Appendix 4: CITP responses to participant questions

This appendix provides details of information shared by the CITP with participants in between workshops. During the first three online workshops, participants were presented with information from CITP researchers in plenary. Participants then had the opportunity to raise questions for CITP in their breakout room discussions. These questions were captured by NatCen facilitators and then passed to the CITP after the workshop for response. The responses below were prepared by CITP speakers in between sessions and shared with participants through an online folder.

Workshop 1 - Trade and human rights

Q: Why don't some countries meet human rights requirements?

Human rights is a deeply contested and somewhat elastic concept. Some countries do not accept what we in the 'West' have defined as human rights for cultural and historical reasons – and certainly object to the 'West' trying to impose them on them. Some argue (not without some reason) that with low incomes and poorly educated populations, they have not the resources to do so. Human rights might cut across powerful interests – e.g. of wealthy capital owners or of repressive governments – so the reason is essentially political. These are the cases that are mostly to be amenable to economic responses by trading partners.

Q: Re: the last slide in the presentation: what could "generous technology transfer" mean?

Developing countries often argue that they are held back by the absence of critical technologies in their production sectors. To some extent this can be addressed by governments in the countries where firms own such technologies, insisting or perhaps incentivising their transfer to developing countries. This may involve, for example, access to a patented process or technical assistance in setting up local facilities.

Q: Re: the last slide in the presentation: do we export our emissions to lower income countries?

¹ Due to how close the fourth and fifth workshops were, participants were not able to have questions responded to in time to review them before the final workshop.

Yes. Over the last decade and a half or so, rich countries have reduced their CO₂ emissions in local production, but the emissions required to produce the bundle of goods they consume have continued to increase. That is, they import more of the goods heavy in emissions.

Q: What could a domestic policy look like that would be discriminatory? And by putting greater costs onto international trade, surely that is beneficial for us, as we are keeping money in the UK?

Suppose you banned imports of something made by child labour, but defined child labour as working below the age of 14. That would potentially discriminate against developing countries where compulsory education finished at 12. Similarly, if you offer India a free trade deal that eliminates tariffs on their exports, you're discriminating against other trading partners who don't have such deals.

You can also discriminate against all imports, e.g., by imposing a tariff (a tax at the border) on imports. This might be a good idea, but generally is reckoned not to be because supplies from abroad may be cheaper/better than local supplies, and if we spend local resources (labour, capital) on replacing imports they can't be used on something else in which Britain is efficient/cheap and that might be exported or consumed at home.

Q: If countries with human rights issue say they are doing the right thing, as part of the trade agreement, what are the ways that countries like UK, USA can verify, to the roots, if those trading partners are actually doing "the right thing"?

A critical issue. The British embassy might be able to get information, but mainly one relies on competing firms, the media, or civil society (e.g. campaign groups) to point out violations. It is a big problem that competing firms have an incentive to complain whether fairly or not.

Q: Why did the UK / Australia agreement include agreements about trade with other countries?

There has been a widely held concern that trade agreements between rich countries may discriminate against developing countries. For example, the agreement eases UK imports of sugar from Australia, and this may harm a poor countries' exports. The UK aims to include a chapter on the effects on developing countries in all its new free trade agreements. However, if you look at them, they amount to doing analysis and possible swapping information and contain no, or virtually no, firm commitments. They are very weak.

Q: Are there any incentives that some countries have with each other to assist with carbon emissions when trading?

Not yet. The European Union has designed a so-called Carbon Border Adjustment Mechanism (CBAM) which it plans to implement soon. The UK is pondering whether to do so. The EU and the UK charge firms in some sectors for their carbon emissions, and this will make these firms less competitive. The CBAM aims to charge the same rate of tax on imports of the affected products to level the playing field. The problem is that it is horrendously complicated to implement. This area is going to have lots trade tensions for several years.

Q: How many of the poorer countries don't have the finances and facilities to make work safe in the first place?

That depends on what you consider 'safe enough', but work tends to be a good deal safer in richer countries. As countries develop, their work safety measures tend to proliferate and deepen at least in practice if not in law.

Q: Last slide seemed contradictory, can we get it explained?

The slide is posing questions rather than making an argument. You can pretty much choose any combination of 'yes' or 'no' answers and still have a coherent position.

Q: Why is vaccine distribution being considered given the 'unique' situation at the time?

A: The situation was certainly unique, but the development, production, and distribution of vaccines does illustrate a number of characteristics of trade and trade policy. In particular, the production of Covid vaccines

shows the necessity of trade in equipment and components – and of complex multi-national supply chains. At the same time, the distribution of vaccines and steps taken to manage and sometimes to restrict it can illustrate some of the ways that states operate that raise issues that are relevant for wider discussions about trade.

Q: What profits did pharmaceutical companies make on vaccines/were any vaccines developed not for profit?

A: It is not easy to find information about the precise profits that pharmaceutical companies made on their Covid vaccines. In general, determining the profits of multinational pharmaceutical companies is not straightforward. Newspaper and other reports on these profits tend to divide into criticism of these companies for giving priority to making profits over distributing life-saving products versus arguments that the profit motive is essential to driving the innovation that leads to the creation of new drugs and vaccines.

