



CAPTURING THE GAINS



*economic and social upgrading
in global production networks*

**Aid for Trade in a world of global value
chains: chain power, the distribution of
rents and implications for the form of aid**

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Abstract

Aid for Trade is widely heralded as a success in promoting increased trade by developing countries. Increased trade, however, does not automatically translate into greater prosperity for workers or local communities. In a world characterized by global value chains (GVCs) in which large lead firms typically enjoy considerable power over their suppliers, workers and small producers are often in a poor position to capture the economic gains produced by these chains. Profits (economic rents) typically accrue to the powerful. The policy implication is that the benefits of Aid for Trade, unless targeted at enhancing the capacities of workers and small producers, or at increasing their bargaining power, may disproportionately flow to those with power in the chain and not to the intended beneficiary.

Keywords: Aid for Trade, global value chains, international trade, trade and development

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Abbreviations

AfT	Aid for Trade
CARICOM	Caribbean Community and Common Market
CELDAC	Community Empowerment through Livestock Development and Credit Project
CPRC	Chronic Poverty Research Centre
CRS	Creditor Reporting System
DFID	Department for International Development
EPZ	Export Processing Zone
ESRC	Economic and Social Research Council
EU	European Union
FDI	Foreign Direct Investment
GVC	Global Value Chain
ICTSD	International Centre for Trade and Sustainable Development
IDB	Inter-American Development Bank
ITC	International Trade Centre
LDC	Least Developed Country
NGO	Non-Governmental Organization
OAS	Organization of American States
OECD	Organisation for Economic Co-operation and Development
SCI	Sustainable Consumption Institute
TA	Technical Assistance
TNC	Transnational Corporation
UK	United Kingdom
UN	United Nations
UNCTAD	UN Conference on Trade and Development
UNDP	UN Development Programme
UNECLAC	UN Economic Commission for Latin America and the Caribbean
US	United States
WEF	World Economic Forum
WIPO	World Intellectual Property Organization

Introduction

Aid for Trade is a development assistance programme first discussed in association with the opening of the Doha Development round of multilateral trade negotiations and further supported in the G-8 meeting in 2005 (Ismail 2007). The World Trade Organization (WTO) Ministerial Meeting in Hong Kong in 2006 led to the official establishment of the Aid for Trade programme and the first disbursements of such aid, with \$20.6 billion of Aid for Trade disbursed in 2006, rising to \$32.1 billion in disbursements by 2010. The top five Aid for Trade donors over that period were Japan (\$26.3 billion), the US (\$19.3), Germany (\$10.9), France (\$5.2) and the UK (\$5.1). The top five recipient countries were India (\$2.2 billion), Vietnam (\$1.7), Afghanistan (\$1.7), Indonesia (\$1.1) and Egypt (\$0.89).¹

The basic logic of Aid for Trade is that increases in trade, particularly in exports, lead to economic development, both because of the income generated by increased exports and because of the spillover in the development of skills and knowledge that expanded trade also can bring. An extensive empirical literature supports a generally positive relationship between trade and development (see Milberg and Winkler 2013, Chapter 7, for an overview). Aid for Trade is aimed at lowering the cost of trade, raising a recipient country's export competitiveness and its net exports. As a result, most assessments of the effectiveness of Aid for Trade have focused on export expansion *per se*.² These studies generally find a positive relation between Aid for Trade and exports.

In this paper, we take a critical perspective on the evaluation literature on Aid for Trade as a spur to economic development. We focus on the fact that, to a large extent, the expansion of world trade over the past three decades has been driven by a new form of economic organization, the global value chain (GVC), characterized by highly segmented production and negotiated supply arrangements that often cross national borders. One measure of the extent of this expansion is the growing trade in intermediate inputs, now estimated by the UN Conference on Trade and Development (UNCTAD) (2013) to be 28 percent of total world trade value. Trade in intermediates captures only part of the story, however. The same UNCTAD report states that 'value chains shaped by TNCs [transnational corporations] account for some 80% of global trade' (ibid.: iii).

Typically, GVCs are organized around a large lead firm that enjoys considerable power, both in determining what elements of the production process it will retain and which it will outsource to suppliers, and in setting the terms of that trade. Lead firms generally seek to occupy those niches (or to create them) in which there are barriers to entry that enable them to enjoy extra-normal profits or rents. Small suppliers further down the chain and their workers generally find themselves in highly competitive settings, with little or no ability to capture such rents.

A consequence of this power relationship, therefore, is that gains resulting from lower trade costs may flow up to lead firms (often located in developed countries), rather than down to the supplier firms in developing countries or to their workers and communities in which the workers live, including their schools, health facilities, infrastructure and other public goods. The result is that the benefits of Aid for Trade may not be accruing to the intended parties and instead may be going to large, oligopolistic firms that govern production chains. We elaborate on this view below, with a

¹ Figures are from Basnett et al. (2012)

² See, for example, Bearce et al. (2012); for a review of the growing literature assessing the effectiveness of Aid for Trade, see Basnett et al. (2012).

'GVC theory of Aid for Trade'. The theory has significant implications for the targeting of aid – specifically, that it matters where aid enters the value chain.

We then explore whether there is empirical evidence to support our theory. We find that most quantitative studies to date have focused on the question of whether Aid for Trade leads to increases in trade, but that few have considered how effective aid is in reaching workers, small businesses and poor communities. In large part, the limitations of the studies reflect limitations in the available data. The Organisation for Economic Co-operation and Development (OECD) Creditor Reporting System (CRS) database, on which most of the quantitative studies relies, provides a great deal of information about the form of aid, but because it does not categorize aid projects in terms of where they enter value chains, nor provide information of impacts at the project level, it is difficult to use the database to test the theory. Qualitative studies do provide some suggestive evidence in support of our propositions; those cases in which there is clear evidence that Aid for Trade has benefited workers tend to be those in which workers have been targeted directly. But, as with the quantitative data, the case studies have generally not been designed to address the questions we pose. We conclude, therefore, with recommendations for future data collection.

