

# International Trade Committee

## Oral evidence: The COVID-19 Pandemic and International Trade, HC 286

Thursday 23 April 2020

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Members present: Angus Brendan MacNeil (Chair); Robert Courts; Mark Garnier; Paul Girvan; Sir Mark Hendrick; Mark Menzies; Martin Vickers; Matt Western; Mick Whitley; Craig Williams.

Questions 1 - 28

### Witnesses

I: Dr Samuel Roscoe, Senior Lecturer in Operations Management, University of Sussex, and Dr Richard Torbett, Chief Executive, Association of the British Pharmaceutical Industry.

II: Peter Ellingworth, Chief Executive, Association of British HealthTech Industries, and Mark Roscrow MBE, Chair, Health Care Supplies Association.



## Examination of witnesses

Dr Samuel Roscoe and Dr Richard Torbett

*[This evidence was taken by video conference]*

Q1 **Chair:** I welcome everybody to this virtual session of the International Trade Committee on the COVID-19 pandemic and international trade. Can I especially welcome you to the virtual session that is given on St George's Day? I heard on the radio a little earlier that St George was one of those saints that were beseeched in the event of diseases in ancient times, so perhaps for this pandemic, today being St George's Day; it is quite an apposite time.

We have two interesting panels. On this inquiry area, we are still taking evidence up to 24 April. If anybody is so moved to want to give evidence, a notification before the 24th or on the 24th of evidence would be welcome, and you can provide the evidence later.

If I can kick off by making sure we have our witnesses and asking them to introduce themselves. They are Dr Sam Roscoe and Dr Richard Torbett. Are either of you there, please? Dr Sam Roscoe or Dr Richard Torbett?

**Dr Roscoe:** Yes. I am Dr Sam Roscoe from the University of Sussex Business School. I am a Senior Lecturer in Operations Management and Supply Chain Management.

**Dr Torbett:** Good afternoon, Chair. I am Richard Torbett. I am the Chief Executive of the Association of the British Pharmaceutical Industry. We represent the global research and development-based pharmaceutical industry here in the UK. We are the third most highly traded goods sector from the UK and, therefore, trade is particularly important for us, and it is a particular privilege to be talking to you today.

Q2 **Chair:** Thank you both very much, and thank you also for the minor heart-stopping moment there when I could not find either of you. Given I am broadcasting from overseas in the Hebrides did not help.

Can I start by asking, first to Dr Roscoe, if you can give a brief overview of the impact of the COVID-19 pandemic on the global supply chains across all sectors of the economy? That would be very useful.

**Dr Roscoe:** All sectors are impacted in slightly different ways, but COVID-19 has really exposed the risks that are inherent in long, globalised supply chains. What the pandemic has made very clear is we have these hugely complex, globally dispersed supply chains that have a



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number of points of failure within. A supply chain is only as strong as its weakest link. When one area or one geographical location stops manufacturing, such as when China shut down its manufacturing, the rest of the global supply chain suffers. That holds true across pharmaceuticals but also automotive and apparel. We are seeing similar trends in the grocery sector as well.

The issue that we are seeing at the moment is a lack of resilience in globalised supply chains, and COVID-19 has really brought that to the forefront at the moment.

**Chair:** Thank you very much for that. Craig Williams, I think you want to come in at this stage.

**Q3 Craig Williams:** I can see I am unmuted now, so I will jump in. Can I ask particularly, to both our witnesses, about the volume and the pattern of pharmaceuticals in terms of dealing with the symptoms of COVID-19? I suppose the most obvious example would be paracetamol supplies, but what would the challenges be and how have we dealt with meeting those challenges?

**Dr Roscoe:** In terms of the volume of products that we are seeing—and paracetamol has been one where we have seen shortages on pharmaceutical shelves—the issue is threefold, in my opinion. You have a huge influx of demand. A lot of people have, rightfully so, gone out and thought to pick up pharmaceutical products related to the relief of COVID-19, so you have had a spike in demand.

At the same time, you have also had a real, real impact on supply, and that impact on supply has been seen primarily in China. China produces around 70% of the active pharmaceutical ingredients that we bring into the UK. China shut down its manufacturing in January leading into February. Just when China came back online, India then shut down its manufacturing capacity. The issue with that is India takes a lot of the active pharmaceutical ingredients from China and then it adds in the excipients, which is the filler, and then it builds the pills, brings in the packaging, and then it sends it to us in the UK. You have had a double whammy of production issues from China and from India, and that has been complicated by a surge in demand. That is not just paracetamol; that is generics quite broadly.

**Dr Torbett:** It is worth setting out a bit of context around how the overall pharmaceutical industry is structured, if I may, because I think it will help the whole conversation. It is worth starting with two very broad buckets. One would be prescription-only medicines and the other would be over-the-counter medicines that you would find in a supermarket, on a pharmacy shelf and so on.

To be clear, my expertise and my membership are in the prescription-only medicine world, and I think it is an important point because the supply conditions and the nature of the markets are really quite different,



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although there are clearly some points of similarity that we can come on to.