Some companies, including AstraZeneca and Johnson & Johnson, made a commitment to distributing vaccines at cost during the pandemic. In November 2021 newspaper reports appeared stating that AstraZeneca had decided Covid had become endemic and started taking a profit from its vaccine. Newspaper reports suggest AstraZeneca gave up some £21 billion in profits.

Pfizer/BioNTech and Moderna used a new (mRNA) technology for the vaccines they produced. These vaccines proved to be particularly effective. These companies have kept closer control over the techniques and technologies they used. They are much more expensive, per dose, than other vaccines and have been heavily used in wealthier countries. Though it is difficult to put a precise figure on the profits they have made, these companies have had 10s of billions of dollars in sales of their vaccines. Pfizer is an established pharmaceutical multinational company which makes profits from a variety of products. Moderna, a specialist biotech company, had not made a profit before the production of its Covid vaccine. The company is now developing new mRNA-based treatments for diseases including cancers. The profits of these two companies are likely to have been much larger than those of other vaccine manufactures. There are reports that as a result of the development and sale of Covid vaccines, nine individuals working in pharmaceutical and biotech companies have become billionaires.

Q: How much Oxford AstraZeneca was exported?/Did other countries buy from us? How much trade did that account for?

A: The AstraZeneca vaccine was manufactured in a variety of locations – in March 2021 the company said it had 25 manufacturing sites in 15 different countries. For example, it was manufactured at large scale in India at the Serum Institute – an established, large scale vaccine manufacturer. Export from the UK was less significant than this wider, international production process. The AstraZeneca vaccine is a mainstay of vaccination programmes in the global South.

The UK's capacity to complete the full manufacturing cycle for this vaccine was built up rapidly during the pandemic by the Vaccine Task Force. Much of the UK's initial purchase of AstraZeneca was manufactured in the EU and the UK, although some of this vaccine used in the UK was manufactured at the Serum Institute in India.

EU countries did order large volumes of the AstraZeneca vaccine from the UK. There was a period soon after AstraZeneca was approved for emergency use in 2021 when the EU became concerned that it would not be supplied with vaccine it had ordered due to the contract that the UK held with the company. Following concerns about rare micro-clots developing after vaccination with AstraZeneca other European countries chose to use different vaccines. AstraZeneca has never been approved for use in the USA. Thereafter data suggesting that mRNA vaccines are more effective, wealthier countries, including the UK, chose to use these vaccines instead of AstraZeneca. AstraZeneca, which was the main vaccine used in Africa during 2021, continues to be widely used in the global South.

Q: Why did we need to import any vaccines?

A: A wide variety of different types of vaccine were developed. Not all proved effective. At the time when vaccine orders were placed it was not clear whether any would be effective, or which vaccines would be successful. In fact, the first vaccine administered in the UK was the Pfizer/BioNTech mRNA vaccine, which was imported. The AstraZeneca vaccine was the workhorse of the initial vaccination programme in the UK, although some of the vaccines used were manufactured in India at the Serum Institute (especially 2nd doses in of the initial vaccination). Since they are regarded as more effective, mRNA vaccines (Pfizer/BioNTech and Moderna) have

been widely used for the booster doses used in later stages of the UK vaccination programme. One feature of mRNA technology is the relatively quick process of updating these vaccines to deal with new variants of Covid.

In general, wealthy countries in Europe and North America now tend to us mRNA vaccines (such as Pfizer/BioNTech and Moderna). AstraZeneca remains widely used in middle- and lower-income countries. Vaccines developed and manufactured in China are also widely used in those countries.

Q: Why manufacture vaccines if we imported them too?

A: There was something of a 'race' between pharmaceutical companies to develop viable Covid vaccines. A large number of different kinds of vaccine were put into development. It was not clear which if any would prove effective. So wealthy countries tended to spread their risks across different types of vaccine. Although all vaccine development and manufacture relied on trade in equipment and materials that went into making the vaccines, from the start of the vaccine development process there were also concerns that some countries might restrict the export of successful vaccines manufactured in their territory. For example, President Donald Trump declared an 'America First' policy that vaccines made in the US should be used in the US. Several multi-national pharmaceutical companies ensured that they had aspects of vaccine development and capability to manufacture vaccines in several different countries — particularly those countries with the money to purchase vaccines. In addition, for governments, having the capability to manufacture vaccines within your own territory provided more security or control over supply than relying solely on imports.

Q: Why were some countries not allowed to buy vaccines?

A: In principle, countries were generally allowed to buy vaccines – the problem was more one of whether vaccines were available for sale to all countries. For example, the UK government's contract with AstraZeneca meant that the company had to supply vaccines to the UK before supplying them to other countries.

Q: If we (the UK) ordered 600 million vaccines, how can you divert the supply elsewhere?

