a success: not only did freight rates rise more slowly in Chile than in countries with cargo reservation systems, but by the late 1980s the national carriers' share of national shipping was unchanged, suggesting that the old system was merely protecting rents.

Since maritime transport still accounts for 80% of world transport, it is important to explore how generalisable the Chilean experience is. Fink et al. (2002) and Clark et al (2004) explored the impact of efficiency on shipping costs to the US. Fink et al. regressed freight-rate data for US seaborne imports on the existence of maritime cartels (so-called 'shipping conferences') as well as various restrictive regulations applying to shipping (cargo reservation schemes) and port operations. They found evidence that cartels substantially pushed up freight rates (by about a third), but the evidence on policy restrictions was inconclusive..Clark et al. also studied the determinants of shipping costs to the U.S, finding that shipping costs were a greater barrier to U.S. markets than import tariffs. Among the problems with both estimates is that they relied on a single point in time which did not allow them to control for heterogeneity across ports and time-invariant omitted variables. More importantly, perhaps, their indicator of port efficiency was drawn from interviews.[35]

As usual, better data led to more trustworthy estimates. Drawing on reliable US data on bilateral import charges at the HS-6 level over the period 1991-2003, Bloningen and Wilson (2008) regressed for each product import charges on all relevant characteristics except changes in product composition. After controlling for all other factors affecting charges, their port fixed effects provided an efficiency ranking of US and foreign ports. Overall, they estimate

---

35   This measure also used by Clark et al. (2004) was taken from the Global Competitiveness Report, in which survey respondents were asked to rank countries rather than ports on a scale of 1 to 7.

that a 10%increase in port efficiency increases trade between a country-pair by 3.2%, or alternatively a change in port efficiency from the 75% percentile to the 25% percentile leads to a 5% increase in trade.[36]

Further progress came from studies digging deeper into cartel behaviour, long known to be prevalent among 'shipping conferences'. Inspired by the observation that Caribbean and Central American countries trade far less than would be predicted by the gravity model (Guatemala's exports of manufactures to Caribbean partners are well under 1%, yet they are close and have easy access to each other by sea), Wilmsmeier and Hoffmann (2008) analyse freight rates charged by one major liner shipping company on 189 routes in the region. Their estimates show that distance is trumped by the number of liner shipping companies providing services between pairs of countries, a result that would likely also carry over to sub-Saharan Africa where transshipments are frequent.[37]

Again focusing on US ports and maritime traffic to Latin America, Hummels et al. (2009) estimate the market power of shipping companies by using the cross-product variation of tariffs to identify unobserved market power.[38] They estimate that eliminating market power in shipping would boost trade volumes by 5.9% for the US and 15.2% for Latin America. Furthermore, high tariffs on trade give market power to shippers: a 1% increase in tariffs leads to a 1-2% increase in shipping prices per kilo.

Turning to road transport, Teravaninthorn and Raballand (2008) showed that trucking deregulation in Rwanda after the civil war had effects similar to those of shipping deregulation in Chile: nominal rates dropped by 30% and the domestic trucking fleet expanded instead of shrinking. By contrast, countries like Malawi, where domestic truckers were protected by restrictive entry regulations, ended up essentially penalising farmers – a common policy outcome in Africa. They also highlighted the deleterious effects of cartels and regulations through 'freight bureaus' in Central African corridors, where freight rates per tonne/km were about 80% more and truck utilisation rates 40% less than in East African

---

36 They obtained precise estimates by regressing import charges on weight, value, distance, the percentage of shipment in containers, a measure of trade imbalance, and fixed-effects that controlled for all time-invariant omitted variables (observed and unobserved). They estimated that a 10%increase in distance increased freight costs by 1.3-2.1%, that imbalanced trade raised costs but not by much, and that containerisation reduced import charges. In their sample, the only African port (Durban) has port charges of 15% above those of Rotterdam. They estimate a slow improvement for foreign ports towards Rotterdam at 1.4% per year over the 12-year period. Their estimates are lower-bound estimates insofar as they do not take into account that increased efficiency would bring trade in new products.

37 Their model of liner shipping freight rates has the following variables: transshipment versus direct services; the number of competing carriers; UNCTAD's liner shipping connectivity index; transit time; and port infrastructure endowment in the importing and exporting countries. The model accounts for three-fifths of the variance of liner shipping freight rates across the Caribbean.

38 When tariffs are high, the share of freight costs in consumer prices is lower, and so is the price elasticity of demand perceived by the shipping lines, which will, if they have market power, induce them to raise freight rates. Thus, the co-movement of tariffs and freight rates identifies market power.

corridors.[39] Throughout West Africa, they found that bilateral agreements, queuing systems and quotas stifled competition. Even on the most competitive trucking corridors of East Africa, anticompetitive regulations abounded, for example with Kenya prohibiting international transit trucks in the Mombasa-Kigali corridor from taking domestic freight on the return trip, forcing them to cover 1,700km empty.[40] Their conclusion was in stark contrast to those reached in the papers discussed in the previous section:

> […] because of the high cost of road improvement and the relatively old fleets, rehabilitation on hundreds of kilometers of road would not be economically justified if traffic were less than 200 trucks per day. Below such traffic levels, rehabilitation probably should take place only when the road is in poor or very poor condition (*and only if the benefit from VOCs reduction were passed on to the final user of transport services*). (p. 83, italics added)

For donors, the implications of Teravaninthorn and Raballand's work were starkly different from those of previous pieces of empirical research on infrastructure: rather than build more roads, they should pursue policy dialogue with African governments to improve regulatory frameworks and ensure competition in service provision. Should that be taken to mean that governments should step back, deregulate and merely ensure fair and open competition? Not so fast, if one digs deeper and resorts to impact evaluation (see Sections 7 and 8).

What do we learn in terms of the trade-off between reforms aiming at reducing barriers at the border and those aimed at trade facilitation more generally? Most studies find that trade facilitation improvements have a bigger impact on export growth than tariff reductions. Helbe et al. (2009) find that exporter and importer transparency is more important than trade barriers for bilateral export of differentiated products. Francois and Machin (2013) find that those infrastructures are more important than trade barriers for bilateral export growth. Portugal and Wilson (2008) find that a substantial but feasible improvement in trade facilitation would be equivalent to a tariff reduction of 8%in Africa. Wilson et al. (2003) performed the same exercise in APEC and they found that the required improvements in trade facilitation indicators are relatively small compared to the equivalent tariff reduction. Hoekman and Nicita

---

39   Interestingly, when regressing transport prices on road condition, they found negative and significant effects in East Africa, but insignificant or positive effects in West and Central Africa (p. 42, Table 4.3), suggesting pricing formulas based on anticompetitive arrangements rather than marginal costs in those regions.

40   They collected data on costs (vehicle operating costs (VOCs), transport costs incurred by transport providers) and prices paid by end users from a sample of trucking companies operating across the continent. They then simulated the effects of a reduction in: (i) fuel price; (ii) informal payments; (iii) border crossing time; (iv) rehabilitation of corridors. Their simulations showed that for West Africa (and to a lesser extent Central Africa), a reduction in fuel prices and a rehabilitation of roads would have no effect on prices paid by end users because of barriers to entry. By contrast in East Africa, the same policies would reduce prices paid by end users.

(2008) conclude that the impact of reducing transaction costs at and behind the border will have a greater payoff than further reductions in tariffs and NTMs. Since these reductions do not require multilateral negotiations and can be done unilaterally, there is great scope to enhance growth opportunities for developing countries 'while Doha sleeps'. In the same vein, Djankov et al. (2010) find that in LDCs, reducing delays by ten days would result in more export growth than liberalisation with the EU or US.

What do we learn about prioritisation? Most of the studies above have tried to include different dimensions of trade facilitation to observe which ones would be the most constraining, but no common pattern emerges. Wilson et al. (2003) found that individual APEC members differ in terms of which trade facilitation reform would be more profitable. Portugal-Perez and Wilson (2008) find a slightly more important impact of reforms improving indicators captured in the LPI index than for reforms reducing trade costs captured in Doing Business, though overall both dimensions appear important. Francois and Manchin (2013) find that their infrastructure index (generated with a PCA on eight infrastructure indicators) is significantly more important for bilateral export growth than their institution index (also generated with a PCA on seven indicators from the Fraser Institute). In contrast, Balchin and Edwards (2008), looking at African countries, find no effect of their infrastructure index (generated with PCA) on export propensity (dummy 0/1), while their index for legal environment and micro-level supply constraints are strongly significant. Hoekman and Nicita (2008) find that policies affecting what is captured in LPI have more effect on bilateral exports than those affecting what is captured in DB. Building indicators for each one of the 12 articles in the new Agreement on Trade Facilitation, Moïsé et al. (2011) estimate that the trade costs of OECD countries would be reduced by 10%, with most benefits coming from measures to streamline procedures and from advance rulings.

6   DOES AFT MAKE A DIFFERENCE? INSPECTING THE AGGREGATE DATA

6.1   *AFT flows after the Global Financial Crisis*

As the Doha Round stalled, resource mobilisation became the metric for measuring the success of the AFT initiative by trade negotiators, in particular from developing countries (Cadot and Newfarmer, 2012; Hallaert, 2013). [41] As shown in Figure 2.7, by the commitment measure, the 2005 initiative has indeed been highly successful, boosting annual commitments from $25 billion in 2005 to about $45 billion in 2010. The effect on bilateral donors is especially marked, as a decline from about $20 million to $15 million over 1990-2003 (the low

---

[41] Part of the registered increase in commitments reflects improvements in monitoring and an expansion in donors. Controlling for these effects, Hallaert (2013, table 1) estimates that disbursements of traditional donors (those in the baseline 2002-05 period) declined by 0.5% in 2009 from their levels before the crisis.

point) was followed by a rise to $30 million in 2010. However, the figure also suggests that the trend reversal predated the initiative, as it started in 2003-4.

Figure 2.7   *Aid for Trade commitments, 1995-2010 (share in total ODA)*
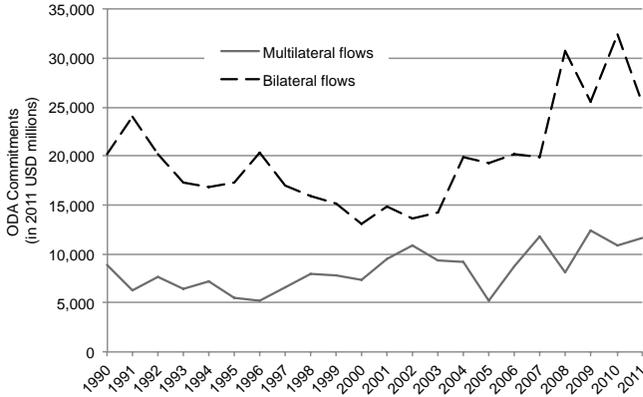
Source: Authors' calculations using OECD CRS database.

Figure 2.8 confirms that the AFT initiative was at least concomitant with a trend reversal stopping the long-term decline in the share of trade-related assistance in Official Develpoment Assistance (ODA). Thus, AFT's share in overall ODA commitments rose from 30% in 2005 to 35%in 2010 (panel a). The flatter post-2005 trend in terms of disbursements (panel b) reflects a steeper rise in ODA disbursements, as disbursed AFT went up sharply.

Figure 2.8   *AFT share in commitments and disbursements, 1990-2011*

(a) Commitments
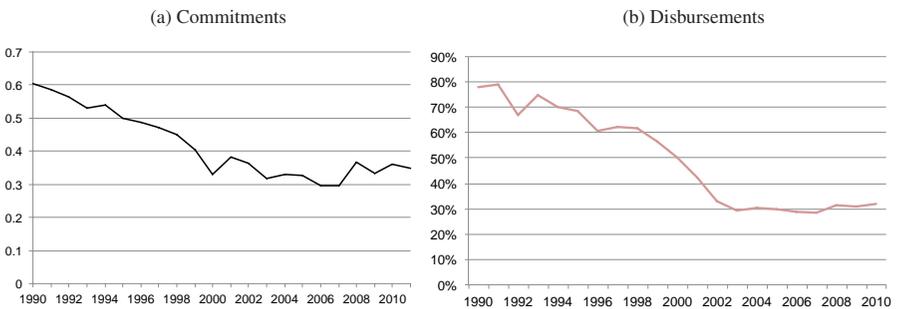
(b) Disbursements

Note: Share in total sector allocable ODA

Source: Authors' calculations using OECD CRS database.

However, commitment or disbursement statistics are plagued with measurement issues, making it difficult to evaluate their impact. As discussed in the Annex, the Creditor Reporting System (CRS) does not provide information about trade-related technical assistance and trade development which was previously collected in the joint OECD-WTO Trade Capacity Building Database (TCBD). Modifications to the CRS classification to match more closely our operational

definition of AFT in Figure 2.3 are described in Annex Tables A2.2 and A2.3. Moreover, disbursements are badly tracked for multilaterals, so gaps between commitments and disbursements are largely measurement gaps and disbursement trends concern primarily bilateral donors. Be that as it may, the data in Figure 2.9 is suggestive of a substantial donor effort in trade-related infrastructure since the AFT initiative, with little slackening during the Global Financial Crisis in terms of either commitments or disbursements.

Figure 2.9 *AFT commitments and disbursements, by broad categories*
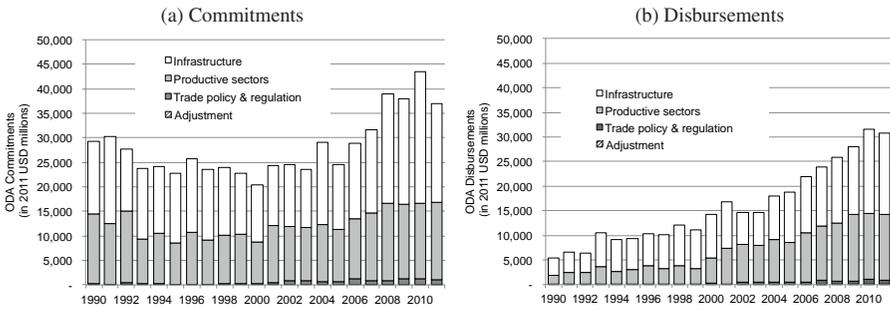
Notes: In million dollars.

Source: OECD, CRS.

Figure 2.10 shows a more detailed breakdown of commitments by sector for 2002 and 2010. It shows little change in the allocation of AFT over the period (this would also hold even if we kept the original classification).

Figure 2.10 *Components of Aid for Trade, 2002 and 2010*
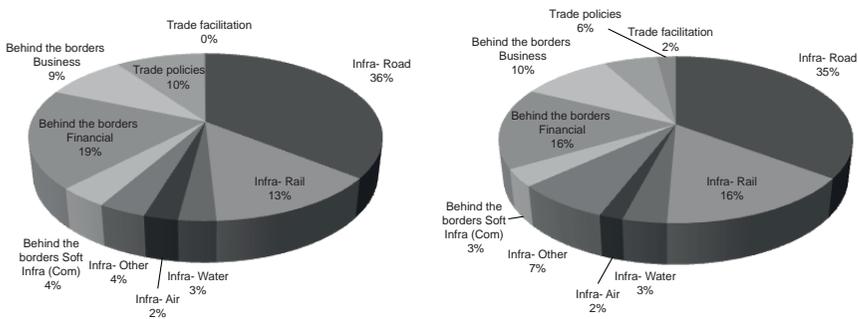
Source: Authors' calculations using OECD CRS database.

Whereas the drivers of aid allocation have been studied in a voluminous literature aimed, inter alia, at finding whether 'deserving' countries in terms of governance and capabilities got more aid than others (with ambiguous results),[42] the allocation of AFT has been much less studied, and results are not only few but plagued by identification issues. Samy and Imai (2012) regressed AFT disbursements (also from the CRS) on country characteristics including GDP per capita, infant mortality, population, as well as democracy, openness and infrastructure indices in a panel of countries over 1997-2006. Fixed-effect estimates returned somewhat counter-intuitive results: country characteristics that seemed to be most robustly associated with AFT allocations (infant mortality, democracy, GDP per capita) had only indirect linkages with trade gaps, whereas infrastructure indicators such as roads or energy supply were insignificant, and more concentrated exports correlated with lower inflows. These hard-to-interpret results might have to do with identification issues, with time-invariant country fixed effects being sufficient to control for omitted variables.[43] Gamberoni and Newfarmer (2014) constructed a composite measure of 'AFT demand' at the country level based on proxies for under-trading and governance. Regressing AFT inflows from the OECD's CRS database on this indicator on a cross-section of countries, they found a positive association, although with wide dispersion. Tadasse and Fayissa (2009) regressed US AFT outflows on various country characteristics. Notwithstanding the usual identification issues, they found that more AFT tended to go to close-by countries with strong trade ties with the US.[44]

6.2   *Any discernible effect?*

Since a widely read but controversial paper by Burnside and Dollar (2000) arguing that aid had a positive impact on growth only in countries that followed 'good' policies (as measured by the World Bank's Country Policy and Institutional Assessment (CPIA)), the effects of aid on growth have been widely studied, although with muddled results. In parallel to the 'aid-and-good-policies' literature and its seemingly intractable endogeneity problems, another literature has highlighted the complementarity of aid with vulnerability, a country characteristic less suspect to endogeneity and ideological overtones than policy 'quality'. For instance, Guillaumont and Chauvet (2001), Chauvet and Guillaumont (2004, 2009), and Guillaumont Jeanneney and Tapsoba (2012)

---

42   For instance, Alesina and Dollar (2000) found that political rights had a significant effect on aid receipts. Alesina and Weder (2002) found no evidence that corruption reduced aid inflows, but Dollar and Levin (2004) found a positive effect for governance.

43   For instance, a period of trouble might result both in more aid flows aimed at rebuilding infrastructure and institutions and more concentrated exports, as the mining sector, which operates in well-guarded enclaves, is typically more robust to instability than light manufacturing. Also, estimation did not control for selection or censoring of AFT inflows at zero.

44   These results echo those of Alesina and Dollar (2000), who find that disbursements for European countries with former colonies go mostly towards the former colonies. Berger et al. (2013) show that during the cold war, CIA interventions led to a surge of imports to the US in industries in which the US had a comparative disadvantage.

showed that ODA had more impact, *ceteris paribus*, in vulnerable environments, that is, in environments repeatedly exposed to large shocks. Most recently, Guillaumont and Wagner (2012) showed that the capacity of ODA to trigger growth acceleration was also stronger in vulnerable environments. There is no equivalent to this literature on AFT. Although the food crises of 2008 and the beggar-thy-neighbor policy responses they triggered in many countries highlighted the vulnerability of poor countries to price shocks and the possibility for those shocks to jeopardise trade relations, there has been no work exploring if AFT could improve resilience or overcome prisoners' dilemmas in regional trade policies.

Before turning to the limited empirical literature on the impact of AFT, we ask whether there is any correlation, *prima facie*, between export growth and lagged AFT commitments.[45] Clemens et al. (2004) divide aid flows into three categories: short-term emergency aid likely to be negatively correlated with growth; aid for health, education and the environment, and support for democracy that affects growth over a long period of time; and aid that plausibly could stimulate growth in the short term, including budget and balance-of-payments support, investments in infrastructure, and aid for productive sectors such as agriculture and industry. AFT falls mostly under this last category so we would expect to see some correlation between average disbursements over a five-year period and average export growth – or some proxy for trade costs reduction – over the next five-year window.

Figure 2.11 provides a very simple check on whether such a correlation is visible to the naked eye. We split the set of AFT recipients by the median into two cohorts, 'low recipients' and 'high recipients', based on average 2000-2005 receipts. We would want to see higher export growth and diversification in the latter group than in the former over the next five-year window (2005-2010), the lag being to leave room for delayed effects. In order to get some more information out of the data, Figure 2.11 looks separately at each quintile of the (baseline) export/capita distribution. Thus, Q1 is the worst-performing quintile in the baseline period, Q2 is the second-worst, and so on. In terms of growth (panel a), only in the top two quintiles do we see a positive differential between high and low recipients in terms of export growth. In terms of diversification (panel b), although the lower quintile diversifies (whereas the upper quintile reconcentrates), within the lower quintile, high AFT recipients diversify *less* than low recipients. A similar exercise for the time to export returns similarly disappointing results.

---

45   An early strand of the literature explored whether AFT positively affected the *donor's* exports (up to the early 1990s, over half of all bilateral aid was at least partially tied to donor exports). Using a gravity equation, Wagner (2003) and Nelson and Silva (2008) found a positive association, although the effect was small; Osei et al. (2004), using a gravity equation in first differences for a panel of four European donors and 26 African recipients, found an unstable and insignificant impact of aid on exports from donor to recipient.

Figure 2.11 *Export growth and diversification vs. lagged AFT, by quintile of the export per capita distribution*

(a) Export growth (five-year cumulative)   (b) Export diversification (change in Herfindahl)
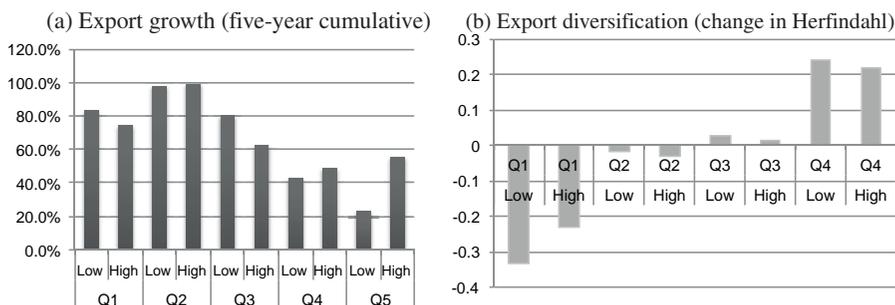
Notes: Bar height in panel (a) measures Δ ln(export) over 2005-11; in panel (b) it measures Δ Herfindahl index at HS6 over 2005-2011.

Source: Authors' calculations using OECD CRS database and WDI.

So much for AFT fostering convergence or diversification. Of course, our exercise is rough and ready, and many confounding influences and channels of reverse causality should be filtered out before any firm conclusion is reached, preferably using some econometrics. We now turn to some of the literature's results.

Using the OECD's CRS,[46] as suggested by (4), Cali and te Velde (2011) regress trading costs and aggregate export value on lagged AFT disbursements and control variables, on a panel of developing countries. Identification is based on recipient fixed effects and instrumenting AFT flows with the Freedom House index of civil liberties, the authors arguing that the Millenium Challenge Corporation explicitly uses that index as an input in their aid allocation mechanism. For aid to infrastructure, coefficients are significant in some specifications, but with very limited robustness. As for aid to productive capacity, it fails to correlate with exports whatever the specification, estimator or lag structure. As for results on sectorally targeted aid, they tend to confirm the profession's longstanding skepticism about targeted support. Cali and te Velde (2011) find significant effects only in some specifications, and they vanish as soon as comparative advantage is controlled for by country-sector fixed effects.

Brenton and von Uexkull (2009) find that, in a simple before-after comparison, sectors that receive aid support perform better, but a difference-in-differences regression of country-sector exports on aid flows controlling for heterogeneity through matching does not show significant effects (in particular, once outliers are eliminated), suggesting that crude comparisons that fail to control for aid endogeneity pick up reverse causation. The only significant results obtained on sectorally-targeted AFT concern aid to service sectors. Ferro et al. (2014) combine aid to services with input-output data to identify the effect of aid on downstream manufacturing sectors, reasoning that reverse causality (from sectoral

---

46   Trading costs are measured by the trading across borders indicators of the Doing Business database.

performance to aid flows) would be eliminated by looking at aid to upstream services. Using a country-sector panel for 1990-2008, they find significant effects for aid to banking services and energy but, interestingly, no effect for aid to ICT or transport services (as distinct from transport *infrastructure*).

Building on empirical results discussed earlier in this survey that suggest a robust correlation between infrastructure quality and export performance, Vijil and Wagner (2012) look for the effect of infrastructure aid commitments on an index of infrastructure quality composed of roads and telecom densities in a cross-section of 91 countries for which they take average values of all variables over 2002-2007. They control for overall ODA inflows, geography and institutions (proxied by a rule-of-law index), and deal with endogeneity and measurement error by instrumenting aid to infrastructure by the number of privatisations in the infrastructure sector between 2000 and 2007. They find that when all country controls are included, the quality of infrastructure is significantly positively correlated with aid to infrastructure in all two-stage-least-squares specifications.

The literature thus far used recipient or donor/recipient characteristics only as controls, leaving aside the important question of synergies between aid flows and other forms of development assistance. Vijil (2014) explores the complementarity between AFT and regional integration, using Baier and Bergstrand's (2009) measure of trade integration. She uses a panel gravity on 178 countries over 1995-2005 where she introduces AFT inflows for the exporter and importer linearly and interacted with the bilateral integration term. She finds that bilateral trade correlates significantly with AFT levels in the exporter and importer countries, but also that the effect is reinforced by integration, in particular on the importer side. The effect is strongly significant for South-South and North-South trade, possibly reflecting complementarities between aid flows and regional cooperation on NTBs and transit, or the policy stability that comes with regional integration.

7   IMPACT EVALUATION IN TRADE

Evaluation is part of a broader results-assessment nexus comprising monitoring – a continuous process tracking of whether programme implementation follows established rules and procedures – and evaluation – a periodic exercise addressing performance issues, including causal links between programme and outcomes and possibly cost issues as well. The focus on causal links ('attribution') is what distinguishes impact evaluation (IE) *stricto sensu* from other forms of evaluation. The typical questions that one would want to address through impact evaluation are:

1. Are there changes in the observed outcomes of beneficiaries of programme *P* that can be attributed to the programme? Are those changes replicable?

2.   What components of programme *P*'s treatment ('treatment arms' in the IE jargon) are most effective?

3.   How do programme *P*'s benefits compare with its costs? Is it the most cost-effective among alternatives?

Of course, a single impact evaluation is unlikely to provide final answers to all three questions. In what follows, we will try to provide a realistic overview of what can be expected from IE, in particular in a trade context, and what cannot.

7.1   *Methods and interpretation: A brief overview*

7.1.1   *Data and methods*

Although impact evaluation methods are familiar to most economists, in particular labour economists who have used them for over four decades, a brief overview helps motivate our later discussion of how those methods can address the needs of AFT evaluation. Notwithstanding recent controversies, the essence of impact evaluation is the use of a control group to provide a counterfactual to treatment effects; it is not randomisation, which is one method among several to ensure comparability of the treatment and control groups.