Chain power and rent capture: towards a GVC theory of Aid for Trade

Traditional trade theory is based on competitive markets, in which trade is an arms-length transaction between firms located in one region of the world and firms located in another, or between firms and consumers. Prices reflect marginal revenue product (essentially, that is, on technology) and firms earn zero economic profits. GVCs, however, deviate considerably from the free market ideal. As we have described, global value chains are *governed*. Transactions within the chain are negotiated and the terms of those transactions reflect power asymmetries within the chain.

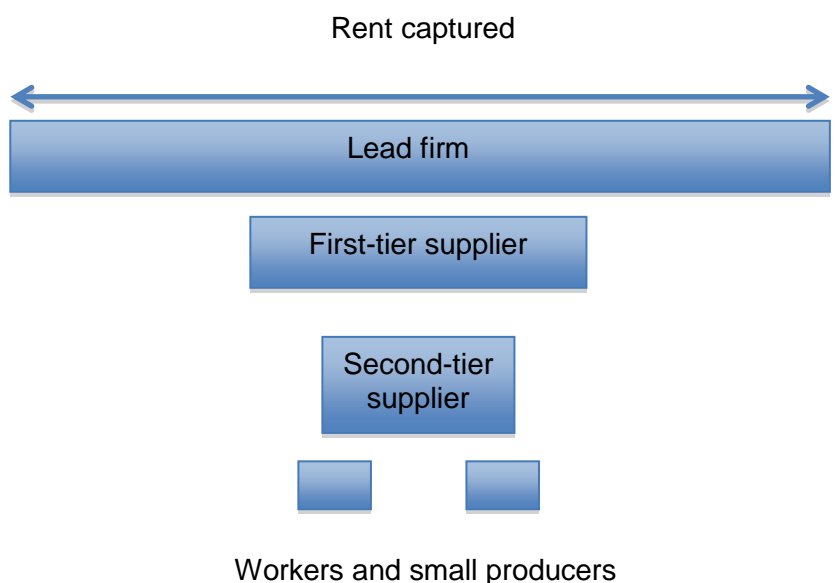
It is clear that the organization of production within GVCs has advantages of efficiency and produces tremendous value. But the economic gains from these chains are not distributed equally along the chain. Rather, the ability to capture the value of production depends fundamentally on power relationships in the chain. Commonly, large, oligopolistic lead firms from industrialized countries enjoy considerable economic power within their value chains, and are able, therefore, to capture most of the value created in the chain. Because buyer–supplier contracts are negotiated, a lead firm with a multitude of potential suppliers will be in a very strong position to dictate the terms of the supply contract. As Sturgeon and Memedovic (2011: 9) write, 'Lead firms tend to have power in GVCs, in part because they select and place orders from suppliers. Because suppliers tend to produce to the specifications of the lead firms, [suppliers] tend to exert less power in the chain, and earn lower profits'.

The ability to divide the production process into numerous steps and tiers creates both a distance between lead firm rents and suppliers, and a greater ability to weaken labour bargaining power by generating more competition in segmented labour markets. Nathan and Sankar (2011) note that the 'splintering' of production in GVCs has two advantages for lead firms. First, with each additional tier, the lead firm is able to distance input producers from the rents earned by the lead firm and thus reduce their claims on that rent. Second, the greater the depth of the supply chain, the greater is the capacity to exploit the segmentation of labour markets. As Nathan and Sankar (2011) write, 'Efficiency wages can be paid to those whom it is important to retain and who can be expected to provide greater productivity with higher wages. Usually unorganized workers, such as homeworkers, women or those required in peak seasons, can be paid less if the labour markets in

which they operate can be separated out. The splintering of production and outsourcing of tasks enables employers to utilize to the fullest the segmentation of the labour force, and that too on a global scale' (p. 54).

The situation is depicted in Figure 1, showing declining rents captured at lower tiers in the chain. This describes an oligopolistic market structure at the top of the chain and a highly competitive structure at the bottom. The situation in Figure 1 is of course not the only structure possible, but it captures what many researchers have found in sectors as varied as agro-foods, apparels, consumer electronics and footwear. Milberg and Winkler (2013) consider also the 'endogenous' nature of this asymmetric structure, according to which the lead firm works with numerous suppliers and can even bring new suppliers under contract in order to maintain adequate competition among suppliers, limiting their mark-up pricing power. When successful, such induced competition will force supplier firms to resist worker efforts to raise wages or labour standards.

Figure 1: Rent capture in a global value chain – a stylized view



Playing one supplier off another, working with multiple suppliers and even creating new supplier firms has become a standard strategy of lead firms in GVCs, and is a major technique for keeping input prices low. Of course, this diversification also reduces risk in the event of political, economic or natural disaster in any particular country, or of a unionization effort or work protest at any particular location. It is easiest where global capacity is already excessive (see, e.g., Gibbon and Ponte 2005; Lynn 2004). The offloading of risk has been documented in a variety of industries, including apparel (Abernathy et al. 1999) and electronics (Kaplinsky 2005). Nolan et al. (2007) analyse the careful control of technology by Boeing in its sourcing with Japanese, British (and American) parts producers.

In addition to ensuring competition among suppliers, lead firms typically seek to minimize the competition they face by creating barriers to entry. Branding activity is a textbook example of constructing an entry barrier. There is considerable theoretical analysis of entry barriers, but limited study of the economics of branding *per se* within value chains. Branding tilts bargaining power in the production process to the firm that holds the brand design. In industries in which production technology is standardized, for example apparel, footwear, airlines, consumer electronics and automobiles, branding is a key part of lead firm strategy. Davis (2009) cites the following exchange between the founder of a Chinese auto manufacturer and the Chairman of Ford Motors: 'The firm's founder stated, "How to make cars is no longer a big secret. The technologies are widely used and

shared.” Tellingly, Ford Chairman William Clay Ford Jr. responded, “It’s easy to build a car. It’s harder to build a brand” (p. 200).