A: Vaccines supplied to the UK can be sent to other parts of the world, including as donations to other governments. If the UK knew it was not going to use some vaccine by the expiry date for that batch in sufficient time for it to be used elsewhere, those doses could be sold or donated to other countries. In June/July 2021 the UK government pledged to donate 100 million surplus vaccine does overseas, 80 million being distributed through COVAX.

When vaccines were first ordered no-one knew which ones would work and whether or not a single dose would provide sufficient protection. So the UK ordered very large quantities of a variety of different vaccines – if all these vaccines had worked, the orders would have been sufficient to vaccinate each person in the UK nearly 9 times.

Q: Why did the vaccine task force cancel the French one?

A: It was the UK government that cancelled the French vaccine. It did so because in its view the UK had sufficient supply of other Covid vaccines. There was some concern in France that this UK decision was in response to the decisions in France and other EU countries not to use the AstraZeneca vaccine.

Q: Was there a trade deficit or profit for the UK in vaccines?

A: It is difficult to find out information on exactly how many AstraZeneca vaccines have been made in the UK and how many of those have been exported. It is also difficult to find detailed information on the number of vaccines that the UK has imported. It is clear that the UK government has spent very large sums of money buying Covid vaccines produced in other parts of the world, especially the mRNA vaccines used early on in the initial vaccination process and which have been used for the various booster vaccinations. These vaccines — Pfizer/BioNTech and Moderna — are comparatively expensive. The UK government also invested large sums in the development of the Oxford/AstraZeneca vaccine.

Q: Now that the pandemic is significantly over, what is the plan or the factories/facilities which were actively and rigorously utilised during the peak of the pandemic?

A: While some of these facilities are still in use, criticisms have been made about UK policy since the initial generation of vaccines proved effective. For example, in November 2022, Kate Bingham, the initial Chair of the

Vaccine Task Force has criticized the UK government for giving up the advantage and momentum that the Task Force provided. In relation to Covid vaccines, she has said that they are not yet effective enough and more effort should be put into improving them. More generally, she has said that the UK's preparation against future pandemics has 'gone backwards'.

Q: Who decides who gets the vaccines first and where they go?

A: No-one organisation or person makes an overall decision for all the vaccines. Vaccine distribution is an outcome of complex economic and political processes. Broadly speaking, however, by mid-2021 governments in wealthier countries were able to get access to as many vaccines as they have needed for those they decided to vaccinate who were willing to be vaccinated. Generally speaking, then, people in wealthier countries and in countries with vaccine manufacture capacity have had better access to vaccinations. Equally, it is worth pointing out that some countries with vaccine development and manufacture capacity have not managed to vaccinate their general populations. Until recently, for example, China followed a Zero Covid policy based on lockdowns. Though China developed and manufactured vaccines, some of which it sold or donated overseas, it did not manage to vaccinate significant segments of its own population. After abandoning its Zero Covid strategy, China has faced a significant wave of Covid infections.

Q: Were poorer countries asking for the vaccine? Were they able to give them out/manage vaccination programmes anyway?

A: Yes, poorer countries were asking for access to vaccines. Some middle-income or emerging economy countries have also sought to build up their own vaccine development and manufacturing supply capacity. There are fairly well-developed systems for distributing vaccines across most of the world. One significant issue relates to the supply of mRNA vaccines in poorer countries. These vaccines need to be stored frozen at very low temperatures. The capacity to store vaccines in this way is much weaker in poorer countries, especially remote rural parts of those countries. That is part of the reason why other vaccines, including AstraZeneca, Johnson & Johnson and the vaccines made in China have been much more widely used in the global South, while mRNA vaccines have become dominant in Europe and North America.

Q: Why couldn't vaccines be shared more easily?

A: Partly it's a question of companies seeking to keep expertise and techniques they have developed to themselves. Some people argue that intellectual property (the ownership of inventions and techniques) creates the incentives people need to make socially valuable new inventions, like mRNA vaccines. Companies like BioNTech and Moderna have not enforced their patents where others have tried to develop mRNA Covid vaccines. Equally, they have also chosen not to help those companies by sharing the detail of how they developed their vaccines.

Answering this question also speaks to the economic and political advantages conferred by living in a wealthier country. Wealthier countries have put their own populations first. Some public health experts have argued that the failure to vaccinate the world might allow new dangerous variants of Covid to develop which could come back to undermine the advantages achieved by wealthier countries in vaccinating their own populations first.

Q: Were there penalties for COVAX's failure?

A: COVAX is a voluntary coordination process. It doesn't have the capacity to impose sanctions on those involved for not living up to their promises. I am not aware whether India was sanctioned in any way for the period when it refused to allow the output of the Serum Institute to be exported.

Q: What has changed since then? Are there bodies charged with considering the fairness of vaccine and trade?

A: COVAX still exists. The World Health Organisation (which is involved in COVAX) is also supporting the development of vaccine development and manufacturing capacity in some emerging economies, such as South Africa.

Q: Why did the production and dissemination of vaccines fall outside trade agreement rules?