Figure 2.12 depicts the two families of methods used in IE: experimental design (randomisation) and quasi-experimental design (econometrics).[47] Starting from the left, randomised control trials (RCTs), the 'gold standard' of IE, rely on randomised assignment (i.e. on the law of large numbers) to ensure comparability of the treatment and control groups. In principle, randomised assignment ensures that potential individual outcomes do not correlate with treatment status. Put differently, provided that the sample size is sufficient to ensure that the treatment and control groups are similar in their pre-treatment attributes, randomisation ensures *internal validity*, i.e. the ability to establish a causal relationship between outcomes and treatment. By contrast, *external validity*, i.e. the ability to draw inferences that are valid out of sample, requires the overall sample (of treated and control individuals) to be representative of the wider population of 'treatable' individuals. This is usually difficult to establish and is a key drawback of IE, to which we will return.

---

47   For a rigorous overview, see Duflo et al. (2006); See also the very pedagogical approach in Gertler et al. (2011) or Khandker et al. (2009).

Figure 2.12 *Impact evaluation methods*
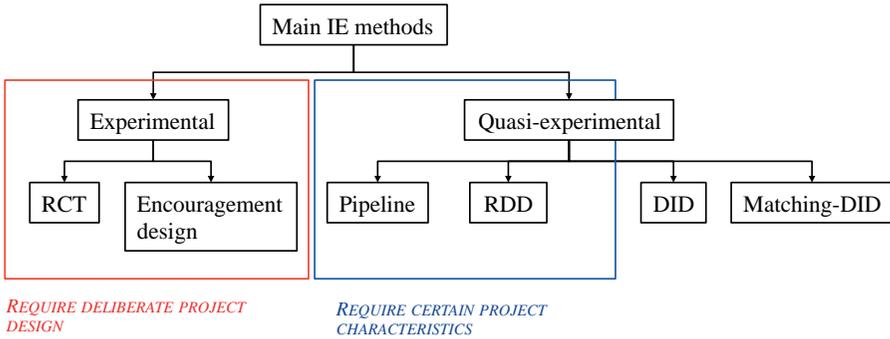
In practice, randomisation is rarely part of the culture of government agencies and can easily be perceived as ethically difficult or unrealistic.[48] However, when programmes are oversubscribed or during their pilot phases, randomised assignment should pose no particular ethical problem as it is a fair way of allocating scarce resources. Also, micro-programmes to encourage women entrepreneurs in export-oriented sectors, sometimes run by NGOs, could be evaluated like other anti-poverty programmes through RCTs.

When a programme has universal eligibility or no control over who enrolls, randomised assignment is not possible; randomised *promotion* (so-called 'encouragement design') is then an alternative. Randomised promotion combines differences in outcomes with differences in take-up rates between the treatment and control groups (due to the fact that the programme was not promoted to the control group) to infer treatment effects.[49] Under encouragement design, the power of the treatment-effect test depends not just on sample size but also on the promotion's effectiveness, which must generate substantial differences in enrolment rates between the two groups. For instance, encouragement design can be used to evaluate the use of inputs (fertilizers, pesticides, etc.) in export-oriented agriculture.

Both methods require deliberate programme design from the outset that goes beyond just collecting baseline data. However, in both cases (micro-entrepreneurship programmes or agricultural support ones) there is the issue of the value added of impact evaluation, especially given its cost (an issue to which we will return later). Micro-entrepreneurship programmes are typically relatively low-scale and low-stakes, and a lot of ink has already been spilled on whether or not they make a difference (e.g. Banerjee and Duflo, 2011). Would the nth evaluation of a micro-programme make a difference in the policy debate?

---

48 There are prominent counter-examples. For instance, Mexico's celebrated PROGRESA anti-poverty programme (deployed in May 1998) was randomly assigned for rigorous evaluation from the outset. As a result, it was widely studied and has set the standard for such programmes worldwide. The first evaluation was carried out by IFPRI at the request of the Government of Mexico in 1999 (see http://www.ifpri.org/dataset/mexico-evaluation-progresa).

49 In econometrics terms, randomised promotion serves as an instrumental variable for enrolment.

As for the effect of using fertilizers, agronomists on the ground have pretty good knowledge of what works and what does not. What radically new information would an IE uncover?

Programmes that have not or could not be designed for IE, which may well be those we are most interested in, can nevertheless be evaluated, under certain conditions and depending on their characteristics, using various quasi-experimental (QE) methods.

For programmes with progressive phase-in, pipeline methods use eligible but not-yet-enrolled individuals as controls. This has the advantage of alleviating some of the usual selection problems, as unobservable characteristics correlated with the willingness to enroll can be expected to be the same for enrolled individuals and those in the pipeline.

For programmes with a well-defined cut-off in terms of a certain observable attribute (say, SME support programmes where firms must not have more than a given annual turnover), regression discontinuity design (RDD) uses outcome differences around the cut-off point for the identification of treatment effects. That is, in the SME example, ineligible firms immediately above the cut-off, which are almost identical to eligible firms immediately below, are used as the counterfactual. The sample-size requirement is crucial here, as inference is based on a small 'bandwidth' around the cut-off. Moreover, the external validity problem is particularly severe as firms far away from the cut-off have no natural counterfactual.

Finally, programmes that have not been designed for evaluation and have neither pipeline nor cut-off can be evaluated using difference-in-differences (DID) regression, with or without matching. DID methods compare the before-after variation in outcomes (first differences, usually of log-levels, which means growth rates) for the treatment group with the before-after variation for the control group. DID regression filters out two types of confounding influences: common trends and (some) heterogeneity between individuals.

As for common trends, suppose that all firms experienced reduced exports because of a macroeconomic downturn at the time an export-promotion programme was deployed. A crude before-after comparison of the treated firms' exports would suggest that the programme *reduced* them. The confounding influence of the downward trend is filtered out by the comparison of export growth for treated versus control firms (the second difference in the DID), provided that both are subject to the same trend.

As for heterogeneity, suppose that the treatment group has larger firms that export more, making the two groups not directly comparable. First differencing filters out this confounding influence, which is on outcome *levels*. Suppose further that the larger firms in the treatment group tend to grow less because of convergence. This is a confounding influence on outcome *growth* that is not filtered out by first differencing. It is (or can be) filtered out by controlling for individual covariates in the regression (here, initial size), provided that the data set is rich enough.

   A further problem may arise because of individual heterogeneity in the degree of responsiveness to the treatment. This one can be reduced (if not eliminated) by so-called 'propensity-score matching' (PSM), which consists of constructing a control group whose probability of treatment, based on observable attributes, is as close as possible to that of the treatment group.[50] Suppose that it so happens that firms with a large proportion of skilled labour are both more likely to sign up for a technical assistance programme and more responsive to it. DID estimates will then suffer from endogeneity bias, as treatment status, a RHS variable, will be correlated with the error term. Matching DID estimates can correct for this, provided that the individual attribute correlating with both enrolment and responsiveness is both observable and time-invariant. If it were related to, say, changes in firm management, matching would not help.

   In the case of 'comparative case studies' where sample size is too small for PSM to be applied in its conventional form, a variant called 'synthetic control' (SC), developed by Abadie and Gardeazabal (2003), can be considered.[51] Essentially, it consists of constructing a fictitious counterfactual as a convex combination of a small number of control-group entities. Practically, suppose that, out of a limited set of countries indexed by i for which data is available, country $i = 1$ put in place a reform at time T, and that we want to evaluate its effect on a performance variable y_{it}. Let y_{it}^1 be the value of y with the reform and y_{it}^0 without. Let also $\mathbf{x}_{it}$ be a vector of K observable covariates, z_{it} an unobservable heterogeneity factor, and suppose that, in the absence of treatment,

$$y_{it}^0 = \mathbf{x}_{it}\boldsymbol{\beta} + \gamma_t z_{it} + \delta_t + u_{it} \tag{8}$$

If γ were time-invariant, (8) would reduce to a simple DID equation, but here we assume that heterogeneity is also time-variant, a situation that is amenable to SC methods. The idea of SC is to construct a convex combination of countries in the control group so as to minimise the distance between the 'treatment country' and the convex combination of control countries in the covariates space. For that, we need two sets of weights: weights v_k on the covariates $\mathbf{x}_{it}$ reflecting their importance as predictors of y, and weights w_i on the control countries $i = 2,\ldots, N+1$, which will be, at the optimum, a function of the v_k. Let $\bar{\mathbf{x}}_1$ be the $K \times 1$ vector of pre-treatment characteristics of country 1, averaged over the pre-treatment period, and $\bar{\mathbf{x}}_c$ the similar $K \times N$ matrix for the N control countries; let $\mathbf{w} = [w_2,\ldots,w_{N+1}]'$, and let $\mathbf{V}$ be a $K \times K$ diagonal matrix with the v_k along the diagonal. The SC solves

---

50 Practically, what that means is that the econometrician regresses treatment status (a zero-one variable) on individual characteristics for the whole sample (treated and nontreated individuals), retrieves predicted treatment probabilites, and then pairs each treated individual with those in the control group that have the closest predicted treatment probability (one or many, depending on the matching algorithm).

51 See also Abadie et al. (2010) and Gathani and Stoelinga (2013).

$$\min_w [\bar{\mathbf{x}}_1 - \bar{\mathbf{x}}_c \mathbf{w}]' V [\bar{\mathbf{x}}_1 - \bar{\mathbf{x}}_c \mathbf{w}]$$

s.t.

$$w_i \geq 0 \tag{9}$$

$$\sum_{i=1}^{N+1} w_i = 1.$$

A simple version consists of making **V** the identity matrix (equal weights on all covariates), but the v_k can also be chosen optimally. Intuitively, while propensity score matching selects the control group on the basis of its similarity with the treatment group in terms of *treatment status* predictors, synthetic control selects it for its similarity with the treated entity in terms of *pre-treatment performance* predictors. [52]

Gathani et al. (2013) applied the SC method to the evaluation of Rwanda's one-stop shop for business creation and showed that the rate of new business creation rose substantially compared to the 'synthetic Rwanda'. In their application, the SC was based on the distance between countries in the space of components of the Doing Business indicator.

To sum up, because of their common reliance on a control group and variation in outcomes before and after the treatment, practically all of these methods require two basic ingredients:

- a baseline survey covering sufficiently many individuals and sufficiently many attributes of those individuals; and

- a group of individuals left untreated, whatever the assignment method.

Aside from scholastic debates about whether or not randomisation is the alpha and omega of evaluation, if all projects routinely had those two features, assessing their effects would be a lot easier.

6.1.2   Interpreting IE results
Even with adequate data and basic design, conceptual and statistical issues will always plague impact evaluation. One of them is externalities. What if the programme's treatment spills over to the control group? For instance, export promotion could lead firms to make easily imitable product or country expansion decisions, in which case the control group's outcomes would quickly converge to those of the treatment group, leading the evaluator to believe that there was no lasting treatment effect.

---

52 The SC approach is closely related to Todo's (2011) method for propensity score matching which consists of constructing, for each treated individual, a fictitious control constructed as a weighted average of non-treated individuals with weights determined to minimise the difference in propensity scores between the treated individual and the fictitious control. Todo's method produces a control group whose size is exactly that of the treatment group.

The problem is more than just one of identification. In areas like health, education, gender or poverty eradication, policy is aimed at the needs of vulnerable individuals – women, children, individuals with poor health – and the government may care about their personal well-being even in the absence of spillovers. By contrast, in trade, we are (usually) dealing with firms. Whereas improving a child's wellbeing is a valid policy objective in itself, improving the welfare of a company's shareholders is not. Thus, in a trade-related environment, a government programme can be cost-effective (the third of our basic IE questions) in an economic sense only if it addresses a well-defined market failure. If it were simply to channel the taxpayer's money to privately appropriated benefits, it could not be cost-effective, as the distortions created by taxation would not be offset by any social benefits. But, by construction, treatment effects pick up only (or essentially) privately appropriated benefits, since social benefits would affect the control group as well.

Thus, IE should be used cautiously as a policy evaluation tool, and preferably in conjunction with some direct measure of spillovers. Consider again our export promotion programme. If the IE failed to show any significant treatment effect, it could be that (i) the programme was ineffective; (ii) the programme was effective but its benefits fully spread to the control group; or (iii) the test did not have enough power given the sample's characteristics. In case (i), the programme should be phased out; in case (ii), it should not, *provided that the benefits were valuable to society at large or could be taxed back*; in case (iii), we wouldn't know. Thus, the 'no treatment effect' result is fundamentally ambiguous. If, by contrast, the IE did return a significant treatment effect, the null of treatment ineffectiveness could be rejected, but there would still be no justification for using taxpayers' money for it. Instead, it should be implemented on a full-cost recovery basis.

To see this, suppose now that the market failure was credit rationing, with exporters being denied access to trade finance because of asymmetric information, moral hazard, the absence of institutional arrangements for collateral, or any other market failure. The presence of a market failure would provide a justification for government intervention, say, in the form of a guarantee fund. In that case, the benefits would be fully appropriable by exporters, which would return significant treatment effects in an IE. But again, the programme should be implemented, if possible, on a full-cost recovery basis.[53]

7.2   *What IE for what intervention?*

7.2.1   *Data*
The previous section's discussion of available IE methods clearly suggests that 'clinical' policy interventions are more amenable to IE design than universal

---

[53]   In small developing countries, a guarantee fund may also have systemic effects on the stability of the country's banking system, which is an externality. In practice, some guarantee funds deployed by donors such as the Agence Française de Développement are intended to be self-financing, but the subsidy component appears difficult to phase out.

policy reforms. Thus, traditional trade policy reforms such as reductions in tariffs or non-tariff barriers are, by construction, outside the scope of IE and should rather be evaluated using traditional econometric methods, provided that usual identification problems such as the endogeneity of policy reforms can be properly addressed by instrumentation or through a natural experiment.

A good example of this approach is Estevadeordal and Taylor (2009), who used countries that liberalised tariffs on capital and intermediate goods after the Uruguay Round as a treatment group and countries that did not as controls in a DID regression assessing the effect of trade liberalisation on growth. In order to deal with the treatment's potential endogeneity, the identification strategy could not rely on the usual trick of using 'institution quality' proxies, since those are largely time-invariant and thus unsuitable for a DID framework. Instead, it relied on a historical argument according to which countries that underwent a less severe drop in GDP during the Great Depression of the 1930s would be more inclined to liberalise later on. While intuitive, this instrumentation strategy clearly relies on a long causal chain that is fraught with uncertainties and confounding influences. It is those influences that narrower IEs try to escape.

Turning to narrower policies with better scope for applying IE techniques, the twin requirements of adequate project design and a 'clinical' (or 'targeted') nature of the intervention suggest the typology of projects and evaluation methods shown in Table 2.1. Targeted programmes such as technical assistance, export promotion, and so on could be amenable to RCT design provided that the decision to randomise assignment was taken ex ante (upper left-hand cell in Table 2.1). In practice, only a minority of them can be expected to be RCTs. If not (upper right-hand cell in Table 2.1), QE design is appropriate. In that case, ideal data requirements will typically include the following:

- *Trade data* at the transaction level from customs, which are available from ASYCUDA raw files. The data can be easily anonymised by deleting firm names and keeping only TINs (tax identification numbers) and will provide information on firm-level outcomes.

- *Programme data* including enrolment status, dropouts and rejects.

- *Firm characteristics data* from an industrial survey (typically balance sheet information including employment, turnover, age, as well as ownership, number of establishments, etc.). Of course, the survey's key for the classification of firms should be compatible with that of customs data for reconciliation, which precludes the use of 'dummy' firm identifiers.

Clearly, these data requirements are heavy and raise confidentiality issues; whether the data will actually be made available to the evaluation team by

government authorities depends on interest (buy-in) in the IE's results, donor involvement and quality of the dialogue.[54]

Table 2.1 *Boundaries of impact evaluation*

	Evaluation built into programme design	Evaluation not built into programme design
Targeted (typically trade competiveness-related, e.g. matching grants for producers for technology upgrading or export business plans; export credit guarantees for producers)	RCT is feasible; quasi-experimental methods are a possible alternative	RCT is infeasible; quasi-experimental methods are feasible
Non-targeted (typically trade facilitation-related, e.g. customs reform, port improvements; but also some trade competitveness-related: support for producer organisations or other institutional reforms)	RCT is typically infeasible; quasi-experimental methods are more appropriate; some methods of targeting can be introduced (phase-in, staggered implementation)	All IE methods are difficult; before-after comparisons may be only alternative

Notes: RCT: randomised control trial; QE: quasi-experimental. QE methods are matching, difference-in-differences (DID), instrumental variables, or regression discontinuity design.

Source: Cadot et al. (2011).

Non-targeted programmes such as customs reform (lower cells in Table 2.1) will typically be more difficult to evaluate with methods other than crude before-after comparisons, although progressive phase-in will allow some scope. For instance, suppose that border posts are modernised one at a time, with improved facilities, performance contracts for customs officers, and various measures to improve their productivity (see Cantens et al. (2011) for an example in Cameroon). One immediately thinks of an analogy with pipeline methods where border posts to be modernised are used as controls for those being modernised. However, in many low-income countries, there are few border posts and they are typically different from one another in terms of volume, type of traded commodities, type of firms, etc. For instance, there will be a border post linked to a port and smaller ones for overland trade. This would make border posts bad counterfactuals for one another. However, if one shifts the analysis to the level of the transaction, a transaction using one border post may be a good counterfactual for another one in a similar commodity, and performed by a similar firm, using another post, even if those posts are not comparable on aggregate. If, say, transactions in a reformed border post have undergone a reduction in clearance delays around the

---

54 The World Bank has recently launched the Exporter Dynamics project, which aims at collecting precisely this type of data (at least, the customs data) from customs administrations around the world. However, sharing the data with researchers has proved a difficult and labourious process because of the confidentiality issues involved.

time of reform while similar transactions in other border posts have not, one may be able to identify a credible treatment effect.

Carefully chosen case studies also help disentangling the dimensions of the 'quality' of governance, an important metric often captured by an average of non-comparable subjective ordinal indicators. For example, the organisation of bureaucrats (clearing officials and customs officials) responsible for handling trade flows is important in determining the type and extent of corruption at borders. In South Africa, by law, firms must resort to a clearing agent specialising in clearing cargo through customs (so no firm can interact directly with customs officials or port operators). Maputo and Durban are two ports equally accessible for manufacturers in South Africa's hinterland with similar 'hard' characteristics (similar overland transport costs, cargo-handling facilities and logistics services) but different 'soft' infrastructures, as they are organised differently. In Durban, there is no interaction between clearing agents and customs officials as clearance documentation is processed online, while in Maputo all documentation is submitted in person. Container terminals are privately managed in Maputo but are generally publicly managed in Durban, while customs officials rotate frequently in Maputo but stay put in Durban for long periods. Assuming that these organisational features are exogenous to the levels of corruption, Sequeira and Djankov (2010) use a random sample of 1,300 shipments to both ports for which respondents were requested to give detailed data on bribes paid. They find that the probability of paying a bribe in Maputo is nearly twice as high as in Durban, and the amounts are three times higher. They also distinguish between 'collusive' bribes, where officials and clearing agents share rents paid by firms, and 'coercive' bribes where firms have to pay a bribe to get access to the port service. They estimate that collusive corruption is cost-reducing as it reduces uncertainty, while coercive bribes are distortionary, with firms estimated to travel over 300 km to avoid them. In a sequel investigation, using Mozambique's tariff reduction as an experiment, Sequeira (2011) estimates that it sharply reduced the probability of collusive bribes to avoid duties relative to coercive bribes to get through other phases of the clearing process.

Thus, the availability of transaction-level data can open up possibilities for evaluation that would not be there without them, and this even in the bottom right-hand cell of Table 2.1 where no deliberate effort was made ex ante to make project design amenable to evaluation.

7.2.2   Implementation

In practice, efforts to generalise the use of IE in trade interventions face two types of constraint: incentives and resources.

In terms of incentives, an IE risks slowing down project roll-out and diverting managerial attention for results that are unlikely to be available within a manager's tenure horizon; and if they did, they might do more harm than good. The way typical incentive structures work, the accumulation of smoothly run projects satisfying internal success criteria (full and timely disbursement, completion of planned tasks and some evidence, say from focus groups, that

beneficiaries are happy) is the stuff of successful careers. By contrast, a single project attracting controversy may do permanent damage. An IE saying that a project had an impact will just confirm what the project manager was probably claiming anyway; an IE saying the project had no impact would dangerously contradict his claims and trigger controversy.

In order to be incentive compatible, IE should be used only to generate new knowledge and should be fully decoupled from the evaluation of project managers. However, it is not clear that an organisation could make such a claim credible, as it would obviously suffer from a time-inconsistency problem. Thus, the decision of whether or not to carry out an IE should not be taken by project managers; it should be part of the project's design upstream of the project manager. But even if that happened, IE might affect the manager's decisions ex post by discouraging experimentation. If the project manager could choose between two 'treatment arms' – a proven but uninnovative one and a new but risky one – the perspective of an IE could lead him/her to avoid the innovative/ risky one.

As for funding, the basic issue is that IEs have tended to be on the expensive side, although there may be scope to reduce costs. This is illustrated by Table 2.2, reproduced from Gertler et al. (2011). In a sample of IEs of World Bank-supported projects over recent years, the average IE cost is over $700,000. In an interview with the authors, the head of the World Bank's Development Impact Evaluation Initiative (DIME) unit reckoned that with less than $300,000, it would be difficult to think of a serious IE. What is so expensive? Inspection shows that most of the cost is accounted for by data collection, which is very expensive when it comes to household surveys. For instance, in an interview with the authors, specialists in the World Bank's Living Standards Measurement Study (LSMS) division estimated the average cost of a household survey at about $300 per household, including repeated visits and all related costs. Still, even at that rate, the particularly expensive IE in Malawi (at $1.8 million, of which $1.3 million was for data collection) could cover 2,000 households in a two-period panel, a large sample for an IE. Combining this with travel costs of about $83,000 ($270,000 for the Benin IE in Table 2.2) may lead the reader to think that there is scope for reducing IE costs to more palatable figures.

If IEs are so expensive, how did they spread to so many areas of development aid? The answer is in Table 2.3. In areas such as social development, the amounts involved may not seem outrageous compared to the sheer size of the programmes. Gertler et al. (2011) show that, for a sample of World Bank-supported programmes for which IE and programme cost data was available, IE costs represented on average between 4% and 5% of total programme costs, ranging between 0.2% and 13.3% (Table 2.3). This is because project costs in the sample ranged between $11 million (Rwanda) and $86 million (Colombia).

Table 2.2 *IE costs for selected World Bank-supported projects*

	Country	Total cost	Travel	World Bank staff	Consultants (national and int.)	Data collection (incl. field staff)	Dissemination
Poverty Reduction Support Credits and Maternal Health Performance	Benin	1,690,000	270,000	200,000	320,000	840,000	60,000
Pay Reform for School Teachers	Brazil	513,000	78,000	55,000	105,000	240,000	35,000
Nadie es Perfecto Programme to Improve Parenting Skills	Chile	313,000	11,500	—	35,500	260,000	6,000
Paying for Performance in China's Health Sector: Evaluation of Health XI	China	308,900	60,000	35,000	61,000	152,900	—
National Rural Employment Guarantee Program	India	390,000	41,500	50,000	13,500	270,000	15,000
School Health and Nutrition: The Role of Malaria Control in Improving Education	Kenya	652,087	69,550	60,000	103,180	354,000	65,357
HIV Prevention Campaign for the Youth: Abstinence, Fidelity and Safe Sex	Lesotho	630,300	74,300	9,600	98,400	440,000	8,000
CCT, Schooling and HIV Risk	Malawi	1,842,841	83,077	144,000	256,344	1,359,420	—
Contigo Vamos por Mas Oportunidades Program in the State of Guanajuato	Mexico	132,199	2,660	50,409	—	80,640	1,150
Randomized CCT Pilot in Rural Primary Education	Morocco	674,367	39,907	66,000	142,460	426,000	—
Learning and Growing in the Shadow of HIV/AIDS: Randomized ECD Program	Mozambique	838,650	86,400	31,000	62,500	638,750	20,000
Training of Community Distributors in the Prevention and Treatment of Malaria	Nigeria	1,024,040	64,000	35,000	106,900	817,740	—
School Health and Nutrition: The Role of Malaria Control in Improving Education	Senegal	644,047	61,800	60,000	102,890	354,000	65,357
CCTs to Prevent HIV and Other Sexually Transmitted Infections	Tanzania	771,610	60,000	62,000	100,000	518,611	30,999
Average		*744,646*	*71,621*	*66,031*	*115,957*	*482,290*	*20,686*

Note: CCT: conditional cash transfer; ECD: early childhood development.

Source: Gertler et al. (2011).

Table 2.3 *IE costs, as a fraction of programme cost, for selected World-Bank supported programmes*

		Programme cost	IE cost	Percent
Social Safety Net Technical Assistance	Pakistan	60,000,000	2,000,000	3.33
Social Fund for Development 3	Yemen, Rep.	15,000,000	2,000,000	13.33
Social Protection Project	Panama	24,000,000	1,000,000	4.17
1st Community Living Standards	Rwanda	11,000,000	1,000,000	9.09
Social Protection	Jamaica	40,000,000	800,000	2.00
Social Sectors Investment Program	Dominican Rep.	19,400,000	600,000	3.09
Migrant Skills Development and Employment	China	50,000,000	220,000	0.44
Social Safety Net Project	Colombia	86,400,000	130,000	0.15
Average				*4.45*

Source: Gertler et al. (2011).

Trade-related projects rarely attain such levels. If we take DIME's estimate of a minimum of $300,000 for a feasible IE, a ratio of 5% would require a project of $6 million. By the standards of World Bank projects in social development, poverty, or health, this is a small project. By the standards of trade-related assistance, this is very large.

In order to provide a rough order of magnitude of the size of AFT projects, Table 2.4 displays mean and median annual commitment size in 2010, by country, from the OECD's CRS database, cumulated over all donors (23 DAC countries and 10 multilateral). This can only provide a very rough order of magnitude since (i) several donors will typically be active in a given country/area, (ii) a donor's annual commitment to an area may cover several projects, and (iii) individual projects can extend over more than a single year. Be that as it may, median commitment size in 2010 for trade policy and regulations, by country, was $700,000. With a conservative estimate of three donors per country and one project per donor, we would be slightly above $200,000 per project, i.e. below the 'minimum-cost' IE at current rates. For banking and financial services, it was $2.9 million, or $1 million per donor under the same assumptions. Clearly, these amounts are orders of magnitude below the amounts typically committed to poverty reduction, social development or health, and would make it difficult to spend on IEs the kind of amounts shown in Table 2.2.