Within prescription-only medicines, there are branded originators—if I can put it that way—the newer medicines, and there are generic medicines, which are older, which are typically manufactured by a variety of different companies. I particularly represent the new, branded medicines.

I am aware that the BGMA, which is the association representing generics, has written a very good briefing for the Committee, and I would draw your attention to that because it is excellent. I can in some ways reflect that view, and I will do my best to do it justice in my comments.

It is worth noting the NHS uses around 12,000 different medicines typically. The prescription-only medicine market is around 12,000. I have a slightly different lens if we are really focusing on those 12,000 medicines used by the NHS from a prescription-only point of view. My view is that the supply chain has held up in an extraordinary way over the last few months, given the circumstances.

To give you an order of magnitude, right now we are talking about 20 medicines out of the 12,000 that are of particular demand for patients in an intensive care setting. That is where there is an extraordinary level of demand in this country and at the same time there is an extraordinary demand in every country around the world.

We are working very closely and on a daily basis with the NHS and the Department of Health and Social Care to understand those needs, and companies right across the industry, whether generics or branded originators, are literally scouring the earth on a daily basis to understand what stock is available where, how it can be delivered to patients as quickly as possible, and how manufacturing sites can be redeployed to produce what is most urgent. We have had companies even changing shift patterns to literally work through the night to produce as much as humanly possible, but these are extraordinary times with very high demand.

I will cut it short there, save to say, from a prescription-only medicine perspective, I think the story is that it is actually a pretty good supply chain but one with a very, very targeted challenge right now that we need to deal with very effectively.

**Q4 Craig Williams:** Can I just dig into something you both said? Some countries seem to have compounded this problem by introducing export bans and tariff waivers in respect of medical goods. How do you see the impact of that on these supply chains of drugs?

**Dr Torbett:** I think you are quite right. This is one of the biggest concerns that we have. Since January we have seen around 54 different export restrictions imposed on medicines and medical goods, which is a



concern. I have to say some of those have already been lifted, and I would acknowledge the great work that has been done by the Secretary of State and her officials to use diplomatic channels to try to get some of those export bans lifted. Indeed, we have seen bans, including paracetamol, lifted in India, which is great. There is more to do. Of particular concern, there are even some European member states that have started to talk about export bans in a way that is concerning for us.

**Q5** **Mark Menzies:** This is to both of the witnesses, and it is around this other inquiry. How has demand for drugs that are not used in the treatment of COVID-19 been affected by the pandemic, and what evidence is there of market distortions due to factors such as panic buying, stockpiling, hoarding and also profiteering?

**Dr Roscoe:** A good question.

**Dr Torbett:** Again, I would preface that by saying this relates to prescription-only medicines. Panic buying is not relevant from a consumer point of view. I think that is one of the key differences between prescription markets and over-the-counter markets, if I can put it that way.

What I would say is in the early days of the crisis, from what I think was a very well-intended perspective, some prescribers were lengthening the period of prescriptions. Where they would normally write a prescription for a month, they might write a three-month prescription in order to give the patients more medicine. Of course, that was well-intended to reduce footfall in GP surgeries and hospitals, but you can appreciate that, if everybody does that, that puts additional pressure on supplies at a time where things are very tight, and we have to prioritise. NHS England has been very effective in clearly communicating to the prescribing community that that should not happen. I believe we are seeing less of that behaviour now.

In terms of the overall picture on prescribing levels, I would say it is mixed, and we still need to really understand what the consequences are for non-COVID prescribing. Clearly, we have seen some areas where prescribing has increased. We have seen other areas where patients have had their treatment put on hold or stopped in the immediate crisis to prevent them going into hospitals unnecessarily. There you will have seen a reduction in demand, so it is genuinely a mixed picture at the moment.

**Q6** **Chair:** Dr Roscoe, would you like to add anything on that?

**Dr Roscoe:** Well, the reality is that other drugs that are not related directly to COVID-19 are affected in very similar ways, especially when we are talking about the non-prescription generics that are not linked directly to COVID. If you have shutdowns in manufacturing capacity in China and in India and export restrictions, as well as issues with getting freight across borders and restrictions on air transport, all of these issues affect drugs across the board. The reality is that the COVID-19 is



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claiming everybody's attention at the moment because of the increased demand, but at the same time the manufacture of other generics will be impacted in similar ways.

**Mark Menzies:** Thank you.

**Chair:** Thank you very much. Can I make a plea to colleagues if you are asking a question to direct it to one of the witnesses to help the broadcasters pan to the right person? Then, if you want to follow up with the next witness, just say so. It just cues in and makes things easier.

Q7 **Robert Courts:** A question first of all to Dr Roscoe, if I may, and then I would also like to ask the other witness to answer the question as well.

I just wondered if we could have a little bit more detail about the way that the global supply chain has been disrupted, particularly with regards to India and China. Could you help us perhaps with whether there is a discrete area of manufacturing where the packaging is affected in a different area? I would just like to get some more detail on that.