Vaccines did largely fall under trade law – which includes the World Trade Organisation (WTO) and Free Trade Agreements. WTO permits export restrictions in the face of domestic shortages. It also includes an exceptions

clause which, broadly, allows governments to use almost any policy towards trade in order to preserve the health and life of their populations, subject only to it being proportional to the problem to be solved and non-discriminatory and that no less trade-distorting measure would solve the problem. Free Trade Agreements sometimes include stronger disciplines, but these would rarely be appealed to in a crisis that involved all parties and posed severe dangers which we had never faced before. (The EU is a much tighter union than an ordinary FTA and it did act to try to ensure that vaccines flowed freely between members.

Workshop 2 - Balancing trade between sectors and regions

Q: Where we export (say) business services but also import business services - why can't the imported ones also be provided by the UK? So that we are more self-sufficient.

Sometimes you have to import – e.g. for advice on a contract to be signed in France, you need French-qualified lawyers. Sometimes you don't want to – e.g you may think that Italian architects are better or you may want to hear an American band. Multinational firms may want all subsidiaries to, say, use the same designer and choose a foreign one. Sometimes the imported services are cheaper – e.g. customer service help lines being located in India. Self-sufficiency would be more costly and possibly yield lower quality.

Q: Where are we on recreating trade deals post-Brexit?

We have rolled over virtually all the agreements we were part of as members of the EU. None of the roll-overs can replicate trading conditions exactly, but many get pretty close. A number of these roll-overs were time-limited and now have to be renegotiated – e.g. Canada, Korea, Mexico – and the hope is to make them deeper. In addition, we have signed two new full trade agreements – Australia and New Zealand – and a digital agreement with Singapore. We are negotiating hard to get into the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP), which is a trade agreement.

Q: How does healthcare work in trade? I.e. other countries are much better right now, so doctors want to re-locate and leave.

If workers, including doctors, resign their UK jobs and move abroad, that is migration, not trade. If they remain based in the UK but go abroad to provide service on a short-term basis, that is counted as a service export. But it is difficult to arrange this and it is always subject to many restrictions in the country they go to (including over recognising their qualifications). Similarly, if a UK hospital set up a wholly-owned subsidiary abroad, that would count as service exports.

Lots of healthcare trade occurs when people travel to get care – if a UK resident goes to Germany, that is an import for the UK and an export for Germany.

Q: What are examples of different business services?

Research and development, legal, accounting and management consulting, Recruitment services, architectural and engineering services.

Q: How will the cost of living/drop in the value of the pound effect our trade?

It used to be that a drop in the pound (a depreciation) would boost UK exports quite strongly over the couple of years following it, but that effect seems weaker now. This is largely, we think, because lots of trade is very specialised and so has few competitors, firms sign long-run contracts or are part of global value chains. For imports, we'd expect reductions following a depreciation, and responses similarly seem to have been damped recently. In the longer run a 'real depreciation' would probably affect trade patterns materially.

The term 'real depreciation' means the change in the exchange rate corrected for the change in prices. It is relevant because an increase in prices in the UK has the opposite effect to a depreciation and one effect of depreciations is to increase UK prices. We think that the sudden depreciation of the pound the night after the Brexit referendum by about 15% raised prices in the UK by about 3% on average and almost certainly more for export prices. Over several years, domestic inflation frequently offsets a depreciation more or less fully—ie a depreciation of 10% is followed eventually by a rise in prices of 10%.

Q: Do the proportions of exports and imports relate to the population size of each region?

No, they are shares in total UK exports and imports. However, here are the data (slightly different from the figure in the presentation due to differences timing and the fact there is a bit of trade that cannot be attributed to a region).

	percentage of UK total 2019			
	Imports	exports	GDP	population
North East	2.5	3.0	2.9	4.0
North West	8.1	7.5	9.7	11.0
Yorkshire and The Humber	5.1	4.0	6.6	8.2
East Midlands	5.6	4.9	5.9	7.3
West Midlands	6.5	6.0	7.3	8.9
East of England	8.7	7.0	8.5	9.3
London	20.9	29.6	23.4	13.4
South East	18.0	13.5	14.8	13.7
South West	4.4	5.1	7.4	8.4
England	79.7	80.5	86.2	84.3
Wales	2.7	3.4	3.5	4.7
Scotland	5.2	8.1	7.5	8.1
Northern Ireland	1.6	2.0	2.2	2.8
Unknown	10.8	6.1	0.5	0.0
UK	100.0	100.0	100.0	100.0

Q: Scottish independence - what factors would need to be considered when thinking about trade if Scotland was to gain independence?

Lots and lots. Two interesting aspects – from CITP researchers - are here:

 $\underline{https://citp.ac.uk/publications/what-scotland-trades-and-why-it-matters-for-independence}$

https://citp.ac.uk/publications/the-trade-inclusivity-of-new-borders-and-old-borders-the-case-of-scotland

Q: Why does Northern Ireland have little import and exports? How does the country survive financially does it rely on the rest of the UK?

