👑 GOV.UK

Home > DIT areas of research interest

Department for
International Trade

UK Export
Finance

Research and analysis

DIT areas of research interest 2020 to 2021

Published 8 September 2020

Contents

Foreword

COVID-19, trade shocks and economic recovery

Trade agreements

Market access and non-tariff measures

Trade remedies and trade disputes

Trade, regions and the domestic economy

Global prosperity, development and climate change

Exports and export finance

Sectors, supply chains and R&D

Trade in services and digital trade

Investment and trade facilitation

Attitudes and perceptions towards trade and investment

OGL

This publication is available at https://www.gov.uk/government/publications/dit-areas-of-research-interest/dit-areas-of-research-interest-2020-to-2021

Foreword

Since its formation, the Department for International Trade (DIT) has cultivated and built upon international best practice while developing the evidence base to support policy and operational decision-making. In January 2018, DIT published its first [areas of research interest (ARI) (https://webarchive.nationalarchives.gov.uk/*/https://www.gov.uk/government/publications/dit-areas-of-research-interest-2017-to-2018)](https://webarchive.nationalarchives.gov.uk) document, seeking to stimulate engagement with researchers across academia and industry. This refreshed edition of DIT's ARI document sets out our current long-term research priorities, developed in response to evolving priorities, developments and international trends.

DIT is a department for the whole of the United Kingdom, and our research priorities reflect this. The UK government is pursuing an ambitious agenda that champions free trade across all corners of the globe and levels up the regions of the UK, in the context of other key government objectives such as clean growth and coronavirus (COVID-19) recovery. Under the leadership of the Secretary of State for International Trade, the department has the remit to:

- bring together policy, promotion and financial expertise to break down barriers to trade and investment, and help businesses succeed
- deliver a new trade policy framework for an independent UK
- promote British trade and investment across the world
- build the global appetite for British goods and services

Given the scale and reach of this agenda, and the pace of change across emerging technologies, global economic challenges and scientific trends, the use of cutting-edge evidence in DIT's policy and operations is vital. This is particularly important as the UK government, industry, and research communities across the world respond to challenges arising from the outbreak of COVID-19.

Like the previous edition, this refreshed DIT ARI document outlines our long-term interests in existing evidence and research best practice as well as highlighting areas in which we would encourage further research. Development of our evidence base will ensure that we are best prepared for future opportunities and challenges, and can support UK businesses across sectors and regions. For some questions, we are interested in developments in existing research programmes, while for others, we may wish to commission new research to build on the existing evidence base within the department.

Notably, this refreshed edition of DIT's ARI highlights specific measurement and policy research questions related to trade shocks and recovery, relevant to the impacts of COVID-19 and other potential future shocks to the global trading system. These are highlighted under the topic '[COVID-19, trade shocks and economic recovery](#)'.

We are particularly using this edition as a call for evidence from emerging research and new data sources relevant to COVID-19 analysis, including leading or real time

information on trade, particularly on trade in services, and data across specific sectors.

We look forward to hearing from you.

Richard Price, DIT Chief Economist

Dr Mike Short CBE, DIT Chief Scientific Adviser

COVID-19, trade shocks and economic recovery

COVID-19 has posed a major economic shock, disrupting trade flows, stretching supply chains, and challenging international organisations that uphold systems of global governance as well as broader perceptions of international openness. Beyond immediate policy responses, evidence should support long-term recovery and economic security within the global rules-based system.