**Dr Roscoe:** I think that is very important. As I mentioned in the first question, you have China being largely responsible for the manufacture of active pharmaceutical ingredients, particularly for generics. Obviously, we had China's production of APIs impacted in January and February. Those APIs then are typically—not for all drugs, but for a lot of generics—sent to India. India is then responsible for bringing in the excipients or the filler product and then packaging the goods.

The issue that we are seeing in India at the moment is India has gone into lockdown and has been since the end of March. The issue with India is not only do you have the export bans—which Richard has mentioned have recently been lifted—but you have other issues in terms of it shutting down its transportation network. Even if they do want to manufacture, you have employees who are having difficulty getting to work. You also have issues where the Indian Government are prioritising these critical drug supply manufacturers, but you are hearing stories of packaging companies that are not falling into that area of prioritisation. Therefore, if you are not able to make the packaging for the drugs, obviously you cannot send the drugs on to us here in England.

That is then compounded further when you look to export and you do not have the air freight capacity to get it into the UK. You have a ripple effect across this long, globalised supply chain. Again, we are being somewhat protected by that because there is a lot of buffer stock within the supply chain. That can range anywhere from three months to six months. We are in that period now where the buffer stock is allowing us to work through these issues, but, again, the longer that this crisis lasts and the longer that places like India are in lockdown, and even the UK is in lockdown, the more issues like these are going to come to the surface.

Q8 **Robert Courts:** The same question to Dr Torbett, please, if there is anything you would like to add.



**Dr Torbett:** Sure. I do not necessarily disagree with what Dr Roscoe is saying in terms of some of the challenges that are seeing in these countries. We may be talking about slightly different parts of the market, and also there is a timeframe component that is quite important to understand.

When it comes to prescription-only medicines, it is certainly the case for the period of time where China was in lockdown, and quite rightly there had been speculation in the press around whether or not the supply would be affected. That did not happen. It did not happen mostly because there were some of the buffers that Dr Roscoe mentioned. In the intervening period, of course, we have seen those parts of China start up again.

Does this mean that there is no concern? No. Clearly, we have a very difficult problem right now but I would say, for the most part, the prescription-only part of the market has been continuing to function very well.

Again, I would acknowledge things like air freight difficulties that we have been in and out of, and Government action has helped unblock that in a number of examples. We have seen delays at borders as well, with freight transport of medicines across borders. Some of the action that has been taken to prioritise medicines' transport through borders, through so-called green routes, has started to work, certainly within Europe, which has benefited the UK.

Are there questions to be asked about the future and how we can continue to make the supply chain even more resilient? Yes, absolutely, but the starting point is, in an extraordinary global challenge, overall I would say the story is pretty strong.

**Robert Courts:** Thank you very much.

Q9

**Sir Mark Hendrick:** I would like to ask a particular question about air freight, because Medicines for Europe—which represents medicines industries across the continent—said recently that it sees air freight as a crucial part of the pharmaceutical supply chain, and that the manufacturers rely on capacity in passenger flights to move medicines and ingredients rapidly and securely. Obviously, with the spread of COVID-19, we have seen a dramatic reduction in the passenger flights that would normally carry pharmaceutical goods as well.

Can I ask the two experts on the panel—Dr Roscoe first and then Dr Torbett—what they see as the main impact on pharmaceutical supply chains of this disruption to freight transport? Is it the loss of air freight capacity itself?

**Dr Roscoe:** That is an important point. As you said, with the reduction in passenger flights, you also have a general reduction in air cargo. The majority of air cargo sits in the belly of passenger aircraft. Now that we have seen this huge reduction in passenger aircraft—something like



80%—the volumes have been reduced in terms of pharmaceutical products flying into Heathrow, primarily.

To counteract that, though, airlines have been putting on freighter aircraft. British Airways and Virgin Atlantic have increased from something like 45 aircraft up to 300 aircraft coming into Heathrow, so you have had almost a fivefold increase in freighter volumes. Overall, the numbers that I have been seeing, in terms of volume of air freight coming into Heathrow, is a general reduction of around about 30%. That is then linked to the passenger flights being reduced.

**Q10 Sir Mark Hendrick:** On that subject, one of the DIT priorities is to try to exclude air cargo or crew from certain travel restrictions, for example, excluding air cargo operations from COVID-19-related travel restrictions and exempting crew from quarantine requirements. While that might be helpful in terms of moving medicines and medical supplies about, obviously there are possibly implications for health if the crew mix with people when they land at Heathrow or any other airport. What are your views on that?

**Dr Roscoe:** That is a challenge. I think that is seen in any industry. When you are looking at pharmaceutical products—especially critical drugs linked to COVID-19—there has to be a lot of flexibility given to the airlines in order to bring in this freight. Opening up the freighter channels means that, first of all, you do not have the bigger crew contingent that you would on a passenger airline, and at the same time you are able to bring in the volumes. That has to be supported across the industry with the likes of the big pharma companies working with the airlines to bring that freight in. For critical drugs, they have to be given exemptions in this instance.

**Q11 Sir Mark Hendrick:** Dr Torbett, do you have any views on that?

**Dr Torbett:** I would just add that certainly there is no doubt that some of the freight transport has been more challenging to come through. There have been some successes in getting exemptions from some restrictions, including some of the freight transport from India.