Trade is small mainly because the economy is small – see the table above (GDP is the size of the economy overall). But interestingly Northern Irish trade has held up better than other regions' since Brexit kicked in because it continues to have unfettered access to the EU, including the Republic of Ireland.

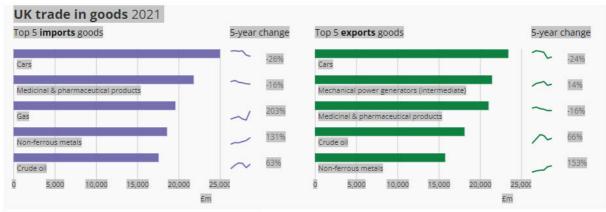
On transfers, a Northern Ireland Assembly document started with the statement:

Northern Ireland (NI) receives a sizeable fiscal transfer from the United Kingdom (UK) Government. In other words, considerably more is spent on public services than is raised in revenue. NI therefore relies on taxpayers elsewhere in the UK. Fiscal transfers from national government to sub-national regions are commonplace; they are intended to help redress variances in local economic performance.

https://www.assemblyresearchmatters.org/2016/08/08/fiscal-transfer/

Q: I really would like to know what the overall biggest export is out of the UK. Is it motor vehicles? Or something else. Keen to know what the top two/three are.

These are the latest UK data for goods. These are fairly aggregated groups of different goods, but the services data are much more aggregated still, so we can't easily compare exports by product.



Source: Office for National Statistics - UK trade statistics

 $\frac{https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/bulletins/uktrade/november2022\#: \sim :text=5.-, Monthly%20trade%20in%20services, 0.2%25)%20 (Figure%206).$

Q: Why does London export so much more than other areas, such as Wales?

It is economically larger than Wales and most other regions – see table above – but it is also a formidable exporter of financial services and business services.

Q: How do the government propose to relocate people and industries?

Governments don't have a great track record of relocating industry and sectors. They do periodically offer subsidies to firms to invest, but such investments rarely last much longer than the subsidies. Rather, we think, they need to address fundamentals in areas which need new business by trying to sort out things like transport, education and connection to major centres.

Q: What are the most profitable trade agreements?

It's impossible to say for profitability. In terms of trade the UK's largest free trade agreement is the Trade and Cooperation Agreement with the EU followed by Japan.

Q: What does term 'winners and losers' mean in trades? what or who does is refer to?

The term is rather loose: we sometimes refer to regions, sometimes sectors and sometimes people. However, the idea is that changes in trade policy increase the incomes of some regions/sectors/people and reduce those of others. One could conceive of wins and losses in other terms such as jobs, environmental quality, etc.

Q: Why does Britain export mainly services?

It is difficult to say. We are not naturally a great place for most agricultural and raw material production and fishing is successful but a small sector. Some people say we tend to favour services over manufacturing on cultural reasons – prejudice, they say. Others that it is a reflection of our skills balance – high in commercially-relevant skills but low in practical skills and trade.

Exports are currently virtually evenly split between goods and services, so 'mainly' is not quite accurate.

Q: Does the trade go to places such as London and then get passed on? As in they do the trade to the rest of regions or is it purely kept for that region itself?

The benefits of exporting do filter through the economy because firms buy stuff from other firms elsewhere and workers spend their money on stuff from other places. However, for most activities wages are the largest or next largest cost, and since people generally live close to where they work, the bulk of benefits tend to stick fairly close to where they first arrive.

In terms of imports, it is similar. For consumer goods, they accrue to the people who buy them. For imports that enter production, the benefits of the lower prices or better quality they allow accrue in part to firms and people who use them, and these will generally be more widely spread geographically. The data on imports by region

refer to imports bought by firms (including distributors and retail) in that region. At least distributors, the goods may actually get spread quite widely through the country.

Q: How are other countries so much more competitive in prices?

Competitiveness is a slippery concept for countries. We have an excess of imports over exports, which looks a bit like being uncompetitive, but its real cause is that we spend more than we earn. If the UK savings rate went up (and nothing else changed) the gap between exports and imports would narrow.

To see that the trade balance is related to spending and earning, consider this:

Consumption (in the broadest sense including investment and government) must come either from UK firms selling in the UK or imports. Earnings come from UK firms selling at home or selling abroad (exporting). Thus, if consumption exceeds earnings, imports must exceed exports (because UK sales to UK residents appears in both measures and so cancel out.)

Q: How did we trade with Australia before the FTA?

The FTA has not come into operation yet – soon! The FTA won't change the way we trade, just remove tariffs on most trade and alter some regulations to ease trade – e.g. on young persons' working visas.

Q: What does the business sector include?

Sectors like Research and development, legal, accounting and management consulting, Recruitment services, architectural and engineering services.

Q: Will the FTA be reviewed?

The Agreement includes a review after seven years (or as agreed by the parties) - Article 32.6 General Review. It states '... the review shall be undertaken with a view to updating and enhancing this Agreement, to ensure that the disciplines contained in this Agreement remain relevant to the trade and investment issues and challenges confronting the Parties......'

