House of Commons

Treasury Committee

Oral evidence: Russia: effective economic sanctions, HC 1186

Monday 14 March 2022

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Watch the meeting

Members present: Rushanara Ali; Anthony Browne; Gareth Davies; Kevin Hollinrake; Julie Marson; Alison Thewliss.

In the absence of the Chair, Alison Thewliss took the Chair.

Questions 94-162

Witnesses

I: Professor Jagjit Chadha, Director, National Institute of Economic and Social Research; Tony Danker, Director-General, Confederation of British Industry; Nathan Piper, Head of Oil and Gas Research, Investec; Dr Amrita Sen, Director of Research, Energy Aspects.

Examination of witnesses

Witnesses: Professor Chadha, Tony Danker, Nathan Piper and Dr Sen.

Q94 **Chair:** Welcome to the Treasury Committee's evidence session on Russia and effective economic sanctions. As you will all be aware, I am not Mel Stride. Mel can't make it to chair the Committee today, and neither can Angela Eagle, who would usually be his deputy. So thank you all very much; I hope you will bear with me this afternoon. First, I ask each of the witnesses to introduce themselves, starting with Tony, please.

Tony Danker: I am Tony Danker, director-general of the CBI.

Professor Chadha: I am Jagjit Chadha, director of the National Institute of Economic and Social Research.

Dr Sen: I am Amrita Sen, a co-founder of, and the head of research at, Energy Aspects.

Nathan Piper: I am Nathan Piper. I am head of oil and gas research at Investec, but my views today will be my personal ones rather than those of the company.

Q95 **Chair:** That's grand. Thank you very much. Could I start with Dr Sen and perhaps talk a little bit about the situation with oil and gas? How would the UK banning the import of Russian gas affect the UK, European and global oil markets?

Dr Sen: Obviously, the UK itself imports very little oil. I prepared some documents, which I am sure you have seen. A third of UK diesel comes from Russia, but crude oil is pretty much negligible. Even gas is less than 4%, and that is via the Netherlands and other countries. The problem for both, oil in particular, is a very global market. The price is set by the marginal buyer. It is not like airline tickets, where I buy the cheapest tickets, then prices keep going up and, let us say, you end up buying the most expensive ticket; whoever is the last buyer is the price of oil.

The fundamental point is that we were already headed to $100 oil, even prior to the Russian crisis. What this has done is to bring more fear into the market about potentially losing Russia, which is one of the biggest producers of oil and gas in the world. Even if China and India continue to buy that oil—which, again, I am sure we will discuss a little later—there will be some production losses. We have already estimated about 2 million to 3 million barrels per day of production that could be shut down in Russia. We just do not have the spare capacity anywhere else—OPEC in particular—to compensate for that Russian loss. That is why we saw oil prices, obviously volatile, go up to almost $140, although they have come back down to $110.

The other thing I would like to point out is that this is not just about Russia in terms of the size of the production; it is also about what it does to markets. Given Russia's importance, because banks have become very particular and scared of lending, it is creating a big credit crisis in the market. There is a lot of liquidity that is just not there. I am not sounding alarmist, and this is definitely not 2008, but if 2008 happened in five steps in terms of credit, I would say that we are definitely one out of five today, because banks are pulling a lot of liquidity and others are not lending. Russia has a lot of other intermediaries and other companies that would buy and sell its crude products. Particularly in terms of products, diesel is where we fear rationing could come as soon as the end of this month in Germany. You could absolutely see the repercussions of that in the UK as well.

Anyway, that is the big picture. I am happy to go into any details you would like.

Q96 **Chair:** That will be useful, thank you. On prices, you talked about the fluctuation so far. Where do you expect prices to go potentially—how high?

Dr Sen: The real problem is that supplies are not reacting. Long story short, since 2014, we have had US shale, which effectively disincentivised production anywhere else, and then a lot of ESG mandates from western Governments in particular, focusing on renewables, which has meant that investment, particularly for international energy companies, completely dried up. If you look at the North sea, no investment is going on, and it is very similar in many, many parts of the world.