Again, my comment here would just be to put the role of air freight transport in context. It is very important, but it is very important for a relatively small share of the overall market, if I can put it that way. It is often urgent and very important medicines, of course, but it is not the majority of medicines.

**Chair:** Thank you both. From Preston in west England, can I go to the east of England this sunny St George's Day? I see Martin Vickers smiling and waiting in Cleethorpes.

**Q12 Martin Vickers:** Notwithstanding the comments that we have heard about how the supply chain has been disrupted and what we have done to combat that—and clearly it is going to be an issue for both Government and the industry—could I just focus on and tease out a bit



more how you think the industry itself has dealt with the supply chain disruption? Perhaps it is a bit early, but what changes do you think ought to be made in the coming years? Perhaps Dr Roscoe to start.

**Dr Roscoe:** There are obviously a number of things linked into that question. The industry in general has done well in terms of the rationing of pharmaceutical products, limiting the amount of purchasing that can be done. The restriction on parallel exports—meaning that for drugs that are brought into the UK, there has been a restriction on shipping them back out to other countries—I think has helped as well.

Other things that we could look at doing are reducing the product varieties that we are selling in stores and pharmacies, so having fewer variations of a product. For example, with paracetamol, you might have extra strength, regular strength, 500 milligrams and 250, so reducing the product variations that you are selling and maybe having a 500-milligram 16-pack of paracetamol and selling that particular product range. By reducing your product range you can have higher volumes and larger production runs. You reduce your packaging complexity. It just means that you can produce larger volumes quicker and bring them to pharmacy shelves quicker and you have more volume, and you reduce your chance of stockouts. I think that would help as well.

Longer-term, my personal opinion is that there is a major structural change in supply chains that needs to happen. This has really brought to the fore the issue of long, globalised supply chains. My view on this—having studied supply chains for decades—is there is not a lot of resilience in low-cost supply chains bringing products from overseas into the UK. What we should be thinking about is having a parallel supply chain, where you have the ability and the manufacturing capacity to make critical drugs in the UK. That supply chain needs to be established or re-established where we have the ability to make APIs, excipients and packaging within the UK that runs in parallel to existing supply chains.

Q13 **Martin Vickers:** Before I go to Dr Torbett, could I come back on one point you are making? If the supply chain is shortened, that obviously means more products are going to have to be made in the UK, in Western Europe and so on. Do we have the facilities to do that, even though the cost would be higher?

**Dr Roscoe:** Not at the moment, no, but we have to look at the priorities. I think the cost will be very high, and the argument with generics is there is not a lot of margin in making generics, so there will have to be Government support. The reality is the Government have a big role to play in setting up the supply chain within the UK so that we are self-sustainable.

What I am arguing for is a supply chain that can be isolated within the UK. It does not have to make 100% of products, but maybe it makes 30% or 40% of products, so that when there is a crisis such as this—which I think will probably reoccur, we might have second waves or we



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will have different mutations—we have the ability to ramp up production capacity in order to make sure that the UK population has the drugs that it needs. I do not think that will be cheap, but it will support the UK industrial strategy in terms of productivity. It will help in terms of unemployment, and it will make the UK self-sufficient in terms of having the ability to make its own pharmaceutical products.

**Dr Torbett:** This is a very important debate for the future, which the whole industry will be extremely keen to engage in in a very open and constructive way. We are always keen to understand how we can make our supply chains even more resilient for the future.

It is worth saying that the industry is trying to do four things. It is trying to produce very high quality. It is trying to produce at sometimes enormous scale. It is trying to make sure that the supply operation is resilient globally, and it is trying to do all of that at a cost and a price offering that is acceptable to healthcare systems—including the NHS—around the world. It seems to me that is a bit of a test: can we do all four of those things?

There is a very interesting argument and a debate around how much it makes sense to manufacture in the UK. If there are opportunities for the UK to grow its manufacturing base for some of these essential medicines, that would be the right thing to explore, of course.

I would say that it is implausible, and it would not make sense for every country to try to manufacture and be self-sufficient across the 12,000 medicines we are talking about. I do not think we would get anything like the ability to manufacture to the same level of quality, scale, resilience and price if we tried to do that, so it is always going to be a little bit mixed. We have to be quite careful not to treat the whole pharmaceutical market, which is incredibly complex—frankly, the manufacturing and supply and scientific conditions around manufacturing cell and gene therapy are a million miles away from manufacturing paracetamol.

There is a very important industrial policy conversation to say, “Where should the UK be prioritising and growing strengths?” Up until now—and I believe that that still needs to be the cornerstone of the UK strategy for coming out of this crisis as a very strong economy and a strong life science industry—the focus has been on the cutting-edge science where we stand a very good chance of being world leaders. That is not to say we should not be grabbing opportunities to manufacture essential medicines where we can as well but, on balance, it is a little bit more nuanced and I think we need to be focusing on the science.

