IGC 10 years
International Growth Centre

Trade: A summary of IGC research

Highlights of the IGC's research over the past 10 years

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As rates of globalisation increase in most developing countries, trade openness and foreign market access have become even more important determinants of growth. Trade offers crucial opportunities for increases in productivity and job creation, as well as for igniting sustainable inclusive growth. At the same time, increased integration raises the penalties of inefficient border procedures, poor infrastructure and high tariff or non-tariff barriers – prevalent features in many developing countries. Also of pressing concern, is the backlash against globalisation that is now being observed in traditional export destinations such as the US and EU. This has important implications for countries targeting export-led growth, and serves to increase, rather than diminish, the importance of research on trade for the developing world.

The IGC has long focused on research on trade and investment, to provide evidence that enables firms to compete internationally and grow through trade. Our research examines the effects of trade liberalisation, analyses barriers to trade, and evaluates policies aimed at furthering trade and harnessing its benefits. We look at the role of investment agencies, local content units (LCUs), export promotion agencies, and customs authorities, in promoting exports and benefitting from trade. We examine policies around trade facilitation and developments, such as special economic zones (SEZs), to help design effective solutions for spurring industrial and structural transition in developing countries. Our work extends to a wide range of sectors, from manufacturing to services and agriculture, and seeks to generate robust and comprehensive data and evidence.

Our work on trade concentrates on four areas in particular: the importance of trade, barriers to trade, developing and expanding exports, and regional integration and global value chains.

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1. The importance of trade

Despite often significant increases in income over the last few decades, many firms in developing countries retain low levels of productivity and generate few job opportunities. In this environment, foreign trade and regional integration can play an important role in supporting the development of a dynamic private sector and kick-starting industrialisation. Trade opens up new markets, generates competition, and produces knowledge as firms acquire new capabilities from abroad. The IGC has commissioned a large body of research to establish the importance of trade and map out the consequences of further trade liberalisation. Our research focuses, firstly, on the effects of trade on firm productivity directly and, secondly, on the gains in welfare, such as through improved industrial relations and the development of border areas.

- **The impact of exporting: Evidence from a randomised experiment (David Atkin, Amit Khandelwal and Adam Osman, 2016).** To explore the effects of trade for small and medium-sized enterprises (SMEs), this project implemented the first-ever randomised controlled trial on exporting. The findings show that the opportunity to export raised the overall performance of firms, as measured by monthly profits, by 16-26%. This is large when compared to other policy interventions aimed at increasing profits. The authors also show that exporting benefits not only the firm itself, but the family of the firm owner as well. Importantly, the increased profits came from "learning by exporting", whereby firms increase quality and productivity through interactions with foreign buyers and intermediaries. This provides an important justification for government efforts to make it easier for SMEs to trade internationally and for removing the costly barriers that restrict such activity. The results of this project were presented in a growth brief launched in September 2017, and the academic paper was published in The Quarterly Journal of Economics in May of the same year.

- **Roads to trade: The welfare effects of connecting mines versus cities (Roberto Bonfatti, Yuan Gu and Steven Poelhekke, 2017).** Should African countries build more transport infrastructure to export natural resources to overseas markets, or should they focus on improving internal connectivity between cities and with cities in neighbouring countries? The aim of this project is to help decide between these development strategies. The researchers study the role of natural resources in shaping the development of road infrastructure in West Africa from independence until today and evaluate the impact for market integration and economic development. The research found that countries tend to emphasise more city-to-city connections (as opposed to mine-to-port connections) in periods when they are more democratic. Autocracies appear to favour connecting mines to ports. Also, countries that receive more aid and/or foreign direct investment (FDI) tend to concentrate their road investments in connecting cities more than mines. This research evolved into an academic paper in the Journal of Development Economics (published in July 2017). In the paper, the authors show that African countries rich in mineral resources, provided they are not landlocked, tend to build transport infrastructure to connect their mineral-rich regions to the coast (to enable export). Furthermore, they find that this reduces the cost of trading overseas for such countries relative to the cost of trading with an African neighbour.