Yes, OPEC has some capacity that it can bring forward, but not enough to offset Russia. Also, Iran is under sanctions. That deal is supposed to be taking place, but Russia has thrown a spanner in the works by saying, in effect, "Well, it's P5+1, so if we are going to be a participant in this deal, we want guarantees" about sanctions not impacting them. We are therefore, potentially, holding back another 1.5 million barrels per day of Iranian production that could have helped us.

That leads me to the answer: if supplies are just not there in the short term, we are effectively reliant on demand to do the work to balance the market. If that is the case—we are just publishing a paper on demand destruction and the elasticities of oil—the interesting thing over here is that, in the past 50 years, only twice has oil demand actually fallen because of high prices, both times in the '70s. Even in 2011 to 2014, when oil was between $110 and $135, oil demand globally continued to grow by 1 million barrels per day or more every single year. It is very inelastic, so we would say that prices need to be anywhere above $160 before you see that impact.

Obviously, the impact on retail is different because we have taxes, subsidies and everything else. You get to a situation where, for example, the price of diesel last week was $180 already. That is why rationing in some of the markets could come before even the headline oil price gets to those crazy levels.

Q97 **Chair:** How easily could the UK or the rest of Europe source substitutes for the gas that it's buying from Russia at the moment? In your view, is it easier to source oil from around the world than to source gas? Do we have the infrastructure to switch anything around?

Dr Sen: Yes, in theory it is easier to get oil because, again, the UK is not directly reliant on pipeline oil from Russia, so it can get it from elsewhere. The point I would like to make very clearly is that it will have to pay up for it. You are already seeing a lot of US oil come to the UK, and the North sea oil—which could have gone to China—is staying here. However, everybody is bidding up alternatives; because it is a global market, every barrel is priced higher and higher. So, yes, the UK absolutely can source oil from other regions, but it will be expensive. That is the first thing.

Also, Asia will ultimately always be able to bid away oil from any country in Europe because it is willing to do so. China comes out and says, "Buy energy at any cost, because we are not going to allow scarcity." That is something China is already doing, by the way; it has banned exports of oil products. In terms of oil products coming to the market, China is a big player. You could actually see UK refineries not being able to pay up that much and therefore having to reduce production, and that is where the rationing comes in. On paper, of course you can get it from elsewhere. However, if the supply is finite, you are ultimately going to struggle with that.

In terms of gas, it will require more LNG intake. Again, very much like oil, the UK is not isolated; you are ultimately linked to what's going on in

Europe. I'm sure you've seen lots of papers being published about reducing reliance on Russian gas by 80% this year. Honestly, those numbers do not make sense, for the simple reason that they ignore a very simple fact: right now, storage in the UK and Europe is very, very low.

Let's say we replace Russian gas like for like. First and foremost, where is that gas going to come from? Asia is not going to give that away. Asia has long-term gas contracts, so the price is lower. Asian countries pay a weighted average price, as opposed to what we pay—in Europe, we are more exposed to spot gas prices overall. They are paying a lower price, so why should they give up the LNG?

Secondly, with storage so low, we need to rebuild storage this summer so that we don't have a crisis in the winter. It is about not only replacing Russian gas one for one, but filling the storage first to avoid the crisis. That is where a lot of the potential misconception is in the market. It is not just about a barrel-for-barrel swap-out.

Q98 **Chair:** Are you seeing any hints that we're in a position to rebuild that gas storage? Is action being taken on that front?

Dr Sen: Part of the problem with gas prices is that, as the Treasury Committee will know, you've got a price cap. We calculated that, on the basis of the price cap versus our price forecast for NBP and where it traded last week—that difference—you would potentially have to subsidise households by anywhere between £30 billion to £62 billion more, because of the price cap you are using versus where the market is right now.