Heintz (2006) explicitly models ‘unequal exchange’ within GVCs as a function of brand power by the lead firm. Bardhan et al. (2010) formally model so-called ‘middlemen margins’ as rising from buyer pressure to ensure (supplier) brand reliability. Branding serves as an entry barrier and as a source of unequal distribution of value added in the GVC. As Bardhan et al. (2010) point out, the presence of these middlemen in developing countries can explain the rise in inequality there, a finding that is contrary to the prediction of the Stolper-Samuelson theorem. Brand power is not attained costlessly, and can be associated with considerable technological design content (e.g. Apple or Toyota) or with considerable marketing and advertising effort (e.g. Nike or J. Crew). But in either case, the maintenance of brand loyalty can become the main focus of operation and origin of rent generation, while production can be fully outsourced at arm’s length. Even the emergence of large contract manufacturers, who produce multiple brands within the same plant, has not cut significantly into the power of branding. According to an executive of Hewlett Packard, ‘The consumer doesn’t care if all the computers [bearing different brands] were made on the same production line. The only thing that matters is who will stand behind it’ (in Davis 2009: 94).

Bargaining power and the allocation of rents

Instead of modelling firms in international trade as competitive price takers, consider the oligopoly mark-up power of the lead firms operating with competitive supplier firms. In this asymmetric situation, we can see how rents from Aid for Trade aimed at developing country suppliers might flow to the lead firms. Suppose pricing and profit margins follow a standard cost markup rule such as:

$$P = (1+m) AC,$$

where P is price, m is the mark-up and AC are average costs. Average costs are the sum of labour costs and the cost of produced inputs. If firms are competitive (and assume that marginal costs are constant and thus equal to average costs), then the mark-up is zero and cost reductions lead to price reductions. A drop in the price received by suppliers is for the lead firm a decline in its costs. Depending on the elasticity of demand facing oligopoly lead firms, the cost decline will lead either to higher mark-up (and final goods price) or to a lower final goods price and constant mark-up – or some combination of the two. In any case, the rents from the cost decline are passed on either to the lead firm in the GVC or to the consumer of the final good sold by the lead firm. That is, rents rise upward in the GVCs. This situation is depicted in Figure 1.

At least four factors make this asymmetry sustainable over time.³ First is the nature of entry barriers, which we have seen are formidable at the high end of the value chain and non-existent at the low end. In addition to the barrier from branding, which makes market access difficult at the top of the supply chain, scale economies may deter entry, especially for lead firms and many first-tier suppliers. Even ‘fab-less firms’ (i.e. those that do no fabrication) limit market access through innovative product design and marketing activity. In this environment, it is difficult for developing country firms to develop their own brands. The exception is when buyers themselves demand supplier reliability, creating the need for high-reputation middlemen.

A second factor is capital mobility, which affects low-value-added operations much more significantly than high-value-added ones. Gereffi (1999) shows how apparel production has moved

³ This discussion draws on Milberg and Winkler (2013), Chapter 4.

over time to lower and lower cost (i.e. wage) locations. There is evidence that this mobility is affected even when the supply chain is organized within a single firm. Brainard and Riker's (1997) finding that the elasticity of labour demand is much greater for low-wage affiliates of multinational corporations with respect to other low-wage operations than it is between a high-wage and a low-wage location suggests that capital mobility creates competition among low-wage suppliers.

A third factor is political. Tariffs have fallen most in low-value-added sectors. This is true generally, but has also been an explicit policy goal, as seen in the tariff policies that promote low-wage offshore assembly operations, such as the duty drawback clause (Section 9802) of the Harmonized Tariff Schedule of the US, rule of origin principles of the African Growth and Opportunity Act and the Central American Free Trade Agreement as well as the conditions on export processing zones (EPZs) in many developing countries. These programmes are highly concentrated in the garment and electronics sectors. Textiles and apparel are traditionally one of the lowest-value-added sectors in manufacturing. The electronics parts and components that dominate in EPZs are at the low end of the spectrum of value added for electronics goods.

A fourth factor sustaining the asymmetry is the persistence and even growth of global excess capacity in many industries. Freeman (2007) describes the entry of China, India and Eastern Europe into the world capitalist economy as a historic 'great doubling' of the world's labour force, adding enormous productive power and greatly lowering the world's capital-labour ratio. This competitive pressure on suppliers translates into pressure on labour costs or on labour standards. Similarly, arm's-length relations with suppliers reduce the buyer firm responsibility for standards in the supplying firm. A company is less likely to be held accountable for standards if the supplier is independently owned than if it is an affiliate of the buyer firm.

A GVC theory of Aid for Trade

The point of the preceding discussion regarding the asymmetry of power within GVCs and its implication for the distribution of rents is to emphasize the possibility that the benefits from Aid for Trade – unless it is explicitly targeted to do otherwise – may largely accrue to the more powerful actors in the chain and not the workers, small producers and local communities that are, presumably, the intended beneficiaries.

As we noted at the outset, Aid for Trade takes many forms. As the OECD CRS database captures, aid may be bilateral or multilateral, may be directed to recipient governments, to non-governmental organizations (NGOs) or to private actors and may fund infrastructure, training programmes, communications and a wide range of other activities. Notwithstanding the heterogeneity of Aid for Trade, the OECD classifies these activities into four categories: trade policy and regulations, trade-related adjustment, economic infrastructure and building productive capacity – of which the latter two categories constitute nearly 99 percent of total disbursements. At a first approximation, it seems that aid for productive capacity is more likely to be targeted at specific sectors than infrastructure support, although that need not always be the case. The majority of infrastructure support appears to relate to transportation, and includes improvements in ports, railroads and roads. Some of the aid in this category involves power and communication infrastructure. Aid for productive capacity appears more heterogeneous and includes training programmes, physical plant and equipment and support for cooperatives.