Q: In what way are farming standards lower in Australia?

Australia has lower environmental standards, e.g on deforestation, which is closely related to farming; lower animal welfare standards in some dimensions and higher permitted pesticide residues than the UK. In the latter case Australian exports to the UK must meet UK standards, but UK inspection regimes are generally rather weak. (We'll deal with this last issue in week 4.)

More detail – rather intemperately expressed - is in this article.

Q: Do CITP see this (Australia deal) as a good outcome?

CITP studiously avoids having an institutional view – we're a bunch of academics, so don't agree on everything. However, my (Alan) view is that it is probably beneficial overall, but to a nearly trivially small degree. There is an easily read blog on this by Sam Lowe in the materials we provided.

Q: How much were people who set up this trade deal informed about the impacts on farmers and getting their thoughts on the implications?

Farm groups made their concerns pretty plain – e.g. in the press, in a consultation the government organised and to a Parliamentary enquiry. But, especially before the details are known (i.e. during negotiations) there is a good deal of uncertainty about exactly what will be a greed and how policies like this play out. Hence quite a number of decision-makers were not very moved by the concerns. Others felt that as a matter of policy, protecting agriculture at the expense of other sectors was not the correct policy.

Q: Why not make more crops here? Seems overpriced and expensive

Basically because it is not profitable to do so. Imports are cheaper, partly because for most crops, growing conditions overseas are better than those in most of the UK. The worry for farmers is that trade liberalisation (i.e. removing the tax on imports and/or regulatory restrictions) increases imports and hence lowers prices in Britain. This will tend to reduce the incentive to local production.

Q: What did government actually undertake to do to mitigate the impact on farmers of the FTA?

So far, nothing. The government pays out quite a bit in farm support; it is changing the system (probably to pay less) but no changes have been explained by pointing to the problems created by the FTA. (However, Governments don't like admitting that they are hurting anybody so this may not be that surprising.)

Q: How many of these trade-offs happen outside of the public eye with industry workers not consulted?

Nearly all the trade-offs receive no public attention at all – partly because attention is limited and takes time. Some are impressed upon MPs by their constituents, and they may decide to air the concerns privately or in Parliament. Some concerns burst into prominence driven by pressure groups and activists. They can become politically very hot (e.g. over chlorinated chicken in trade with the USA), but there is not political space to make them all so. Activists and trade groups play an important role in bringing details to light. MPs cannot be up to speed on all the details, but Select Committees in Parliament play a very useful role.

Q: Why is British meat more expensive than foreign meat?

It is partly higher standards, e.g. in pork, but it is mainly that we cannot support free-roaming grazing over very large areas.

Q: What are protectionist measures? What's an example?

The easiest example is a tariff on imports – a tax levied on the border. It makes imports more expensive inside the country and so reduces competitive pressure on local producers - it protects them. Anything that disadvantages imports offer such local protection.

Q: How does trade within a region work?

When firms trade they face the same issues wherever they are located in Great Britain. Some regions favour some industries over others, according to, say, their land conditions, their skilled labour supply or their proximity to a port. But the basic process is just the same in nearly every case.

The exception is where regulations differ between parts of Great Britain – the devolved administrations have discretion over some standards and so may affect production processes and, in principle, what can be consumed. But the UK Internal Market Act has basically over-ridden the consumer aspect: whatever can be sold in, say, Wales can also be sold in, say, England.

Northern Ireland is entirely different because it still remains in the EU Single Market and applies EU tariffs to any imports that might flow across the border into the Republic.

Q: What is % of trade per population? As NI has small share of trade but also very small share of population.

Northern Ireland has 2.8% of UK population, but 2.0% of UK exports and 1.6% of UK imports, so it has less trade per head than some other regions. There is a table in the answers to Regional and Sectoral Questions which gives statistics for all regions. You'll see that Northern Ireland is not unique in terms of export per head.

Workshop 3 - Digital trade

Q: Why don't trade agreements establish ideal levels of data security that all parties to the agreement are happy to sign up to?

That would be a good option. At present, agreements set the levels that the parties can agree, but these can become the lowest common denominator.

For example, the Transpacific Partnership (CPTPP) that the UK has formally applied to join includes this text: "For greater certainty, a Party may comply with the obligation in this paragraph [to have a data protection framework] by adopting or maintaining measures such as a comprehensive privacy, personal information or personal data protection laws, sector-specific laws covering privacy, or laws that provide for the enforcement of voluntary undertakings by enterprises relating to privacy."

This lumps together higher standards with much lower protections.

Q: If personal data is lost or stolen what recourse under a trade agreement would the impacted country have?

The agreement would not cover a personal data breach as such but would mandate the existence of mechanisms to protect data. If those were missing or not matching the standards in the agreement there could be a mechanism for disputes, but generally not available to individuals. The recourse would vary depending on the agreement, some would only allow governments to complain, while others may also allow businesses to sue governments for losses to their investment.

Q: What kinds of data are traded?