- **Multinational enforcement of labour law: Experimental evidence from Bangladesh's apparel sector (Laura Boudreau, 2018).** This project studies a large-scale effort by a coalition of Western retail and apparel multinationals to privately enforce a local regulation that mandates worker-manager safety committees (SCs) on their suppliers in Bangladesh. The findings show that multinationals' enforcement efforts can result in significant improvements in establishments' compliance with local labour laws and in SCs' effectiveness in improving factory safety. Furthermore, while these efforts impose some costs on buyers, these improvements may not come at a significant expense in terms of productivity. The findings suggest that multinationals' enforcement efforts need to be sustained in order for improvements to be maintained, including potentially in workers' empowerment. These results have been disseminated in academic and policy conferences and have received media coverage in a leading English-language Bangladeshi newspaper, the Daily Star.

- **How regional trade can contribute to the development of East Africa's border areas (Olivier Cadot, Alexander Himbert and Marius Brulhart, 2017)**. In East Africa as well as other regions of the world, border regions tend to be less economically developed than interior ones. When looking at night light data, this phenomenon appears as "border-shadows". This project explores how the facilitation of cross-country overland trade (through regional integration) can help contribute to the development of border areas. The researchers find that trade liberalisation helps develop border regions and reduce border shadows, thereby reducing spatial inequality. The findings were presented at an IGC side event during the WTO Aid for Trade conference in July 2017, which was widely attended by participants from various governments and development agencies. The working paper and policy brief were published in July and October 2017, respectively.

2. Barriers to trade

The trading frictions faced by many firms in developing countries include not only international trade costs and tariffs, but also intra-national trade costs and non-tariff barriers that restrict access to international markets. In West and East Africa, for example, land transport prices are among the highest in the world and many markets are still isolated. In those markets, high transport prices result in high commodity prices and few possibilities for producers to access bigger markets, which impedes growth. In other countries, cumbersome customs procedures and long delays at border controls contribute to a large proportion of trade costs. IGC research focuses on mapping out the barriers faced by developing countries, to understand what is holding firms back from harnessing the benefits of trade. Our research looks at barriers beyond tariffs, to understand how poor infrastructure and other sources of delays and inefficiency increase the costs of trading, whilst also encouraging informal trade in developing countries.

- **Who's getting globalised? Intra-national trade costs and world price pass-through in South Asia and sub-Saharan Africa (David Atkin and Dave Donaldson, 2012).** Trade does not start or stop at borders. The cost and time of transporting goods to and from border crossings and ports, to consumers and producers alike, limit the amount of trade a country can sustain. IGC research finds that these costs are up to five times higher in some African countries than in the US. While the low availability and quality of roads is a well-recognised factor explaining high trade costs, inefficient logistics, low vehicle quality, and policies restricting competition are found to be even more important. Reducing these costs would increase trade and improve economic performance for exporting firms in Africa. It could also lead to decreased regional inequality, as it would spread the relative gains from trade and globalisation to remote locations. The researchers presented these results to high-level government officials in Kenya and Rwanda and they have also been published in a growth brief.

- **The role of intra-national trade costs in market integration: Evidence from Liberia (Golvine de Rochambeau, 2018)**. Severe information asymmetries are thought to make contracting particularly difficult within, as well as across, firms in developing countries. This can result in significant and potentially prohibitive trade costs. This research project looks at the ability of technology to reduce information asymmetries around the productivity of trucking firms in Liberia. The researchers demonstrate that new monitoring technologies (GPS tracking devices, in particular) can dramatically raise some workers' productivity in settings where employment contracts are difficult to enforce. However, they find that their use may instead lower the productivity of some workers, in particular, those who are intrinsically motivated to work hard. The working paper was published in November 2018.

- **Political strikes and its impacts on trade: Evidence from Bangladeshi transaction-level export data (Kazi Iqbal and Reshad Ahsan, 2015).** This project examines how violence due to political strikes can cause delays for exporting firms. The researchers study strikes in Bangladesh, locally known as "hartals", which are organised by opposition political parties and interest groups as a form of protest against the government. Their results suggest that hartals have an adverse effect on firm exports that is both statistically and economically significant. In particular, they find that firms cope with the disruption caused by hartals by delaying their exports by several days, and the cumulative effect of a hartal over a seven-day period is a reduction in firm exports of 4.5%. Their results also indicate that hartals have stronger effects on smaller exporters, as well as exporters producing lower-priced, generic products. Finally, they also find that firms are more likely to resort to air shipment when there is a hartal. The results of this study were disseminated to the Senior Secretary of the Bangladeshi Ministry of Commerce, and the working paper was published in May 2015.