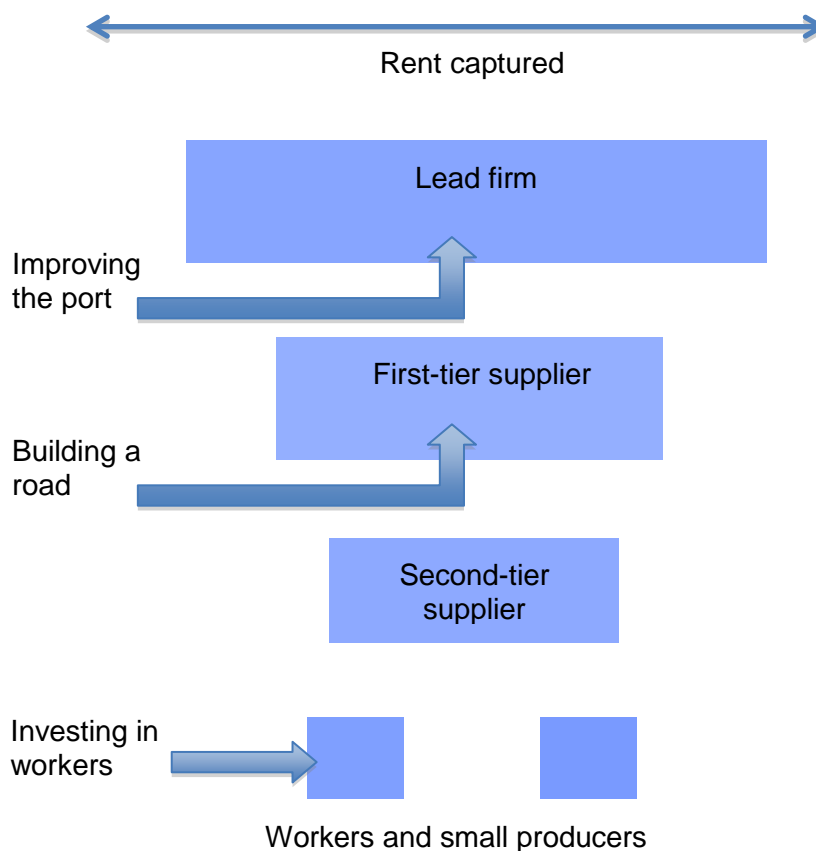
Note that aid can enter a supply chain at different points. A port improvement, for example, will lower costs of transport at the border, and often, therefore, at the link between a first-tier supplier and a lead firm. Aid to build a refrigerated warehouse for a local agricultural cooperative, or to

provide training to garment workers, on the other hand, enters the value chain at or near the bottom of the chain. And, of course, other forms of aid enter at other points in the chain: a road linking a rural region to an international trade hub, for example, may strengthen the link between small suppliers and a first-tier supplier.

For public policy, the question is what we might be able to say about the impact of Aid for Trade that enters chains at one point or another. Our argument, which follows from the model of the power dynamics of supply chains developed above, is that, because few of the benefits of aid automatically travel down the supply chain, if the goal of Aid for Trade is to enrich and empower those at the bottom, it needs to be targeted at that point of the chain.

Below we consider three stylized cases of Aid for Trade, in which aid enters at different points in the value chain. The three cases are illustrated in Figure 2.

Figure 2: A GVC theory of Aid for Trade



- Aid for Trade reduces costs per unit at the point of intervention.
- Rents created by cost reductions flow up the value chain.

Case 1: Improving the port

Development assistance has long been targeted at major infrastructure projects intended to lower the costs of traded goods and make them more competitive in the international market. A typical project might be improvements to a port facility, for example making it possible for larger ships to dock or improving container handling.

By lowering costs at this point in the chain, aid improves the efficiency of the chain taken as a whole, some portion of which will be retained as rent if there is less than perfect competition in the final goods market. The question is, who will capture that rent? If the power relationships are such that rents flow upward towards the lead firm and not down to workers, as we have argued is commonly the case, the benefits of aid will also be largely captured by the lead firm and to a lesser extent by the first-tier suppliers and/or logistics companies (depending on their bargaining power). Few, if any, of the benefits of this will trickle down to workers at the bottom of the chain.

Case 2: Building the road

Alternatively, aid might be used to improve transportation within a country, for example by building a highway connecting a relatively isolated region with a port, thus lowering the costs of moving goods from that region to the international market.

Aid that enters the value chain at this point would lower costs to first-tier suppliers or export companies who buy from suppliers in the now less-isolated region. As before, such aid should increase the total rents generated in the chain (assuming, again, less than fully competitive end markets). What portion of the rents those suppliers whose costs are lowered can capture, however, depends on the power relationships between them and the lead firm. Some benefits might also be captured by the small suppliers themselves, depending on their bargaining power. But, as with the port example, few, if any, of the benefits will be enjoyed by workers or others further down the chain.

Case 3: Investing in workers

Finally, aid might be targeted more directly at workers in one of two ways. The first is by improving their productivity by investing in training or providing technology. As with aid targeted at other points in the value chain, such investments should increase the efficiency of the chain, but by making workers more competitive such investments may enable workers to capture some of the efficiency gains.