**Martin Vickers:** Thank you.

Q14 **Chair:** Just before we move on, I have another question to ask. From the last answers to Martin Vickers, there is clearly a tension about what we would want to be producing in x country. If you take, for example, World War II, where Atlantic convoys were an issue, there is now another



supply chain issue. There is a tension about what the peacetime pounds, shillings and pence want you to do and then what the dire need of a particular emergency or pandemic wants you to do. Can we expand a little on that? I can see Richard Torbett waving first and then I will take in Samuel Roscoe. Is there a happy medium we can reach with those two?

**Dr Torbett:** I was just going to say I think you hit the nail on the head. There is a happy medium, and the happy medium is to focus on the question of resilience. What will drive even more resilience going forward?

I cannot emphasise enough—with the greatest respect to Dr Roscoe who is a real expert on much of the supply chain—that the examples that we have heard today are largely from the over-the-counter part of the market. When it comes to prescription-only medicines, the supply chain has been pretty resilient, but if we are asking the question in future: how are we even more resilient for the future, whether we are in wartime or peacetime? For me, that is all about a diversity of global options, making sure we have our options open. Frankly, even if we did manufacture here in the UK, we would want to make sure there are other options in case something goes wrong: a degree of targeted stockpiling, and maybe other options as well.

Q15 **Chair:** What you are basically saying, and you have not put it in so many words, is this other phrase, and I noted the phrase that Dr Roscoe used, which was “parallel supply chain”, not necessarily being self-sufficient in everything or to a certain level, but having some other supply chains—I can see you nodding—so that you are not caught in a pandemic, in a war, whatever emergency it happens to be, and you are not caught short by these very lengthy and tenuous supply chains. Would that be fair?

**Dr Torbett:** I will be very short as I know that Sam wants to come in. I do support the principle of diversity of options—if I can put it in my own language—and that might be viewed as parallel supply chains, but diversity of options, and making the point that there is not one single solution to this. It is neither a massive stockpile of everything, nor is it producing everything here. We just need a bit more of a sophisticated conversation around resilience, and some of the ideas that Dr Roscoe is coming forward with are absolutely worth exploring.

**Chair:** Dr Roscoe, we have talked about you; now we will let you talk.

**Dr Roscoe:** With the idea around parallel supply chains—and I am not calling for all drugs to be made in the UK by any means—I am saying that we need to look at critical medicines for events such as these. I am also saying that it is not that we are making all of those products here. It is that we have the capacity and the flexibility to turn on that production as and when we need it. The issue with having buffers in the supply chain is if we have a three-month or a six-month buffer, what if you have demand for a year? What if the epidemic or pandemic puts us in



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lockdown for six months or a year? What happens when those buffers begin to dwindle?

What I would suggest with this idea of parallel supply chains is that you have companies within the UK that are maybe manufacturing 20% or 30% and, when a crisis hits, those companies have the ability to flex their capacity and bring it up to 80% or 90% to meet the needs of the UK public. While we are waiting for that to happen—it might take these companies two months, three months or four months to ramp up their production—that is the buffer stock that you hold in the UK, so you have three or four months-worth of buffer as these companies begin to ramp up their production capacity. That is the idea of these parallel supply chains.

Q16 **Chair:** Thank you. There are several tensions and trade-offs within this, as there are in many aspects of trade.

I want to move on a little bit more to the role that the Government could be playing, individually and collectively, in alleviating the impact of disruption to pharmaceutical supply chains during the pandemic. I will probably go to Richard Torbett first on this. Also, I am looking for you to address not just what they can do to alleviate the impact but the tension that Governments have to live with: at this moment, many populations want their Governments to be importing and not exporting because we want this stuff now in our jurisdictions. There is another tension there.

**Dr Torbett:** You have almost hinted at the answer in your question, Chair. Ultimately, regardless of whether a country is by default an importer or an exporter, maintaining an open, rules-based trading environment globally is incredibly important.

The single biggest thing the Government can do is to continue to co-operate internationally, to share information, to join international fora, and I would say to be a leading voice in agreeing international principles of good behaviour. It is not good that we have seen 54 export restrictions since January. We have to look not just at today's supply chain—what my members are most focused on is developing a vaccine or a treatment for COVID-19 for the future. I want to make sure that we are calling on Governments right now, while we are developing those new treatments and vaccines, to agree global principles for what good behaviour looks like and responsible allocation around the world.

Q17 **Chair:** There is also a challenge to pharmaceutical companies as well because, in a situation such as this, their goods cannot be there for the highest bidder. It becomes a moral issue as well, so there are behaviours expected of companies as well as of Governments. Would you agree?

**Dr Torbett:** I would agree with that, and I would agree that this is a global crisis. We have seen an extraordinary level of collaboration across the industry. Certainly, if you look at some of the commitments that the global industry has made publicly around engaging in this and doing the



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right thing, being responsible, I am very confident from where I sit in the industry that that will be the spirit with which the industry works on this.

**Dr Roscoe:** We have to keep the lines of international trade open and we also have to continue working with international Governments. That is absolutely critical. We want to get these supplies in, and we are still going to rely on international supply chains for drug delivery. That is just the reality. Those are not going to go away.