These very rough calculations help explain the slow spread of IE in trade-related assistance and suggest that IE templates must be adapted to the area of trade assistance in order to make IE an acceptable proposition for donors. Clearly, QE methods using statistical data instead of original household surveys are the way to go. We now turn to a few examples of recent IEs in that spirit and how they have contributed to our understanding of the effectiveness of trade interventions.

Table 2.4   *Annual commitment amount by country and sector, 2010 (million dollars)*

	Mean	Median
Transport & storage	110.3	28.3
Energy	84.7	16.2
Agriculture	49.1	17.0
Banking & FS	15.3	2.9
Business services	11.9	4.1
Industry	11.7	3.6
Forestry	7.3	0.8
Mineral resources	6.9	0.4
Trade policy & regulations	3.7	0.7
Fishing	2.6	0.4
Communication	2.6	0.6
Tourism	1.4	0.2

Source: Authors calculations from OECD, CRS.

8   EARLY RESULTS

We report here the results from studies with careful/innovative identification strategies, some more data-collection intensive than others.

8.1   *Does export promotion make a difference?*

So far, there have been very few impact evaluations of trade-related interventions, and only a thin, 'early' literature can be reported on. However, the performance of export promotion agencies (EPAs), which is one of the few areas of 'clinical-type' interventions that have been extensively studied, provides a good testing ground to evaluate the contribution that IE – defined the way we have defined it in this survey – can bring to policy debates and dialogue with developing countries.

   Export promotion agencies aim at overcoming informational barriers faced by existing and potential exporters by helping them with market prospection and promotion, and sometimes through technical assistance as well (product and firm development). In the early 1990s, on the basis of broad cross-country experience, a World Bank study concluded that in most developing countries, EPAs had failed to make any difference in terms of export performance (Keesing and Singer, 1991). Factors that contributed to their inefficacy included under-funding, government meddling in the management, lack of private sector involvement and, most importantly of all, overall policy environments that, until the wave of reforms in the 1990s, were strongly biased against exports.

By the mid-2000s, the policy environment in many developing countries had changed drastically, and some of the changes suggested by Keesing and Singer had been implemented. A new, cross-country study by Lederman et al. (2010) using a survey of EPAs suggested that, contrary to perceptions, the return to additional funding was in fact very large. The study's identification strategy illustrates the difficulties facing cross-country econometrics when it comes to impact evaluation. Clearly, the *presence* of an EPA is endogenous to trade performance (a selection problem) and so is the *intensity* of promotion, i.e. the EPA's budget. The authors use Heckman's estimator to deal with selection, using GDP per capita and aid per capita as excluded variables in the selection equation (although the case for excluding per capita aid from the export equation could be debated). As for endogeneity of the EPA's budget, they use the agency's age and time to election as excluded instruments. With typical EPA budgets standing at about one thousandth of export value and elasticities of exports to EPA budgets of between 0.05 and 0.09, raising an EPA's budget by 1% from a baseline $1 million (a $10,000 increase) would raise exports by $500,000 to $900,000 (0.05% to 0.09% of $1 billion), or a return of $50 to $90 to the dollar. This too-good-to-be-true rate of return suggests that the cross-country estimation may pick up confounding influences, which is not overly surprising since the nature of the data prevented the authors from using panel data econometrics (the EPA survey was carried out for a single year).

Partly in reaction to the traditional identification difficulties facing cross-country studies, partly as a result of the increasing availability of firm-level data, a new literature surveyed in Volpe (2011) has turned to 'clinical' (firm-level) evaluation of EPAs. For instance, using DID estimation at the firm level, Alvarez and Crespi (2000) evaluated Chile's EPA, PROCHILE, and found that its activities had an impact on the beneficiaries' number of export destinations, although not on their number of export products. Since then, a number of firm-level studies have shown that export promotion seems to be more successful at affecting the performance of established exporters than at encouraging non-exporting firms to start exporting (Bernard and Jensen, 2004; Görg et al. 2008; Girma et al. 2009), in accordance with the literature on heterogeneous firms and trade, which suggests that exporters differ from non-exporters in terms of productivity and a host of other firm characteristics (e.g. Bernard et al., 2007), which export promotion activities may not be able to offset. Moreover, the impact seems stronger along the extensive margin than along the intensive one (Alvarez and Crespi, 2000; Volpe and Carballo, 2008; Cadot et al. 2012). Thus, assistance may be more successful in helping firms overcome hurdles to break into new markets (product- or destination-wise) than in ramping up export volumes.

Did this literature produce any insight that the cross-country literature did not? On one hand, it did not *overturn* the qualitative result of Lederman et al. (2010). They had found that EPAs do make a difference; this finding is upheld. On the other hand, the result is qualified and refined in a number of ways. For one thing, estimated effects tend to be substantially smaller at the firm level; for instance, Cadot et al. (2012) find only six dollars of additional exports for one

dollar of export promotion. Second, the level of detail in the decomposition of EPA activities tends to be higher in the clinical studies than in survey-based cross-country studies, allowing for closer examination of what 'treatment arms' seem to be most effective. Finally, the decomposition of impacts along various margins of firm performance (extensive or intensive) is necessarily richer at the firm level. However, clinical studies have little external validity; for instance, the success of PROCHILE in fostering diversification and innovation may have to do with many features of the Chilean business and government environment that could not be transplanted easily.

   In sum, as Rodrik (2008) put it, there is an inescapable trade-off between 'internal validity' (the ability to identify impact effects net of confounding influences), which improves as one goes from cross-country studies to impact evaluations, and 'external validity' (the ability to draw general policy propositions from evaluation results), which may well worsen.

8.2   *Border costs and roads*

A number of recent papers have highlighted the importance of reducing border delays for trade growth. For instance, Hummels (2001) showed that each additional day in transit delay cut the likelihood that US importers would source manufactured products from a particular country by 1.5%. The effect was even stronger, unsurprisingly, for perishable products. More recently, Djankov, Freund and Pham (2010), Hummels and Schaur (2013) and others found similar estimates. Most studies rely on the cross-country (and sometimes timewise) variation in Doing Business scores for time to export and other facilitation-related variables, and are therefore vulnerable to the usual confounding influences and omitted-variable biases, as well as to composition issues discussed in Volpe and Graziano (2012).

   Evaluating gains in the efficiency of border management without resorting to cross-country comparisons is difficult. Even when the reform of border posts is staggered in time, in many countries there are one or two large border posts – usually at the country's major port and road entry points – while other, smaller posts are inherently not comparable, thus precluding their use as a control group. Even reforms, that put individual customs officers under performance contracts as in Cameroon (Cantens et al., 2011), are difficult to evaluate because in many developing countries with relatively small customs administrations, sample size is usually too small to identify any effects.

   Volpe and Graziano (2012) provide an alternative approach that can serve as a model for many impact evaluations of programmes, using as direct interlocutors a small number of 'intermediating agencies' while really aimed, behind the veil of those intermediaries, at smaller entities like firms. They run a DID regression of firm export growth on customs delays at the level of individual cross-border transactions, controlling for unobserved heterogeneity both at the firm-year level (e.g. management changes) and at the firm-product-destination level. That is, their equation is of the type

$$\ln X_{fpdt} + \alpha D_{fptd} + \delta_{fpd} + \delta_{ft} + \delta_{pdt} + u_{fptd} \qquad (10)$$

where f indexes firms, p products, d destinations and t time. The powerful array of fixed effects controls much of the endogeneity bias that plagues this type of relationship. Based on first-differenced versions of (10), an additional day of customs delay, on average, is associated with a 1.8 percentage point reduction in the growth of firm-level exports, a substantial and highly significant effect.

Volpe and Graziano's results are important both in themselves and because their approach is potentially powerful to evaluate the effect of programmes going through a small number of intermediating bodies, like banks, to reach a large number of ultimate beneficiaries. For instance, lending schemes or export guarantees channeled through a small number of banks may be impossible to evaluate when taking the bank as the unit of observation. However, comparing similar firms or transactions across banks (possibly filtering out heterogeneity through propensity score matching and other techniques) can make it possible to go around heterogeneity and small sample size at the bank level by focusing directly on the ultimate beneficiaries of the programme.

As for roads, similar issues arise in terms of evaluation design. Casaburi et al. (2013) use a regression discontinuity design (RDD) to estimate the effect of an EU feeder-road rehabilitation programme implemented between 2009 and 2011 to help Sierra Leone reconstruct its infrastructure after a civil war. Using the EU programme's scoring system, they compare the producer price of food staples (rice and cassava) sold at nearby markets along roads just above the eligibility cut-off, which were rehabilitated, and just below, which were not. That is, letting i stand for a road, S_i its score, and $T_i \in \{0;1\}$ its rehabilitation status, letting p_{ijkt} be the price of a given staple along road i in market j and district k at time t, the estimating equation is

$$p_{ijkt} = \alpha_0 + \alpha_1 T_i + \alpha_2(T_i \times S_i) + \alpha_3[(1-T_i) \times S_i] + \delta_k + \delta_t + u_{ijkt} \qquad (11)$$

where the sample is limited to roads with scores S_i within a given bandwidth that reflects a trade-off between minimising heterogeneity and sufficient sample size. The authors used data from two surveys of rural rice traders. The first wave, conducted in 2011, targeted all markets within 5km of the 35 roads that were closest to the rehabilitation threshold in all four districts covered by the programme. Random sampling of markets in the rest of the country produced a sample of 54 markets located within 11km of the programme's 47 roads. The second wave, conducted in 2012, included 82 markets located within 11km of any of the 47 roads, including those sampled in the first wave. They used also price surveys conducted in the markets, giving larger, although still limited, sample size. In spite of the small sample sizes, the power of the RDD design allowed the identification of significant price effects, with producer prices rising significantly for 'treated' observations. This suggested that the road rehabilitation

programme had a substantial pro-competitive effect, reducing the monopsony power of market intermediaries.

9   CONCLUDING REMARKS

A number of observations come out of this brief survey of the issues around the potential for applying impact evaluation techniques to trade interventions.

First, although IE is 'a-theoretic', most of the practical IE literature pays at least lip service to the need for evaluation to be backed by some sort of 'theory of change' (e.g. Gertler et al., 2011). The literature we surveyed in the first part of this chapter provides strong evidence of a two-step causal link from infrastructure to trade costs and from trade costs to trade performance, based on a proven empirical framework (the gravity equation) and its theoretic foundations. Thus, as far as aid to transport infrastructure is concerned, the 'theory of change' is there.

In practice, aid to 'hard' infrastructure often plays a twin role. Apart from its direct effect on trade costs, it also provides a hook to start or maintain dialogue with recipient governments on policy reforms, for example in terms of regulation of related services (trucking, maritime transport, etc.) or even on broader agendas (privatisation and competition issues). How much donors actually use this leverage effect of infrastructure investments varies, depending on the depth of their dialogue and their own economic sophistication. But in this 'soft' area as well, the theory of change is there, as the IO and trade literature has long established the inter-relationship between trade performance and regulatory/competition policy (the so-called 'behind-the-border' agenda).

In both cases (hard and soft infrastructure), the causal links from policy intervention to export performance are there but they are non-trivial. Thus, it is fair to say that applying IE in those areas is not what critics have derided in some IEs – to make it a bit of a caricature, counting if treating people makes them less sick.

In order to generalise the use of IE in trade-related interventions, what is needed is to make it practically feasible in terms of design (project and evaluation), incentives and resources. In terms of design, the message of our brief overview of methods is that there is substantial scope for adapting methods to the particular context of trade interventions, especially with quasi-experimental approaches. In terms of incentives, we have argued that if the decision to launch an IE and to budget for it out of project resources is left to project managers, there is an agency problem. Part of the problem is the potential for IE to bring bad news. Thus, IE results should be decoupled from individual performance evaluation, but promises to keep a firewall between the two are unlikely to be time-consistent. The decision to launch IEs should therefore be taken upstream of project management. One solution might be, as suggested by Hoekman and Wilson (2010), to set up an independent IE centre for AFT projects. However, ultimately government buy-in would be a crucial ingredient, and it would be

unlikely with a complete separation of IE from project management. There is clearly a need for further thinking on this issue.

Finally, and perhaps most importantly, adopting IE as routine practice in AFT projects requires the 'evaluation community' to work on reducing IE costs. Although experienced IE practitioners like to warn newcomers against 'doing IE on a shoestring', the currently very high cost of IEs acts as a powerful deterrent. In trade policy, there should be scope for better use of existing statistics and, crucially, for more dialogue with governments to ensure the availability of firm-level statistics. That is where the issues of cost and buy-in converge: governments will be more willing to relinquish semi-confidential data to researchers if they understand the value of the results generated.

REFERENCES

Abadie, A. and J. Gardeazabal (2003), "The Economic Costs Of Conflict: A Case Study of the Basque Country", *American Economic Review* 93, 113-132.

Abadie, A. Diamond and J. Hainmueller (2010), "Synthetic Control Methods For Comparative Case Studies: Estimating The Effect of California's Tobacco Control Program", *Journal of The American Statistical Association* 105, 493-505.

Alberini, A., E. Lichtenberg, D. Mancini and G. Galinato (2008), "Was it Something I Ate? Implementation of the FDA Seafood HACCP Program", *American Journal of Agricultural Economics* 90(1), 28-41.

Alesina, A. and D. Dollar (2000), "Who Gives Foreign Aid to Whom and Why?" *Journal of Economic Growth* 5(1), 33-63.

Alesina, A. and B. Weder (2002), "Do Corrupt Governments Receive Less Foreign Aid?", *American Economic Review* 92(4), 1126-1137.

Alvarez, R. and G. Crespi (2000), "Exporter Performance and promotion Instruments: Chilean Emprical Evidence", *Estudios de Economia* 27, Universidad de Chile.

Amin, M. and M. Hoppe (2013) "Where Formal Procedures are Quasi-Formal", World Bank Africa Trade Policy Note 37, Washington, DC.

Amjadi, A. and A. Yeats (1995), 'Have Transport Costs Contributed to the Relative Decline of Sub-Saharan African Exports?', Policy Research Working Paper No. 1559, Washington, DC.

Anderson, J.E. and E. van Wincoop (2003), "Gravity with Gravitas: A Solution to the Border Puzzle," *American Economic Review* 93(1), 170-192.

Anderson, J.E. and E. van Wincoop (2004), "Trade Costs", *Journal of Economic Literature* 42(3), 691-751.

Artuc, E., D. Lederman and G. Porto (2013), "A mapping of labor mobility costs in developing countries", World Bank Policy Research Working Paper No. 6556, Washington, DC.

Arvis, J.-F., Y. Duval and B. Shepherd (2013), "Trade Costs in the Developing World, 1995–2010", World Bank Policy Research Working Paper No. 6309, Washington, DC.

Baier, S. and J.H. Bergstrand (2009), "Bonus vetus OLS: A simple method for approximating international trade-cost effects using the gravity equation", *Journal of International Economics* 77(1), 77-85.

Balchin, P. and S. Edwards (2008), 'Trade-Related Business Climate and Manufacturing Export Performance in Africa: A Firm Level Analysis', mimeo.

Baldwin, Richard, and D. Taglioni (2006), "Gravity for Dummies and Dummies for Gravity Equations**",** CEPR Discussion Paper No. 5850, Centre for Economic Policy Research, London.

Banerjee, A. and E. Duflo (2011), *Poor Economics*, New York: Public Affairs.

Baylis, Kathy; L. Nogueira and K. Pace (2011), "Food import refusals: evidence from the European Union", *American Journal of Agricultural Economics* 93, 566-572.

Bennathan, E., L. Escobar and G. Panagakos (1989), "Deregulation of Shipping: What is to be Learned from Chile", World Bank Policy Research Working Paper No. 67, Washington, DC.

Berger, D, W. Easterly, N. Nunn and S. Satyanath (2013), "Commercial Imperialism? Political Influence and Trade During the Cold War", *American Economic Review* 103(2), 863-896.

Bernard, A. and B. Jensen (2004), "Why Some Firms Export", *Review of Economics and Statistics* 86, 561-569.

Bernard, A., S. Redding and P. Schott (2007), "Firms in International Trade", *Journal of Economic Perspectives* 21, 105-130.

Bloningen, B. and W. Wilson (2008), "Port Efficiency and Trade Flows", *Review of International Economics* 16(1), 12-36

Borchert, I., B. Gootiz, A. Grover, A. Mattoo (2012) "Landlocked or Policy Locked: How Services Trade Protection Deepens Economic Isolation", World Bank Policy Research Working Paper No. 5942, Washington, DC.

Bourguignon, F. and M. Sundberg (2007), "Aid Effectiveness – Opening the Black Box"*, American Economic Review* 97(2), 316-321.

Brenton, P. and E. von Uexkull (2009), "Product-Specific Technical Assistance for Exports – Has it Been Effective?", *Journal of International Trade and Economic Development* 18, 235-254.

Burnside, C. and D. Dollar (2000), "Aid, Policies and Growth", *American Economic Review* 90(4), 847-868.

Buys, P., U. Deichmann and D. Wheeler (2006), "Road Network Upgrading and Overland Trade Expansion in Sub-Saharan Africa", Policy Research Working Paper 4097, Washington, DC.

Cadot, O., A.-C. Disdier and L. Fontagné (2012), "North-South Standards Harmonization and International Trade", CEPR Discussion Papers No. 8767, Center for Economic Policy Research, London.

Cadot, O. and J. de Melo (2014) "Evaluation in Aid-for-Trade: Introduction to the Symposium", *The World Economy* 37(4), 511-515.

Cadot, O. and J. Gourdon (2014), "Do Non-Tariff Measures Raise Import Prices? New Evidence", mimeo, CEPII/University of Lausanne.

Cadot, O. and R. Newfarmer (2012), "Does it Work? Aid for Trade through the Prism of Evaluation", *Bridges* 10, available at http://ictsd.org/i/a4t/115387/.

Cadot, O., A. Fernandes, J. Gourdon and A. Mattoo (eds) (2011), *Where to Spend the Next Million? Applying Impact Evaluation to Trade Assistance*, London: CEPR and Washington, DC: The World Bank.

Cadot, O., A. Fernandes, J. Gourdon and A. Mattoo (2012), "Does Export Promotion Work? New Evidence from Tunisia", mimeo, World Bank, Washington, DC.

Cadot, O., A. Fernandes, J. Gourdon, A. Mattoo and J. de Melo (2014) "Evaluating Aid-for-Trade: A Survey of Recent Studies", *The World Economy* 37(4), 516-529.

Cadot, O., M. Jaud and A. Suwa-Eisenmann (forthcoming) "Do Food Scares Explain Supplier Concentration? An Analysis of EU Agri-Food Imports", *European Review of Agricultural Economics.*

Cali, M. and D. te Velde (2011), "Does Aid for Trade Really Improve Trade Performance?" *World Development* 39(5), 725-740.

Cantens, T., G. Raballand, S. Bilangna and M. Djeuwo (2011), "Reforming Customs by Measuring Performance: A Cameroon Case Study", in O. Cadot, A. Fernandes, J. Gourdon and A. Mattoo (eds), *Where to Spend the Next Million? Applying Impact Evaluation to Trade*, London: CEPR and Washington, DC: The World Bank, pp. 183-206.

Carrère, C., J. de Melo and B. Tumurchudur (2010), "Disentangling Market access effects for ASEAN members under an ASEAN-EU FTA", *The World Economy* 33(1), 42-59.

Carrère, C., J. de Melo and J. Wilson (2013), "The Distance Puzzle and Low-Income Countries: An Update", *Journal of Economic Surveys* 27(4), 717-742.

Casaburi, L., R. Glennerster and T. Suri (2013), "Rural Roads and Intermediated Trade : Regression Discontinuity Evidence from Sierra Leone", International Growth Centre Working Paper, London.

Chauvet, L. and P. Guillaumont (2004), "Aid And Growth Revisited: Policy, Economic Vulnerability and Political Instability", in B.G. Tungodden, N. Stern and I. Kolstad (eds), *Towards Pro-Poor Policies: Aid, Institutions and Globalization*, New York: Oxford University Press for the World Bank.

Chauvet, L. and P. Guillaumont (2009), "Aid, Volatility and Growth Again: When Aid Volatility Matters and When It Does Not", *Review of Development Economics* 13, 452-463.

Chen, M. X., and A. Mattoo (2008), "Regionalism in standards: good or bad for trade?", *Canadian Journal of Economics* 41, 838-863.

Chen, M.X., T. Otsuki and J.S. Wilson (2006), "Do standards matter for export success?", World Bank Policy Research Working Paper No. 3809, Washington, DC.

Clark, X., D. Dollar and A. Micco (2004), "Port efficiency, maritime transport costs and bilateral trade", *Journal of Development Economics* 75(2), 417-450.

Clemens, M., S. Radelet and R. Bhavnani (2004), "Counting Chickens When They Hatch: The Short Term Effect of Aid on Growth", Center for Global Development Working Paper 44, World Bank, Washington, DC.

Coe, D.T. and A.W. Hoffmaister (1998), "North-South Trade: Is Africa Unusual?" Working Paper of the International Monetary Fund, Washington, DC.

Collier, P. (1995), "The Marginalization of Africa", *International Labour Review* 134(4-5), 541-557.

Collier, P. and J.W. Gunning (1999), "Explaining African Economic Performance." *Journal of Economic Literature*, 37:64-111.

Coulibaly, S. and L. Fontagné (2006), "South-South Trade: Geography Matters", *Journal of African Economies* 15(2), 313-341.

Czubala, W., B. Shepherd and J. Wilson (2009), "Help or Hindrance? The Impact of Harmonised Standards on African Exports", *Journal of African Economies* 18, 711-744.

Delpeuch, C., M.A. Jouenjean, A. Le Vernoy, P. Messerlin and T. Orliac (2010), *Aid for Trade: A Meta Evaluation*, Paris: OECD

de Melo, J. and A. Portugal-Perez (2014) "Rules of Origin, Preferences and Diversification in Apparel: African Exports to the US and to the EU", *World Bank Economic Review* 28(1), 74-98.

Disdier, A.-C., L. Fontagné and M. Mimouni (2008), "The Impact of Regulations on Agricultural Trade : Evidence from the SPS and TBT Agreements", *American Journal of Agricultural Economics* 90, 336-350.

Djankov, S., C. Freund and C. Pham (2010) "Trading on Time", *Review of Economics and Statistics* 92, 166-173.

Dollar, D. and V. Levin (2004), "The Increasing Selectivity of Foreign Aid, 1984-2002", World Bank Policy Research Working Paper No. 3299, Washington, DC.

Doucouliagos, H. and M. Paldam (2011), "The ineffectiveness of development aid on growth: An update", *European Journal of Political Economy* 27(2), 399-404.

Dovis, M. and M. Jaud (2014), "Standards Harmonization as Export Promotion", mimeo, The World Bank.

Duflo, E., R. Glennerster and M. Kremer (2006), "Using Randomization in Development Economics Research: A Toolkit", in T. Paul Schultz and John A. Strauss (eds), *Handbook of Development Economics*, Elsevier, Edition 1, Volume 4, Number 5.

Duval, Y. (2006), "Costs and Benefits of Implementing Trade Facilitations Measures under Negotiations at the WTO: an Exploratory Survey", Working Paper Series No. 3, Asian-Pacific Research and Training Network on Trade.

Edwards, S. (1998) "Openness, Productivity and Growth: What Do We Really Know?", *Economic Journal* 108, 383-98.

Essaji, A. (2008), "Technical regulations and specialization in international trade", *Journal of International Economics* 76, 166-176.

Estache, A. (2007), "Infrastructure and Development: A survey of Recent and Upcoming Issues", Universite Libre de Bruxelles Institutional Repository 2013/44060, Brussels.

Estache, A. and M. Fay (2007), "Current debates on infrastructure policy", World Bank Policy Research Working Paper 4410, Washington, DC.

Estevadeordal, A. and A. Taylor (2008), "Is the Washington Consensus Dead? Growth, Openness and the Great Liberation, 1970s – 2000s", CEPR Discussion Paper 6942, London.

Ferro, E., A. Portugal-Perez and J. Wilson (2014), "Aid to the Services Sector: Does it Affect Manufacturing Exports?", *World Economy* 37(4), 530-541.

Feyrer, J. (2009a), "Trade and Income – Exploiting Time Series in Geography", mimeo, Dartmouth College.

Feyrer, J. (2009b), "Distance, Trade and Income—The 1967 to 1975 Closing of the Suez Canal as a Natural Experiment", mimeo, Dartmouth College.

Fink, C., A. Mattoo and C.I. Neagu (2002), "Trade in International Maritime Services: How Much Does Policy Matter?", *World Bank Economic Review* 16(1), 81–108.

Folleti, L. and R. Newfarmer (2011), *Aid for Trade 2011: Results Emerging from the Case Stories,* Paris: OECD.

Foroutan, F. and L. Pritchett (1993), "Intra-Sub-Saharan African Trade: Is It Too Little?", *Journal of African Economies* 2(1), 74-105.

Francois, J. and M. Manchin (2013), "Institutions, Infrastructure and Trade", *World Development* 46(C), 165-75.

Frankel, J.A. (1997), *Regional Trading Blocs in the World Economic System*, Washington, DC: Institute for International Economics.

Frankel, J.A. and D.H. Romer (1999), "Does Trade Cause Growth?", *American Economic Review* 89(3), 379-399.

Freund, C.L. and M.D. Pierola (2012), "Export surges", *Journal of Development Economics* 97(2), 387-395.

Fugazza, M. and A. Nicita (2011), "Measuring preferential market access", Munich Personal RePEc Archive Paper 38565, Munich.

Gamberoni, E. and R. Newfarmer (2014), "Aid for Trade : Do those Countries that Need it Get it?", *The World Economy* 37(4), 542-554.

Gathani, S. and D. Stoelinga (2013), "Export Similarity Networks and Proximity Control Methods for Comparative Case Studies", *Journal of Globalization and Development* 3(2), 1-39.

Gathani, S., M. Santini and D. Stoelinga (2013), "Innovative techniques to evaluate the Impact of private sector development reforms: An application to Rwanda and 11 other countries", mimeo, Laterite-Africa/The World Bank.