The second purpose of aid targeted to workers and small producers is to empower them in relationship with buyers further up the chain. Such interventions might not increase the overall economic efficiency of the value chain, but they do have the potential of altering the allocations of gains within the chain, by facilitating collective action, for example by supporting the establishment of agricultural cooperatives or associations of women garment workers. Moreover, the effect is cumulative: to the extent that indigenous firms engaged with trade are better able to negotiate with buyers, there will be more value added, which then can be distributed down the value chain depending on bargaining power through the rest of the chain. Most promising, perhaps, from the perspective of maximizing gains enjoyed by workers, would be the simultaneous pursuit of both types of investments in workers.

Before turning to consider whether the available evidence supports this theory, we should be clear that we are not arguing that the benefits of infrastructure of the kind represented by the port and road examples never accrue to workers further down the chain. To the extent that workers who could not otherwise connect to international markets are connected by such projects, they can create new economic opportunities. Aid that helps develop synergistic clusters of economic activity, or that supports the emergence of a producer with significant backward linkages into a local economy, or other forms of strategically targeted industrial policies can certainly benefit

workers. And the corollary is also true: aid intended to improve worker efficiency or bargaining power may do little if workers cannot link to international markets.

To summarize, a GVC theory of Aid for Trade suggests that the development outcomes from such aid will depend fundamentally on both the structure of the value chain and the point in the chain at which aid is targeted. When power is concentrated at the top of the chain, and rents tend to flow upward, the majority of the benefits of aid that enters above the level of workers and small producers will also flow upward, with little sticking at the bottom. Aid for infrastructure or the development of productive capacity may be necessary, but by itself will not likely be sufficient to ensure that workers, small producers and local communities capture a fair share of the gains, unless they are simultaneously organized to do so.

Evidence

If the ultimate objective of Aid for Trade is to improve the lives of less advantaged workers and communities, it is not at all clear how efficiently aid is currently being allocated. Investments in trade-related infrastructure, which constitutes roughly half of all Aid for Trade, are almost by definition not likely to be targeted at workers in GVCs. Similarly, because most of the other half of all aid ('aid for productive capacity') is so heterogeneous, it is not clear how many of the benefits, if any, smaller producers and their employees actually capture.

Assessments to date, both quantitative and qualitative, have not adequately addressed the question of Aid for Trade's distributional impact. In part, this shortcoming reflects the nature of the available data, which has not generally been collected with the distributional question in mind. Specifically, the available data on Aid for Trade does not appear to be sufficient to test the propositions in our theory. The OECD CRS database, on which almost all studies rely, is quite comprehensive. It includes project-level data on the donor, the recipient entity and the amount of aid, and a brief description of the nature of the project. However, the data is not reported in a form that allows for differentiation by location in the value chain.

As a consequence of the data limitations, there is little empirical evidence of Aid for Trade's impact on the ground (Adhikari 2011). A recent World Bank study concluded that existing assessments of Aid for Trade and its impact are broad and largely inconclusive (Cadot et al. 2011). Below, we summarize the findings of prior studies, both quantitative and qualitative, and the extent to which they offer some support for our theory. We conclude that, while the evidence is suggestive that the dynamics we describe are important, further research is needed to evaluate our propositions.

Quantitative analyses

Quantitative assessments of Aid for Trade's impact have generally focused on aid's impact on trade, and not on development indicators. These studies have generally found a small but positive impact on trade performance. A recent econometric analysis by Newfarmer and Ugarde (2013: 15), for example, concludes that 'a 10 percent increase in the amount of bilateral Aid for Trade committed to developing countries would have increased their exports by, at least, 0.3 percent' and the positive association is greatest for the poorest countries. This result is consistent with previous studies. Cali and te Velde (2010: 725) find that 'aid for trade facilitation reduces the costs of trading. Moreover aid for trade has an overall positive and significant impact on exports.' Interestingly, however, they also conclude that '[t]his effect is entirely driven by aid to economic infrastructure, while the other main category of aid for trade, aid to productive capacity, has no discernible effect on exports'. Karingi and Leyaro (2009: 26) suggest that 'Aid for Trade in Africa,

controlling for other factors, matters both for addressing trade capacity constraints and promoting trade'. The study finds that Aid for Trade 'reduces cost of trading, promotes export diversification as well as improving Africa's trade competitiveness' (ibid.). Helble et al. (2009) find that relatively small amounts of aid targeted at policy and regulatory reform (in contrast to aid for broad trade development projects or trade-related infrastructure) have a greater impact with respect to increased trade flows. 'A 1% increase of aid to trade policy and regulatory reform (amounting to about US \$11 million) could generate a global increase of trade of about US\$818 million' (ibid.: ii). Basnett et al. (2012) put the estimated impact of a \$1 increase in Aid for Trade at \$65 of exports for the recipient country.

Studies that estimate the impact on net exports – and thus explicitly model recipient country imports – sometimes give a different picture. Helble et al. (2009) estimate exports and imports separately and find the former more than offset the latter. Berrittella and Zhang (2012) actually find the impact of Aid for Trade on net exports to be negative in all recipient regions except China, presumably because the increase in imports for processing swamps the positive effect on exports.

A number of studies break out Aid for Trade into components and sectors and find its effectiveness varies by type of aid and by sector. Cali and te Velde (2010), for example, find that infrastructure support is associated with export growth, mainly in the minerals sector. They estimate no significant impact on exports from other categories of Aid for Trade. A recent study by Hoekman and Shepard (2013) examines whether aid for trade facilitation is less effective in promoting exports from small firms than from large. It finds that 'firms of all sizes benefit from improved trade facilitation by exporting more in response to improvements like reductions in the time taken to export goods' and that, therefore, 'small firms stand to benefit from trade facilitation through the same mechanism that large ones do' (p.1). This finding appears to run counter to our thesis, but it should be noted that aid for trade facilitation is a very small percentage of all Aid for Trade and that we might expect that, of the forms of aid, reduction of bureaucratic and other logistical obstacles to trade would be relatively most beneficial to small firms. Moreover, as we have been arguing, an increase in the volume of exports by small firms does not necessarily translate into higher profits or to benefits for workers.