- **The realities of cross-border trade between Sierra Leone and its neighbours (Isata Mahoi, Samuel Jibao and James Fomba Sandy, 2018).** This study responds to a request of the Sierra Leone Investment and Export Promotion Agency (SLIEPA) and the Ministry of Finance and Economic Development (MOFED) for comprehensive and reliable data on border trade between Sierra Leone and its neighbouring countries. Among other things, the researchers find that there are weak trade facilitation processes along the main borders, making trading via formal borders lengthy and costly. For small or low-value consignments, which are usually channelled by micro, small, and medium-sized enterprises, the costs of complying with such complex requirements and formalities may be disproportionate relative to the transaction value. This might explain, in part, the high incidence of informal cross-border trade by such firms. These preliminary findings were shared with SLIEPA and MOFED, and a policy brief was published in January 2018.

3. Developing and expanding exports

Transitioning from selling goods domestically to exporting for the first time is one of the biggest steps any firm is likely to take. The barriers to exporting and competing in international markets are high, and governments face a serious challenge in facilitating domestic firms to take the plunge abroad. Export promotion agencies and SEZs are increasingly seen as important policy tools to assist in this process. Although SEZs should have promising effects in theory, their success is not guaranteed in practice. The IGC's research has aimed to draw on the experiences and lessons learned from across developing countries to understand what makes SEZs successful and how they could work to increase domestic productivity and exports. We also work to understand how to make export promotion policy more effective and link international firms with domestic suppliers using LCUs.

- **Export transitions, productivity and the supply chain (John Spray, 2017).** In response to a widening trade deficit, the Ugandan Government has focused on export-oriented growth through its 'Build Uganda, Buy Uganda' (BUBU) policy. This project assesses the consequences of this policy intervention in terms of its impact on firm exports, productivity and, most interestingly, the wider supply chain. The researcher finds a strong association between reductions in transport costs and recent growth in export volumes, the number of exporters, and the diversification of export products in Uganda. He establishes that exporting leads to a causal 13% increase in output and a 12% increase in output per worker for the exporting firm, and finds a direct productivity spillover to export suppliers in the form of increased productivity by 22%. The project concludes that in order to encourage further linkages between exporters and domestic suppliers, the government should consider establishing an LCU, setting up a modern, publicly available company database, and assessing whether to encourage more competition among export suppliers. The research findings were presented at an IGC-co-hosted policy workshop in March 2017 on export promotion and local content with the Ugandan Ministry of Trade, Industry and Cooperatives. This proved an opportunity to enhance the policy proposals advanced in the draft National Export Development Strategy and BUBU policy by drawing on IGC findings. The event led to a lively debate on BUBU policy between the Governor of the Bank of Uganda and the Minister of Trade, Industry and Cooperatives. The working paper and policy brief were published in March 2017.

- **Developing a local content unit for Mozambique (John Sutton and Felix Simione, 2016)**. Mozambique's vast gas reserves have the potential to transform the country into one of the world's top energy exporters. The challenge now is to understand how local jobs can be generated as the gas industry grows, and to ensure that the industry contributes to inclusive economic growth. To this end, this rapid-response study was commissioned in partnership with the Government of Mozambique. The researchers recommend the establishment of a well-organised and effective LCU. In acting with and on behalf of the relevant government minister, an LCU can engage in an ongoing dialogue with lead multinational corporations and their first-tier international suppliers. They argue that this could increase the involvement of local firms in a more efficient way than local content rules. This report was shared with the Minister of Industry and Trade, and a project memo is available on the IGC website.
- **Analysing the impact of the Kigali Special Economic Zone on firm behaviour (Victor Steenbergen and Beata Javorcik, 2017)**. This project originates as a request from Rwanda's Ministry of Industry and Trade for analysis of how the potential benefits of an SEZ weigh up against the costs. Using firm-level tax data, the authors find that moving into the Kigali SEZ (KSEZ) is associated with larger increases in the sales, value added and permanent employment numbers of firms than would have otherwise been the case. However, they find that the increase in KSEZ firm output is driven mostly by domestic sales. Indeed, while the KSEZ may attract exporters, it does not appear to increase the likelihood of any firm becoming an exporter or to increase firms' overall exports as a result of being in the KSEZ. In contrast, they find that firms moving into the KSEZ are more likely to import goods and also choose to import a higher value of goods than non-KSEZ firms. However, they do find that the KSEZ catalysed Rwanda's export promotion in two ways. First, the KSEZ is an important source of non-traditional export products and has expanded the scope of product types exported. Second, the KSEZ has made a positive contribution to Rwanda's trade balance for almost all quarters that it has been in operation. The working paper was published in August 2017, and the study's recommendations were incorporated into the 2017 update of Rwanda's SEZ policy.