Gebrehiwet, N. (2007), "Quantifying the Trade Effect of Sanitary and Phytosanitary Regulations of OECD Countries on South African Food Exports", *Agrekon* 4(1), 23-39.

Gertler, P., S. Martinez, P. Premand, L. Rawlings and C. Vermeersch (2011), *Impact Evaluation in Practice,* Washington, DC: The World Bank.

Girma, S., Y. Gong, H. Görg and Z. Yu (2009), "Can Production Subsidies Explain China's Export Performance? Evidence from Firm-level Data", *Scandinavian Journal of Economics* 111, 863-891.

Gopinath, G., P.-O. Gourinchas, C.-T. Hsieh and N. Li (2011), "International Prices, Costs and Markup Differences", *American Economic Review* 101(6), 2450-24 86.

Görg, H., M. Henry and E. Strobl (2008), "Grant Support and Exporting Activity", *Review of Economics and Statistics* 90, 168-174.

Guillaumont, P. and L. Chauvet (2001), "Aid and performance: a reassessment", *Journal of Development Studies* 37, 66-92.

Guillaumont, P. and L. Wagner (2012), "Aid and Growth Accelerations: Vulnerability Matters", UNU-WIDER Working Paper 2012/31, United Nations University, Helsinki.

Guillaumont-Jeanneney, S. and J. Tapsoba (2012), "Aid and income stabilization", *Review of Development Economics*, 16(2), 216-229.

Hallaert, J.J. (2013) "The Future of Aid-for-Trade: Challenges and Options", *World Trade Review* 12(4), 653-668.

Head, K. and T. Mayer (2013), "Gravity Equations: Workhorse, Toolkit and Cookbook", CEPR Discussion Paper No. 9322, London.

Head, K. and J. Ries (2001), "Increasing Returns Versus National Product Differentiation As An Explanation For The Pattern Of US-Canada Trade", *American Economic Review* 91, 858-876.

Helble, M., B. Shepherd and J.S. Wilson (2007), *Transparency and Trade Facilitation in the Asia Pacific: Estimating the Gains from Reform*, Washington, DC: World Bank.

Helble, M., C. Mann and J.S. Wilson (2009), "Aid for Trade Facilitation", World Bank Policy Research Working Paper No. 5064, Washington, DC.

Henson, S. and W. Mitullah (2004), *Kenyan Exports of Nile Perch: Impact of Food safety Standards on an Export-Oriented Supply Chain*, Washington, DC: World Bank

Henson, S., M. Saqib and D. Rajasenan (2004), "Impact of Sanitary Measures on Exports of Fishery Products from India: The Case of Kerala", Agriculture and Rural Development Discussion Paper 17, World Bank, Washington, DC.

Hoekman, B. and A. Nicita (2008), "Trade Policy, Trade Costs and Developing Country Trade", World Bank Policy Research Working Paper No. 4797, Washington, DC.

Hoekman, B. and J. Wilson (2010), "Aid for Trade: Building on Progress to Date", paper prepared for the Korea-World Bank High Level Conference on Post-Crisis Growth and Development, Busan, 3-4 June 2010.

Hummels, D. (1998), "Toward a Geography of Transport Costs", mimeo, University of Chicago.

Hummels, D. (1999), "Have International Transport Costs Declined?", mimeo, University of Chicago.

Hummels, D. (2001), "Time as a Trade Barrier", mimeo, Purdue University.

Hummels, D. and V. Lugovskyy, (2006), "Are Matched Partner Trade Statistics a Usable Measure of Transportation Costs?", *Review of International Economics* 14, 69-86

Hummels, D. and G. Schaur (2013) "Time as a Trade Barrier", *American Economic Review* 103(7), 2935-2959.

Hummels, D., V. Lugovskyy and A. Skiba (2009), "The Trade Reducing Effects of Market Power in International Shipping", *Journal of Development Economics* 89(1), 84-97.

Jaffee, S. (2003), "From Challenge to Opportunity: Transforming Kenya's Fresh Vegetable Trade in the Context of Emerging Food Safety and Other Standards in Europe", Agricultural & Rural Development Discussion Paper, World Bank, Washington, DC.

Jaffee, S. (2005), "Delivering and Taking the Heat: Indian Spices and Evolving Product and Process Standards", Agricultural & Rural Development Discussion Paper, World Bank, Washington, DC .

Jaffee, S. and S. Henson (2004), "Standards and Agro-Food Exports from Developing Countries: Rebalancing the Debate", World Bank Policy Research Working Paper No. 3348, Washington, DC.

Jensen, M. and J. Keyser (2012), "Standards harmonization and trade: The case of the East African dairy industry", in O. Cadot and M. Malouche (eds), *Non-Tariff Measures: A Fresh Look at Trade Policy's New Frontier*; London: CEPR and Washington, DC: The World Bank, pp. 187-212.

Jouanjean, M.A., J.-C. Maur and B. Shepherd (2012), "Reputation matters : spillover effects in the enforcement of US SPS measures", World Bank Policy Research Working Paper 5935, Washington, DC.

Keesing, D.B. and A. Singer (1991), "Development assistance gone wrong: failures in services to promote and support manufactured exports", in P. Hogan, D. Keesing and A. Singer (eds), *The Role of Support Services In Expanding Manufactured Exports in Developing Countries*, Washington, DC: The World Bank.

Khandker, S., G. Koolwal and S. Samad (2009), *Handbook on Impact Evaluation: Quantitative Methods and Practices*, Washington, DC: The World Bank.

Lederman, D., M. Olarreaga and L. Payton (2010), "Export Promotion Agencies Revisited", *Journal of Development Economics* 91, 257-265.

Limão, N. and A.J. Venables (2000), "Infrastructure, Geographical Disadvantage, Transport Costs and Trade", *World Bank Economic Review* 15(3), 451–479.

Low, P., R. Piermartini and J. Richtering (2009), "Multilateral solutions to the erosion of non-reciprocal preferences in NAMA", in B. Hoekman, W. Martin and C. Braga (eds), *Trade Preference Erosion Measurement and Policy Response,* Palgrave MacMillan.

Maertens, M. and J. Swinnen (2009), "Trade, Standards and Poverty: Evidence from Senegal", *World Development* 37(1), 161-178.

Mangelsdorf, A., A. Portugal-Perez and J. Wilson (2012), "Food standards and exports: evidence for China", *World Trade Review* 11, 507-526.

Maskus, K., T. Otsuki and J. Wilson (2005), "The Cost Of Compliance With Product Standards For Firms In Developing Countries: An Econometric Study", World Bank Policy Research Working Paper No. 3590, Washington, DC.

Moenius, J. (2004), "Information versus Product Adaptation: The Role of Standards in Trade", International Business and Markets Research Center Working Paper, Northwestern University.

Moïsé, E., T Orliac, P Minor (2011), "Trade Facilitation Indicators: The Impact on Trade Costs", OECD Trade Policy Working Paper No. 118, Paris.

Moneta, C. (1959), "The Estimation of Transport Costs in International Trade", *Journal of Political Economy* 67, 41-58.

Musonda, F.M. and W. Mbowe (2001), "The Impact of Implementing SPS and TBT Agreements: The Case of Fish Exports to European Union by Tanzania", Jaipur: Consumer Unity & Trust Society.

Nelson, D. and S. Silva (2008), "Does Aid Cause Trade? Evidence from an Asymmetric Gravity Model", University of Nottingham Research Paper 2008/21, Nottingham.

Novy, D. (2013), "Gravity Redux: Measuring International Trade Costs with Panel Data", *Economic Inquiry* 51, 101-121.

OECD (2009a), *How to Evaluate Aid for Trade? A Scoping Note*, Paris: OECD.

OECD (2011), *Strenghtening Accountability in Aid for Trade*, Paris: OECD.

Osei, R., O. Morrissey and T. Lloyd (2004), "The Nature of Aid and Trade Relationships", *European Journal of Development Research* 16, 354-374.

Otsuki, T., J. Wilson and M. Sewadeh (2001), "Saving two in a billion: quantifying the trade effect of European food safety standards on African exports", *Food Policy* 26, 495-514.

Portugal-Perez , A. and J.S. Wilson (2008), "Trade Costs in Africa: Barriers and Opportunities for Reform", World Bank Policy Research Working Paper No. 4619, Washington, DC.

Raballand, G. and E. Aldaz-Carroll (2007), "How do Different Standards Increase Trade Costs? The Case of Pellets", *The World Economy* 30(4), 685-702.

Redding, S. and A.J. Venables (2003), "South-East Asian Export Performance: External Market Access and Internal Supply Capacity", *Journal of the Japanese and International Economies* 17(4), 404-431.

Rodriguez, F. and D. Rodrik (2001), "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence"; in B.S. Bernanke and K. Rogoff (eds), *NBER Macroeconomics Annual 2000*, Volume 15, Boston, MA: National Bureau of Economic Research, pp. 261-338.

Rodrik, D. (1998) "Trade Policy and Economic Performance in Sub-Saharan Africa", NBER Working paper 6562, National Bureau of Economic Research, Cambridge, MA.

Rodrik, D. (2008), "The New Development Economics: We Shall Experiment, But How Shall We Learn?", mimeo, Kennedy School of Government, Harvard University.

Sachs, J. and A. Warner (1995), "Economic Reform and the Process of Global Integration", *Brookings Papers on Economic Activity* 26, 1-118.

Samy Y. and J. Imai (2012) "The Allocation of Aid for Trade: What Does the Cross-National Evidence Tell Us?", mimeo.

Santos Silva, J.M.C. and S. Tenreyro (2006), "The Log of Gravity", *Review of Economics and Statistics* 88, 641-658.

Sekkel, J. (2009), "Summary of Major Trade Preference Programs", mimeo, Center for Global Development.

Shepherd, B. (2006), "Transport Costs and Trade over Time", in *Report of the One Hundred and Thirtieth Round Table on Transport Economics*, Paris: OECD.

Shepherd, B. (2007), "Product standards, harmonization, and trade : evidence from the extensive margin", World Bank Policy Research Working Paper Series No. 4390, Washington, DC.

Shepherd, B. and J. Wilson (2006), "Road infrastructure in Europe and central asia: does network quality affect trade?", World Bank Policy Research Working Paper No. 4104, Washington, DC.

Sequeira, S. (2011), "Displacing Corruption", Mimeo, London School of Economics and Politics.

Sequeira, S. and S. Djankov (2010), "An Empirical Study of Corruption in Ports", MPRA No. 21791, University Library of Munich.

Suwa-Eisenmann, A. and T. Verdier (2007), "Aid and Trade", *Oxford Review of Economic Policy* 23, 481-507.

Tadasse, B. and B. Fayissa (2009), "Determinants of the Allocation of US Aid for Trade", Working Paper No. 200901, Department of Economics and Finance, Middle Tennessee State University.

Teravaninthorn, S. and G. Raballand (2008), *Transport Prices and Costs in Africa: A Review of the Main International Corridors*, Washington, DC: World Bank.

Todo, Y. (2011), "Impacts of Aid-Funded Technical Assistance Programs: Firm-Level Evidence from the Indonesian Foundry Industry", *World Development* 39, 351-362.

Vijil, M. (2014), "Aid for trade effectiveness: complementarities with economic integration", *The World Economy*, 37(4), 555-566.

Vijil, M. and L. Wagner (2012), "Does Aid for Trade enhance export performance? Investigating the infrastructure channel", *The World Economy* 35(7), 838-68.

Volpe, C. (2011), "Assessing the Impact of Trade Promotion in Latin America", in O. Cadot, A. Fernandes, J. Gourdon and A. Mattoo (eds), *Where to Spend the Next Million? Applying Impact Evaluation to Trade*, London: CEPR and Washington, DC: The World Bank, pp. 39-81.

Volpe, C., and J. Carballo (2008), "Is Export Promotion Effective in Developing Countries? Firm-level Evidence on the Extensive and Intensive Margins of Exports", *Journal of International Economics* 79, 89-106,

Volpe, C. and A. Graziano (2012), "Customs as Doorkeepers: What Are Their Effects on International Trade?", mimeo, Inter-American Development Bank, Washington, DC.

Volpe, C., J. Carballo and A. Cusolito (2013) "Routes, Exports and Employment in Developing Countries: Following the Trace of the Inca Roads", mimeo, Inter-American Development Bank, Washington, DC.

Wacziarg, R. and K. Welch (2008), "Trade Liberalization and Growth: New Evidence", *World Bank Economic Review* 22(2), 187-231.

Wagner, D. (2003): "Aid and trade – an empirical study", *Journal of Japanese and International Economies* 2, 153-173.

Wilmsmeier, G. and J. Hoffmann (2008) "Liner Shipping Connectivity and Port Infrastructure as Determinants of Freight Rates in the Caribbean", *Maritime Economics and Logistics* 10, 131-151

Wilson, J.S., C. Mann and T. Otsuki (2003), "Trade Facilitation and Economic Development : A New Approach to Measuring the Impact", *World Bank Economic Review* 17(3) 67–389.

World Bank (2007), Logistic Performance Index database, available at http://lpi. worldbank.org

World Bank (2008), Doing Business database, available at http://www.doingbusiness. org/.

WTO (2011), *The WTO and Preferential Trade Agreements: From Co-existence to Coherence*, Geneva: WTO.

Xiong, B. and J. Beghin (2011), "Aflatoxin Redux: Does European Aflatoxin Regulation Hurt Groundnut Exporters from Africa?", Iowa State University Working Paper No. 11026, Ames, IA.

Aid classification in the OECD database

Table A2.1 *AFT categories in the CRS database*

Aid for Trade categories	Proxies in CRS data
Technical assistance for trade policy and regulations (e.g. helping countries to develop trade strategies, negotiate trade agreements, and implement their outcomes)	Five sub-categories: (a) trade policy and administrative management; (b) trade facilitation; (c) regional trade agreements; (d) multilateral trade negotiations; and (e) trade education/training.
Trade-related infrastructure (e.g. building roads, ports, and telecommunications networks to connect domestic markets to the global economy)	Proxied in the CRS by data under the heading 'economic infrastructure'. This heading covers data on aid for communications, energy, transport and storage. To know how close the CRS proxies are, the CRS data must be compared with donors' knowledge of the specific features of their aid to infrastructure.
Productive capacity building, including trade development (e.g. supporting the private sector to exploit their comparative advantages and diversify their exports)	Data on commitments of aid for productive capacity building exist under the CRS category 'building productive capacity' and covers Agriculture, Forestry, Fishing, Mining, Industry and Services sectors.
Trade-related adjustment (e.g. helping developing countries with the costs associated with trade liberalisation, such as tariff reductions, preference erosion, or declining terms of trade)	This category in CRS identifies contributions to developing country budgets to assist in the implementation of trade reforms and adjustments to trade policy measures by other countries
Other trade-related needs, if identified as trade-related development priorities in partner countries' national development strategies	The CRS covers all ODA, but only those activities reported under the above four categories will be identified as aid for trade. Data on 'other trade-related needs' cannot be gleaned from the CRS.

The OECD Creditor Reporting System (CRS) database covers around 90% of all ODA. It tracks aid commitments and disbursements, and provides comparable data over time and across countries. Publically available since 2007, it is recognised as the most complete and wide-ranging available data source for tracking global aid-for-trade flows. The number of donors monitored increases every year, even though new emerging donors like Brazil and China are not included. However, it entailed some loss of detailed information about trade-related technical assistance and trade development activities which were collected by the more specialised joint OECD-WTO Trade Capacity Building Database (TCBD). Reporting in that database was discontinued in 2007. Several modifications have been made to the CRS categories to adapt it to AFT (e.g.

the new CRS category 'trade related adjustment' and the 'trade development marker' introduced in 2008 covering 2007 flows but not yet used). Table A2.1 shows how the AFT categories are matched to the CRS categories.

   In this chapter, we use this new AFT database from CRS. However, with this database the only way to obtain data for commitments prior to 1995 and for disbursements prior to 2002 is to download the initial CRS dataset that does not account for the recent modifications mentioned above. To be closer to our trade cost approach in Figure 2.1, we modify this AFT structure. These modifications are shown in Table A2.2. Finally, Table A2.3 shows the share of total aid devoted to those components in 2002 and 2010 as well as the name of specific programmes.

Table A2.2 *Matching AFT categories to the classification in Figure 2.1*

Aid for Trade categories	Classification in Figure 2.1 and corresponding CRS data
Technical assistance for trade policy and regulations	Trade policy in CRS: (a) trade policy and administrative management; (c) regional trade agreements; (d) multilateral trade negotiations; and, (e) trade education/ training. And trade-related adjustments
	Border related cost in CRS (b) trade facilitation;
Trade-related infrastructure (e.g. building roads, ports, and telecommunications networks to connect domestic markets to the global economy)	Hard infrastructure In CRS: Aid for transport and storage Aid for energy is dropped Soft infrastructure In CRS: Aid for communications
Productive capacity building	Regulatory policies In CRS Aid for Banking Financial Services and Business Services and Aid for Production sectors are dropped
Trade-related adjustment (e.g. helping developing countries with the costs associated with trade liberalisation, such as tariff reductions, preference erosion, or declining terms of trade)	Moved to trade policy
Other trade-related needs, if identified as trade-related development priorities in partner countries' national development strategies	None.

Source: Compiled by authors from the CRS website; AFT categories from CRS website.

Table A2.3 *Aid for Trade by categories, 2002 and 2010*

	2002	2010
Hard Infrastructure	43.2	52.7
Transport Infrastructure	*28.7*	*30.2*
Transport policy and administrative management	1.8	3.5
Road transport	17.5	16.8
Rail transport	6.6	7.4
Water transport	1.4	1.6
Air transport	1.3	0.9
Other	0.0	0.1
Energy Infrastructure	*14.6*	*22.5*
Electrical transmission/ distribution	3.8	6.0
Power generation/renewable sources	0.8	4.2
Energy policy and administrative management	2.6	2.9
Power generation/non-renewable sources	2.3	2.6
Hydro-electric power plants	1.1	1.6
Gas-fired power plants	0.0	1.4
Solar energy/Wind Power	0.3	1.9
Nuclear power plants	1.1	1.0
Other	2.6	1.0
Behind the borders Policies	15.7	13.9
Soft Infrastructure	*1.9*	*1.6*
Communications policy and administrative management	0.4	0.3
Telecommunications	1.1	0.4
Radio/television/print media	0.4	0.4
Information and communication technology (ICT)	0.0	0.6
Regulatory Policies	**13.7**	**12.2**
Banking Financial Services	*9.4*	*7.5*
Financial policy and administrative management	3.5	1.9
Monetary institutions	0.0	0.1
Formal sector financial intermediaries	4.0	3.4
Informal/semi-formal financial intermediaries	1.8	2.1
Education/training in banking and financial services	0.0	0.1
Business Services	*4.3*	*4.7*
Business support services and institutions	4.1	4.5
Privatisation	0.2	0.2
Trade Policies	**4.8**	**2.8**
Trade policy and administrative management	4.3	1.7
Regional trade agreements (RTAs)	0.2	0.3
Multilateral trade negotiations	0.0	0.1
Trade-related adjustment	0.0	0.2
Trade education/training	0.1	0.1
Tourism policy and administrative management	0.2	0.5

	2002	2010
Trade facilitation	**0.0**	**1.0**
Productive capacity building	**36.3**	**29.7**
Primary	*24.6*	*24.9*
Agricultural development	3.8	5.0
Agricultural policy and administrative management	2.7	5.0
Agricultural water resources	2.7	2.4
Agricultural research	1.9	1.6
Agricultural alternative development	0.1	1.0
Other Agricultural	9.3	5.4
Forestry	2.6	3.6
Fishing	1.5	0.9
Industry	*7.3*	*4.3*
Small and medium-sized enterprises (SME) development	0.8	2.4
Industrial development	4.5	0.5
Agro-industries	0.3	0.4
Industrial policy and administrative management	1.0	0.2
Engineering	0.0	0.2
Technological research and development	0.1	0.2
Other	0.6	0.3
Mining	*4.4*	*0.5*
Mineral/mining policy and administrative management	2.2	0.3
Mineral prospection and exploration	0.0	0.1
Oil and gas	1.9	0.1
Other	0.2	0.0

Source: Authors' compiled from the CRS website according to classification in Table A2.2.

3

Aid for Trade: What Can We Learn from the Case Studies?

RICHARD NEWFARMER

Since the formal conception of the WTO's Aid for Trade initiative at the Hong Kong Ministerial in December 2005, the literature on aid for trade has mushroomed. In the early days, efforts focused on its definition (WTO, 2006), specific programmes (such as the EIF in 2007) and quantification of flows (WTO/OECD, 2007), and then in recent years on demonstrating its impact (WTO/OECD, 2011; 2013). While much of this literature has focused on cross-country studies in various forms, an emerging collection of case studies provide some insight lost in the cross-country econometric and aggregate studies.

This chapter reviews these studies to ferret out some of these insights. Section 1 lays out the types of case study material in an effort to show the breadth of potentially available studies. Section 2 undertakes a more in-depth recounting of selected studies. Section 3 teases out some lessons that may add color to the black-and-white cross-country literature and, more importantly, present pictures rarely evident through the lens of large aggregations.

1.   WHAT CASE STUDIES ARE AVAILABLE?

Because of the breadth of the WTO/OECD definition of aid for trade, the number of case studies is potentially in the thousands. The WTO Task Force on Aid for Trade after the Hong Kong Ministerial adopted a wide definition because a key rationale for the initiative was helping developing countries, particularly the poorest, to overcome supply constraints that would otherwise prevent them from taking advantage of new market openings associated with a Doha Agreement. The discussion has its roots in the experience of many low-income members in the Uruguay Round. Many felt misled and that the best-effort promises for technical assistance to help implement key provisions were not honoured and went unmonitored. As the discussion matured on aid for trade in the Doha context, many countries pointed to limited productive capacity and poor infrastructure that would put their weak producers at risk should market opening agreements demand reciprocal access. By July 2006, the Task Force took the view that aid for trade was necessary to remedy five disadvantages or obstacles to trade in developing countries: lack of productive capacity, poor infrastructure, insufficient funds to implement key provisions of any Doha

agreement (including new laws and regulations), a need to develop trade more actively through trade and investment promotion, and lack of resources to cope with adjustment to new relative prices in emerging from any reductions in trade barriers (WTO, 2006).

The Task Force stressed that '[a]dditional, predictable, sustainable and effective financing is fundamental for fulfilling the Aid-for-Trade mandate'. It urged the WTO Director General to consult on 'appropriate mechanisms to secure additional financial resources for Aid for Trade'. The broad definition of the constraints to trade and the concern for additionality required that the post-Task Force discussion among WTO staff, donors, the OECD, and the multilateral development agencies come up with a broad definition that was measurable. These discussions settled on using the OECD's Creditor Reporting System, measuring aid for trade as concessional assistance for economic infrastructure (including power, transport, ports, and some aspects of water), productive capacity (including agriculture and finance), trade policy and regulations (mainly technical assistance). As these decisions were finally operationalised, aid for trade comprised about 30% of all sector-allocable official development assistance (see Box 3.1).

This broad definition opens up a potentially wide array of case study material and approaches – at the same time it reveals its own difficulties of over-aggregation. Case studies of aid for trade have to cover one-third of all official development assistance, a huge task. To begin to cut the conceptual cake into manageable pieces, we review three categories here:

- case studies of particular AFT projects or activities, focusing on the WTO/OECD collection of case stories;

- donor reviews of their own individual aid for trade programmes across several countries; and

- studies of AFT in a single country, focusing on collections of the ICTSD, the OECD, and two that focus on management systems and implementation (Rwanda and Uganda).

In each section, we summarise the methodological approach and some of the specific findings, and draw attention to shortcomings that might give pause in accepting generalisations. In the final section of this chapter, we weave the contributions of these into a tapestry of final conclusions from the case studies.

Box 3.1 *Aid for Trade - the search for an adequate definition*

The OECD defines aid for trade as all concessional development assistance related to productive capacity building, economic infrastructure, trade policy and regulations, and trade-related adjustment. In creating this definition, the OECD and WTO Aid for Trade Task Force struggled with several measurement issues. First, it is difficult to distinguish between assistance for the non-tradable and tradable sectors for economic infrastructure and to capture trade adjustment assistance. For example, an investment in a road or power plant serves firms selling both domestically and on global markets. The OECD/WTO, in collaboration with selected major donors, opted to include all investments in transport, energy, and telecommunications as trade-related. A second difficulty concerns general budget support. In the first review these were excluded; later, as numbers became refined, OECD staff were able to identify budget-support lending associated with trade, and some of these were also included. A third problem is with the regional development banks, as they provide very little concessional aid for trade. For example, following the OECD definition of aid for trade, the Inter-American Development Bank (IADB) found that only 6% of its total trade-related activities were concessional in 2007. The Asian Development Bank (ADB) provides only one-sixth of its overall trade lending on concessional terms. In other words, if non-concessional lending to middle-income countries in sectors covered by the OECD's definition were considered, the amounts for the ADB would be nearly five times greater, and for the IDB nearly 15 times greater. Finally, financing to the private sector from multilateral development banks and donors is not taken into account, even though all of the major multilateral institutions have this capacity, The World Bank's International Finance Corporation (IFC) made investments in aid for trade sectors in low-income countries almost equal to all World Bank Group (WBG) financial support in OECD-defined aid for trade; that is, including IFC investments would double WBG aid for trade.

Source: Adapted from World Bank (2009).

---

2.   PROJECTS, PROGRAMMES AND COUNTRY STUDIES

Project case studies: The WTO case stories

The wide definition implies that case studies of projects could number in the hundreds.[1] One of the most prominent efforts to capture a cross-section of more penetrating detail was the WTO's 'case stories' of aid for trade. On 27 July 2010, the WTO and OECD put out a call to governments, donors and private parties

---

1   Most donors undertake retrospective reports on the effectiveness of projects at their conclusion. The World Bank, for example, and its client governments prepared Project Completion Reports that assess the project for its development effectiveness and financial administration. These reports could constitute an underutilised window into deeper case studies of individual projects.

for short write-ups of aid for trade projects.[2] In spite of the skepticism of some because of its unstructured methodology and unscientific sampling,[3] the call produced a treasure trove of poignant anecdotes that, taken together, illuminate several aspects of the aid for trade effort. In all, governments, NGOs, donors and multilateral institutions contributed 269 stories ranging in length from three to 20 or more pages.