Long story short, I am saying that Governments will probably have to step in for rationing—not all industries or households get the same price, right? Not everyone is paying the same price for gas. It is not Government mandated. We saw this last autumn, when natural gas prices were sky high, and we just didn't see the demand responses. Fertiliser is another big industry that could be affected, especially given that Russia is a big exporter of fertiliser. Essentially, we believe that Governments will have to come in, mandate and fill in storage, otherwise it will not happen because it will be extremely disruptive. There are not enough molecules in terms of things moving around. For both oil and gas, the markets were incredibly tight even before Russia.

Nathan Piper: I wonder if I could fall in on a couple of those points. On gas, from a European point of view, as Amrita mentioned, storage levels are incredibly low. The tricky thing is, although you would like to increase your storage, you have to push up the price, so that will increase the price of LNG to bring those volumes to Europe. All LNG really does is seek out the highest price in the world—the spot LNG price. That is one challenge.

Secondly, Europe does not have the LNG import infrastructure—the terminals where you can land LNG vessels and offload the gas to fill those storage facilities. It does not have the capacity of those terminals to replace the Russian volumes. The difficult thing is that to look at it only as the UK is not quite right. We need to look at it as Europe as a whole. That is one of the challenges—having the capacity to have greater volumes, bring them in and refill storage. The announcement by Germany and the EU to increase storage, which is at about 30% at the moment, up to 90% by December, is a big signal to the market that we need even more gas. Europe is importing LNG at record levels right now. What you are really saying is that will be sustained for a very long time.

What normally happens with the gas price is that, as you might imagine, it is high in the winter, low in the summer—that is a great time to refill storage because the price is low—and high again in the winter. It goes up and down like that. We were writing on it in June last year when the UK gas price was 70p a therm, which seems like nothing now, but that is 50% above the 10-year average. To give you just a few points of reference, the 10-year average is 50p a therm. It was trading at 70p a therm in the summer of last year. That is really when storage should have been filled, but it was not. That is due to a number of reasons that I will mention in a second. What you saw was a build in the price, all the way up to 450p a therm, I think it was, before Christmas.

As Amrita said, even before Russia was a big issue, the UK and European gas price had surged. Fundamentally, Europe and Asia are short of gas. We do not produce enough of our own gas. Europe is 70% dependent and the UK is 50% dependent on imports. The import price sets the gas price in Europe and in Asia.

What we saw through 2021 was an underperformance of wind. There was less wind than expected. Hydro was lower in Asia and Brazil. You had a little bit of underperformance in renewables. Because coal-fired power is being closed down and because nuclear has been closed down, gas is the only back-up, so gas demand was increased as well. You had a confluence of lots of things: underperformance of renewables, pushing up the gas demand and gas price, and questionable amounts of exports from Russia in Q4 of last year, increasing the tightness on the market.

From a consumer point of view, we already know the average energy bill will move up to £200 a month from April.[1] The key thing is that the input price is 126p a therm. The year-to-date average gas price is about 225p, so bills in October are going to go up again, and by quite a margin. What you are going to see is a doubling in people's energy bills year on year, because the gas price sets the electricity price in the UK. Amrita and I are both here to make you feel very excited and optimistic, but I am afraid to say it is a very tight market. Prices are going to be pushed up both in oil and in gas because demand keeps going up for gas, oil and coal. All commodities have been pushed to record demand levels. As a consequence, we are getting record prices.

Q99 **Chair:** That is quite a stark prospect, given how difficult things are at the moment for lots of people. May I ask you both a bit more about the impact that sanctions will have? Tony, are the Government doing enough

[1] Note by witness: I intended to say: "From a consumer point of view, we already know the average energy bill will move up to £2,000 a year from April."

to help businesses understand their responsibilities regarding sanctions?

Tony Danker: Yes, I think so. All firms are complying with sanctions. Every firm we speak to is complying with sanctions. All, in fact, are looking at how they can go beyond sanctions. Talking to businesses, they universally believe that sanctions are the right thing to do, but they are not without cost.

First, I think we should recognise there is a cost to the UK economy of sanctions. Secondly, the firms that are slower to divest themselves of Russian interests are doing so for some very good reasons. To talk about the costs, obviously some businesses lose revenues and profits, and financial services companies cannot manage frozen assets. A lot of people will want to divest those assets, but they are not sellable—nobody is going to buy them even if they can secure them.