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- **[Using a decision support model to identify export opportunities for Rwanda](#) (Wilma Viviers and Martin Cameron, 2017)**. By using a new tool called the 'Decision Support Model' (DSM), this project identifies key opportunities for exporting Rwandan goods and services, in response to a request from Rwanda's Minister of Trade and Industry. The request came out of a high-level workshop held in Rwanda in December 2016. The model maps out easy-to-access markets with low barriers to entry and identifies realistic export opportunities for firms wanting to expand their sales reach into foreign markets. It also offers alternatives to exporters where they are facing saturation and/or declining growth in their traditional markets. The export opportunities and markets identified by the researchers are broadly in line with Rwanda's National Export Strategy. The findings were disseminated at high-level meetings with the Ministry of Trade and Industry and the Rwandan Development Bank in 2017. A final report, policy paper, and policy brief were published in the same year.

- **Special Economic Zones for Myanmar. (Amit Khandelwal and Matthieu Teachout, 2016).**
  This project involved producing a report that analyses Myanmar's trade patterns and composition, FDI, business environment and trade costs, and compares these indicators with those of neighbouring countries. The authors discuss potential channels through which reforms to bring down trade costs can improve the productivity of manufacturing firms. They then home in on the pillars that make SEZs successful, based on international experience. The lessons are threefold. First, SEZs should create a strong business climate that attracts investment from domestic and foreign firms. Second, given that the specific policies necessary to foster growth in a particular context are not known ex ante, SEZs should promote policy experimentation. Finally, it is important that SEZs generate externalities to justify the pecuniary incentives

they offer to firms. The **final report**, which was published in February 2016, received feedback from U Set Aung, who is the Chairman of Thilawa SEZ as well as, now, the Deputy Minister for Planning and Finance. As a result of this work, the IGC received a request to set up monitoring and evaluation of Thilawa SEZ and assess the extent to which it is generating spillovers in particular.

4. Regional integration and global value chains

Over the course of the last decade, scholars and practitioners of economic development have grown increasingly attuned to the importance of global value chains in driving international trade at the global and regional levels. IGC research seeks to identify and map out such chains in order to understand how materials, financial resources and information flow between firms and other stakeholders. This makes it possible to analyse the efficiency of chains and to identify potential trajectories for expanding exports and moving into higher value-added positions within chains. IGC also works to understand how regional integration offers an opportunity to generate new and stronger value chains and support trade creation.

- **Fully washed coffee exports in Rwanda: Market structure and policy implications (Rocco Macchiavello and Ameet Morjaria, 2015).** Rwanda produces some of the best coffee in the world. Yet, since 2006, the Rwandan coffee sector has seen a gradual decline in export volumes. The Director General of Rwanda's National Agricultural Export Board (NAEB) therefore requested that the IGC investigate Rwanda's coffee sector. The researchers surveyed every coffee washing station in Rwanda to examine the effects of competition on stations, farmers, and coffee, and to suggest ways in which the sector could be improved. They found that domestic value added is substantially higher for fully washed coffee, but that Rwanda's fully washed coffee sector faces several (resolvable) constraints: lack of contract enforcement mechanisms, low access to and a high need for working capital at the washing station level, poor management practices at washing stations, and few external coffee buyers. At the request of the Ministry of Agriculture and Animal Resources (MINAGRI), IGC Rwanda hosted a one-day conference to disseminate the research to an audience comprised of experts from other countries, international buyers, and policymakers. More than 80 stakeholders relevant to the coffee industry attended the event, including representatives from MINAGRI, NAEB, the Ministry of Trade and Industry, the Ministry of Finance and Economic Development and experts from the East African Community (EAC) and Costa Rica. The conference aimed to validate Rwanda's new coffee policy, drawing on existing research and international best practices, and to stimulate ideas and recommendations for the country's coffee strategy going forward. The success of the event led to the findings informing Rwanda's revised coffee policy, in particular, by substantiating government arguments for restricting farmers' side-selling of coffee. A policy memo and project memo are accessible on the IGC website, and the research also received publicity in The New Times.