A few studies do go beyond the issue of trade. An OECD study (2013) finds that implementing trade facilitation measures now being negotiated in the multilateral trade negotiations, measures that would be supported by Aid for Trade, would generate large economic benefits in developing countries. By contrast, Berrittella and Zhang (2012) find a positive effect on welfare and per capita income. The analysis hinges, however, on a model of perfect competition in which all firms are assumed to earn zero economic profit, precisely the opposite of the conditions in most GVCs.

Some studies of Aid for Trade are quite explicit in their focus on the multinational corporation engaged in trade or on cost reductions for the firms rather than welfare effects or the distribution of these efficiency gains. Cali and te Velde (2010) analyse the effects of various categories of Aid for Trade and find that aid for trade facilitation reduces the cost of trading. A \$1 million increase in aid for trade facilitation projects is associated with a 6 percent reduction in 'the cost of packing goods, loading them into a container and transporting the consignment to the port of departure and loading them on a vessel or truck'.⁴ The detailed firm survey on trade by the World Economic Forum (WEF) is an example. In its survey of the effectiveness of trade facilitation assistance, WEF surveyed 35 companies:

⁴ Cited in Hoekman and Wilson (2010: 12).

The companies are all multinationals, each has operations in over ten countries and all geographies are covered. Their combined revenue exceeds US\$ 800 billion [...] A comprehensive bottom-up study of all supply chain barriers to trade is obviously unachievable. The report's authors needed to work with companies that were willing to cooperate and provide data within a limited timeframe. This skews the company sample in a few ways:

Western companies are proportionally overrepresented because they were easier to approach, and as a group they were more willing to participate [...] Most of the case examples describe the experience of large multinationals; these companies have usually invested heavily in their supply chains, so they don't necessarily face the highest barriers (WEF 2012: 16)

Even if we accept the findings of these studies, however, increases in trade cannot be equated with positive impacts on workers, small producers or local communities, as we have argued throughout this paper. Even the 2012 WEF Report cited above, clearly supportive of expanding Aid for Trade, notes that, 'In cases where competition is constrained or firms have market power, the benefits may be captured disproportionately by certain groups' (p. 16). Similarly, a study by the International Centre for Trade and Sustainable Development (ICTSD) concludes that:

AfT [Aid for Trade] should not be regarded as a separate development effort, but rather in conjunction with the development in other sectors outside of trade-related capacity building, including social ones. This is even more urgent in LDCs [least developed countries], where human capacity (and consequently institutional) development is the first prerequisite for adequate AfT demand-formulation, planning, and subsequently the effective management and implementation of better targeted AfT resources. Donors' focus in LDCs should be more focused on local human and institutional capacity development in the form of long-term oriented results-based programmes (p. 13)

Increases in trade suggest the possibility of gains for workers but do not ensure them. Conversely, even without trade increases, workers may benefit from interventions that enable them to capture more of the gains.

The impact of Aid for Trade on workers, small producers and local communities is extremely difficult to evaluate, for several reasons. Because most development data is highly aggregated, it is generally not possible to differentiate wage, poverty rates or other measures for those in aid-receiving supply chains from those in sectors not receiving such aid. Identifying the impacts of aid targeted at different points in the value chain is even trickier.

Qualitative studies

Because of the limitations of the quantitative data, much of the literature on Aid for Trade's impacts relies on case studies. For example, a report covering approximately 100 countries from 1971 to 2005 which examines the role of Aid for Trade on economic growth claims that the success of Aid for Trade ultimately depends on 'the right "sequencing" of policy measures, and in particular on the coordination of trade policy with complementary policies in areas like education, infrastructure and institution-building' (PricewaterhouseCoopers and Hamburg Institute of International Economics 2009: 3-4). A study by the OECD also concludes that trade reforms proved unsustainable and or did not have a meaningful impact on economic growth in cases characterized by policy incoherence, lack of credibility and targeting the wrong problems (Hallaert 2010).

The largest effort to use case studies is that of the joint WTO/OECD project, which invited governments and other actors to submit case studies on Aid for Trade for the biennial Aid for Trade review in 2011. Included in the report were 269 cases covering more than 150 countries. Not surprisingly, given the incentives of those submitting case studies, the cases painted a largely positive picture of Aid for Trade, telling stories about the benefits of trade facilitation, infrastructure investments, policy reforms, capacity building in government, industry-specific policies and ‘leveraging the private sector’. The summary report was particularly enthusiastic about the effects of ‘soft industrial policies’ targeted at particular sectors.

The apparent success of ‘soft industrial policy’ – or industry-specific, pro-active government policies – in the case stories is notable. This category of aid for trade reported the highest percentage of 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 (OECD and WTO 2011b: 145).

There are many limitations to what lessons can be learned from these cases, which the WTO/OECD report acknowledges. First, for any given case it is extremely difficult to know whether the reported success in fact owed to aid or to some other factors. As Brenton and von Uexkull (2009) discuss, ‘conclusions strongly depend on what one postulates would have happened in the absence of the policy intervention’ (p.235), that is, on an unobservable counterfactual. Second, as the WTO/OECD report recognizes, self-evaluations are likely to be less objective than third-party evaluations. Third, there is enormous selection bias in the choice of cases. ‘The sample is likely to be unrepresentative because it reflects selection bias, and conclusions have to be drawn with care because of omitted variables and attribution problems’ (OECD and WTO 2011b: 5). And, for our purposes, because few of the case studies focus on ultimate impacts on workers or small producers, the cases provide only very limited evidence of the on-the-ground impacts that most concern us.