All kinds of data are traded but it may be useful to unpack this. Data is traded in a literal sense when companies sell each other databases, for example containing marketing contacts, but also geographical information, business data, energy data, etc. Data is also "traded" when it travels across borders as part of the provision of a service or within a multinational company's internal processes. For example, users of Sony PlayStation see their data travel between the EU, USA and Japan.

Q: How does GDPR apply to the UK now post-Brexit?

The UK has its own version of GDPR, aptly called the UK GDPR, which maintains the same fundamental provisions but replaces any references to EU bodies or processes with domestic British ones. This may change, as the government has put forward a draft Bill to change the UK GDPR in several important aspects, including how data can be sent across borders.

Q: If we didn't collect and trade the data we do at present in the UK, would we have the same opportunities and lifestyles as we do now?

The short answer would be no. There is no practical way to opt out of data collection and maintain exactly the same normality to our lives, as so much depends on digital systems. However, the issue is why people are forced into this choice. The question could be rephrased as whether it is necessary to collect, trade and analyse huge amounts of data to develop and deliver the current state of the art digital systems that give so much convenience. Here the answer is more nuanced, as there are many alternative approaches that minimise data use with some trade-offs. One example is the different approach of Apple and Google to smartphone data collection. Apple is more privacy focused than Google, which means it loses some functionalities that Google offers but you gain higher security instead.

Q: What levels of protection are there currently if we're trading with markets or countries which are not the safest when it comes to personal data?

In most cases the safeguards for individuals whose data is being sent to such countries would come from some form of private arrangement, like contract clauses or a framework maintained by a large multinational company but validated by the Information Commissioner. This is for example how a lot of data is sent to India for call centres. This approach has drawbacks for organisations, which must pay lawyers, and for individuals, who may find it hard in practice to get redress if the legal system in the country is not up to scratch. Consent should not be used for routine transfers of this kind because it is not possible to foresee all the risks.

Q: Does digital trade create jobs for the UK?

There are several impacts on jobs and the final balance on job creation or destruction depends on how they add up (this list is not exhaustive):

Q: Some UK companies export pure digital services, e.g., online HR or project management systems, creating UK jobs, including in ancillary services like training.

Some UK companies import digital services, e.g., Google Cloud, destroying or stopping new UK jobs that could provide those services domestically. Some UK companies export more services thanks to digital trade, but may also need some other support, e.g., financial or legal services, which creates UK jobs. Some UK companies import services thanks to digital trade, e.g., customer support call centres, destroying UK jobs, but this also creates other UK jobs because those cheaper services enable economic activity. Increased access to digital

services replaces certain jobs, e.g., artificial intelligence is replacing some human customer services. New jobs are created but whether in the UK or abroad will depend on factors such as wider technological innovation.

Q: Does digital trade include anything we buy on the internet, both goods and services?

Yes, "digitally ordered" e-commerce goods are part of the discussion, and there are other policies that were not discussed in the workshop that are more specific to this. We have focused on digital services and particularly cloud services like Google, and platforms like Airbnb, because these are the most controversial.

Q: What kinds of personal information are most at risk of being shared in the context of digital trade, and how is this risk determined?

Determining risk always needs to be done in a particular context. The law sets out certain categories of data that are deemed more sensitive, including health, biometrics, sexual orientation, political or religious beliefs and trade union membership, among others. These types of data have additional protections, but risks could come from any data that can be exploited. At present there are concerns about health data, but also more generally internet services such as Facebook that carry out extensive marketing profiling which has been used for political manipulation by organisations like Cambridge Analytica. Although this was a British company, it exploited this kind of data.

Q: How much do we export vs import as the UK on tech?

Digital trade would cover digitally ordered e-commerce and digitally delivered services, which is a huge chunk of the export economy, and overall positive for the UK, but strictly speaking "tech" is narrower and harder to establish.

The Office for National Statistics estimated that in 2020 "Telecommunications, computer, and information services" saw £24,4bn of exports and £10,4bn of imports, while "Computer, electronic & optical products" had £12,5bn of exports vs £39,5bn of imports. That would give a negative balance of some £13bn for UK tech. (https://www.ons.gov.uk/businessindustryandtrade/internationaltrade/datasets/digitaltrade)

Q: Why can't we make the digital services here?

The UK has a strong tech sector, particularly at the European level. The market valuation of British companies is particularly high, although actual trade is a small fraction of the overall market value. https://www.gov.uk/government/news/uk-tech-sector-retains-1-spot-in-europe-and-3-in-world-as-sector-resilience-brings-continued-growth

Q: Does the UK benefit in other ways when accepting to trade digitally with countries that don't have the same quality of data protection?

The idea is that growing the volume of trade with those countries will have a net positive effect. Other possible benefits could be influencing how those countries regulate their digital systems. The biggest benefit for the UK would be to simultaneously have data flows and digital trade with countries that have such different regimes that they are unable to trade directly with each other. This would make the UK a kind of 'data clearing house' for other countries, and is behind what's called the 'interoperability' of different countries' data policies.

Q: With NHS data being unique and encrypted in a certain way, is it harder for this information to be illegally shared?