Where I think the UK Government need to play a leading role is in supporting the parallel supply chain around UK manufacturing of critical goods. That is where UK-based pharmaceutical companies are going to need support from the Government because it is probably going to be a loss leader in the first instance. The costs are going to be extremely high, so there will need to be support from the UK Government in order to put this type of manufacturing capacity in place.

**Chair:** Thank you both very much.

Q18 **Sir Mark Hendrick:** Particularly on this point, there has been talk about parallel trade—and it is critical that Governments can get medical supplies from different sources—but there is clearly an issue, as we are seeing at the moment, where there is competition. It is the fact that there is a limited supply to some extent and an unlimited demand. Isn't this as much about volume as it is about making sure that more than one company or companies in different countries can provide those drugs and materials when needed?

**Dr Roscoe:** Yes. The point there—and Richard talked about it earlier on—is this idea of having a portfolio of suppliers in geographical locations that are making this product, and not having all our eggs in one or two baskets, such as India and China. Having that manufacturing capacity, as I said, you are still going to be making generic drugs at a low cost internationally, but that international manufacturing could be spread out better. At the same time, if we are looking towards UK manufacturing, you are going to need intervention from the UK Government to support that.

Q19 **Chair:** Thank you. Before I move to Mark Garnier waiting patiently in the Wyre Forest, can I ask, of the 54 export restrictions since January that one of you mentioned—they were probably done from the best of intentions or at least political expediency, but certainly not for malign reasons, you would hope—is there an example of malign outcomes from any of these 54 restrictions?

**Dr Torbett:** I hesitate to use the expression “malign influence”. In times like this there is perhaps an understandable but misguided temptation to want to prioritise protectionism over open, tradeable global markets. I would not want to say much more than that, other than to say that I think it is misguided. We will only get through this globally if we do allow that global trading system to work.



Even in a world where we did things differently in future, you would still need to rely on global markets, not least because in some of the new, very important stuff—including if we get to a point where there is a new vaccine or treatment—the thing that is likely to be scarce is the cutting-edge scientific expertise necessary to produce it. The very new medicines and vaccines are only possible to produce in a very small part of the world, often not China. Some of those cutting-edge things may well be here in the UK, and we would have a responsibility to make sure that they are available globally too. I hope that answers your question, Chair.

Q20 **Chair:** Yes, thank you. Samuel Roscoe, do you want to add anything?

**Dr Roscoe:** No. I think Richard summarised that well.

**Chair:** Thank you. As I said, waiting patiently in the Wyre Forest for the Hebridean call eventually, Mark Garnier.

Q21 **Mark Garnier:** Dr Roscoe, we have been talking a lot about the questions I was going to ask anyway, but I am fascinated by your answers to some of these questions about how you build resilience into supply chains and all the rest of it. One of the things that strikes me about this conversation we are having, first of all, is that as you go back to your university and start studying all of this stuff, you have a whole new set of circumstances to look into, which you will have never looked into before. To a certain extent, I am quite interested in what lessons you think we are going to learn from this. Obviously, it is quite early at the moment, but what lessons do you think we are going to learn specifically from this?

What want to do is focus to a certain extent on some of your ideas about building resilience into supply chains. Ultimately, when you go back to very basic Adam Smith economics, a country like the UK will be exporting the cheap production of things—like packaging of aspirin, paracetamol, Benlylin and all the rest of it—to other countries so we can concentrate on that high-value stuff. If we are going to be building resilience into the supply chain within the UK by dedicating a certain amount of capacity in order to make that more generic type of drug, does that not potentially eat into our capacity to be able to stay at the cutting edge of the pharmaceutical sector? Aren't we going to do a certain amount of damage at the periphery to what we are capable of doing within the UK?

**Dr Roscoe:** Both very good questions. The lessons that we are learning, in terms of supply chain resilience, is that there is a danger of prioritising cost and efficiency over flexibility and responsiveness. What we have been seeing with COVID-19 is that the priority is cost and efficiency. What will happen, I hope, as we come out of this process, is companies will begin to prioritise the need for flexibility and the need to be responsive. Often that means localisation of supply chains, being closer to the market and being more responsive. I think that will be the fundamental shift that we will see, not just in pharmaceuticals, but you will see it in apparel, you will see it in automotive and aerospace: more localisation of supply chains.



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In my view, that is not anything to do with protectionism. That is just good business sense. It is about making sure that you are able to respond when there is an increase in demand. The longer your supply chain is, the more irresponsible your supply chain will be. That is just the way that it works.

On your second point, obviously the UK wants to stay at the cutting edge of new medicines. We do not want to lose that competitive advantage. You talked earlier about the comparative advantage of nations and how the UK has scientific expertise and a lot of cutting-edge drugs. I do not think that is mutually exclusive, with products such as generics, as having these treatments for coronaviruses that will more than likely emerge in the future when we have second waves or mutations. I think we can have manufacturing capacity to make the drugs that treat the symptoms of coronaviruses and, at the same time, still be world leaders in advanced pharmaceutical products.