In terms of implementation, on some of the sanctions it is sometimes hard to spot the ultimate owners of an asset. There are complexities in implementing the sanctions. There are costs to the economy of implementing the sanctions. However, let me be very clear, I have done six or seven roundtables on this in the last two or three weeks, and everybody is supportive of sanctions—they just want to point out that they carry costs.

When it comes to people going beyond sanctions and trying to divest their Russian interests, for those for whom it is surgically easy to draw a line around their Russian interests and stop exporting or importing or divest something, then they are doing it. I think there are three barriers that are causing the others to be a bit slower. The first is that we need to recognise that supply chains for valuable commodities, in particular industrial metals, are very hard to replace and expensive. It is hard to secure alternative supplies—even harder if you are a small business. Secondly, there are contractual obligations that firms are under that the sanctions are not obfuscating—there are still contractual obligations. Insurance companies in the UK are still insuring Russian aircraft; people still have gas contracts with Russian gas companies. Remember, businesses do use Russian gas companies. They are under very strong contractual obligations. I think that we need to recognise that some have contractual obligations. Finally, the other complication is obligations to staff in Russia. Some of the firms we have talked to are pointing out that local management is under pressure from the Russian regime about global companies leaving. They are also trying to secure employment and avoid hardship for the employees they leave behind. They are also, by the way, still providing food and medicines to citizens in Russia.

I would say the industry is doing a really good job of complying with sanctions; we run a service that intermediates between them and Government if they need advice. That is all going fine. However, in the 24-hour news cycle, everybody cannot get out of Russia immediately—some of the unwinding takes a while.

Q100 **Chair:** It is very complex. Dr Sen, if gas is coming through interconnectors, how far do you go back to trace the sanctions of that and how does that operate in practice?

Dr Sen: That is the tricky bit, because the gas is effectively coming via the Netherlands. We have done the same in oil, by the way. First and foremost, the UK gets about 20% of LNG from Russia. Fine—that is a clean ban. It will be a shuffle in trade flows because Europe has not banned it, so Europe can get that LNG, and other LNG can come to the UK. That is fine. In terms of figuring out exactly where that is coming from, if you are getting it from the Netherlands, you really cannot trace exactly where it has come from. It is the same for oil; interestingly, the sanctions are for Russian oil from Russia, but the Netherlands is one of the places where the UK will continue to import diesel from. After Russia, the Netherlands is the second biggest source of UK diesel, and the Netherlands is not really that big a producer. It is actually Russian diesel that gets in there; then it is blended, and it gets sent. That is a lot of complications.

European Governments have not sanctioned energy. However, thanks to the banking sanctions and self-sanctioning, all oil companies have said that they do not want to deal with Russia, and so they have cut back on purchases. However, term contracts are still continuing—a big chunk of oil and gas for Europe is termed up. Also, China and India are not in the same boat, and they are buying. It is very difficult to divert pipeline gas away from Europe to other parts of the world, but oil they can. If that happens, as India exports products that come to the UK, and China export products—not right now, but in general—how do you find out exactly what crude oil they have used to produce those? I think that is where you are going to struggle, in terms of your question about how far the sanctions need to go. Both for gas and for oil, you will not be able to identify the actual source.

Q101 **Anthony Browne:** I want to follow up with questions on the impact on the oil market, and petrol and diesel in particular. This is first to Amrita and then to Nathan. You say that petrol and diesel prices will go up. On the forecourt, we are seeing petrol at £1.60 or above, and diesel at £1.70 or above. Have you any predictions of how high it could go?

Dr Sen: Crude oil prices right now are about $110. It could easily go up by $50. Let us say there was just over a 50% increase; that is how much retail prices would go up, assuming that no tax changes were implemented by the Government, because you can always reduce the amount of tax at the petrol pump.

Q102 **Anthony Browne:** If taxes stay the same, do you mean that if it is currently £1.60 per litre for petrol, it would end up being £2.40?

Dr Sen: Around that much, yes.