The guiding research questions on COVID-19, future trade shocks and economic recovery are:

- what effect does COVID-19 have on business models and supply chain structure? How does the renewed focus on shortening or regionalisation vary by sector?
- how can we assess the longer-term structural changes to the global trading system following a shock, including the assessment of the long-term impacts of short-term responses to COVID-19?
- what measures limit international trade restrictions on exports (including healthcare supplies) and investment resulting from global shocks?
- what different patterns can be observed in trade and investment flows following exogenous shocks (such as COVID-19), compared to endogenous shocks (such as a financial shock) to the economy?
- how have different sectors (aerospace, financial services, telecoms), sizes of business, regions and the self-employed been impacted by the COVID-19 crisis, and how might they be impacted differently by the recovery phase?
- how can the UK best uphold the global rules-based system to support trade recovery?
- how effective is trade and investment policy in creating economic security and resilience that safeguards against shocks? What can we learn from comparing different country responses?
- how can policy measures best encourage and support businesses to recover and return to international trade post-crisis, given differing attitudes to risk?
- how can government policy best foster supply chain resilience, and incentivise businesses to develop supply chain resilience strategies?
- what can we learn about sequencing the levels of intervention and openness in an economy following a shock? How can economic theories, such as transition economics, inform this?

- what challenges might developing economies face when engaging with the international economy that developed economies might not? How can the UK best support trade recovery in developing economies?
- how might COVID-19 shape wider social attitudes towards trade and investment?
- what long-term trade opportunities and risks may arise from changes in the use of technology and ways of working resulting from COVID-19?/
- how will COVID-19 affect global technological adoption rates and what will that mean for disruptions to global trade and investment patterns?

The data, statistics and measurement questions on COVID-19, trade shocks and economic recovery are:

- what can international best practice tell us about using data to manage the shock and recovery?
- in the event of a trade shock, how can data requirements for taking rapid decisions be met using real time indicators (RTIs) and non-traditional sources of data? How can data science evaluate and improve the quality and reliability of RTIs?
- in response to a trade shock, what innovative approaches to support data collection, dissemination and application can be taken, without burdening businesses and frontline staff?
- what are the best ways to measure business perceptions of risk in relation to exporting post COVID-19?
- how can data flows be rapidly improved, promoting data sharing across research, government and industry to allow secure collaboration?
- how can geospatial analysis and mapping help monitor trade patterns during recovery and target business support?
- how can finance, logistics and other data be brought together to accurately track the ordering and delivery of emergency supplies through supply chains including medical supplies?
- how can global demand shocks (including for emergency and medical supplies) be best modelled, accounting for uncertainty?

Trade agreements

DIT is committed to using evidence and analysis to maximise the economic value of our programme of bilateral and multilateral trade agreements. Methods, modelling and measurement of trade agreements is an evolving area of research, while future evidence may include investigation into impacts of new and modernising provisions in trade agreements.

The guiding research questions on trade agreements are:

- which elements of trade agreements have historically had the greatest impact on trade flows?

- how effective have existing trade agreements been in reducing the trade restrictiveness of non-tariff measures?
- how can we understand the value of provisions on mutual recognition of conformity assessment in trade agreements?
- to what extent are the provisions in trade agreements utilised in practice? Which sectors or businesses are most likely to use them?
- how can we best evaluate economic impact of including sectoral annexes to chapters in trade agreements?
- how can we evaluate economic impact of customs and trade facilitation procedures following trade agreements?
- what are the long-term impact of provisions that bind in existing market access and reduce uncertainty?
- how can trade agreements effectively incorporate the interests of regulatory agencies?
- what modern provisions most effectively address emerging technologies, emerging data flows and digital trade?

The data, statistics and measurement questions on trade agreements are:

- how can we measure the impact of a trade agreement on value added trade? How does this differ by sector?
- how should the predictive accuracy of CGE models be assessed?
- how can we value non-FTA agreements (including the Government Procurement Agreement and mutual recognition agreements), in terms of total impact?
- how can artificial intelligence, machine learning, simulation, agent based modelling and other leading data science techniques contribute to better understanding of trade and investment patterns?

Market access and non-tariff measures

Market access barriers and non-tariff measures can appear through a variety of regulatory, legislative or procedural routes, carrying significant costs to businesses or otherwise prohibiting or restricting trade. Research in this area should aim to improve measurement of trade barriers and how they arise, what their real business impact is, and the extent of actionability.