Foletti and Newfarmer (2011), preparing a background paper for the WTO/OECD, grouped these loosely into six different themes:

- Lowering trade costs through *trade facilitation* programmes

- Investing in *infrastructure* to lower the cost of inputs and services (including in sub-regions)

- *Reforming policy* to revamp incentives, support adjustment, develop strategy and adopt international standards

- *Building capacities* within governments to better conduct trade policy, negotiate trade agreements and implement trade-related rules and laws

- Undertaking *industrial policies* to promote trade within a specific sector to upgrade product quality or promote diversification

- Leveraging the *private sector* through trade finance, export promotion and skill-upgrading for SMEs and women traders

The case stories were spread roughly proportionately across these six themes (Table 3.1). The most case stories appeared in the building capacity and private sector categories while trade facilitation, improving policy and industrial policy had relatively very similar allocations. The startling element in this distribution is the under-representation of case stories in infrastructure – since infrastructure receives by far the largest amount of funds for aid for trade. This may reflect the fact that ministries of trade, and their counterparts in the trade departments of donor agencies, were more often the respondents to the call for case stories and infrastructure, important as it is for trade, rarely falls in their purview.

As expected, the region with the greatest representation was sub-Saharan Africa, which accounts for about 40% of the total stories. The surprise was the relative over-representation of Latin America, with more than one-quarter of the case stories. This was unexpected because, under the strictest (WTO/OECD) definition of aid for trade as concessional resources only, Latin America

---

2   Since the call did not include a definition of aid for trade, respondents included a broad array of projects that lay outside the quantitative definition of aid for trade, including most commonly non-concessional loans.

3   See, for example, the statement of World Bank Special Representative to the WTO, Richard Newfarmer, to the WTO Committee on Trade and Development, May 2010.

receives virtually no concessional aid. In fact, this draws attention to the curious inconsistency between the larger concept of aid for trade that the trade community often uses in practice – namely, trade-related development assistance of whatever form to middle-income and low- income countries alike – and the aggregate numbers it uses to measure trade.

Table 3.1 *Regional and thematic distribution of OECD/WTO case*

Region	Trade facilitation	Infrastructure	Improving policy	Building capacity	Industrial policy	Private sector	Total
North Africa	0	1	2	0	0	2	5
Sub-Saharan Africa	24	6	17	22	19	21	109
North America & Caribbean	10	1	9	11	12	10	53
South America	3	0	3	4	4	3	17
Europe	1	1	0	0	0	3	5
East Asia & Oceania	4	2	4	11	10	5	36
Middle East & Asia	4	2	5	5	2	2	20
Global	2	1	2	13	0	6	24
Total	48	14	42	66	47	52	269

Source: WTO/OECD (2011).

Many case stories (nearly 40%) came from recipient countries; UN organisations and bilateral donors were also large contributors. The multilateral development banks – perhaps because they have by number fewer total projects, even though they are among the larger contributors – appear to be under-represented. Private parties and NGOs also submitted very few.

The case stories illuminate with convincing detail conclusions in the larger aid for trade literature. Keys to success, as summarised in the *Aid for Trade at a Glance Report* (WTO/OECD, 2011), included the folllowing:

- *Ownership is crucial in the form of government commitment and high level leadership…*
  The most recurrent reported 'success factor' was national ownership of the aid for trade activity, which was mentioned in 120 of the 269 stories. This stands to reason because without active government involvement and sponsorship, projects can rarely succeed. One frequently reported manifestation of ownership was commitment of the government to the activity or projects.

- *…built upon active participation and involvement of stakeholders.*
  Two building blocks contributed to national ownership: first, increasing local participation and involvement of local stakeholders in the preparation and implementation of the activity; and second, mobilising the support of the private sector to advocate the project and anchor it through changes in administrations and governments. Much as with international experience with community-based development programmes, a lack of local government involvement can not only lead to misrepresentation of stakeholders, but also to a lack of commitment and ownership that mitigates the drive for success and endangers the continuation of the project once external funding and assistance ends.

- *Leveraging partnership at the inter-ministerial level…*
  Trade policy is interdisciplinary by nature, and coordination and cooperation among the numerous actors is therefore pivotal. Ministries of trade, economics, infrastructure, agriculture and industry, to name just a few, must work together for efficient policy. The case stories reflect this message as a factor for success – or failure.

- *…as well as donor partnerships.*
  Another common theme was the effective integration of the combined expertise of several donors to achieve a particular project or programme objective. The corridor projects, for example, typically had donors working together in several component parts, building towards a larger whole.

- *Adequacy and reliability of external funding.*
  One recurring drag on activity success was inconsistent funding mechanisms and/or inadequate continuity in funding. As might be expected, the stories' assignation of the causes for these problems – whether with the donors or with the developing country government – depends typically on the institutional affiliation of the stories' authors.

- *Feedback loops linking government and stakeholders.*
  Strongly linked to national ownership and local participation is the need for a continuous feedback process between governments and stakeholders. Through this process, potential problems can be identified at an early stage, thus increasing the speed at which they are resolved (WTO/OECD, 2011).

Nonetheless, for strict analytical purposes, the collection suffers from the problems evident at the outset: the absence of a sampling frame that would assure some adequate representation of the various components of aid for trade, countries and donors; the absence of a common analytical framework that would ensure informational coverage and allow for greater comparisons; and the heavy

bias toward reporting success rather than failure, among others. Still, taken together, these stories recount efforts throughout the developing world, and in virtually every important trade-related activity. The enormous breadth and volume of case stories elicited in response to the call from the OECD and WTO are reflective of the attention the development community is paying to trade.

Studies of aid for trade programmes: One donor in several countries

Several donors have conducted reviews of their own aid for trade programmes in the last few years.[4] These typically involve an extensive review of a collection of projects over time to assess their aggregate impact on trade, growth and poverty, sometimes looking at effects on issues that cut across multiple sectors, such as gender, environment and income distribution. The OECD undertook a review of the first generation of trade-related donor evaluations in 2006.[5] Half of the reviewed evaluations found trade-related assistance to have increased partner-country understanding of the importance of trade for growth and poverty reduction. The report eschewed drawing firm conclusions from donor evaluations of the effects of aid for trade on trade growth, trade costs or trade composition. Rather, it highlighted several challenges that at times impeded the effectiveness of aid for trade.

Since 2006, additional post-Hong Kong evaluations have been undertaken, including by Sweden (Goppers and Lindahl, 2009), Finland (Bird et al., 2011), the EU (2013), USAID (2011), the World Bank (2007 and 2009), and Japan (Mizuhu, 2012). The Swedish review broadly endorsed the initiative, but lamented the inability of evaluation to work systematically through the results chain to final impacts:

> In general the projects appear to be well implemented in terms of delivering inputs and planned outputs. Trade education of good quality has been delivered, standards and certification systems established, accreditation institutions set up, market systems developed, etc. Beyond this, the outcomes of the trade related technical assistance projects in terms of reaching their development objectives, such as influence on trade policy, provision of services to the trade sector, improved competitiveness and increase trade, are much less clear based on available results reporting (Goppers and Lindahl, 2009, p. 9).

---

4   These include reviews by the World Bank (2006a), and by Sweden (Goppers and Lindahl, 2009), Finland (Bird et al., 2011), USAID (2010), the World Bank (2007 and 2009), and Japan (Mizuhu, 2012) as well as, more broadly, the UK in Basnett et al. (2012). See also OECD (2011b and 2012a). The distinction between case studies undertaken by single donors (both bilateral and multilateral) across many countries and country studies, discussed in the next section, is made simply for heuristic purposes; there are no doubt other ways to divide the empirical terrain.

5   The references to these studies can be found in the thorough summary of them in OECD (2006). Studies reviewed include evaluations undertaken by the EC (in 2004), USAID (2004), the UK (2005), the Netherlands (2005), the World Bank (2004 and 2006), the UNCTAD (2002), the ESCAP (2003) and the Integrated Framework (2003).

These recent evaluations point to the persistence of some challenges and a few new ones, including the following:

- While virtually all of the programmes have found that aid for trade has been effective for the most part in helping developing countries to take advantage of opportunities in international trade, tracing the complex link from donor funds as inputs, through the results chain, to greater trade and greater trade-led growth, much less poverty reduction, remains a persistent challenge.

- Some evaluations have highlighted the inadequate attention of donors to complementary policies that are needed to ensure that trade and liberalising trade reforms do not have a negative effect of creating losers (e.g. World Bank, 2006a).

- Attention to establishing measurable objectives, quantitative baselines and reasonable comparator groups against which to evaluate success remains a common failing.[6]

- Donors too frequently pay attention to an issue in one country or sector evaluation, but then ignore the same issue in another country or sector, a shortcoming noted in the OECD's review of transport and storage projects in Ghana and Viet Nam (Delpeuch *et al.*, 2011).

- Moreover, donor evaluations also paid too little attention to the overall policy context and how it might affect a programme or project. For example, high tariffs and/or other trade restrictions could affect the social rate of return of many projects (either positively or negatively) but were rarely discussed in the evaluations – and indeed were rarely mentioned.

- Inadequate donor expertise on trade-related matters, especially in the case of field missions, continues to shortchange a robust dialogue on trade-related issues.

- Insufficient donor coordination between headquarters and field-level staff continues to cause a disconnect, a problem noted in the recent Japanese and Finnish reviews (Bird *et al.*, 2011; Muzuho, 2012).

Overlooked: Sectoral case studies
The breadth of the aid for trade definition also suggests another fertile area for inclusion in the evaluation prism, namely sectoral evaluations of

---

6   See, for example, the case studies in OECD (2011a). This point is also elaborated in Cadot et al. (2011).

donor programmes in what might be called the 'aid for trade sectors' such as transportation, agriculture and energy infrastructure, as well as private sector development. These do not normally feature trade centrally, if at all, in their analysis – nor should they, because non-trade factors may figure more prominently in determining outcomes. One example where trade is mentioned, albeit in passing, is the World Bank's (otherwise starkly critical) evaluation of its efforts in agriculture in Africa (World Bank, 2007):

> One of the strongest areas of analysis at present …in this area has been produced to back the Bank's efforts in lobbying for a genuinely pro-development Doha Round and for eliminating OECD agricultural subsidies. Even so, the Bank's most recent trade-related analytical work has not had much influence on lending or country dialogue.

On the other hand, more typical is the World Bank's study of transport activities (World Bank, 2006b), in which trade goes unmentioned, except by the inference of the reader:

> …past performance has been …effective, especially for intercity highway construction and rehabilitation, and the Bank's approach to transport contributed to private sector development. …However, transport must now focus more attention on confronting cross-cutting issues such as traffic congestion, environmental damages, safety, and efficiency.

In summary, these aid for trade programme case studies often suffer a reduced form of same problem of over-aggregation that plagues their cross-country econometric cousins. They are enormously helpful in providing more country context and associated lessons, but they tend to be only loosely quantitative and generalisations often rely on qualitative inferences. Where the cross-country studies typically have a narrow focus (e.g. expansion of exports or lowering trade costs), evaluations undertaken by donors often have such a wide lens – on various countries, sectors, instruments and dependent variables – that at times it muffles clear conclusions.

Country studies: Multiple donors in one country

Paris Principles in action
In 2011-12, the International Center for Trade and Sustainable Development (ICTSD) prepared a compendium of thoughtful country case studies designed to look at effectiveness of aid for trade through the lens of the Paris Principles – namely, *ownership*, *alignment* of aid with national priorities and use of national systems, coordination among donors and *harmonisation* of requirements and procedures, focus on *results*, and *mutual accountability*. The hypothesis was that adherence to these principles would lead to greater effectiveness of aid for trade. To this list was added concerns for additionality and predictability of

donor disbursements. The collection comprised rich studies of eight countries: Bangladesh, Cambodia, Ghana, Guatemala, Malawi, Nepal, Peru and the Philippines (ICTSD, 2011; 2012).

Unlike the WTO/OECD effort to collect case stories, the ICTSD's set of studies benefited from systematically trying to apply a common framework to the analysis. The common framework was derived from Adhikari (2011), and is summarised in Table 3.2. The framework has 23 indicators of success and the studies valiantly attempt to apply these to country situations, often through internationally available common datasets.

The summary report of ICTSD (Ancharaz *et al*., 2013) tended to ratify lessons learned from other studies of aid effectiveness. AFT works best when it is additional and predictable, when projects are owned by the host country and trade is central to the national development strategy, when donor objectives are consistent with government priorities, and when local absorptive capacity exists. These findings are useful because they resonate with the cross-country literature.

Ancharaz *et al*. (2013) aggregated the case studies and found that aid for trade was successful in Peru, rather successful in Cambodia, and of limited success in Bangladesh, Ghana, Guatemala, Malawi, Nepal and the Philippines. In the case of limited success, the impacts were deemed generally weak or negative. The reasons for this, in order of constraints, include: lack of absorptive capacity, limited use of country systems, low degree of trade mainstreaming, lack of stakeholder coordination/involvement, no additionality of AFT funding, low predictability of AFT disbursements, donors' misaligned priorities, and lack of donor coordination. Ancharaz et al. conclude: "On the whole, it seems that AFT has failed to achieve its objectives." (p. 20).

Table 3.2   *ICTSD Evaluative Framework: Objectives and indicators*

Aspects	Elements	Indicators
AFT funds trajectory	Additionality	• AFT in the recent period is greater than AFT in the base period (2002-2005) • Non-AFT ODA in the recent period is greater than non-AFT ODA in the base period • Growth rate of non-AFT ODA in the recent period is greater than or equal to the growth rate of non-AFT ODA in the base period
	Predictability	• Variations between commitments and disbursements over time • Extent to which AFT programmes/projects have been completed without any constraints
Absorptive capacity	N/A	• Capacity of partner country's institutions in utilising available AFT resources to achieve the defined purposes of AFT programmes/projects

Aspects	Elements	Indicators
Ownership at country level	Mainstreaming of trade	• Formal and substantive trade mainstreaming: extent to which trade is mainstreamed in national development plans, sectoral policies, line ministries, etc. • Percentage of AFT resources allocated to programmes/ projects that are considered as priority by the partner country and designed by the partner country
	Stakeholders coordination	• Level of coordination (formal vs. substantive) between ministries and government agencies, as well as other relevant stakeholders (e.g. private sector and civial society) in formulating and implementing trade policies as well as AFT programmes/projects
Donors' responses to countries' trade and development needs	Donors alignment	• Formal and substantive level of alignment at which donor priorities are in line with the partner country's trade and development agenda
	Use of country systems	• Extent to which donors use public financial management and procurement system of the partner country as well as local human resources • Number of projects implemented by government or through the creation of a parallel implementation unit
AFT impact	Impact at macro level	• Changes observed in a country's *export performance* at aggregate level and at the sectoral level through AFT measures • Sectoral level *productivity* changes in relation to AFT programmes/projects • Role of AFT in enhancing inter-sectoral and intra-sectoral *exports diversification* • Effect of AFT in trade policies and regulations as well as in building capacity related to trade amongst government officials (*governance*) • AFT relationship with establishment of new firms and increases of international traders; as well as training/ capacity building of private sector stakeholders related to international trade (*private sector development*) • Allocation of AFT funds towards trade related *infrastructure*; reduction in time for the movement of goods and imports/ exports procedures
	Impact at project/ programme level (micro impact)	• Relevance of the specific programme/project with country's trade and development strategies and priorities • Efficiency in programmes/projects design and involvement of relevant stakeholders in designing the project • Extent to which programmes/projects are efficiently managed and implemented and involvement of relevant stakeholders in programmes/projects implementation • Effectiveness of project outputs and outcomes in achieving the expected results • Impact of the programme/project in achieving the expected results

Source: Ancharaz et al. (2013), adapted from Adhikari (2011).

A closer reading of the case studies and country performance suggests this conclusion may be a bit overdrawn. While the analysis has the virtue of providing a common structure for the eight case studies, the variables are so numerous that they defy careful comparison. Consider impact analysis. The framework has 11 different (and otherwise quite useful) indicators of successful impacts (Table 3.2, bottom), yet it is difficult to draw a conclusion that aid for trade 'had failed to achieve its objectives' because these are not systematically compared across countries. In fact, for arguably the most important indicator – real export growth – the performance of Bangladesh, Cambodia and Malawi all exceeded 10% annually in real terms in 2005-11. The star AFT performer, Peru, grew only by 3.8%, while the Philippines grew by 4.8% (Ghana had no information).[7] Similarly, the ratio of exports to GDP – another common trade variable with some predictive power for future growth[8] – increased in Bangladesh and Ghana, held roughly stable in Guatemala and Peru, and fell in Nepal and the Philippines. These numbers suggest a more nuanced conclusion is in order.

The discussion on additionality also rings hollow, particularly at the level of any given country. Would one expect, in all circumstances, AFT to increase relative to the average for 2001-05, but by less than the increase in all ODA (i.e. Adhikari's (2011) definition)? While it may well be desirable for all ODA to be increasing to low-income countries over the next decades, individual governments and their development partners might prefer to shift resources into other non-trade but high priority areas. For small countries, where lumpiness in both commitments and disbursements can cause fairly wide oscillations in annual flows, this criterion falls short of being fully persuasive. Finally, it is not clear that additionality has anything to do with the effectiveness of aid for trade.

Finally, the methodology seemingly ignores the interdependence of key variables. Weak 'absorptive capacity' is likely to be highly correlated with negative 'additionality'; in fact, it might be desirable that donors and governments agree to provide fewer resources in country situations where government cannot use them effectively. The argument of the Adhikari paper is that donors should increase resources to help remedy these deficiencies – and of course many, if not most, donor projects in these situations do provide technical assistance as part of their projects.

These concerns are rather minor caviling about a rich set of studies that otherwise contains important insights. One, to which we return later, is the problem associated with the wide definition of aid for trade. On the one hand, governments and stakeholders have only a limited idea that the Geneva-centred trade community subsumes power projects, road projects, agricultural development projects, fisheries, tourism and financial sector projects in its domain of aid for trade. On the other, the definition would propel the trade officials into policy domains where they have no expertise. A companion

---

7   The numbers here are calculated from the World Bank data platform on exports. There was no time series on real exports from Ghana. Numbers for Cambodia are only up to 2011.

8   See, among others, Bruckner and Lederman (2012) for a recent study of Africa; and Newfarmer and Stzajerowska (2012) on 14 major post-2000 econometric studies of the relation of trade to growth.

and more important corollary is that evaluations of aid for trade rarely look at measures that may be the central objective of projects at the periphery of trade – for example, access and reliability of electricity for power projects, food security and import substitution for agricultural projects, or access to financial services for financial projects. These tend to affect growth and poverty through channels other than trade, so it makes no sense to hold them strictly to a trade standard. These issues surface with frequency in the ICTSD studies.

Focus on management systems to improve AFT effectiveness

To highlight the importance of government management systems, the OECD (2013) looked at results-based management (RBM) systems in six countries: the Solomon Islands, Bangladesh, Ghana, Vietnam, Rwanda and Columbia. The six country case studies took up three questions: Have trade objectives been integrated into the development strategy and planning processes? Are indicators of AFT outcomes comprehensive in capturing results, and consistent with the desired impacts of improving growth and reducing poverty? Do the monitoring and evaluation systems provide policymakers with the feedback to take evidence-based decisions about the implementation of the trade development strategy, including the role of AFT programmes?

The case studies illuminated a wide range of management systems in quite different country contexts. They range from the relatively rudimentary, in the case of the Solomon Islands, to more sophisticated systems in Rwanda and Colombia. Most have established some mechanisms of coordination of aid for trade (even if it is not called that), usually in the form of national trade strategies, but only a few have systematic monitoring and evaluation systems, with key national indicators of progress in multiple dimensions.

A leading example: Rwanda's RBM system
Rwanda has developed a results-based management system that is as thorough and sophisticated as any found among low-income countries. It is an example of effective implementation of all of the stages RBM. It is also an example of an aid for trade partnership that, together with other initiatives, has produced rapid growth and poverty reduction. Bruno Versailles (2012) concluded that '… Rwanda now boasts what is very close to "best practice" in mutual accountability frameworks'.

The aid for trade programme is set in the general context provided by the objectives set out in the government's *Vision 2020*, and operationalised in the five-year *Economic Development and Poverty Reduction Strategy (EDPRS)*. The government has set out a series of monitorable targets and indicators put forward in a Common Performance Assessment Framework (CPAF). To integrate development partners into the process, once these are traced from the economic cabinet, the government has set up 16 Sector Working Groups (SWGs) comprised of both ministerial and agency representation and donors to track systematically policy implementation and progress against the indicators. Results are evaluated

annually and then reported back up the chain of implementation, eventually to the economic cabinet.

The system is predicated upon a set of output and outcome indicators to be attained through enumerated (and often quantified) policies and actions that begin at the highest level of government and cascade down through the various ministries and agencies (Table 3.3). Each level of government has its own outputs/outcomes and associated implementation plan. Taking into account only the

Ministry of Industry and Commerce (MINICOM) and the Ministry of the East African Community (MINECOFIN), the government tracks some 90 indicators related to aid for trade and more than 540 associated actions – and this is not counting the other ministries' annual action plans and performance contracts. Finally, annual performance results are fed back into planning and action plans for future years, so that feedback loops do indeed play an important role in ensuring the effective use of development assistance.

Table 3.3   *Rwanda's RBM system: Outcome and policy indicators*

		Total		Trade-related	
		Indicators	Policies	Indicators	Polices/actions
Plans	EDPRS 2008-12	73	..	25	29
	CPAF Oct. 2011	45	80	12	22
	PSD Sector Working Group			2	4
	Other SWG (AFT-related)			10	18
	Annual Performance				
	MINICOM APR 2011/12			4	123
	MINICOM Imihigo contract 2012/13			3	59
	MINEAC APR 2011/12			9	52
	MINEAC Imihigo contract 2012/13			5	62
	Leadership Retreat	6	70	4	52
Strategies	National Export Strategy			10	56
	Trade Strategy 2009-12			30	113
	Total (1+2+3+4)			90	546

Source: Newfarmer et al. (2013).

Note: Does not include indicators and policies from sectoral strategies in infrastructure and productive sectors or APRs from relevant ministries. In some cases, 'policies' include implementation of specific programmes or other actions.

Uganda's RBM system and the role of donor coordination

The Enhanced Integrated Framework (and its predecessor) has financed more than 40 Diagnostic Trade Integration Studies (DTISs) (see the chapter in this volume by Paul Brenton and Ian Gillson). One recent study for Uganda contained a review of topics of interest here, namely the way aid for trade has fitted into the policy process, the way policy analysis and agreed policies have been implemented and monitored, and the way donors and the government have collaborated to develop and use trade more effectively to promote inclusive growth. It addresses the question of whether trade policies and trade concerns figure prominently and constantly in the highest levels of policymaking, and more so relative to the past. It also looked at the provision of aid for trade, assessing its quantitative importance and analysing principal modalities, the implementation of the DTIS recommendations in policy formulation, as well as monitoring and evaluation (see World Bank, 2013).

The study found a far higher degree of donor coordination than came out of the ICTSD studies: 'The development partners and the Ugandan authorities are working closely together to use AFT most efficiently'. Principal instruments included the adoption of a joint assessment framework for budget support and working with the government through its key coordinating inter-ministerial committees. It also found that trade had assumed a greater importance since 2005, and among donors as well as policymakers. This has contributed to the considerable progress in reducing the paperwork necessary to trade and to the time involved in the process, two indicators where progress appears to have been most rapid. Uneven implementation of agreed policy actions, however, has undercut the otherwise successful effort to raise trade in the salience of policymaking. Implementation – whether seen through the lens of the DTIS, the Office of the Prime Minister's Annual Performance report, or the Joint Assessment Framework of donors – has hovered broadly around 50%. Implementation tends to be a bit more complete in the productive sectors and infrastructure and in some trade-related institutions, such as customs, while it appears less consistent in the Ministry of Trade itself and other non-customs trade-related institutions, such as those dealing with SPS issues. The study also contains other lessons recounted below.

3.   LESSONS FROM THE CASE STUDIES

In the case studies, findings surface about aid for trade that are not always evident from the more comprehensive cross-country literature. This section points to 12 interrelated findings in four disparate categories: scope of the initiative, articulation of goals in country, means to attain those objectives, and donor-government relations.

Scope

The Geneva-country disconnect

The Geneva- and Paris-based aid for trade discussions do not correspond to the organisation of government-donor interactions in-country. As shown in the cases of Uganda and Rwanda, many countries typically organise donor relations around private sector development, infrastructure development, or agriculture, while trade is relegated to a few programmes (often studies) in the Ministry of Trade. The ICTSD studies, donor studies and the studies of Rwanda and Uganda all contain references to laments from AFT analysts who, in visits to countries, find that in-country people have no knowledge of aid for trade:

> A surprising finding from the case studies is that there is an abject lack of awareness about AFT and on AFT projects, even in implementing agencies. This may be partly due to definitional problems and partly the result of poor information flow and lack of coordination among line ministries and implementing agencies (Ancharaz et al., 2013, p. 21).

Like Moliere's Monsieur Jourdain's felicitous discovery that he had been speaking prose all his life, many in-country practitioners suddenly find that their agricultural projects or road projects are in fact 'aid for trade'.

This has tangible policy consequences. Aid for trade enjoys no local counterpart outside the narrow ambit of the trade ministry. Many of the DTISs are born orphans because they cover issues that are outside the span of control of their host agency, the trade ministry. Unless the full policy matrix has the endorsement of the economic cabinet, these studies fall short of having full impact. In the case of Uganda, the Ministry of Trade was unable to track effectively the status of DTIS recommendations and use them as a tool for policy implementation. Similarly, it may be symptomatic that in the sample of case stories generated by the WTO/OECD call, infrastructure accounted for less than 5% of the 269 stories, even though this category constituted some 46% of aid for trade in 2009 and, among the categories of aid for trade, has a powerful effect on trade performance.[9] This may reflect the fact that trade ministries have little direct influence over these activities – or that many governments see infrastructure and services as largely unrelated to the trade sphere, a point to which we return later.