Q103 **Anthony Browne:** That is realistic. Nathan, do you share that prediction?

Nathan Piper: I share that view, but I suppose the key thing is what we can do about it. Half of the diesel price and half of the petrol price, roughly, is taxes—a mix of duty and VAT—so that is the bit that I guess politicians can think about what they do with. Fundamentally, half of the price is the commodity price, and if the commodity price is going up, it is pretty much a one-for-one relationship, or almost, into the forecourt.

We are roughly self-sufficient in petrol in the UK. Our refineries make petrol; that is kind of what they are set up to do. Diesel, not so much, but since 2004, when we advocated a switch to diesel from petrol, two thirds of UK consumers use diesel. Diesel is much more what the consumer uses, but that is what we import the most of. That is the higher price, because we import it; if you like, that is the biggest exposure, so diesel prices are more likely to trend even higher than petrol prices.

Q104 **Anthony Browne:** How high do you think they could get, then?

Nathan Piper: Not to be flippant—

Anthony Browne: At least £3?

Nathan Piper: Pick a number. It depends on what the oil price ends up being. I think we are having a wee bit of a lull before the storm. Oil prices have come off now to $104 today, before I walked in, which is quite some turnaround, but if more stringent sanctions are imposed on Russia and 5 million barrels a day is truly taken out of the market, the oil price really has—not quite no ceiling, but it will rise up a lot before the demand destruction kicks in to maybe bring it back down again. For a consumer through 2022, they need to get ready for what could be continued increases in fuel prices.

The point about diesel is we are a net importer. Russia exports about 3 million barrels of oil products a day, and one of the biggest ones is diesel. Europe imports 50% of its diesel from Russia. Unfortunately, the whole curtain has been drawn back, and we are seeing how interconnected we actually are. Diesel prices have spiked, just as oil prices have, because diesel runs the world. Diesel runs the shipping lanes, the trains, the cars—everything. Diesel is probably the one we have the most exposure to, in terms of sharp price movements.

Dr Sen: It also tends to be more inelastic, because there is a lot of trucking. Even when consumers such as you and I do not fill up our cars—let’s say we run or cycle—that industrial usage can keep diesel high. Absolutely, £2.50; closer to £3, even, depending on how high oil prices get. That is definitely within the realms of possibility.

Q105 **Anthony Browne:** May I pick up the point you mentioned about the possibility of rationing, Amrita? I do not think you touched on it, Nathan, but how would that play out? Are you talking about rationing to industry, or to retail consumers?

Dr Sen: In Germany, for instance, we have already seen BP and Shell reduce sales of diesel to wholesale customers, effectively. Again, heating oil in Germany is used very much like natural gas: they use it in the winter. We do not tend to do that as much in the UK, because obviously Germany is more exposed, but generally speaking we would expect it to be industry-led, both for natural gas and for heating oil.

As Nathan said, if we need to rebuild stocks over the summer so that we have a buffer for the winter—I am talking about consumers here—it is industry that will need to be curtailed, and that is where the first set of rationing will have to come in. We will have different bands of industry reacting at different prices. Last year, when we had record high European and UK prices, we saw cement companies, fertiliser companies, and a lot of those heavy industries reduce production. You would expect to see that, but my point was that that may not be enough, given the scale of what we are talking about. You might actually have to get Governments to step in and mandate cuts, so that we can refill storage.

Nathan Piper: I guess the only other option is through stockpiles. Each country has their own stockpiles of petroleum products and crude, and the UK has those stockpiles, which could be released. As you may have heard before and after Christmas, the IEA, with the US, used some of their strategic petroleum reserves to try to moderate the market oil price, so those are some of the options that people have. However, yes, it will be industry that takes the brunt of any rationing initially.

Q106 **Anthony Browne:** My next question is about the impact of other sanctions. We have seen sanctions in the financial services system, and sanctions relating to SWIFT. A lot of IT firms, including IBM, Microsoft and Cisco, are exiting Russia. Will all those sanctions impact the ability of Russia to export oil and receive payments for it?