The guiding research questions on market access and non-tariff measures to trade are:

- how can we best evaluate the trade restrictiveness of different categories of non-tariff measures (at both bilateral and multilateral levels, across goods, services and investment)?
- to what extent does regulatory divergence affect bilateral trade flows?
- to what extent do the impacts of market access barriers have varying effects according to the size of firm? How does this vary by the type of barrier?

- to what extent can market access barriers in some sectors have wider impact on trade in other sectors?
- what are the economic costs faced by businesses across different sectors, in relation to conformity assessment?
- to what extent does the use of voluntary standards facilitate or restrict trade? How does this vary by country and sector?
- to what extent does the use of international standards particularly facilitate trade with developing, low and middle-income countries?
- does international regulatory cooperation help reduce regulatory barriers to trade in innovative products and services?
- how does protection of intellectual property by patents, trademarks or design rights affect trade flows in across industries and business sizes?
- to what extent are intellectual property rights enforced where there is infringement, and how practices differ across sector and business size?
- to what degree do barriers to procurement affect UK export and investment performance?

The data, statistics and measurement questions on market access and non-tariff measures are:

- how can various data sources inform how we identify, address and resolve market access barriers relating to goods, services and foreign investment?
- how can we measure the market access restrictiveness of a country from a UK perspective?
- how can we quantify the impact of individual barriers on trade and investment?
- how can we quantify the impact of good regulatory practice?
- how can we better measure interactions of regulations and how they adapt in response to innovation?
- where non-tariff measures behave as fixed costs to trade, how can these be most effectively incorporated in trade modelling?
- how can we best evaluate the impact of non-tariff, regulatory measures to trade in goods, including technical barriers to trade and sanitary and phytosanitary measures?
- how can we codify and measure the impact of non-regulatory barriers to trade, such as exchange rates, language, cultural, and geographical barriers?

Trade remedies and trade disputes

Trade remedies and trade dispute settlements are important safeguarding mechanisms where there are perceived abuses in the enforcement of the global rules-based system. Evidence should inform investigating authorities by focusing on what historical cases tell us about the effectiveness of these procedures.

The guiding research questions on trade remedies and trade disputes are:

- what insights does the academic literature provide on the economics of trade remedies, and issues that have arisen in recent World Trade Organization (WTO) disputes, including subsidies and market distortions?
- to what extent are trade remedies – applied under WTO agreements and bilaterally as part of free trade agreements – effective in achieving their stated objectives. How do they affect trade flows (including where jurisdictions adopt different duties)?
- to what extent are trade remedies effective in protecting domestic production and employment? How regionally specific is this relationship?
- what are the wider impacts associated with trade remedy measures, beyond firms directly affected?
- what conclusions can be drawn from patterns of anti-dumping, anti-subsidy and safeguard activity in previous business cycles? What lessons emerge from COVID-19 and recovery?
- what bilateral or multilateral engagement is most effective in preventing country-to-country disputes from being lodged?
- how could the WTO dispute settlement process be improved to better serve all member states?
- what are the most effective dispute settlement mechanisms within trade agreements? What scope is there for innovation?

The data, statistics and measurement questions on trade remedies and trade disputes are:

- which methods and modelling approaches can best be used to inform trade dispute cases? How can the harm caused by incompliant measures and associated retaliation rights best be estimated?
- what approaches can best measure injury to domestic producers from imports, in the context of targeting trade remedies? How can the direct and wider impacts of trade remedies be measured, including across sectors, regions and supply chains?
- how can the impact of cross-chapter provisions on dispute settlement mechanisms in trade agreements be effectively evaluated?

Trade, regions and the domestic economy

Engaging in international trade can be a powerful strategy for domestic firms, however competition effects can mean benefits vary across different parts of the country. Further evidence could address distributional consequences of international trade and investment, to maximise the positive impact across the UK.

The guiding research questions on trade, regions and the domestic economy are:

- which domestic policy levers can best address the externalities of trade reform, including impact on and adjustments costs to specific groups, sectors, and regions?