- **Evaluation of the Common External Tariff of the East African Community from Uganda and Rwanda's perspective in 2017 (Garth Frazer, 2017)**. As the finance ministers of the East African Community (EAC) prepared to negotiate a review of the Common External Tariff (CET) in September 2017, it became urgent to evaluate the impact of the tariff regime in relation to member states' development objectives, including export development, industrial competitiveness, employment, and poverty reduction. This project, therefore, investigates the effectiveness of the CET and points out three main challenges of the proposed common tariff. Firstly, the research finds that exporters in landlocked countries suffer from much higher transport costs than other EAC members, and so reducing non-tariff barriers should be a priority within the region. Secondly, some intermediate goods used in further production are misclassified and, as a result, wrongly allotted the highest tariff. Lastly, the goods on the sensitive items list are subject to very high tariffs and would benefit from lower rates. The work was personally requested by the Rwandan Minister of Trade, Industry and EAC Affairs, and its findings are being used to guide Rwanda's negotiating position at the EAC Secretariat. The results were also presented to senior government officials in Uganda.
- **Pakistan's international trade: The potential for expansion towards east and west (Ehsan Choudhri, Antonio Marasco and Ijaz Nabi, 2017).** This research project examines barriers to Pakistan's east-west trade, especially with China and India, and explores the potential for trade expansion from reducing these barriers. An important finding of the study is that Pakistan's imports from and exports to both China and India are significantly less than the values predicted by a model that explains bilateral trade flows for most trading pairs in the world. In the case of trade with India, policy restrictions are the most significant barrier. On the other hand, the most important barrier to trade between China and Pakistan is the high cost of land transport. The findings suggest that expanding trade with India would require improvements in relations, while the China-Pakistan Economic Corridor serves as a major opportunity to expand trade with China. A final report was published in January 2017.
- **Understanding productivity in the Pakistani garment sector: Comparisons with Bangladesh (Julia Cajal Grossi, Rocco Macchiavello and Guillermo Noguera, 2019).** Large international buyers play a key role in global value chains. This project draws our attention to how the precise nature of buyers' sourcing strategies might matter from the perspective of a supplier in a developing country. In particular, this research exploits detailed transaction-level data on the usage of material inputs to study how the markups of Bangladeshi garment suppliers vary across international buyers. The researchers find that buyers adopting relational sourcing strategies, which are built around relationships of trust, pay higher markups and source larger volumes from their suppliers than non-relational buyers. This implies that the overall profits of sellers are larger when their portfolio of buyers tilts in favour of trade partners adopting relational sourcing. The working paper for this project was published in January 2019.

5. Way forward

The IGC's work on trade over the past decade puts forth an abundance of ideas for a developing country conducting trade policy in the 21st century. Yet, there remain a number of trade-related policy issues that have been relatively less studied, adding to a regular supply of new questions emerging from the research frontier that are also deeply relevant for policy. Going forward, the IGC hopes to shed light on such pertinent topics such as how trade interacts with the various distortions that might prevail in a given economy e.g. how trade affects the distribution of firms of different sizes and the implications for any size-related distortions affecting them. Moreover, the role of the state in easing frictions to factor reallocation (such as barriers to interregional migration), which can result in significant distortions when a country is opening up to trade, also warrants further research. In addition, there is a need to better understand how trade can act as a vector for spillovers, as well as the role for policy in maximising these potential benefits. At the same time, there is scope for strengthening state-provided services related to trade, such as trading infrastructure or export promotion activities, on the basis of new and exacting research into these topics. Finally, at a time when the winners and losers from trade are the subject of heated debate in many countries, we also recognise the need for policy to be more effective in managing the distributional effects of trade, and, in particular, the need for high-quality research to help inform these policies.

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