Dr Sen: Absolutely. If you take it step by step, the US and Europe continued to say, "We're not going to sanction energy", but the banking sanctions came through. Pretty much overnight, even if you take self-sanctioning out of the picture, companies really struggled, because SWIFT is the easiest way for payment. You immediately saw companies backing out and saying, "We are no longer going to deal with Russia."

Interestingly, with SWIFT, yes, there are exemptions—I think that Gazprombank and Sberbank are exempt—but even India and China's own banks, fearful of US banking sanctions, basically stopped issuing letters of credit. Letters of credit are the main way through which you transact in the physical oil and gas market. However, there are work-arounds. Just today, there was news that Russia and China have come up with this deal where they no longer require letters of credit.

One of my fears with this is that the oil market has been quite opaque anyway—more so than gas—and will become even more opaque. China came out and said—well, we've heard rumours that you could not see how much they are buying; they will just take it away from the market and make it private. There are get-arounds; Russia and China have their own systems of SWIFT, so you'd expect them to continue trading, but the rest of the world will be extremely cautious. It is just too difficult, and banks are being very stringent in terms of loans and how they interact with Russia.

Nathan Piper: Physically, the shipping market is incredibly tight. Whether it's Maersk or Sovcomflot, the Russian shipping company, they are not taking volumes—or people are not accepting volumes from those vessels—so there is a physical constraint on the market. That is right, but we will want to see the volume of transactions that will replace the volume of Russian oil that we are talking about. Maybe China and India can each take 1 million barrels of the 5 million, but that is the thing: it is 5 million barrels. How do you replace that? You cannot. It is not clear who is going to take those volumes. Whether through the physical constraints of shipping or the financial constraints already discussed, they are stuck.

Dr Sen: China and India between them can probably take about half of what Europe was taking.

Q107 **Anthony Browne:** As for my question on the technology and the financial sanctions, is there a scenario where, even if Europe does not reduce its dependence on Russian oil as much as some people might like, Russia just will not be able to export that oil?

Dr Sen: In the medium to longer term, I think that is the risk, given the technological sanctions. All the big companies are pulling out—all the major oil companies have pulled out—and they require western technology. Russian oil production has a very high water cut; it is a bit like Iraq. During covid, when oil prices crashed to almost negative prices in the US, and to $20 or less here, Russia was forced to shut in wells, like many other oil-producing countries. That is one of the big reasons why Russia has struggled to come back, and why—I mentioned spare capacity not being there—Russia has been one of the big contributors to the lack of spare capacity, because when you shut in wells with that high of a water cut, it is very difficult to bring it back. In most cases, they did not come back.

The thing with Russia and upstream is that, first, you need western technology. For sure, China is already talking about going in and taking assets there, and I am sure that India could do the same, but the technology is just not the same. They will get maybe 60% to 70%, but not the full thing, so decline rates will go up. The other thing is that Russian production depends heavily on tax breaks given by the Government. These sanctions are crippling for the economy. Our economists think you could get Russian GDP going down by 20%, potentially. I know their official forecast is for 8%. There is no way that the Government will have money for tax breaks, which is what is required to produce in some of these more difficult areas.

We absolutely think that, in the longer term, Russian production is crippled. Oil production is about 11 million barrels per day. Maybe it will struggle to get above 8 million or 9 million, even with Chinese and Indian help. We are getting questions all the time about whether Russia is the new Venezuela, in terms of how quickly the upstream has degraded. It is probably not as bad, given that they have quite a decent amount of expertise in house—it is not as dependent. Still, you could absolutely lose some medium-term production from Russia, which is just not going to be substituted in other parts of the world.

Q108 **Anthony Browne:** Last question. As you highlighted earlier, diesel is the one thing that we get a fair amount of from Russia—not crude oil and so forth. Are there any other countries that we could go to for that diesel?