- what is the role of inward and outward investment in economic performance indicators, for example national and regional growth, employment, and macroeconomic stability?
- how can we evaluate the performance of trade policy in delivering regional growth and international development?
- to what extent do international trade expos help build the reputation of the UK and its regional strengths as a destination for international projects?
- how useful is comparative advantage when identifying and evaluating opportunities across UK regions and sectors?
- what role does trade play in variation in sub-regional growth productivity and employment in the UK?
- what are the sub-regional implications of future trade agreements and trade policy more broadly
- what is the capacity for increasing exports in those parts of the country where the levelling up agenda is particularly focused on?

The data, statistics and measurement questions on trade, regions, and the domestic economy are:

- what research techniques are most effective in evaluating how trade policy drives prosperity?
- how can we best model the impact of trade policy at a sub-national level (for example, by specific groups, sectors, and regions)?
- what data and methods can improve estimation of intra-regional trade within the UK?

Global prosperity, development and climate change

Development and climate change issues are key to ensuring a prosperous, equitable and sustainable future trading environment, particularly in the context of economic recovery. Further evidence should evaluate the impact of policy interventions on developing countries, and to consider the trade-off between global prosperity and green recovery agendas.

The guiding research questions on global prosperity, development and climate change are:

- what specific trade and investment policy interventions are most effective in creating inclusive growth for both UK and developing countries?
- what is the impact of increased trade and investment on poverty reduction in developing countries?
- in terms of business environment, which characteristics of developing markets should be considered when helping businesses engage in exporting activity?
- how important are imports from developing countries for UK supply chains and what role can they play in diversification of supply chains?

- how can DIT use ODA for response to COVID-19 crisis and recovery?
- what impact would the introduction of carbon border taxes have on regional trade flows?
- how much has trade increased/decreased global emissions, through improving production processes and accentuating market failures?
- how can the pathways to decarbonisation of transport be evaluated against the UK's international climate ambitions?
- what measures could help minimise the risks of de-forestation, biodiversity, and habitat loss in producer countries, without creating excessive trade distortion?
- with growing preference for greener investments, how should sustainability goals be balanced with ensuring all sectors can continue to access financial markets?
- what can comparative advantage tell us, in the context of production shifts arising from climate change?
- which trade policy levers could have the greatest impact in terms of reducing global emissions? Which are the most realistic mechanisms to achieve clean growth?

The data, statistics and measurement questions on investment and trade facilitation are:

- what measurement approaches should be used to evaluate the impact of market access barriers on sustainable development?
- how can specific provisions in trade agreements be effectively evaluated in terms of benefits to developing countries?
- how can we evaluate best practice intervention for addressing climate change and gender equality?
- how can we improve measurement of global emissions from international trade? To what extent have improved production
- what evidence and methods are required to minimise the distortionary effects of carbon border taxes, and overcome the technical obstacles of tracking embedded carbon?
- how can we effectively measure the long-term sectoral impacts of shifting consumer preferences for greener goods?

Exports and export finance

Given the benefits of engaging with the international economy through goods and services exports, this form of trade facilitation focuses on transparency, as firms are supported in navigating complex processes associated with international market access. Evidence may should help target this support where there exist market failures.

The guiding research questions on export and export finance are:

- to what extent do business strategies include exporting as a means of achieving business growth? How does this vary by business characteristics?

- what are the wider impacts associated with exporting, beyond firms directly affected? How does this vary by business size, export experience and sector?
- what is the persistent of exporting businesses in a market? What characteristics impact longevity of exporters in a market?
- what is the productivity premium on exporters versus non-exporters in the UK?
- what is the effect on wages, employment and survival on UK exporters versus non exporters?
- what is the impact of large exporters on the UK economy beyond exports (for example. national and regional growth such as employment, investments, R&D, productivity and GVA)?
- what factors have historically been important to identify large businesses which are high value or volume exporters? To what extent are these factors sector specific?
- to what extent is export support for large businesses effective in providing opportunities for small businesses in the UK supply chain? How regionally specific is this relationship?
- what are the common costs of entering new markets for UK small and medium sized enterprises and what are the success rates in recovering these costs through new sales?
- to what extent does evidence support the case for selective export promotion policy?
- how much does UK businesses' ability to offer financing options for their products affect their likelihood of exporting and competitiveness?
- what are the global trends developments in the variety and scale of export finance products and services?
- what are the best practices for the design and evaluation of export finance products and services?
- how do delays in obtaining finance affect international buyers' confidence in UK exporters?
- how does export finance help in developing an integrated supply chain?
- what impact do non-bank financial institutions providing export finance have on national financial markets?
- how do UK businesses compare with non-UK businesses in their use of trade finance and credit insurance?
- using regional and local studies, what is the impact of export finance services on localised markets? How does export finance services support regional growth and development?