Yet, for all their limitations, the cases do provide some modest support for our propositions. We identified all of the cases in the WTO database in which at least some evidence was provided of improvements for workers in the form of increased employment, higher wages or improved work conditions. Our first-cut analysis found that such evidence was provided in only 23 of 258 non-private sector cases. These cases are summarized in the Appendix.

Of the cases reporting benefits to workers, 17 of the 23 were classified as industry-specific assistance. There were no infrastructure support or government capacity-building cases, and only one was a trade facilitation case. Of course, the absence of such evidence does not mean that there were no benefits for workers, only there were no reports of these. In the vast majority of cases, evidence of success took the form of increased production and exports. Perhaps even more striking, of the 17 industry-specific cases, the aid appears to have been highly targeted at workers, and took the form of either increasing productivity or empowerment.

Conclusions

The Aid for Trade programme has funnelled almost \$100 billion dollars of aid to developing countries. Given such high funding levels, it is imperative that the programme’s effectiveness be assessed carefully. We have shown that the Aid for Trade programme suffers from a fundamental problem in both the design of the policy and in the framework for evaluation: it is premised on the assumption that international trade occurs essentially in a world of competitive firms operating in final goods markets in arm’s-length relation to buyers. Value added in this framework is earned

according to each factor's marginal revenue product. This eliminates any need for concern with the distribution of gains from Aid for Trade. We have argued that most growth in world trade occurs within GVCs, leaving the focus entirely on productivity considerations. This ignores the fact that global production is often governed by oligopolistic lead firms or first-tier supplier firms which have for years successfully generated rents from their subcontracting relations. The asymmetry of market structures across GVCs creates the possibility that rents from lower trade costs resulting from Aid for Trade will flow to these lead firms instead of those enterprises, households and communities that are its intended recipients.

Bringing a GVC perspective to the analysis of the gains from lower trade costs leads to a new perspective on the assessment of Aid for Trade. If, owing to the asymmetric structure of markets across global production networks, rents flow up to lead firms when trade costs are reduced, then the developmental consequences of Aid for Trade are reduced. Aid for Trade likely increases trade, but research to date cannot say how effective it is in helping workers and small producers (including farmers) capture the gains from trade expansion. Value chain analysis can help target aid more effectively. Aid targeted directly at empowering or enhancing the productivity of workers or small farmers will be much more likely to have sustainable consequences for development.

Our conclusions, and the policy recommendations that flow from them, must necessarily be tentative, given the limitations of the available data. Further research is clearly needed to fully assess the developmental consequences of Aid for Trade. Because the challenge is to relate the form of aid to specific consequences for workers and farmers (and not aggregate aid to aggregate trade statistics), the available data does not lend itself well to quantitative analyses. Case studies, on the other hand, can illuminate the possible relationship between the form of aid and its impacts on the ground. But with the collection of case studies currently available, it is difficult both to attribute causality and to generalize, particularly given selection bias in the choice of cases and reporting bias in the execution of the study. What is needed, therefore, are carefully and systematically conducted studies of a representative sample of cases.

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Appendix: Summary of case studies documenting positive social impacts

Case	Theme	Donor	Social impact claimed
Costa Rica (Case #156) 'FDI [Foreign Direct Investment] Attraction and Participation in Global Value Chains' http://www.oecd.org/dataoecd/21/16/47252003.pdf	Trade facilitation	World Bank, Netherlands, US, Japan, Inter-American Development Bank (IDB)	Describes economic upgrading in GVCs, as well as a positive impact on employment, through both the creation of job positions as well as the increase in wage standards, particularly for high-skilled workers.
Mauritius (Case #131) 'World Bank Loan Program' http://www.oecd.org/dataoecd/9/1/47811469.pdf	Policy reform	World Bank	A partnership between government, civil society and the private sector empowered the bottom 10 percent of the population, with an emphasis on dealing with high female unemployment.
Costa Rica (Case #157) 'Trade Opening as a Key Element of the Development Agenda' http://www.oecd.org/dataoecd/21/15/47251993.pdf		IDB, Central American Bank of Economic Integration, UN Economic Commission for Latin America and the Caribbean (UNECLAC), UNCTAD, Organization of American States (OAS), WTO	Created opportunities for local companies to become suppliers of goods and services for exporters, and improved living standards, with the number of Costa Ricans living in poverty conditions dropping by one-third over the past 20 years.
Cambodia (Case #126) 'Labor Standards in Cambodia' http://www.oecd.org/dataoecd/7/34/47803103.pdf	Industry-specific policies	World Bank	Helped women entrepreneurs increase exports of handicrafts. Improved not only working conditions but also productivity, as absenteeism and worker turnover rates declined.
Indonesia (Case #185) 'Value Chain Promotion in the Rattan Furniture Sub-Sector in Indonesia' http://www.oecd.org/dataoecd/28/35/47405846.pdf		Germany	Even with a successful value chain promotion project underway, the rattan furniture industry saw export value drop 25 percent and employment fall by 15 percent between 2007 and 2009.
Chad (Case #225) «Redynamisation du secteur cuir au Tchad : appui à la filière cuir» http://www.oecd.org/dataoecd/40/25/48289838.pdf		International Trade Centre (ITC)	The whole production chain of leather production was supported from 1,200 new knife/utensils distributed to butchers (200 butchers), and months of training for leather artisans (30 artisans).