No, NHS information is not particularly encrypted, and its uniqueness makes it easier to link to individuals and match with third party data. Medical data is highly valuable. Reputable health organisations will not be trading on such data illegally but there is a market for such data to target people for marketing purposes or to support scam and fraud with confidential details.

Q: Why can't other countries raise their standards on health data to a UK level if they want to do these deals, rather than the UK accept their lower standards?

There are many reasons for countries having lower privacy standards for health data. Some countries lack the regulatory capacity to enforce higher standards, while others have built extensive industries and would see restrictions on data use as a brake on innovation. The US is the main country where health records may be sent to and presents a difficult case. The US improved its health data standards when they realised that millions of people were not seeking medical treatment due to concerns about confidentiality. However, the US regime has many loopholes that are widely exploited.

Q: What kinds of 'personal information' are used in health research and what kinds are not?

Medical research can use a variety of personal data, but the main interest is to link medical conditions with any factors that can influence these, such as genetics, lifestyle, behaviours or demographics. Longitudinal data tracking progress over long periods is particularly useful. There is no specific data that cannot be used but ethical restrictions would limit for example the results of certain harmful experiments or trials that fail to meet standards. Data that has been collected for one purpose may not be used for other incompatible purposes. Health research sometimes faces problems with follow up research that needs reusing the data. It is important to note that "personal" data means that an individual can be identified or singled out. If identifiers like names or NHS numbers are removed this data may not be personal, but often it is still possible to identify people from other details, like the date they had a particular treatment or accident.

Q: Who normally accesses personal health data?

Beyond the provision of direct care (e.g., doctors treating you), there is a very complex system in place for accessing personal health data for other reasons, so the normal access is by direct care providers.

Q: Is it possible for individuals to opt out of their own data being shared with other countries?

There is no legal right as such, but the NHS has sometimes given individuals the option to opt out form certain data sharing. See https://www.nhs.uk/your-nhs-data-matters/. Nevertheless, much data has been exported and the enforcement of this opt out has been criticised by campaigners. One additional issue is that consent in relation to medical research is not the same as consent in relation to data protection. This causes a lot of confusion.

Q: How do people gather health data - do doctors have to fill in a form and submit it online?

Data is generated throughout the activities of the health system. Medical records from GPs, hospital visits, specialist appointments, test results, scans, etc. Everything is data.

Q: What does privacy abuse towards our health data usually involve?

One concern expressed by many people is that private health companies use their data to generate profits. The sale of records in black markets for identity theft, scams, insurance fraud or other such activities is less likely but would have a much higher impact. The organisation MedConfidential.org are the best source of information on medical privacy. https://medconfidential.org/for-patients/major-health-data-breaches-and-scandals/

Q: What are the biggest benefits of sharing health data?

Some data sharing of health data is necessary for the advancement of medicine. There are many benefits, but the question raised by critics is who accrues those benefits and who does not. One good example of data sharing is the platform OpenSafely (https://www.opensafely.org/), which has enabled major advancements on COVID treatments in a privacy preserving manner.

Q: Does this trade-off around sharing software information apply across all sectors? Surely its different for things like defence or pharmaceuticals where things should not be shared.

The trade-off in relation to software is whether a government body, regulators or the public should be able to demand access to check it for any potential issues. There will be many criteria in a decision as to whether this access is justified, who can access and under what conditions, what safeguards against abuse, etc. Trade agreements contain some mechanisms for access, but critics argue that those are too limited. Sectors like

pharmaceuticals or defence may be among those where access by regulators is more necessary, as it could involve life or death situations.

Q: Who writes trade agreements that concern software?

Trade agreements are written by the negotiators representing the governments of the countries involved, or in some cases supranational organisations like the EU. The reality is that many trade agreements copy and paste the text from other trade agreements, often verbatim. This can help with consistency when trying to apply trade rules, but it can also lead to the uncritical adoption of measures. The software (source code) related articles in most trade agreements can be traced back to the 2016 Agreement between Japan and Mongolia for an Economic Partnership. Over 35 trade agreements now include very similar software clauses.

Q: What stops countries from forcing businesses to hand over information about their technology?

The main deterrent - besides trade agreements - stopping countries from demanding access to technology is the possibility that foreign businesses will simply chose not to operate and invest in the country. But it is worth pointing out that requirements for technology transfer as a condition for a foreign company to operate in a country are considered legitimate and have been used extensively in the past decades, for example to create the modern industrial conglomerates of the Republic of Korea. The quid pro quo is that access to a new market should enable local development to avoid perpetuating a situation of technological dependency and injustice. The issue is whether access requests are unfair, for example where local industry may already be able to compete with foreign operators and access to technology will tip the balance in their favour.

Q: There are international standards for many products and services, like from the International Organisation for Standardisation. Do these kinds of standards exist for tech products and services?

Yes, there are many standards for digital technology. Trade agreements may refer to specific standards, which can facilitate convergence and reduce risks, but some trade agreements ban countries from mandating particular standards.