The data, statistics and measurement questions on exports and export finance are:

- what further data sources could help us build a more complete picture of the exporter journey?
- how can we best measure the impact of large exporters at a sub-regional level (for example, agglomeration effects, supply chain effects)? How can we measure the structure and interactions in the supply chain in exporting sectors?

- how can various data sources inform how we identify and target support to large businesses which are high value or volume UK exporters?
- how can we isolate the impact of export finance on trade in specific goods and services?
- how can we evaluate additionality of government support in trade facilitation?

Sectors, supply chains and R&D

The world's production capability across different sectors may be best understood in terms of global supply chains, for example as R&D takes place in one country and manufacturing in another. Further evidence should inform classification of sectors, measurement of value-addition, and challenge assumptions in our understanding of supply chains.

The guiding research questions on sectors, supply chains and R&D are:

- how can comparative advantage inform future trade and investment interests across regions and sectors? What are the limits of comparative advantage here?
- how can we best establish which UK research and technology organisations are undertaking work for overseas companies, and which have operations outside of the UK?
- how are emerging digital services and technologies likely to affect the future of exports and supply chains across sectors?
- what factors make countries and regions attractive as destinations for investment in high potential, early stage, technology-based entrepreneurs?
- how can we effectively evaluate countries' relative technology readiness levels (TRL), by technical area, sector and overall strategy? To what extent does the commercial, regulatory and legal environment impact on TRLs? To what extent can market access restrictions to some sectors have wider impacts on trade within other sectors?
- which criteria are most effective in establishing long-term sectoral growth potential?

The data, statistics and measurement questions on sectors, supply chains and R&D are:

- which methods best evaluate of a country's regions and sectors of dynamic comparative advantage?
- what is best practice in developing the international classifications underpinning trade measurement – including product codes for goods, classifications for services and their relationship to sectors?
- how can the Trade in Value Added (TiVA) dataset inform our understanding about regional or global supply chains, including re-manufactured goods?
- how can we assess how much value is created in each stage of a global supply chain and how do "smile curves" vary across products and sectors? For example, how can we estimate the value of intellectual property within global supply chains?

- how can shipping and freight data be used to complement our understanding of the Rotterdam effect and trade flows international hubs?
- how can forecasting methods inform long-term total factor productivity growth?
- how can open source data, big data and data science techniques inform us about the emerging trends in trade across different sectors?

Trade in services and digital trade

Trade in services and digital trade across borders has rapidly grown in recent years, providing key drivers to the UK economy. However, measurement, classification and definitional challenges have come to characterise the nature of available evidence, driving the need for further research in this space.

The guiding research questions on trade in services and digital trade are:

- how can we best evaluate the barriers to trade in services and their impact on trade flows?
- to what extent do barriers to goods trade affect services trade and vice versa?
- how are changes in technology impacting the tradability of different services, the cost of trade in services and the ways in which services are traded?
- how important is geography, culture and language for trade in services, and how does this compare to that of trade in goods?
- what impact do regulatory barriers have on trade in services?
- what are implications of advances in communications technologies for trade in services?
- what impact do restrictions on data flows and data localisation requirements have on trade?
- how do businesses adapt their delivery of services between the General Agreement on Trade in Services (GATS) 4 Modes of Supply? To what extent are the four GATS 4 Modes of Supply compliments or substitutes?
- which technologies are most likely to disrupt the pattern of global trade and investment in the coming decades and what impact will they have on productivity growth?
- how much of an obstacle is cyber-security in the development of the UK's digital trade capacity?