The wide definition makes effective evaluation of the initiative extremely difficult. For donors, programme evaluation is easier because each can draw a natural boundary around their projects, and most have a limited subset of

---

9   See Portugal-Perez and Wilson (2008). Note that policy regulating the use of infrastructure may be as important or more so than simply investing in physical assets; for example, Arvis et al. (2010) and Teravaninthorn and Raballand (2008) point out that restrictions on trucking competition reduce the efficiency of road use and drive up prices. The same point could be made for the use of energy, air and port facilities.

activities. The task for evaluators of the initiative in a country or region is much more difficult. As a result, welcome efforts like those of the ICTSD and the OECD have difficulty in producing common definitions of exogenous and endogenous variables, and narrow measures of inputs, outputs and outcomes of common interest.

Aid for trade is in the eye of the beholder
The wide scope of aid for trade has led to some amusing ironies in the trade and development communities. The WTO/OECD definition of aid for trade includes only concessional aid, the great bulk of which is devoted to low-income countries. However, the IADB and to a lesser extent, the ADB, active participants in the initiative, provide only a small portion of their lending in concessional form, instead lending mainly to middle-income countries. [10] Similarly, among the case studies, middle-income countries figure prominently. More than 40% of the case stories of the WTO refer not to 'aid for trade' strictly defined, but non-concessional multilateral or bilateral projects. The ICTSD's star performer among the eight studies (Peru) technically receives virtually no aid for trade; the same is true for one of the OECD's case studies (Colombia). The World Bank's review of its own programme walks through the several quantitative dimensions of differing concepts of aid for trade; the numbers for 2007 range from US$1.5 billion using its own internal definition, to $4.3 billion using the WTO/OECD CRS definition, to US$19 billion when including World Bank Group trade-related lending to middle-income countries and IFC trade-related investments in the private sector (see World Bank, 2009, p. 7-8).

Goals

Conceptualising success
The case study literature reveals a plethora of differing objectives associated with aid for trade. These range from 'mainstreaming' trade in policymaking (an aspirational objective of the EIF and AFT initiative as a whole) and improving results-based management to growing exports, diversifying trade portfolios and lowering trade costs. The Adhikari (2011) framework, the basis for the ICTSD studies, has 23 different criteria for evaluating programme performance in a country (see Table 3.2), 11 of which were labeled as 'AFT impact' variables. This stands in sharp contrast to the cross-country econometric studies that use only a few, rather precisely measured dependent variables (rate of export growth, trade costs, etc.). This reveals a trade-off in evaluation between rich multi-dimensionality and comprehensiveness on the one hand, and precision of measurement and more rigorous evaluation on the other. The unusually large scope of the AFT initiative also implies that projects or programmes whose

---

10 The IADB, for example, provided only $240 million in formally defined aid for trade (mostly to Bolivia and Nicaragua), though it did provide another $6.2 billion in trade-related assistance to Latin America.

central rationale is to achieve objectives other than trade would be judged on an imputed trade-related objective.

Remarkable for its absence in the case studies is any systematic treatment of imports. The WTO stories generally emphasised export performance rather that efficient imports. Using the methodology developed by Patrick Messerlin and his team (Delpeuch et al., 2011), Foletti and Newfarmer (2011) created clusters of words associated with exports and imports, and counted their appearance in all of the case stories. References to exports dominated imports by a ratio of more than 4 to 1. To be sure, trade facilitation programmes that deal with border posts or infrastructure often reduce dead-weight costs on both sides of trade, and the collection of stories holds many examples of effective customs reforms that enhance the reformers' competitiveness by importing more efficiently. In the ICTSD studies, the impacts evaluated are silent on the import side. The donor programme studies and the Uganda and Rwanda studies, like the econometric studies, fared somewhat better on this issue because they often included an emphasis on lowering trading costs, which implicitly includes access to cheaper imports as well as greater competitiveness in exports.

Calibrating expectations about aid for trade: Environment, gender and SMEs
One corollary is important: Complementary policies essential for successful aid for trade need not – indeed could not – be included in every AFT programme. Yet critics of aid for trade too often point to the lack of traceable direct effects in terms of poverty reduction, gender equality or SME development. Often, issues of job creation, education, environment and social protection – important complements of trade – require separate policies (often supported with separate projects) distinct from aid for trade. This implies that, for example, a power project or a one-stop border post, to be effective, need not show direct linkages to poverty reduction or to some of the other cross-cutting objectives that are of concern to the development community, such as environment, gender or the creation of social capital. It is not that these issues should be ignored, but rather they have to be analysed as part of a country's national development strategy. Similarly, it has to be recognised that many AFT projects, broadly defined, have their own channels to poverty reduction, independent of the trade channel. An agricultural project, irrespective of exports or import substitution, may alleviate rural hunger or contribute to food security.

Aid for trade is supporting industrial policy…to good effect
The WTO case stories produced some surprises worthy of mention, even if discounted for flaws in sampling. The first was the large number of industry-specific activities that donors and governments were encouraging. Nearly 20% of all stories[11] reported on activities that affected specific productive activities – bananas, fishing, cotton, marula oil and tourism, to mention a few. These might

---

11   This total excludes a score of 'global' stories comprising mainly reports of cross-country research.

be characterised as 'soft industrial policy'[12] because they typically were directed at providing government coordination functions, remedying informational asymmetry or providing quasi-public goods at the same time they made industry-specific investments, usually to build capacity to participate in regional or global value chains. Moreover, these projects tended to be among the most successful (at least, as measured by the self-reporting of authors); among the six themes, this category had the highest percentage reporting positive effects measured in terms of outputs and outcomes. The projects generally appeared to be both pragmatic and fruitful, and often translated into benefits for low-income participants, including women. This suggests governments and donors might review their project portfolios to see if shifting scarce in-country resources into these types of projects and away from more general projects with less specific benefits might be worthy of consideration. Against this backdrop, the debate over industrial policy seems somewhat sterile.

No one really focuses on adjustment
A key demand of developing countries, consecrated in the 2006 Task Force Report, was the need for funding for governments to manage adjustment after trade reform. Aid for trade to adjustment was one of the five major categories of development assistance. The silence of the case studies in this area is deafening: only three of the 269 WTO/OECD stories linked development assistance to the implementation of trade reforms, and these were more associated with the implementation of trade reforms themselves rather than aid to programmes aimed at supporting the movement of labour and capital from internationally inefficient sectors into competitive ones. The topic does not deserve honourable mention in either ICTSD studies, the OECD studies or the Uganda study.

   Several reasons might explain this. One may be that the Doha Development Agenda has yet to be implemented, and this together with the absence of trade reforms generally has meant there is no need for adjustment assistance. Still, in the last decade, tariffs indeed have come down in many countries, even if only marginally and sometimes associated with preferential trade agreements. A second reason may be that policy-based budget support assistance – the principal form that adjustment assistance often takes – often concerns a variety of policy reforms in a package, and some of these on closer scrutiny might support programmes of adjustment assistance. Finally, both governments and donors may not have the knowledge to design serious trade-related adjustment assistance.

   A final feature, worthy of remark, is the fact that relatively few stories concerned the vast development research that the international organisations and donors are undertaking in areas related to trade – to say nothing of the research in universities, NGOs and the private sector. To be sure, these tend to fall in the province of the research groups within the multilateral development banks,

---

12 This is the term used by Harrison and Rodriquez-Clare (2011) in their comprehensive review of the industrial policy debate and evidence.

selected UN agencies or in specific agencies within governments, and hence are two steps removed from aid for trade and the WTO's call. However, as a guide to policy options, the abundant research for the Doha Agenda, for regional trade agreements or for domestic trade and investment policy, this body of work has to be considered far more important than the few case stories reporting these activities would otherwise suggest. This arguably reveals an excessive focus of the trade community on financial flows as a measure of aid for trade.

Means to an end

Aid for trade has raised the salience of trade in policy circles...
One central aspiration of the aid for trade initiative has been, in the periphrastic parlance of the development community, to 'mainstream' trade. The ICTSD study saw 'mainstreaming' as an essential element of ownership. Mainstreaming means: ' … in-country awareness and understanding of the cross-cutting nature of trade, and also the ability to translate this awareness into formal plans and substantive processes… so that the aid-receiving country creates an environment conducive to trade in cooperation with donors, the private sector, and other stakeholders'. The authors further assert that 'those countries that have mainstreamed trade in a systematic manner seem to be benefiting the most from AFT. The impact has generally been stronger, resulting in increased export capacities' (Ancharaz et al., 2013, p. 12).

The ICTSD studies find that nearly all of their eight country case studies have formally integrated trade into national development strategy through the preparation of trade strategies in one form or another. However, only four of the countries – Cambodia, Peru, Ghana, and the Philippines – are pursuing an 'active' trade strategy, and 'the level of substantive mainstreaming proved to be a weak point in all of them' (Ancharaz, et al 2013:p. 13). They ultimately give five of the eight 'partial' credit and the others 'poor' marks.

The Uganda case study adopted a narrower criterion: whether trade was centrally incorporated into the planning process. Newfarmer (2012) viewed the process over time, and argued that the last half dozen years have seen a marked increase in government efforts to promote trade. This took the form of high-level concern for promoting trade directly and efforts to attack constraints to expanding trade (including, for example, infrastructure and border-crossing delays). Indications of this abound:

- Trade was featured more prominently in successive development plans.

- The creation of the National Trade Sector Development Plan was a government-wide effort to mobilise key government ministries behind a systematic set of measures designed to improve competitiveness.

- The strengthening of high-level inter-ministerial committees as a vehicle helped involve the private sector in trade-related and competitiveness concerns as well as integrated policy actions across ministries.

One further indication of high-level concern for trade was the weight given in the annual budget speech before parliament to trade and trade-related investments, institutions and policies. Following the Messerlin methodology,[13] the study counted the frequency of the following keywords in budget speeches as a percent of the total: 'trade', 'exports', 'imports', 'competitiveness', 'transport', 'energy', 'telecommunications', 'infrastructure', 'agriculture', and 'aid for trade'. The results, shown in Figure 3.1, show a steady increase in concern for trade, competitiveness and trade-related infrastructure. The paper undertook the same calculation comparing the latest 2010-14 five-year development plan with the 2004-09 plan, and found the same pattern: key words associated with trade, trade policy and institutional reform, and trade-related infrastructure received 34% more mentions as a percentage of all words in the most recent development plan.

Figure 3.1 *Mentions of trade-related key words as a percentage of total words, 2001-2011*
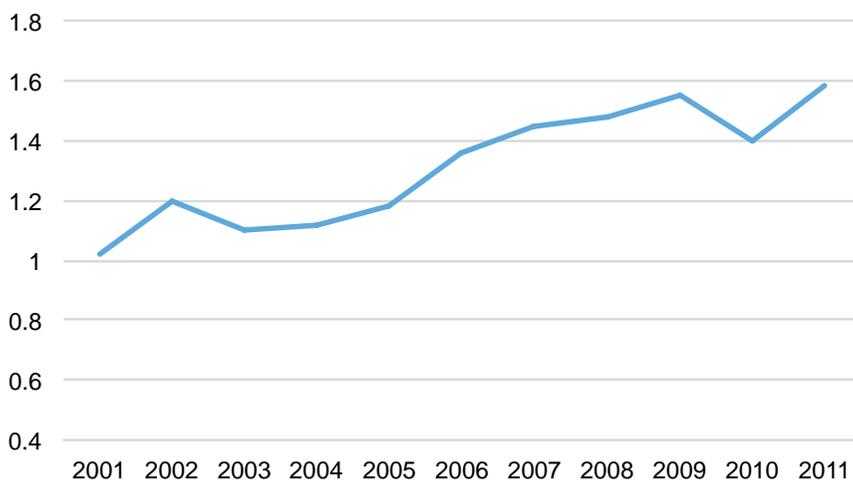
Source: Mission calculations.

…but results depend on state capabilities to implement
So indeed, plans incorporating trade centrally into policymaking indicate that trade has been fully mainstreamed in Uganda. But, as the ICTSD studies point out, planning effectively is only the first step; a second and necessary step is implementation. And Uganda's track record at implementation was not stellar. Of the 150 relevant policy recommendations made in the DTIS since 2006, 94

---

13   This follows a methodology devised by Patrick Messerlin's team in work for the OECD in 2011 (Delpeuch et al., 2011).

had received high-level attention and reported some progress, but no movement at all had occurred in 31 of the actions. According to the author's scoring, on average measures were implemented at a 50% rate (see Newfarmer, 2012, p. 16).

   These case studies point to some tentative conclusions. Attention is indeed being paid to trade at the highest level of most government, and it is probably true that the Aid for Trade initiative is one factor responsible, albeit indirectly, for the increased attention. However, devising a strategy does not mean that it will be carried into implementation, and implementation is reflective of broader state capabilities. Here the OECD case studies show the high variability of results-based management frameworks. Managing aid for trade and development results works best in countries where the political leaders work cohesively towards common objectives. This requires internal consensus on policy objectives and leadership through multiple levels of public administration. The OECD case studies show the power of well coordinated national efforts that enjoy the backing of the economic cabinet and even of the President (OECD, 2013). Insight on the final link from 'mainstreamed' trade strategy through implementation to trade results can be found in Newfarmer and Ugarte's (2013) paper. Their econometric study using cross-country evidence found that more effective governments (as measured by the World Bank's index) receiving bilateral aid for trade were requited with greater export performance, whereas less effective governments receiving aid for trade saw no associated increase in exports.

Indicators of progress: Monitoring missteps and learning

Excessive reliance on Doing Business? The most commonly used monitoring indicators in the several of the case studies came from the World Bank's Doing Business Indicators and occasionally its trade-related cousin, the Logistics Performance Index. This has not always been salutary. In Uganda, for example, the emergence of the *Doing Business Report* came to eclipse the DTIS as a key monitoring tool, and the dominant donor optic apparently shifted from trade expansion to private sector development. While not inconsistent, its seems that the public pressure of the Doing Business rankings, together with the Joint Assessment Framework procedures, generated greater donor and government monitoring of *Doing Business* policies than in implementation of the DTIS recommendations. From a narrow trade perspective, this did not serve the objectives of improving competitiveness well.

Proliferating policy matrices. In contrast to the Rwanda and Colombian studies, the case of Uganda also revealed a proliferation of monitoring indicators embedded in policy matrices that may have inadvertently contributed to poor implementation monitoring at the highest level. The list of policy matrices evident solely in the aid for trade arena with overlapping coverage numbered more than a half dozen, including: the DTIS, the National Trade Sector Development Plan, the Doing Business policies, the World Economic Forum suggestions, the Presidential Investor Round Table list, the Joint

Assessment Framework list with donors, the National Revolutionary Movement Party *Manifesto*, and the Cabinet Retreat policy priorities, to say nothing of the sector-specific measures that accompany virtually every project in the AFT portfolio, including, for example, Trade Mark East Africa and the World Bank's East African Trade Facilitation Project. The Joint Assessment Framework of the Ugandan government and donors (JAF Uganda, 2011) report recognised that '[i]t is evident that the JAF remains overly complex, and that it still contains too many actions and indicators for it to be an effective policy dialogue tool', and for that reason takes the view that the government and donors should explore alternatives mechanisms. At the project and agency level, these log-frames no doubt contribute to better performance; but the absence of clear, succinct and comprehensive direction at the level of the economic cabinet makes it difficult for the president to hold the cabinet responsible, and difficult for the parliament to hold the executive branch accountable.

Importance of learning. The OECD (2013) highlighted lessons for the AFT community emerging from its case studies. First, many partner countries have put in place mechanisms to monitor and evaluate the results of aid programmes. Donors would do well to build on these systems rather than trying to invent new ones. For example, the Enhanced Integrated Framework, with the benefit of hindsight, arguably spent too much time inventing its own performance indicators for monitoring and evaluation in a way that complicated project approval and disbursement.[14] A corollary is that when donors work together on common assessment frameworks in a country, it reduces transaction costs for both the government and donors. Second, a major reason why in some case study countries aid for trade works well is that management systems build in feedback loops so that governments can adapt. The Rwandan case is the most sophisticated because implementation goals are reviewed and changed annually, sector working groups that incorporate donors learn from prior years' inadequacies and successes, and the government can then modify the next year's programmes accordingly. Few of the other countries reveal the systematic learning feedback loops evident in the Rwandan case. Third, the framework should promote accountability through various levels of government – whether through the external reviews, the sector working groups, or the top-level political leadership. In any case, the accountability should involve a national dialogue with the stakeholders (OECD, 2013, p. 22).

Patchy use of quantitative measures of success
Whatever the measure, quantitative measure of the intended objective were often missing. The ICTSD worked hard to adopt a systematic approach with quantitative indicators. However, the OECD studies, perhaps because of their objectives, do not aspire to a common quantitative evaluation. The WTO/OECD case stories are the most troubling, however, because of the frequent absence

---

14 See Sana Consulting (2012) EIF Mid-term Review.

of quantitative benchmark indicators of performance in either the number of outputs or in outcomes measured against carefully formulated baselines.[15] Nearly half of the stories contained quantitative indicators on outputs. Far fewer of the case stories claimed that the activity produced specific quantitative outcomes attributable to the activity.[16] Stories from the multilateral development banks tended to have a higher share of quantitative information on outcomes than the others. These case stories, to their credit, generally refrain from making sweeping claims. That said, developing a more quantitative and less impressionistic results framework – based on greater investments in gathering indicator data – is a necessary objective.[17]

Figure 3.2   *Too few stories had quantitative indicators of success*
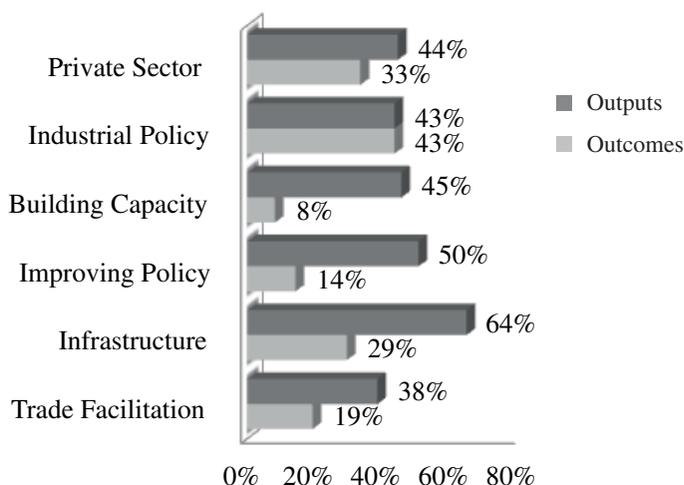
Source: Prepared from Foletti and Newfarmer (2011), Table 5.

Note: Percent of case stories in each category with quantitative indicators of performance.

---

15 Cadot et al. (2014) lament this for the whole aid for trade evaluation literature. So did OECD (2006), which prescriptively wrote: 'Donors and partner countries should focus on achieving results. They should adopt a collaborative, results-based management approach, where clear, realistic and measurable programme objectives are defined and translated into expected outcomes and required activities, with timetables for implementation (including information on the sequencing of outputs) and costing.'

16 According to the WTO/OECD (2011) a story was considered reporting an outcome if it provided any numeric value one of ten 'performance' indicators: export increases, trade structure and regional integration; import efficiency; investment increases; poverty reduction; incomes increases; gender measures; employment; health and environment.

17 The World Bank has established a comprehensive 'results framework' for aid for trade in its new Trade Strategy, identifying 15 different targets projected five to ten years into the future (see World Bank, 2011).

Donor-government interactions

Asymmetric accountability
The OECD case studies highlight the importance of donors' adherence to the Paris Principles of Aid Effectiveness as a determinant of success. This includes working closely with governments through abiding by the division of labour, providing information to the relevant ministries on their projects, and participating in the sector working groups and in general working with governments to reinforce their ownership of programmes as the key to a genuine partnership (OECD, 2013, p. 22).

The ICTSD studies and those for Uganda and Rwanda reveal the limits of mutual accountability. The ICTSD studies reveal a decidedly mixed portrait of compliance with obligations under the Paris Principles. On the one hand, donor programmes do somewhat better across the eight countries on 'country ownership' (five partials, three poors); 'predictability' (four yes, one partial, three no); 'alignment with national objectives' (three goods, four partials, one poor); and on 'donor coordination' (four good, four poor). On the other, ICTSD countries do rather poorly on 'stakeholder coordination' (five poor, two partials, one good), and abysmally on 'use of government systems' (seven poor, one partial).

The Rwandan government has set up a conversation with donors on their responsibilities. Since mutual accountability also implies obligations of donors to the partnership, the government – working with donors – has also established a comprehensive Donor Performance Assessment Framework (DPAF) as part of its administration of official development assistance (ODA). This has proven effective in encouraging donors to consider ways they might contribute more to the realisation in Rwanda of the five fundamental principles outlined in the 2005 Paris Declaration on Aid Effectiveness. The resulting DPAF is divided into five groups of indicators: financing national strategies to achieve the MDGs and the Vision 2020; use of national systems to strengthen ownership and accountability; facilitating long-term planning through predictable development financing; reduction of transaction costs through the adoption of harmonised approaches; and budget support in a manner that enhances ownership predictability and lowers transaction costs.

Each of these areas is associated with three to seven indicators that encapsulate the objective. By and large, for the 14 donors with time series data available, the trend has been towards improved performance, at least until recently. Still, overall performance remains well below the aspirational targets. Of the 22 indicators across the five areas, donors had fully met the target in only two ('percent of technical co-operation provided through co-ordinated programmes' and 'percent of total missions that are joint with the government'). While a few other countries have also begun to establish donor accountability frameworks, Rwanda's is arguably one of the most advanced.

In Uganda, the government conducts a survey of Paris Declaration implementation. In its third survey (FY2010/11), the Paris Declaration Monitoring

Framework sought to measure progress against 15 pre-defined indicators. In 8 of the 15 indicators, the survey revealed some improved performance, particularly in 'alignment with national priorities, better aid coordination, and avoidance of parallel systems for project implementation'. Meanwhile, six indicators showed either no or a declining trend in performance. These included using country systems, increasing predictability of funds, and ensuring better use of result-oriented frameworks.

Recently, donors unilaterally instituted partial aid cut-offs in both countries for different reasons – in Rwanda because of alleged involvement in supporting the M23 in the DRC and in Uganda because of alleged corruption. While this cessation referred to budget support lending, and some of it has since been restored to Rwanda, it has cast a pall over mutual accountability discussions.

Using government systems

One persistent request of beneficiaries is to use government systems where feasible, including reporting and implementation. Some donors, such as the US, have argued that providing assistance through the consulting firms or through NGOs would strengthen the private sector (a proposition that has not been subjected to much empirical scrutiny). Another common concern has been possible corruption. Ultimately, the freedom of governments to entice donors into using government systems depends on the capabilities of the state to implement projects effectively and with due regard for fiduciary responsibilities.

In the ICTSD countries, 'donors' use of country systems to implement projects and programmes is generally limited. In fact, donors have the tendency to use their own structures to implement aid projects' (Ancharaz et al., 2013, p. 15). In Uganda, the 2013 report notes that a heavy ODA portion was off-budget – 39% of all project assistance. Moreover, some development partners did not report their expenditures to the government. The largest donors not reporting included the African Union (US$63 million – presumably peace keeping activities); China ($41 million), and the International Fund for Agricultural Development (IFAD) ($19 million). Even for reporting donors, there appeared to be some – usually small – discrepancy between government systems and donor systems. In Rwanda, most aid for trade does go through government systems, but donors continue to fall short in spite of the fact that systems are generally free of corruption. Moreover, they also fall short in their reporting obligations to government.

To some degree, the character of the aid for trade programme will determine the form of implementation. The World Bank implements all of its programmes through the governments, as do the other multilateral development banks. Similarly, virtually all financing to infrastructure development is implemented through government agencies. For this reason, measured by volume, the majority of aid for trade goes through government systems.

REFERENCES

Adhikari, R. (2011), "Evaluating Aid for Trade Effectiveness on the Ground: A Methodological Framework", *ICTSD Issue Paper* No. 20, November.

Ancharaz, V., P. Ghisu and C. Bellmann (2013), "Assessing the effectiveness of Aid for Trade: Lessons from the ground", in M.A. Razzaque and D.W. Te Velde (eds), *Aid for Trade: Effectiveness*, *Current Issues and Future Directions,* London: Commonwealth Secretariat and ODI.

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

Basnett, Y., J. Engel, J. Kennan, C. Kingombe, I. Massa and D. Willem te Velde (2012), "Increasing the effectiveness of Aid for Trade: the Circumstances under which it works best" *ODI Working Paper* No. 353, August.

Bird, K., L. Turner, L. Rovamaa, M. Suokko, and J. Muraguri Gathii (2011), "Finnish Aid for Trade*", Evaluation Report* 2011:4, Ministry of Foreign Affairs of the Government of Finland.

Bruckner, M. and D. Lederman (2012), "Trade Causes Growth in Sub-Saharan Africa"*,* Policy Research Working Paper Series No. 6007, World Bank, Washington, DC.

Brenton, P. and I. Gillson (2014) "Diagnostic Trade Integration Studies and their Updates under the Enhanced Integrated Framework – A Retrospective", Chapter 4, this volume.

Cadot, O., A. Fernandes, J. Gourdon and A. Mattoo (2011) "Impact Evaluation of Trade Assistance: Paving the Way", in O. Cadot, A. Fernandes, J. Gourdon and A. Mattoo (eds), *Where to Spend the Next Million? Applying Impact Evaluation to Trade Assistance,* Washington, DC: World Bank and London: CEPR.

Cadot, O., A. Fernandes, J. Gourdon, A. Mattoo and J. de Melo (2014), "Evaluation in AFT: From Case-study Counting to Measuring", *The World Economy* 37(4), pp. 516-29.

Delpeuch, C., M.-A. Jouanjean, A. Le Vernoy, P. Messerlin and T. Oliac (2011), "Aid for Trade: A Meta-evaluation", paper presented to the OECD Experts Meeting on Aid for Trade, 29 March, Paris.

EU (2013) *Evaluation of the European Union's Trade-related Assistance in Third Countries* European Union: Brussels.

Folleti, L. and R. Newfarmer (2011), Background paper for WTO/OECD *Aid for Trade at a Glance 2011* Paris: OECD.

Goppers, K. and C. Lindahl (2009), *Sida's Trade-Related Assistance: Results and Management,* Sida Evaluation 2009:01, Stockholm: Swedish International Development Agency.

Harrison, A. and A. Rodriguez-Clare (2009), "Trade, Foreign Investment and industrial Policy in Developing Countries", NBER Working Paper No. 15261, Cambridge, MA.

ICTSD (2011), "Aid for Trade on the Ground: Early Findings from the Country Case Studies", Information Note 20, July, ICTSD, Geneva.