Case	Theme	Donor	Social impact claimed
Bangladesh (Case #64) 'Women's Economic Empowerment through Technology, Capacity Building & Right to Access of Information: A Success Story of Village Phone Women in Bangladesh' http://www.oecd.org/dataoecd/10/9/47714117.pdf		ITC	The introduction of mobile telephones equipped women with the capacity to connect villages with the nation, better market their products and become part of the formal financial system. This raised incomes several fold. A family of less than a dollar earnings skyrocketed to almost \$100 earnings or more with time.
Burundi (Case #18) « Projet sur les huiles essentielles » http://www.oecd.org/dataoecd/60/30/47698203.pdf		ITC	The production of essential oils generated employment for 40,000 families.
Côte d'Ivoire (Case #187) 'Trade and Pro-Poor Growth: Introducing Rainforest Alliance Certification to Cocoa Production in Côte d'Ivoire' http://www.oecd.org/dataoecd/28/37/47405615.pdf		Germany	5,600 farmers were trained and they delivered 6,000 tons of certified cacao of higher yield and quality that led to increasing farmers' incomes.
West Africa (Case #37) 'The Empowerment of Western and Central African Cotton Procedures: A Sectoral Approach on Cotton' http://www.oecd.org/dataoecd/11/35/47428114.pdf		Switzerland	Farmers of organic cotton saw their gross margin increase by 30 percent and spent 90 percent less on input costs.
Indonesia (Case #152) 'The Cocoa Supply Chain in Indonesia' http://www.oecd.org/dataoecd/31/50/47341454.pdf		Australia	By providing extension services to farmers and immediate cash payment on delivery, processors received cocoa of marketable quality and paid farmers a less unpredictable income. More predictable incomes allowed farmers to better plan production. Also, early adapters had the opportunity to establish cocoa nurseries producing grafted seedlings for sale to other farmers. Over 300 farmers established viable agribusinesses in three provinces selling these seedlings and further developing the supply chain linkages between growing agribusinesses and medium- to large-scale buyers.
Nicaragua (Case #98) 'Tierra Nueva' http://www.oecd.org/dataoecd/40/55/48293990.pdf		Finland	Tierra Nueva, a cooperative of small honey producers, has offered farmers of the cooperative higher than standard price on their products. The cooperative has also been able to offer direct benefits for farmers, including education, health services, improvement of roads, micro loans, renovation of communal buildings etc. The cooperative members have increased their income and their socioeconomic conditions are more favourable than those of the rural population in general.

Case	Theme	Donor	Social impact claimed
Tanzania (Case #212) 'The Impacts of Certification for Sustainable Production on Coffee Producers in Tanzania' http://www.oecd.org/dataoecd/11/39/47427864.pdf		Switzerland	Certified farms displayed social conditions, such as food security, child education, access to worker training and health and safety, equal to or marginally better than those on conventional farms.
Caribbean (Case #23) 'Caribbean Rum Sector Program' http://www.oecd.org/dataoecd/38/22/47479535.pdf		Caribbean Community and Common Market (CARICOM)	There is clear evidence of skills upgrades translating into higher-quality jobs. Direct female employment in the sector has increased by 20 percent since 2003.
Honduras (Case #68) 'Oriental Vegetable Project in Honduras' http://www.oecd.org/dataoecd/12/45/47720027.pdf		Chinese Taipei	Improved working conditions and wages among local Honduran families and enabled them to send their children to school.
Ethiopia (Case #75) 'Ethiopia Coffee Quality Improvement Project' http://www.oecd.org/dataoecd/10/50/47714136.pdf		ITC	The fee that coffee buyers pay for the service of coffee grading (a fixed cost per volume) assures a source of income to pay the salaries of some 15 staff per laboratory and the maintenance of the buildings.
Tonga (Case #99) 'Tonga: A Tale of TA [Technical Assistance]' http://www.oecd.org/dataoecd/63/50/47747338.pdf		European Union (EU)	Poultry pens are enhancing the success rate of poultry breeding, providing families with a healthy food alternative and additional income generation.
Namibia (Case #134) 'A Tree and Traditional Knowledge: A Recipe for Development' http://www.oecd.org/dataoecd/56/63/47764748.pdf		World Intellectual Property Organization (WIPO)	The marula tree has become an even more important part in the lives of tens of thousands of rural producers, their families and communities. Before these changes, many women were extracting marula for personal use or to sell it locally. With access to new markets, by 2000 rural marula producers were receiving over \$60,000 annually and by 2010 were receiving \$2.35 per kilogram of marula. This is income that many women would otherwise not have received, and they are using it for positive development efforts such as paying to educate their children and helping develop their communities.
Pakistan (Case #158) 'Community Empowerment through Livestock Development and Credit Project (CELDAC)' http://www.oecd.org/dataoecd/6/21/47797608.pdf		UN Development Programme (UNDP)	The project enhanced farmers' direct linkages to the market (dairy companies) by eliminating the role of middlemen. By linking up over 1,000 farming households to markets, the profit margin of beneficiary households was increased, leading to enhanced social status of women.

Case	Theme	Donor	Social impact claimed
Mozambique (Case #184) 'Strengthening the Competitiveness of Export Oriented Agro Value Chains: Cashew Nut Value Chain in Mozambique' http://www.oecd.org/dataoecd/11/41/47427815.pdf		Switzerland	In 2007/08, 4,740 cashew factory workers earned an average of \$343 per annum, up from only 407 workers in 2002/03 with an annual average paycheck of \$213.
China (Case # 89) 'Small Famers in Global Markets' http://www.oecd.org/dataoecd/5/28/47027097.pdf	Leveraging the private sector	Canada	Helped small farmers adapt to new markets. For example, a live pig-raising programme developed pig industry associations and cooperatives to improve the organizational level of farmers.
Ghana (Case # N/A) 'Case Study on the Ghana National Medium Term Private Sector Development Strategy' http://www.oecd.org/dataoecd/32/4/47451857.pdf		UK, Denmark	Succeeded in training some 625 workers (including 491 women) and enjoyed a 75 percent placement rate.
Africa (Case #76) 'The Ethical Fashion Programme' http://www.oecd.org/dataoecd/10/51/47714153.pdf		ITC	Established 7,000 jobs for women in rural areas. 80 percent of participants said the production orders received through the programme allowed them to provide for their families.

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