**Q22 Mark Garnier:** Dr Roscoe, again, one of the things you suggested was, if the UK is going to start dedicating a certain amount of capacity to producing those very cheap drugs and the packaging, there will need to be a certain amount of subsidy in order to make it worthwhile. Do you anticipate any problems in terms of bumping into state aid rules, potentially, subsidising what could end up being exports undermining other markets, and do you think the Government have the appetite to do that?

**Dr Roscoe:** It is difficult for me to comment on the Government's appetite. If anything is going to drive home the importance of this, it is the coronavirus. A global pandemic such as this makes it very, very clear how fragile our existing supply chain systems are. If the UK Government have an appetite for increasing UK productivity and putting people back into jobs, the pharmaceutical industry is a very good area to start, in terms of employability, setting up new manufacturing facilities, making sure that we have that manufacturing capacity that I talked about in the UK. If that appetite isn't there, it should be there now.

**Q23 Mark Garnier:** Thank you very much. Dr Torbett, one of the reactions from other countries—such as Australia and the US—is that Governments are now talking about asserting economic sovereignty over critical sectors of the economy, such as pharmaceuticals. Dr Torbett, you represent the industry in a very, very, very heavily regulated area. Do you think having Governments coming in and taking even more control and dictating more about what you should and should not be doing is a good thing or a bad thing?

**Dr Torbett:** If I may, Mr Garnier, can I just come back two seconds before answering your question? I must pick up on the phrase: "the fragility of supply chains in pharmaceuticals". I have to put on record that I fundamentally disagree with that characterisation. If it is true for the OTC market—the over-the-counter market—I really cannot comment on that, but when it comes to prescription-only medicines, of the 12,000 medicines that are used by the NHS, there is only one class where the



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MHRA has issued a supply disruption notice. Of course, there are challenges in excess supply, but this is not the story of a fragile supply chain, as it is at the moment. It is important to be really clear on that.

If there is any serious contest to that claim from an evidence point of view for prescription-only medicines, I would be very happy to take that conversation away and compare evidence and compare data alongside the Government and the NHS with official information here. I do want to put that on record, if I may.

In terms of your question, Mr Garnier, around the economic sovereignty question, again, we would always work with all Governments. If I have understood your question correctly—is there an understandable drive for many Governments to think about what they want to be self-resilient on from a manufacturing point of view and, therefore, being a bit more directive about that in every country in the world—I think that is an understandable question.

Again, in proportion to the 12,000 medicines that we are talking about across the NHS, I suspect that is a very small part of the market, but an understandable one. It really depends on how much of a proportion you are talking about.

Clearly, I do not believe it is a healthy starting point to suggest that Governments should direct private sector R&D investment in medicines and vaccines. I believe the private sector effort is enormously responsive to societal need, and over the years we have delivered an enormous amount of innovation and benefits to people's lives without necessarily Government direction. There is a space where Government setting a mission, rather in the way that this Government have set missions around societal goals around ageing, around better use of digital technology, around dementia and around cancer, where we rally round, but not much beyond setting out the mission and setting out the long-term goal, if that makes sense—not so much getting into the weeds and direct economic activity.

**Q24 Mark Garnier:** Certainly, Dr Torbett, from my dealings with your industry, I have nothing but praise for the way you have responded to things. You are quite right to put on record the resilience. Of those 12,000 prescription drugs, 11,980 of them were absolutely fine.

I want to press on this point about Government interference. You are absolutely right; the pharmaceutical sector is an intelligent sector that knows where to find a market and knows where to go off and help society where it needs help. But, as Dr Roscoe was suggesting, if a Government is going to be prepared to subsidise certain areas in order to make sure you have resilience in those areas where it is needed, then the Government may well then turn round and say, "We are subsidising you. Therefore, now we have a little bit more control over what you do than you perhaps had before". It is one of those very difficult questions from your point of view. Would you welcome the subsidy at the cost of less



control over what you do, or would you rather preserve what you do and try more to respond to society, even when that means you have to do things at a loss to deliver that resilience in those drugs that have caused a problem?

**Dr Torbett:** I think I see what you are saying. In one way, I suspect that the conversation around Governments being more directive about manufacturing essential medicines is likely to be in the area of older generic medicines, where there is certainly more about exactly what is required to make them. In the part of the industry that I represent, where we are talking about the new end of things, it is very hard to envisage.

If you take the prospects of a vaccine for COVID-19 as a case in point, right at this point there are more than 70 vaccines in either clinical or preclinical development. That is fantastic. Frankly, if we had been having this conversation five or 10 years ago and the industry had been asked to produce a new vaccine, it would have taken between 15 and 20 years. We have new techniques and new science now and there is a chance that we may come up with something useful in a shorter period of time.

Across those 75 different options, it would be very hard—impossible, I would suggest—for a Government at this stage to know where to place its bets. That is where I think we run into a little bit of tension—it is on the very new stuff. Where there is a different type of conversation is on older generic medicines, which are also very important.