ICTSD (2012), "Aid for Trade and the Least Developed Countries: Recent Trends and Impacts on the Ground: Early Findings from the Country Case Studies", Information Note , October, ICTSD, Geneva.

JAF Uganda (2011) Joint Budget Support Framework, "Assessment of JAF 3" December 2011 (mimeo).

Mizuho Information and Research Institute (2012), "Evaluation of Aid for Trade – Summary", Third Party Evaluation Report 2011, entrusted by the Ministry of Foreign Affairs of Japan.

Newfarmer, R. and M. Sztajerowska (2012), "Trade and Employment in a Fast-Changing World", in D. Lippoldt (ed.), *Policy Priorities for International Trade and Jobs*, Paris: OECD.

Newfarmer, R. (2012), "Uganda: Aid for Trade", background paper for *Uganda: Diagnostic Trade Integration Study Up-date,* Washington, DC: World Bank.

Newfarmer, R., M. Savini, and M. Vijil (2013), "Managing Aid for Trade in Rwanda", in *Managing Aid for Trade and Development Results*, Paris: OECD

Newfarmer, Richard and Christian Ugarte (2013), "Aid for Trade: Through the Evaluation Prism", background paper prepared for *Aid for Trade at a Glance, 2013: Connecting to Value Chains,* Paris: OECD.

OECD (2006), *Trade-related Assistance: What do Recent Evaluations Tell Us?,* Paris: OECD.

OECD (2011a), *Trade for Growth and Poverty Reduction: How Aid for Trade Can Help,* Paris: OECD

OECD (2011b), *Strengthening Accountability in Aid for Trade,* Paris: OECD.

OECD (2012a), *Succeeding with Trade Reforms: the Role of Aid for Trade – Synthesis,* COM/DCD/TAD/RD(2012)2/RD2, September, Paris: OECD.

OECD (2012b), *Succeeding with Trade Reforms: the Role of Aid for Trade*, Paris: OECD.

OECD, (2013), *Aid for Trade and Development Results: A Management Framework.* Paris: OECD.

Portugal-Perez, A. and J.S. Wilson (2008), "Lowering Trade Costs for Development in Africa: A Summary Overview",Paper prepared for the workshop on "Trade Costs and the Business Environment in Africa" African Economic Research Consortium and World Bank, Entebbe, Uganda, May 31. Washington, DC: World Bank.

Sana Consulting (2012) "Mid-Term Review of the EIF" Geneva: Enhanced Integrated Framework

Teravaninthorn, S. and G. Raballand (2008), *Transport Prices and Costs in Africa,* Washington, DC: World Bank.

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

Versailles, B. (2012), "Rwanda: budgeting and planning processes", Budget Strengthening Initiative Country Learning Notes, Overseas Development Institute, London.

World Bank (2006a), *Assessing World Bank Support for Trade,* Washington, DC: World Bank Independent Evaluation Group.

World Bank (2006b), *Transport,* Washington, DC: World Bank Independent Evaluation Group.

World Bank (2007), *Agriculture in Africa,* Independent Evaluation Group, World Bank, Washington, D.C.

World Bank (2009), *Unlocking Global Opportunities: The Aid for Trade Program of the World Bank Group,* Washington, DC: World Bank.

World Bank (2011), *Leveraging Trade for Development and Inclusive Growth: The World Bank Group Trade Strategy, 2011-2021,* Washington, DC: World Bank.

World Bank, (2013), *Uganda: Diagnostic Trade Integration Study Up-date,* Washington, DC: World Bank.

WTO (2006) Task Force on Aid for Trade WTO 2006 "Recommendations of the Task Force on Aid for Trade", WT/AFT/1, World Trade Organization, Geneva.

WTO/OECD (2007) *Aid for Trade at a Glance, 2007; The First Global Review* Paris: OECD

WTO/OECD (2011), *Aid for Trade at a Glance, 2011: Showing Results,* Paris: OECD.

WTO/OECD (2013), *Aid for Trade at a Glance, 2013: Connecting to Value Chains,* Paris: OECD.

4

Diagnostic Trade Integration Studies and their Updates under the Enhanced Integrated Framework – A Retrospective[1]

PAUL BRENTON AND IAN GILLSON

INTRODUCTION

It is now 16 years since the Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries (IF) was launched with the objective of increasing the integration of Least Developed Countries (LDCs) into the global economy. A key element of the IF and its successor – the Enhanced Integrated Framework for Trade-related Assistance for Least Developed Countries (EIF) – has been the production of Diagnostic Trade Integration Studies (DTIS), as well as updates to these, that analyse and identify the key barriers to trade and prioritise support for trade-related reforms.

This chapter takes a critical look at what has been achieved by the DTISs with a focus on those in Africa[2] and building on the experience of the World Bank in undertaking these studies.[3] It proceeds with a short description of the EIF and the objectives of the DTIS. It then provides a brief discussion of key changes in the global economy and especially in Africa over the past ten years that frame the context in which DTISs undertaken during that time have been implemented.

WHAT IS THE EIF?

The EIF[4] is a global partnership to help LDCs benefit more fully from the use of international trade to support their economic growth and poverty reduction

---

2   34 of the 50 LDCs eligible under the EIF are in Africa.
3   Under the IF and EIF, the World Bank has been responsible for 46 of the total DTIS/DTIS updates that have been and are being undertaken with 37 of these for Africa.
4   In 1997, the Bank became a founding member of the IF. The IF was reviewed in 2005 and significant work was undertaken to create a more results-focused, accountable and responsive programme in the form of the EIF. Under the EIF there is a greater focus on country ownership, greater coordination and commitments from all EIF partners, stronger national and global governance structures and additional financial resources.

strategies and to promote donor harmonisation in trade-related support. The UN Committee for Development Policy has defined LDCs as 'low-income countries suffering from the most severe structural impediments to sustainable development'.[5] Hence the EIF and DTISs are an element, albeit a very important one, in the overall Aid for Trade agenda.

The EIF is an improved version of the initial IF, and became fully operational in 2009. Since then the programme has created partnerships among EIF stakeholders in 46 LDCs. The programme receives contributions from 23 donors with a funding target of US$250 million a year. It funds two levels of assistance (more detail below): Tier 1, which is mainly diagnostic work (the DTIS and an Action Matrix of trade-related support) as well as capacity building to national EIF implementation structures; and Tier 2, which covers mainly technical assistance projects highlighted in the Action Matrix complemented by additional donor funding at the country level. The EIF has a Secretariat housed at the WTO with dedicated funding managed by UNOPS. The World Bank was a founding partner of the EIF.

At the global level, the EIF Board is the key decision-making body that examines policy, financial and operational issues. The EIF Board is comprised of representatives from the donor community, three LDCs and the core agencies (IMF, ITC, UNCTAD, UNDP, WTO and the World Bank). At the national level, the National EIF Focal Point, often a senior government official, leads the EIF process supported by a National Steering Committee which represents other government agencies that have a stake in trade issues.

The EIF Focal Point is the main counterpart for the EIF in the country and is a key actor responsible for coordinating all in-country EIF activities and implementation. For example, the Focal Point chairs Tier 1 and Tier 2 Appraisal Committees and invites other representatives to participate in these committees. As the official counterpart for the EIF programme, the Focal Point is also responsible for signing official EIF documents and reports to the EIF country government and the EIF Secretariat on EIF implementation. In addition to the Focal Point, a Donor Facilitator helps mainstream trade into donor programmes. A National Steering Committee, comprising a broad group of stakeholders, monitors overall EIF progress and activities.

Two types of projects are funded under the EIF. Tier 1 projects focus on diagnostics and capacity building. They include assessments of policy reform and identification of technical assistance priorities through a common diagnostic tool (the DTIS), as well as periodic updates to these. Tier 2 projects focus on implementation of the recommendations made by the diagnostic work to, for

---

5   A country is classified as an LDC if it meets the following three key criteria and has a population below 75 million: gross national income per capita below a threshold level, a low score on a human assets index and a high score on an economic vulnerability index. See http://www.un.org/en/development/desa/policy/cdp/ldc/ldc_criteria.shtml for further details.

example, mainstream trade into national development plans, strengthen trade institutions and overcome supply side constraints to trade.

The EIF process

Under Tier 1, an EIF country can access support for in-country capacity building and ownership. Specifically, Tier 1 financing can be used to: i) set up the in-country EIF governance structure comprising the Focal Point, the National Implementation Unit (NIU), National Steering Committee and the Donor Facilitator; ii) cover some of the local running costs and equipment at the NIU; iii) prepare or update the DTIS; and iv) support trade mainstreaming actions, such as workshops and studies.

The preparation of the DTIS is the cornerstone of the EIF programme in terms of mainstreaming and integrating trade into an EIF country's national development plan. The DTIS and its priorities for trade-related support, as elaborated in an Action Matrix, are the basis for all subsequent EIF projects and donor financing on trade and are, therefore, fundamental components of the programme. The paramount objectives of a DTIS are to identify and analyse the constraints that are hampering the integration of the country into the multilateral trading system and to mainstream trade issues into the Poverty Reduction Strategy Paper (PRSP) or national development plan.

The Action Matrix plays a role in prioritising recommendations from the DTIS. It is validated through the convening of a national validation workshop for the government to approve the recommendations with the ultimate objective of coming up with a series of pragmatic, prioritised actions on selected trade-related issues contained in the Action Matrix. The actions foreseen in the Action Matrix should be translated into measures supported by development partners and complemented by EIF-financed Tier 2 projects.

EIF resources for Tier 2 are limited so the bulk of funding should come from bilateral and multilateral donors such as the World Bank**.** The total level of EIF funding for a Tier 2 project is in the range of $1.5-3 million. Tier 2 proposals are prepared and coordinated by the NIU under the responsibility of the Focal Point, in close consultation with the National Steering Committee and with the assistance of the Donor Facilitator. In preparing such proposals, the NIU may request the advice and assistance of other development partners, such as the World Bank. Tier 2 proposals are approved by the EIF Board.

Examples of eligible Tier 2 projects taken from the User Guide of the EIF include the following:

- Assistance to implement WTO or other trade policy commitments; project preparatory activities that may not have been provided for under Tier 1 projects

- Trade mainstreaming activities to integrate DTIS conclusions into national development strategies, such as PRSPs

- Preparation, formulation and implementation of sectoral strategies

- Capacity-building activities for key trade support institutions and government officials, representatives of local communities, professional federations, NGOs and other local stakeholders or to enhance the supply-side response of the country

- Specific actions aimed at enhancing small and medium enterprises' competitiveness for priority sectors identified in the DTIS

- Strengthening of trade support services

A CHANGING CONTEXT FOR DTISS AND EIF IMPLEMENTATION

The IF was borne out of the Uruguay Round trade negotiations. There have subsequently been significant changes in the global economy, in growth in Africa, in the nature of global and regional trade and in the data and tools available to trade economists that now need to be reflected in trade analysis and in trade mainstreaming.

First, we are no longer living in a bi-polar trading world dominated by trade between rich countries in Europe and North America and developing countries. The emergence of the BRICS and recent growth in Africa has led to a multi-polar trading world with expanding markets in different locations generating new trade opportunities. So the focus is no longer just on enhancing old established trading relationships but on allowing new trade flows to new markets to flourish. In Africa, while important, the sole challenge is no longer how to add value to commodities and minerals being shipped to rich countries but also how to exploit new opportunities for trade in manufactures, in services as well as agriculture with neighbours and emerging countries in Asia and South America.

Second, the nature of global production and trade has changed throughout the latter part of the last century and into this century. Production processes have been split up and different parts of production relocated around the world. This great unbundling (Baldwin, 2011) necessitates a reappraisal of the role of trade and investment policies and that competitiveness is looked at in a different way. No longer do countries just import and export finished products for which all of the production stages were undertaken within a strict physical area. Countries now import inputs for the production of final goods to be competitive in the domestic market, and import inputs to use in the production of exports and so integrate into global value chains.

As a result, supply chain efficiency has emerged as an increasingly important determinant of trade performance. This is of relevance to LDCs despite the limited range of exports that they currently produce and the low level of skills that they possess, since entry into global production chains, such as those related to the clothing sector, offers a route to increasing industrial activities and employment and an initial step on the ladder to producing increasingly

sophisticated exports. The quality of the broader business environment and of infrastructure and logistics matters greatly to how countries can benefit from an open trade environment. Hence, trade policies need to allow for much more flexibility in access to imports. These changes also put a premium on efficient border management procedures. Together, policies and procedures that cause delays and raise costs undermine the capacity to source imported inputs efficiently and hence adversely affect competitiveness. A key challenge for Africa, increasingly reflected in the DTISs, is that these trade costs remain highest for LDCs, especially landlocked ones. As a result, producers in these countries have been less successful than producers in other developing countries at integrating into global production networks. In East Asia, for example, a key feature of trade and growth has been the rapid expansion of two-way exchange in intermediate inputs, which has been captured in measures of regional intra-industry trade. Such trade accounts for more than one-third of total trade in East Asia, whereas in Africa it is negligible (although there are some signs that it is increasing in east Africa).

Third is the increasing importance of trade in services. Services are key inputs into all other economic activities and access to a wide variety of efficiently produced services is critical to competitiveness and an additional important factor governing participation in global value chains. As just one example, more than 83% of the selling price of fresh cut flowers exported from Ethiopia to Europe is accounted for by services. Trade opening can be an effective mechanism for increasing competition in services sectors. Competition is essential in order to increase efficiency in the provision of services and deliver improved access to lower priced and better quality services in the domestic market. Also, exports of services offer new opportunities to diversify and create jobs. Yet services trade is often under-represented in DTISs and more broadly in applied trade policy, in part reflecting a lack of data but also the prevalence of traditional views of development and a fixation on the importance of manufacturing that can obscure opportunities in services. Tourism has been a traditional services export for many developing countries, which is captured in a number of DTISs, but new opportunities to export are being exploited in finance, telecommunications, professional services as well as in IT-related services.

While the benefits of liberalising trade in services are compelling, it can also bring risks and potential costs that may require appropriate government intervention. This arises because of the need to regulate many services sectors to overcome market failures giving rise to concerns about both efficiency and equity. For example, when imports of services through commercial presence are liberalised, it is important that foreign entry leads to more competition and improved service delivery, not merely to a transfer of ownership from a state monopoly to a private one or from a national monopoly to a foreign one. Reforms to establish an appropriate regulatory framework may need to precede the opening up of a particular sector so as to set the rules of the game for new investors by establishing appropriate competition and pricing rules for foreign investors in services, service and access requirements when relevant, and

adequate oversight and conflict resolution mechanisms. Hence trade opening may need to be carefully coordinated with regulatory reform. It is therefore important to explore bringing in sector specialists in services to contribute to the analysis of DTISs.

Fourth is the changing climate for trade in Africa. The majority of countries under the EIF are in Africa. Many countries in Africa have grown strongly since 2000 and are enjoying a sustained period of economic growth. In the main, this has been driven by increasing exports of commodities and export diversification remains a key objective to drive job creation and more inclusive growth. In the 1990s and early 2000s, African countries significantly reduced their external tariffs and simplified their structure by moving to a smaller number of tariff bands. But since the mid-2000s the average tariff for sub-Saharan Africa has remained fairly constant. With the exception of North Africa and the Middle East, tariffs in sub-Saharan Africa remain high relative to other regions and there is more dispersion. The average applied tariff (unweighted MFN) for sub-Saharan Africa is 11.6%, still considerably higher than the 7.2% average for East Asia and 9.5% for Latin America, and above the average for South Asia which is 10.6%. Thus, there remains considerable scope for African countries to increase efficiency by bringing their applied tariffs closer to those of other developing country regions and to improve World Bank Country Policy and Institutional Assessment (CPIA)[6] scores in the process.

In this context, it is interesting to note that the average of the CPIA scores for trade across African countries has changed little over the past six years and in 2012 the average was 3.6, compared to 3.7 in 2006.[7] This reflects the addition of two countries – Liberia and South Sudan – to the sample of countries during the period. For the constant set of countries the average did not change from 3.7. The sub-scores for trade policy and for trade facilitation have changed little. Overall this captures little change in tariffs and limited progress in dealing with the regulatory issues that typically underlie non-tariff barriers to trade in goods and services. Static scores reflect slower progress on reforming customs procedures and other trade facilitation reforms and the continuing lack of implementation of commitments (typically at the regional level) to remove non-tariff barriers.

---

6   The CPIA is intended to capture the quality of a country's policies and institutions. More specifically, the CPIA measures the extent to which a country's policy and institutional framework supports sustainable growth and poverty reduction, and consequently the effective use of development assistance. The outcome of the exercise yields both an overall score and scores for 16 individual criteria, including trade policy, that comprise the CPIA. Within trade policy there are sub-scores for trade restrictiveness and for trade facilitation. In addition to providing an assessment and tool for monitoring progress in achieving policies and institutions that can drive development the CPIA exercise helps determine the allocation of the Bank's resources and specifically the relative sizes of the Bank's concessional lending (i.e. on terms with significant grace periods, long repayments periods, and very low interest rates and grants to low-income countries). For more information see http://datatopics.worldbank.org/CPIA/home)

7   Countries are rated on a scale of 1 (low) to 6 (high). The scores depend on the level of performance in a given year assessed against specific criteria rather than on changes in performance compared to the previous year.

However, it is interesting to note that within this overall static picture, there has been progress among the fragile states in Africa in increasing their CPIA scores for trade and this is most apparent for the trade facilitation sub-score. For the group of fragile states the average sub-score for trade facilitation has increased from 2.5 to 2.9. There has been progress across many countries – Burundi, Chad, Comoros, DR Congo, Republic of Congo, Côte d'Ivoire, Guinea, Guinea Bissau, Sierra Leone and Zimbabwe have increased their trade facilitation sub-scores. Nevertheless, there is still much more for these countries to do to facilitate trade and increase their CPIA scores. The average trade facilitation sub-score for the non-fragile states in Africa was 3.8 in 2012. There has been little change on the trade policy score for fragile states and the gap with the non-fragile states is less, 3.3 and 3.8 respectively in 2012. This reflects that many of the fragile states are members of regional communities and share common tariffs with non-fragile states. It also suggests a need to focus on removing non-tariff barriers that limit the trade of fragile states. Whilst difficult to confirm, it is possible that analysis in the wave of DTISs that have been supported by the EIF in these fragile states has played a role in raising trade facilitation as a key development issue and in providing an analytical base for the subsequent progress we have seen.

It is being increasingly recognised that in addition to exploiting opportunities in global markets there is enormous potential to drive export diversification through regional trade integration. Regional trade can bring staple foods from areas of surplus production across borders to growing urban markets and food deficit rural areas. With rising incomes in Africa there are emerging opportunities for cross-border trade in basic manufactures such as metal and plastic products that are costly to import from the global market. The potential for regional production chains to drive global exports of manufactures, such as those in East Asia, has yet to be exploited, and cross-border trade in services offers untapped opportunities for exports and better access for consumers and firms to services that are cheaper and provide a wider variety than those currently available.

However, Africa is not achieving its potential in regional trade as substantial barriers remain to the free movement of goods, services, people and capital across African borders with the consequence that it is often easier for Africa to trade with the rest of the world than it is with itself (see, for example, Brenton and Isik, 2012). Effective regional integration is of particular pertinence now. While uncertainty surrounds the global economy and stagnation is likely to continue in traditional markets in Europe and North America, enormous opportunities for cross-border trade within Africa in food products, basic manufactures and services remain unexploited. Regional integration in Africa could provide a much-needed source of export diversification away from minerals and hydrocarbons and become a vital source of job creation.

But to deliver integrated regional markets that will attract investment in agro-processing, manufacturing and new services activities, policymakers have to move beyond simply signing agreements that reduce tariffs to drive a more holistic process to deeper regional integration. An approach is needed that reforms policies that create non-tariff barriers; puts in place appropriate regulations that

allow cross-border movement of services suppliers and investment; delivers competitive regionally integrated services markets; and builds the institutions that are necessary to allow small producers and traders to access open regional markets. The appropriate metric for successful integration is not the extent of tariff preferences but rather reductions in the level of transaction costs that limit the capacity of Africans to move, invest in, and trade goods and services across their borders.

This is a different approach to one that proceeds within the straightjacket of specific sequential steps to integration: free trade area, customs union, common market, and economic and monetary union. For example, there are enormous opportunities for trade in services in Africa that are not dependent on a common external tariff being in place. Countries can work to improve trade facilitation at the border and to remove non-tariff barriers with neighbours while free trade agreements are being designed and implemented. Countries that are not members of the same free trade agreements can work to disseminate information on market prices to producers and traders.

Finally, it has become apparent that successful export growth and diversification require not only entry into exporting but survival and subsequent growth. Evidence suggests that developing countries have much lower survival rates for new exports than do developed countries. As a result, more attention needs to be given to the factors that undermine the survival of trade flows including uncertainty (of producers over costs, of buyers over the quality of product they will receive, of both buyers and sellers when contracts are weakly enforced) and lack of information that prevents effective matches between buyers and sellers in international markets. An interesting finding from initial analysis is the importance of learning-by-doing for export survival: experience with exporting the same product to other markets or different products to the same market are found to strongly increase the chance of export survival. A better understanding of such learning effects could substantially improve the effectiveness of export promotion strategies.

THE ROLE AND IMPACT OF THE DTIS

One conclusion from the analysis above is that the trade agenda is now very broad and complex, covering not only tariffs and traditional commercial policies but also rules and regulations governing services, the application of sanitary and phytosanitary standards, product standards, technical regulations relating to health and safety issues and transport and trade facilitation. Coordinating and implementing such as agenda is an enormous challenge for capacity constrained trade and commerce ministries in LDCs. However, this challenge has been compounded by the incredibly broad mandate that has been defined for Aid for Trade in general, which has in turn resulted in few boundaries for the EIF and for the DTIS in particular. Thus, issues related to lack of productive capacity and poor infrastructure are commonly addressed in DTISs. This requires the trade ministry to work across a wide range of sectors including transport, agriculture,

health, telecommunications and finance, and a potentially very large number of interested stakeholders. However, recent experience suggests that the trade or commerce ministry has typically been unable to achieve effective coordination across ministries or leverage action on issues that are outside of its direct remit, with the consequence that some of the first DTISs were perceived as overly donor-driven with little national ownership. Notable exceptions are the DTIS undertaken for Lao PDR and Cambodia (see Box 4.1).

The broad definition of Aid for Trade has also provided a difficult challenge for the agencies implementing the DTIS. In particular, there is a need for greater coordination of development partner assistance in trade, perhaps through common funding. In the World Bank, there are large teams working to alleviate infrastructure constraints in sectors such as energy and transport and substantial programmes to build private sector capacity and improve access to finance. There is a large amount of expertise on agriculture and rural development. So, a broad approach to trade constraints in the DTIS runs the risk of spending time identifying problems that are already well-known and recommending actions that are already part of the plan of another ministry and the focus of an existing World Bank project.

Thus, the key challenge for the DTIS is how to capture the complexity of the trade agenda while recognising the limited capacity of the NIU and the government to drive it. At the same time there is a the need to include a broad range of stakeholders in discussions around trade and to provide a focused and prioritised set of *implementable* recommendations in the Action Matrix in the context of national development strategies.

In general, the DTISs and their updates that have been completed to date have provided a high quality analytical input into discussions over trade within the respective country. In many cases, the DTIS has played an important role in raising the profile of trade and in mainstreaming trade into national development strategies. As an example, the priorities set out in the 2005 Action Matrix of the Zambia DTIS were incorporated in the trade chapter of Zambia's Fifth National Development Plan (2006–2010), and were subsequently integrated into the Sixth National Development Plan (SNDP) (2011–2015). This was the first time that Zambia mainstreamed trade into its national development plans. Nevertheless, while most studies provide a comprehensive analysis of constraints to trade, there are a number of issues that are critical aspects of trade but which are typically under-represented in DTISs, if not totally absent.

Box 4.1 *Lessons from the DTIS for Lao PDR and Cambodia*

The first DTIS for Lao PDR, validated in 2006, laid the foundation for greatly increased development partner cooperation and financing in trade-related support. One response to the DTIS was that significant and coordinated development assistance was mobilised to complement Window II financing under the original IF. The EU, Germany, Japan and Australia contributed to a multi-donor trust fund called the Trade Development Facility, which was implemented by the Government of Lao PDR and administered by the World Bank. The DTIS also laid the basis for a pilot project of the UN Trade Cluster in Lao PDR. Through these interventions the national governance structure for the IF was established and significantly strengthened. With the DTIS update, undertaken in 2012 and one of the first to be 'government implemented', the Government of Lao PDR recognised the opportunity to further increase ownership of the process related to the diagnostic work and the resulting programme of reform. As part of this, it created a closer link between the Ministry of Commerce and Industry and the national planning process related to the National Socio-Economic Development Plan.

In Cambodia, the World Bank is supporting the government to set up an institutional mechanism for inter-ministerial coordination by building on the Trade Sector Wide Approach (Trade SWAp), following its contribution to Cambodia's second DTIS in 2007. The Trade SWAp is structured around reforms identified in the DTIS and has proven to be a very effective way of increasing aid effectiveness and donor coordination. It has three pillars identifying objectives, outcomes, and specific actions (with quantifiable indicators) in the areas of trade policy and regulations (Pillar 1), production side (Pillar 2) and capacity development (Pillar 3). Effective prioritisation and logical sequencing of a large number of reforms have been key to the success of the trade reform programme. In Cambodia, the World Bank provided primary technical assistance to tackle the most urgent issues of trade facilitation, including the modernisation and automation of customs and border agencies through a $10 million International Development Association (IDA) grant. At the same time, the World Bank concentrated on addressing gaps in the trade legal system and in developing the capacity of trade-related institutions. Several donors, including the EU and UNIDO, entrusted the World Bank with a multi-donor trust fund to support this process. The Trade Development Support Program (TDSP) is managed by the World Bank and is providing $22 million in grant financing through 2015. With the support of the TDSP, Cambodian trade-related institutions have been empowered to manage donor funds directly, thereby strengthening their capacity in budget planning and execution under the support and supervision of the World Bank. This programme design has contributed substantially to improving the institutional capacity of the Ministry of Commerce Department for International Cooperation, which has proved capable of taking full ownership of the process.