The data, statistics and measurement questions on trade in services and digital trade are:

- how can the categorisation and measurement of trade in services by the modes of supply be developed and optimised?
- what is international best practice to define and measure trade in services? This may include digital trade, e-commerce and cross-border data flows.
- what is the potential of ledger technology for the measurement of financial services trade?

- how can we effectively measure levels of 'servitisation' and 'servicification'? [footnote 1]

- how can restrictions on trade in services be effectively measured across sectors, given data limitations?

- how can advances in communication technologies be used to inform our understanding of trade in digital services?

- what is the fragmentation impact of disparate data standards and regulations being developed globally?

Investment and trade facilitation

Facilitation of trade and foreign investment[footnote 2] is a critical component of DIT's operational activities. Future evidence development should focus on better evaluating the case for intervention to support firms, how to design investment and trade facilitation services efficiently, and how to maximise business engagement.

The guiding research questions on investment and trade facilitation are:

- how can barriers to foreign investment (including business procedures) be most effectively identified and addressed?

- to what extent can investment promotion optimise UK export markets? What are the limits to intervention under specific conditions of market failure?

- what is the relative value of light touch, digital or automated support services in foreign investment support versus intensive face-to-face services?

- to what extent can the private sector deliver investment promotion together with DIT?

- how does investment and export promotion engage with varied supply chains, given small and medium enterprise internationalisation?

- which countries excel at facilitating the commercialisation and export of new technologies and why?

- what is the relationship between easing and removing foreign investment restrictions and export performance bilaterally?

- what impact have technological and geopolitical changes had on global investment trends and has this altered investor sentiment?

The data, statistics and measurement questions on investment and trade facilitation are:

- what further data sources could help us build a more complete picture of the investor journey, including who is involved?

- which statistical methods can help reconcile foreign investment and trade asymmetries between partner countries?

- how can we evaluate additionality of government support in investment promotion?

- what methods are best to isolate the impact of one service provided by the DIT service from others we provide?

- what is the best way to track and measure the value of DIT's service interventions?
- how can we use novel datasets to understand capital investment needs across the UK, including by sector and region?

Attitudes and perceptions towards trade and investment

International trade and investment activities affect the whole economy, so it is important to have an evidence-based understanding of how to design and communicate policy with all stakeholders in mind. Evidence should focus on how different groups, sectors and regions engage with DIT's policy and operations in different ways.

The guiding research questions on attitudes and perceptions of trade are:

- to what extent does the UK public understand trade policy and global trade patterns? What are their main sources of information?
- what factors affect public perceptions of trade and how does this differ by specific groups, sectors and regions?
- how are perceptions of international trade affected by the inclusion of sustainability and welfare provisions in trade agreements?
- how do the public view the trade-offs that trade agreements bring, in relation to consumer choice, prices and employment by sector? How do these perceptions vary by partner country?
- how do the public's attitudes towards globalisation vary, and what drives these differences?
- how do non-UK businesses and publics perceive the UK as a trade and/or investment partner?
- how can we best characterise the attitudes and behaviours of UK exporters, to inform our understanding of the internationalisation process for SMEs?
- how can insights from behavioural economics and nudge theory inform business engagement with DIT products and services?

The data, statistics and measurement questions on attitudes and perceptions of trade are:

- how can we best evaluate how businesses receive DIT's communications, in terms of awareness, appeal and clarity?
- how can we best evaluate the impact of DIT's campaigns and events on businesses?

---

1. Servitisation: where firms sell services packaged with goods, for example after sales service. Servicification: where firms increasingly rely on services, whether as inputs, activities within firms or outputs sold bundled with goods.

2. Foreign investment includes foreign direct investment (FDI), capital and portfolio investment.

↑ Back to top

OGL

All content is available under the Open Government Licence v3.0, except where otherwise stated

© Crown copyright