**Chair:** I am going to press on due to time, but Craig Williams wants to come in. We are near the end here.

Q25 **Craig Williams:** To build on Mark's point a bit and to Dr Torbett, if you look at countries like Germany and Canada, they are looking at the patent rights at the moment in terms of fighting COVID-19. Can I draw you on that for your particular sector on what the impacts would be if the Governments or countries went? I think it was the *Financial Times* that did an editorial on this piece, which I am sure you read with great interest, about some licensing.

**Dr Torbett:** I did. It may not surprise you to know that I did not agree with the arguments in that article for a couple of reasons. One is a very practical one, which is, in the world of vaccines—and we are talking about a vaccine for COVID—I am not aware that patent rights have ever really got in the way of access on vaccines. The larger issue and the really serious one is access to the cutting-edge scientific expertise to produce them, rather than the patents themselves.

More generally, what I would say is we simply would not have those 12,000 medicines without patent rights. Included in that I would say are all of the medicines that are currently being tested for their effectiveness in COVID-19. They would not exist if we did not have a patent system, because our industry spends over \$180 billion a year on research and development. That is a staggering amount of money. Much of it fails



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because at the cutting edge of science a lot of it does fail, and you can only succeed if you go through that failure. If you did not have a patent at the end of it, there is simply no way that financial markets would allow the industry to put that money at risk in that way.

I am afraid that raising that in the *Financial Times* at this point in time is disappointing to say the very least. Now, beyond any other time in history, we really need the pharmaceutical industry to step up, and I am certainly very proud of the way it is doing so.

**Q26 Chair:** Thank you. Just before I bring the session to an end, I want to go back to the transportation—air transportation and sea transportation—and the costs of that. Are we seeing hardening of costs going on at the moment and difficulties of maybe ships in the wrong place? Would sea be an answer to some of the issues, or is sea just far too slow to bring things over?

**Dr Torbett:** I can start an answer for that, if I may, and I am sure that Dr Roscoe will come in as well. Sea transport is very extensively used to move API around the world. In fact, it is the largest means of transporting API at the moment, and road transportation as well as air. All means are used. It is important to get all of these things in proportion. At the moment, things are working pretty well. We have had some issues and continue to monitor the situation, as you would expect. For the most part, things are okay.

**Dr Roscoe:** I think Richard's points are right, and I think sea freight and road freight transport are perfectly fine means, especially in terms of bringing in generics that have longer shelf lives. Those two transportation modes are perfectly suitable, as long as you have borders that are open and ports that are operating and labour in the right place to make sure that those goods are kept moving.

**Q27 Chair:** Thank you. Just a final question. In the last crisis—the economic crisis in 2008—the banking industry did not emerge from it with any great credit at all. Do you think this crisis provides perhaps a litmus test for the pharmaceutical industry and it will get public scrutiny afterwards, whether it is on patents or anything else, and is the pharmaceutical industry aware of exactly the focus that might come on it after or during a pandemic? Richard Torbett, your hand is up.

**Dr Torbett:** Yes. I am desperate to answer this question, Chair, if I may; it is such an important one. We come under a lot of scrutiny as an industry, and rightly so. We have a huge responsibility. We are doing three things right now. Around the world, we are focusing on trying to develop a new vaccine and cure, and of those 70 vaccines in development, 75% of those are led by pharmaceutical companies, and 100% of them will require pharmaceutical companies to scale up manufacturing. Producing a cure or a vaccine is the first priority.



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The second priority is to keep supply chains going. As I say, on a 12,000-medicine base, to only have one class flagged as a supply disruption, given the scale of the challenge we have globally, I think is extraordinary.

Finally—and this is very much more domestically here in the UK—I can tell you that my members are working day and night to support the NHS in every way they can, and often in areas that you would not necessarily expect of us. We have had companies 3D-printing ventilator parts. We have had companies repurposing laboratories to help with the national effort on testing. We have had company colleagues coming forward in their hundreds and even thousands to volunteer, some of which are clinically qualified and going back into frontline care. I really hope and believe that the industry will come out of this crisis being seen as an important part of the healthcare community, collaborating with universities, charities and of course with the NHS, and that is what we want to do.

**Q28 Chair:** You are going to be nothing like the bankers. That is very good to hear.

**Dr Torbett:** I hope not.

**Dr Roscoe:** I agree with Richard. I do not think the pharmaceutical industry should be criticised or scrutinised in any way. The point that I am trying to make is supply chains in general—pharmaceuticals, but other types of supply chains, too—have some inherent issues that have been flagged up by this crisis. What I am trying to argue for is the resilience in supply chains' flexibility and responsiveness taking priority over cost and efficiency. What is important is having the ability to flex and move between different types of supply chains as your situation changes, so that as these types of pandemics come up—and as they probably will again—we have more flexibility in the system and more responsiveness in the system in order to respond to this. I do not think pharmaceutical companies, in particular, are to be held responsible for that because this is a pattern across industries all over the world.

**Chair:** Okay. Thank you both very much. Time, as ever, is ticking on and it beats us. I am sure and I hope that this has sparked an interest from many other people round about who have tuned in to watch this, this afternoon. We will get our second panel together now.