First, while deeper regional integration is key to LDCs achieving their trade potential, it has typically received relatively little attention in DTISs. This may reflect in part the current location of the EIF Secretariat, housed within the WTO, and the greater emphasis this may give to global integration and global trade rules as a result. In addition, the EIF has been strictly implemented on a country-by-country basis and opportunities for synergies across countries have rarely been exploited. For example, the majority of DTISs recommend improving customs procedures at borders but none has directly facilitated cross-border coordination between neighbouring countries on issues such as harmonisation of border opening hours, joint border posts or common customs documentation.

This is changing in the DTIS updates, reflecting in part the greater emphasis on regional integration from stakeholders. For example, regional integration figures highly in the updates for Uganda, Lao PDR, Malawi and Zambia. However, Tier 2 of the EIF and donor programmes are often not well-suited to supporting regional or cross-border trade solutions. The specific country programmes of donors are often poorly coordinated with those of neighbouring countries and are defined, managed and assessed on the basis of country-specific projects and disbursements. In the World Bank, resources are allocated through country programmes managed by Country Directors who have few incentives to allocate their resources to regional trade solutions that would generate benefits for other neighbouring countries, yet have no mechanism by which to coordinate their actions with other Country Directors. To address this issue in part, a Regional Director and unit has been created in the Africa Region of the World Bank and a regional IDA fund established to provide a subsidy for regional projects.[8] However, this fund is currently only being used to finance regional infrastructure and capacity-building projects; it is not being used to support regional policy reforms such as harmonisation of standards, joint border posts or mutual recognition of qualifications. Thus, there remains a substantial under-investment by the Bank in support for regional trade reforms.

Second, a challenge that many LDCs face, including those in Africa, is that of informal trade. Hundreds of thousands of small traders cross borders every day in Africa, many of whom are women, to deliver goods from where they are relatively cheap to areas where they are in short supply. Often they face very challenging conditions in doing so. Yet analysis of informal trade has typically not figured heavily in DTISs reflecting in part the lack of systematic data on such trade but also a lack of recognition of the importance of such trade and poor representation of small traders in trade policy discussions and the EIF process. Since the majority of informal traders are women, the DTISs have often missed a real opportunity to contribute to the issue of trade and gender and address the woeful lack of awareness, understanding and interest of (primarily male) policymakers of the constraints, including physical harassment at the border,

---

8   The regional fund can provide two thirds of the resources for regional projects, with one third coming from the participating countries' national IDA allocations.

that women traders can face.[9] The DTIS updates for Zambia and Malawi stand out as taking informal trade more seriously, and indeed, as part of the DTIS process, a joint workshop was held that brought together officials and informal traders from both sides of the border.

Third, DTISs have tended to gloss over the political economy factors that can prevent implementation of measures proposed in the DTIS. Is there any point in repeating recommendations that have been made before and are being blocked by politically well-connected interests without trying to understand why and what complementary actions could be taken to ameliorate or overcome that resistance? As we will discuss in more detail below, many of the recommendations from the first round of DTIS studies have not been implemented. This reflects a number of factors which relate to the political economy. So, should some of the resources for the DTIS and space in the study be devoted to a better understanding of the political realities in which each of the priority recommendations will be implemented? This is, of course, an incredibly sensitive issue in a context in which the government is the counterpart for the DTIS. But the DTIS does offer an opportunity to deliver careful analysis and engage with a wider group of stakeholders in the country, including donors, who may be critical in leveraging change in policies that otherwise will have little chance of being implemented.

This suggests that careful analysis of the political economy factors affecting trade reforms should be an integral element of DTIS. Such analysis could provide insights on, among others, the following issues:

- How do the private interests of policymakers affect implementation of reforms designed to remove constraints to trade?

- Under what conditions are powerful private sector firms able to block efforts to integrate and when do they support such efforts?

- Have existing barriers to trade created rent-seeking institutions and corrupt practices? Do these make trade reforms politically difficult to implement?

- How important are inter-governmental politics and processes in determining policies towards trade integration? Do concerns in one ministry or agency often compromise efforts to streamline trade procedures in order to protect domestic producers and/or permit rent-seeking opportunities?

- Does the degree of government engagement with affected stakeholders, such as traders, consumers, exporters, producers of domestic products, and government officials that are involved in regulating trade, affect the success of trade integration efforts?

---

9   These challenges are described in Brenton et al. (2013).

- What has been the influence of external agents (regional economic communities, the World Bank, donors) on the implementation of trade policy reforms?

AN ACTION MATRIX THAT LEADS TO ACTIONS

While the analysis contained in the DTIS has typically provided a sound base for the dialogue on trade, it is the Action Matrix that is the key mechanism for driving the mainstreaming of trade into the country's development strategy and the country programmes of the donors. The EIF defines that the Action Matrix should present 'the prioritised strategic objectives and key actions that will be needed to address the main constraints to trade'.

A feature of many of the DTISs that is being identified in the subsequent updates is the low level of implementation of the recommendations. For example, the recent Malawi DTIS update finds that only eight actions out of 67 recommendations in the 2003 DTIS Acton Matrix were fully implemented. A scoring of the implementation of the 156 measures in the Uganda Action Matrix in the DTIS update concluded that 57 measures had been fully implemented and a further 37 partially implemented, with an overall scaled implementation ratio of 50%. Here we look at the nature of the Action Matrices that have been produced under the DTISs and discuss some of the reasons why they have been so poorly implemented.

A BROAD AND UNCLEAR MANDATE....

The very wide remit of Aid for Trade that has defined the scope of analysis under the DTISs has contributed to an enormous range of rather vague recommendations that are often weakly linked to trade. Many of these are not the direct remit of the trade ministry and accountability for implementation is unclear. It is also virtually impossible to monitor their implementation and impact and so evaluation of progress is very difficult. Box 4.2 provides some examples taken from various DTIS Action Matrices of proposals over which trade ministries have little or no responsibility, and hence minimal influence.

It would be useful then for the DTIS Action Matrix to reflect more carefully on what can be *implemented* within the context of the EIF. The first step is to keep the scope of the recommendations to issues consistent with the capacity of the commerce ministry to implement and monitor progress. As an example, a recent DTIS update has focused on reducing trade costs. Second is to identify actions around which the donor community can collectively leverage resources to support implementation where financing issues are important. Thus, while lack of energy infrastructure and inadequate port infrastructure may be important constraints to trade, the DTIS and EIF will not be able to deliver the investments that are needed to remedy infrastructure gaps. The DTIS and EIF process can be successful if they ensure that the benefits from trade that will accrue from alleviating these constraints are reflected in national policy discussions around

the PRSP. Hence, a realistic action would be for the NIU and trade ministry to advocate within government for infrastructure improvements that are key for trade. An unlikely alternative would be to keep the broad focus and define actions on trade-related infrastructure and policies but shift the implementation unit to a ministry that is able to leverage actions across a wide range of ministries and agencies, such as the finance ministry.

Box 4.2 *Actions over which trade and commerce ministries have little influence or control*

(examples from DTIS Action Matrices)

- Reduce the cost of access to electricity supply network
- Operationalise competition policy through capacity building of Competition Policy Commission.
- Promote private-public partnerships for investments in railways infrastructure, air transport infrastructure, marine and fresh water transport infrastructure, cargo terminals, and the development of all transport corridors
- Elaborate new transport legislation: road freight transport act; road passenger transport act; Railway Code
- Broaden the tax base, increase efficiency of collection
- Reform provisions for dismissal and retrenchment to reduce investment risks and facilitate market-driven labour reallocation….as well as possible mechanisms to finance training of personnel
- Prepare a plan for new investment in infrastructure for the judicial system (civil courts, attorneys-general, Criminal Investigation Police)
- Consider recruiting an internet marketing expert to train potential and existing entrepreneurs in ICT as part of an incubator programme
- Improve access to finance through reform of the mortgage act and training of bankers

---

…UNDERMINES THE SCOPE FOR IDENTIFYING NATIONAL TRADE PRIORITIES…

One feature of most DTISs is the very high number of actions that are presented in the Action Matrix. The average number of actions in 24 DTISs that have been undertaken in Africa is 90, with a maximum of 182 and a minimum of 30.[10] The Action Matrices also tend to contain an often bewildering mix of actions, from those that address enormous infrastructure constraints such as lack of energy,

---

10 The countries concerned are Benin, Burkina Faso, Burundi, Chad, Ethiopia, Gambia, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sao Tome & Principe, Senegal, Sierra Leone, Sudan, Tanzania, Togo, Uganda, and Zambia.

to very specific interventions to support sectors such as honey. This has had a number of consequences that have limited the impact of DTISs:

- It is extremely challenging for administrations with limited capacity to implement the actions.

- There is an inherent lack of prioritisation.

- There is little to guide and coordinate government actions and donor support, and as a result individual donors tend to pick projects they find of particular interest or are easiest to support.

Given the breadth of the trade agenda, the large number of stakeholders involved all want to see their specific priorities reflected in the Action Matrix. The challenge for the DTIS is to identify what are the national priorities within this broad set of stakeholder interests. Unfortunately, it appears that difficult choices are often avoided and the priorities of a wide range of interests are included. As a simple example, senior officials in any ministry with responsibilities related to trade will probably respond to the question of what are the major constraints that they face in promoting trade with the answer of 'lack of capacity'. The large number of actions may also be a way to gloss over conflicts of interest between different ministries and government agencies, perhaps driven by the desire to maintain current rent-generating regulations within these ministries and agencies.

We do see some changes in the DTIS updates. The updated Uganda Action matrix has fewer than 50 specific recommendations, well under a third of the number in the original DTIS. The Malawi DTIS has 13 actions in four key areas: trade policy, customs and trade facilitation, agriculture, and trade in professional services. There are no actions with regard to infrastructure. Nevertheless, a number of recommendations require effective cross-ministry coordination, such as with Ministry of Transport and Ministry of Agriculture. Although, the number of actions is limited, their implementation requires coordination between the Ministry of Trade and at least six other government ministries or agencies. For Sao Tome and Principe, a summary action matrix of 13 immediate priorities has been identified. Hence, we are seeing a move in some, but not all, DTIS updates towards defining the Action Matrix more closely to national priorities directly related to trade and the implementation capacity of the trade ministry.

Following a mid-term review, the EIF is now supporting the development of a medium-term programme or similar implementation plan, for countries that demand one, as a means of more effectively mobilising Aid for Trade resources to support progress on the Action Matrix. The challenge now is for the donors to recognise the efforts that governments are making to prioritise recommendations on trade and to more effectively coordinate their support in terms of both financial assistance for the implementation of reforms and capacity building.

In many LDCs there is a deep mistrust between the government and the private sector. The private sector is often reluctant to engage with the government and the donors, in part because of the past history of lack of implementation. Targeting one or two very specific recommendations that are important for the private sector, concentrating on implementing those and showing positive impacts can be a key way to overcome this mistrust and in turn ease the implementation of subsequent actions. Building sequencing into the Action Matrix may also be a means of focusing attention on the implementation of a few specific measures before moving onto additional recommendations. Again, this requires a coordinated response from donors to deliver the resources necessary to implement these key actions and capacity in the trade ministry to administer the project and programmes and monitor their progress.

....AND EVEN WHEN IMPLEMENTED THERE IS LITTLE EVIDENCE ABOUT OUTCOMES.

While DTIS updates have provided very useful information on the implementation of proposed actions, there is often little information or analysis on the impact of these measures and indeed if they are actually being applied. A number of examples may help to illustrate this. In a number of countries, there is evidence that decisions that have been taken or publicly announced to reform trade procedures have not been made legally binding and are not being applied on the ground. Some countries have announced that a specific number of defined agencies are only allowed to be present at border crossings, yet in practice there may be double or triple the number of agencies allowed actually at the border, many charging traders fees to cross. Decisions taken to reduce the number of products that require a permit for export are not applied at the border. Consequently, a stronger focus on monitoring and evaluation is needed. Monitoring and evaluation considerations could, for example, be built into the analysis of a DTIS with the Action Matrix forming a living 'roadmap' linked explicitly to outcomes and results.

Analysis of the implementation of DTIS Action Matrices typically finds a high level of implementation for narrow sector-specific measures. For example, in Uganda, actions relating to coffee, tea, horticulture and tourism all benefited from above-average rates of implementation of the various recommendations, between 66.7% and 100%. However, an important lesson emerging from a number of DTISs is that picking winners as part of an export diversification strategy does not necessarily deliver the desired outcome. Products such as horticulture, coffee, and paprika were identified as having great potential for increased exports in the Zambia DTIS and attracted large amounts of public and private investment capital as presumed focal points of agriculture growth. However, they have since seen substantial declines for reasons that would have been difficult, if not impossible, to anticipate, such as falling world market prices, high local costs and Zambia's thin production base that makes it difficult to achieve effective economies of scale. These experiences point to an inherent

problem with picking winners as part of some kind of cluster-based strategy for trade expansion.

EFFECTIVE IMPLEMENTATION REQUIRES A MUCH DEEPER ENGAGEMENT WITH STAKEHOLDERS

A further factor undermining effective implementation is the lack of strong ownership of the DTIS document and process by the government and more broadly by stakeholders. The DTIS must be prepared with an appropriate balance between high technical standards of the analysis and time and resources to ensure that the process is undertaken in a participatory manner, with substantial interaction with stakeholders. This requires significant on-the-ground support to work carefully with trade-related agencies to assess constraints and identify priority actions and much greater attention to be given to engaging with a wider set of stakeholders. At the moment, many DTISs engage with stakeholders only through the final validation workshop, which is often organised more as a rubber stamp of the exercise rather than a medium for critical discussion. Many validation workshops are dominated by medium-level officials from ministries and government agencies. The private sector is often sorely under-represented and effective representation of small producers, traders and consumers is extremely rare.

In fact, the vast majority of those involved in trade in LDCs (including many working for donors) have probably never heard of the EIF or the DTIS for their country. Few stakeholders will read the DTIS. The DTIS is in the main a technical document and a number of them are far from brief; an extreme case is a recent draft DTIS update that runs to over 600 pages! Little attempt has been made to find other ways of engaging with stakeholders during the production of the DTIS and few have sought to deliver the findings of the DTIS through other media, such as the press and social media. Wider engagement is essential to the process of identifying national priorities.

A number of DTIS updates have organised workshops prior to the final validation workshop to disseminate initial findings to stakeholders, some have been issue-specific, such as the workshop on informal trade in Zambia. More efforts could be made to make the analysis of the DTIS available in more easily digestible formats. Annex 1 provides an innovative example of using infographics to create mechanisms to enhance the dissemination and impact of the key findings from the DTIS. Such a flyer could easily be made available at all border crossings, translated into local languages. Those undertaking the DTIS and members of the NIU could engage more with the media to disseminate the main messages from the study and to promote discussion and dialogue.[11]

---

11   The World Bank's Africa Trade Practice has recently sought to use videos to more effectively disseminate trade related analytical work. See for example, *Les Petites Barrieres* (http://vimeo. com/32960459) and *Africa can Feed Africa* (http://vimeo.com/48447764) on Vimeo, and *Mind the Gap: Gender Equality and Trade in Africa* (http://www.youtube.com/watch?v=Fpz_i8dFhIw) on YouTube.

CONCLUSIONS

This short analysis leads to a number of recommendations for DTISs, some of which are already being implemented in the context of DTIS updates:

- For many LDCs, especially those that are landlocked, regional integration is a critical part of the solution to the trade constraints that they face. Yet the dominant country focus of Aid for Trade and the EIF makes it difficult for countries to identify common constraints and explore joint solutions, not necessarily through existing regional economic communities. Integrating deeper analysis of regional integration into the DTIS is becoming more common, but governments and donors need to reflect on how they can more effectively implement and support coordinated trade policy reforms.

- Coordinating the timing of DTIS updates is an important issue. There have been substantial benefits from undertaking the updates for Malawi and Zambia at a similar time. Regional DTISs could perhaps be pursued where there is clear demand, but there would be the challenge of ensuring ownership. The EAC provides an opportunity since East African Community (EAC) ministries have been created in all the governments and so there is likely to be strong ministerial support within that ministry. However, all regional communities in Africa contain a mix of LDCs and non-LDCs and so the reach of the EIF would have to be extended. In practice, it would probably make sense to undertake regional DTISs for small regional groups, such as the five-member EAC (four of which are LDCs) or for sub-sets of (neighbouring) countries within regional communities. An example here could be the Manu River Union within the Economic Community of West African States (ECOWAS).

- To link trade to poverty through the DTIS, it is essential that there is analysis of and engagement with informal traders. These traders are typically poor and are often trading products (food) that are produced and consumed by the poor. Defining strategies to facilitate informal trade while defining a pathway to formality should be a key element of DTISs and will in turn bring a much-needed gender focus to this important trade document.

- The implementation record of DTIS Action Matrices needs to be improved. Action Matrices should provide a clear and manageable set of implementable actions that target the most binding constraints to trade and which are politically feasible to address. Establishing an effective National Implementation Unit is critical to ensure high quality implementation and fiduciary control. This is an essential step to make the case for government-managed implementation of activities,

through for example a multi-donor trust fund, rather than direct/external execution of multiple smaller projects. The NIU is typically located in the trade ministry, but careful thought should be given as to whether greater effectiveness can be achieved by locating the NIU more strategically in the government. The experience of successful reforming countries in Africa, such as Mauritius and Botswana, and elsewhere suggests that that progress is often driven by a small, dedicated reform team connected to the top of government and in charge of formulating and updating the reform strategy, building consensus, coordinating and mobilising resources for implementing the strategy, and, crucially, nurturing the reformist political leadership over time (see Criscolo and Palmade, 2008).

- Opportunities for synergies in implementation across countries should be better exploited. In this way, the EIF would become a programme that supports the collective interest of LDCs and assists them in jointly addressing the cross-border policy issues that are crucial for sustained growth of trade.

REFERENCES

Baldwin, R. (2011), 'Trade And Industrialisation After Globalisation's 2nd Unbundling: How Building And Joining A Supply Chain Are Different And Why It Matters', Working Paper 17716, National Bureau of Economic Research, Cambridge, MA.

Brenton, P and G. Isik (eds) (2012), *De-Fragmenting Africa*, Washington DC: World Bank.

Brenton, P., E. Gamberoni and C. Sear (2013), *Women and Trade in Africa: Realizing the Potential*, Washington DC: World Bank.

Criscolo, A. and V. Palmade (2008), "Reform Teams: How the Most Successful Reformers Organized Themselves", Note Number 318, World Bank, Washington, DC (available at https://openknowledge.worldbank.org/bitstream/handle/10986/11155/428100VP0Refor180Box327331B1PUBLIC1.pdf?sequence=1).

ANNEX

Infographic for the Draft Zambia DTIS update

REPUBLIC OF ZAMBIA

DIAGNOSTIC TRADE INTEGRATION STUDY

The World Bank's Diagnostic Trade Integration Study assists the Government of Zambia in strengthening the country's integration with regional and global markets and mainstreaming trade into national development plans. Here, we take a closer look at the opportunities, constraints, and key policy actions to improve Zambia's trade performance and trade's contribution to economic diversification, inclusive growth, and job creation.

KEY TRADE & INVESTMENT PATTERNS — DIVERSIFY & GROW

CURRENT STATE
- Relatively high trade integration for goods but lagging in services
- FDI inflows grew at faster rate than both services and merchandise trade
- Most non-copper trade takes place at regional level
- Limited export diversification.

CONSTRAINTS
- High trade costs due to logistics bottlenecks, documentation & customs compliance requirements, and lengthy procedures that impose border crossing delays
- Unpredictable, restrictive trade policies and regulations

TIME FOR ACTION
- Make trade inclusive: policies must cover both formal and informal players
- Diversify exports (non-traditional goods + services)
- Integrate regionally to advance trade; implement regulatory and institutional reforms

NON-TARIFF BARRIERS — REDUCE TRADE COSTS

OPPORTUNITIES
- Improved non-tariff measure (NTM) environment
- National competitiveness agenda that reduces non-tariff barriers (NTBs) in support of Private Sector Development
- Opportunities to eliminate NTBs via APEI, COMESA, SADC

CONSTRAINTS
- NTBs increase trade costs
- Idiosyncratic technical regulations protect domestic market and hurt poor
- Complicated marketing arrangements & restrictions for exports
- Uneven performance of regional consultative mechanisms to reduce NTBs

TIME FOR ACTION
Improve access to maize export permits through auction system

Short Term:
- Review export Quantitative Restrictions regime in maize and replace opaque export-permit allocation system with yearly auctions
- Review vitamin A fortification program
- Provide resources for Coordination Office for Technical Regulations
- Website with inventory of non-tariff measures

AGRICULTURE — POTENTIAL GRAIN BASKET

OPPORTUNITIES
Agriculture =
- 20% of GDP
- -12% national export earnings
- 81% of working poor employed in the agricultural sector

Compared to other African nations, Zambia has...
- Abundant, fertile land and water and a favorable climate
- A relatively well-developed agribusiness industry

CONSTRAINTS
- Risk of trade bans or export restrictions
- Complications in trade licensing + product certification
- Multiple barriers to seed exports
- Barriers to fertilizer trade

TIME FOR ACTION
- Guarantee export parity for X% private purchases
- Communicate trade information on official website
- Drop unnecessary procedures
- Implement harmonized seed systems
- Improve fertilizer trade system system

INFORMAL TRADE — MATTERS FOR DEVELOPMENT

CURRENT STATE
Informal trade is large portion of economy

Maize Exports (2011)*
- Formal 11,708 tons
- Informal 322,997 tons

Improved Simplified Trade Regime (STR) could help traders sell goods less than USD $1,000 across the borders

CONSTRAINTS
- Cumbersome customs processes, registration, and other requirements for traders still in place
- Largely ineffective STR
- Small-scale traders pay 62% more in border costs than large traders:
  - Small 62% more
  - Large
- Women traders face harassment and violence

TIME FOR ACTION
- Reform STR (review and reduce processing and export/import fees; expand product list)
- Implement Charter for Cross Border Traders; pilot Charter at Mwami/Mchinji border crossing
- Address women traders' constraints

*Source: FEWS NET monitoring at border crossings with DRC (Mokambo & Kasumbalesa), Zimbabwe (Chirundu) & Malawi (Mwami/Mchinji).

TRADE FACILITATION — POTENTIAL LOGISTICS HUB

OPPORTUNITIES
Potential to be regional logistics hub as country is at the junction of several regional corridors

One-stop border posts (OSBP) useful but complementary measures needed

APEI, COMESA, and SADC can improve connectivity and border management

CONSTRAINTS
- High transport costs
- Lack of a national logistics strategy
- Inefficient interfaces with neighboring states
- Delays at border crossings
- Limited participation of trucking fleet in regional transport

TIME FOR ACTION
- Define clear national logistics approach
- Encourage data sharing with neighbors
- Precede OSBP with procedural reforms and electronic pay system
- Proactive in cooperating with neighbors to improve cross-border access policies

SERVICES RELATING TO MINING
BENEFITS OF UPSTREAM LINKAGES

OPPORTUNITIES
- Benefits to local businesses from upstream linkages
- Short-to-medium term benefits for local skills-intensive services
- Long term benefits from broadening and deepening upstream and downstream linkages to mining

CONSTRAINTS
- Limited access to capital
- Undersupply of technical skills
- Limited access to new technologies and weak technology adoption
- Insufficient buyer/supplier cooperation

TIME FOR ACTION
- Create enabling environment to improve competitiveness of local suppliers
- Upgrade skills through new curricula for training and vocational institutes developed by TEVETA, mining companies, and private sector service providers

PROFESSIONAL & EDUCATION SERVICES
POTENTIAL SOURCE FOR EXPORT DIVERSIFICATION

OPPORTUNITIES
High demand for and usage of professional services
- 18% of interviewed firms already exporting professional services

Potential regional hub for technical vocational training
- 95%
- 70%
95%+ of large firms and 70%+ of small and medium firms in the accounting, engineering, and legal segments use professional services

CONSTRAINTS
- Limited availability of professionals with market-relevant skills
- Skills mismatches
- Trade barriers, inadequate domestic regulations, and restrictive immigration regulations
- Limited recognition of foreign degrees

TIME FOR ACTION
- Implement national and regional reform agendas for trade barriers, immigration rules, and domestic regulation
- Improve training programs (university and vocational)
- Relax trade barriers on movement of natural persons and commercial services
- Implement MRAs of academic and professional qualifications

THE WORLD BANK

The Aid for Trade (AFT) initiative has been successful in mobilising funding to aid developing countries – in particular, the least developed – cope with the cost of implementing Uruguay Round commitments. However, whether the aid has really made a difference in their ability to take part in world trade growth remains unclear. Reasons for the lack of clear-cut evidence include the lack of a counterfactual, as the initiative's broad definition meant that it includes areas of traditional donor assistance like infrastructure, the lack of a binding monitoring and evaluation framework, and the inherent difficulty of assessing causation between interventions on the ground and 'distant' outcomes such as export growth.

With increasing pressure on donor budgets, the achievements of the AFT initiative are at risk unless a convincing case can be made that there is value for money. The time has come to focus and put in place an evaluation framework that can deliver robust evidence on the initiative's impact on the ground This book suggests ways to make progress in that direction. In particular, the WTO's Trade Facilitation Agreement, signed in December 2013 in Bali, is an opportunity to refocus AFT on a narrower set of issues revolving around border management efficiency and streamlining non-tariff measures, where outcomes can be more directly related to interventions. The book shows how the wealth of available methods helps to confront the conceptual and measurement difficulties in identifying causal relationships from interventions to outcomes.

"Thanks to the Aid for Trade initiative, trade is increasingly at the centre of national development strategies. This book draws lessons from past projects and shows how rigorous evaluation methods can help implement the WTO's Trade Facilitation Agreement."

Pascal Lamy, former Director General, World Trade Organization

"Aid for Trade is a good idea, a good policy, but implementing it effectively has proved a major challenge. The authors of this book, all experts in the field, take a cool-headed and critical look at Aid for Trade and conclude that indeed it can meet that challenge."

L Alan Winters, Professor of Economics, University of Sussex

"Aid for Trade has been instrumental in reducing behind-the-border impediments. By all accounts, it made a difference for Africa where borders were particularly 'thick'. Yet for all its achievements it still lacks a robust evaluation framework. This timely book shows how rigorous evaluation methods can demonstrate value for money and, looking forward, guide us on how to create new trade opportunities and better take advantage of existing ones."

Abdoulaye Bio Tchane, former Minister of Finance, Benin Republic; Chairman, Alindaou Consulting International

CE PR

FeRDi

CEPR Press