Dr Sen: In terms of UK diesel imports, Russia is the first one. The second is the Netherlands. The US is the third, so the US will have to give more diesel to the UK and Europe. The tricky thing over here is that, again, trade flows are effectively becoming more inefficient. Yes, the molecules could be there. In theory, Latin America could take some Russian barrels, which would free up some US barrels to come here. Again, on paper, it is possible, but first and foremost, given the sky-high prices that we are talking about for refineries, we may not even have enough crude to make diesel. That is one thing.

The second thing is that rather than using oil and gas that was right here, we will now have to pay for the shipping to get diesel from further away. That also ties up a lot of capital and credit for the companies doing that. Again, the liquidity that I mentioned is one of the issues that we are seeing: capital gets tied up as soon as you move from short-haul to long-haul trade. It can be done, but it will be expensive. We are massively reliant, as Nathan said—3 million barrels per day of Russian products. Diesel is one. They also export a lot of fuel oil and feedstock, which is used by refineries to make gasoline. That is another headache coming up in the summer. We cannot replace all of it, but we can definitely, for the UK alone, pay up sky-high prices and get it from the US. It then becomes a bidding war.

Anthony Browne: I will come back with some economic questions later. Thank you; that is all I have time for now.

Q109 **Gareth Davies:** I want to ask about the UK's role in the global energy markets. Inevitably, there has been increased discussion about how the UK can become energy independent, so I want to start by asking you about that, Dr Sen. Can you give us an overview of the energy mix in the UK today? If we are to achieve energy independence, how would you ramp up energy production or infrastructure to get there most quickly and with the least impact?

Dr Sen: When you say, "least impact", do you mean on prices or for the environment?

Gareth Davies: That is for your interpretation. It could be on communities, or it could be financial. It could be anything.

Dr Sen: First and foremost—I think Nathan Piper mentioned this—is demand overall, given that we are in a very global market. Demand has continued to rise pretty much every single year over the last 50 or 60 years. As the population continues to grow, yes, we are getting more efficient—every car that we purchase is consuming less oil—but we are still struggling with an outright reduction when it comes to energy consumption. In a world where the population and economic growth will grow, we will need energy. Your question is where that energy mix comes from, in terms of independence for the UK. Clearly, the focus from the

Government's point of view has been on renewables. Wind is a huge source for the UK, for sure. Up to 40% of the UK's energy is coming from renewables, and I think the goal for various European countries—not just here—would be to make that 100%.

Again, the challenge for that is this: where is the capital coming from? What's the number that will be required? It is trillions of dollars, if you think about the investment that is required when it comes to making the figure for renewables 100%.

However, if you think about oil and gas production, I will give you just one statistic. In 1980, fossil fuel—that is oil plus gas plus coal—contributed 84% of global energy demand. In 2021, that percentage was unchanged, at 84%. So, yes, there is less coal and more gas, but you get where I am going with this; as a mix, it's very, very hard to really reduce that percentage. Overall, renewables are going to grow because overall energy consumption is growing, but to make that figure of 100% for renewables is a huge challenge.

Instead, I would say that if you really want to decarbonise hydrocarbons, which is what it should be, then producing oil and gas in the North sea is far more environmentally friendly than allowing, let us say, the middle east or north Africa or many other parts of the world to produce it, where you won't be able to capture carbon—do CCS. That is what needs to be weighed up. If we think that we will need some oil and gas, why not produce it locally, where we can actually impose carbon taxes and environmental restrictions, and do it in an environmentally friendly way, rather than outsourcing it to other parts and then being reliant on it? Look, on paper, of course we can get to 100% by 2035. But it will be costly—very, very costly.

Q110 **Gareth Davies:** That is very helpful; thank you. You mentioned North sea oil production and expanding it. We were talking about energy independence and we have switched to wholesale prices. The Business Secretary has said that expanding North sea oil production will not have an impact on wholesale prices. Do you agree with that?

Dr Sen: In the very short term, absolutely, because it takes time to bring oil and gas production online, but I don't think the reliance on Russian oil and gas is a short-term thing either. We need to wean our economies off Russian oil and gas, and that will take a good few years; it could even take up to a decade, in terms of achieving that.

North sea oil and gas production can come online within a year or two. There are some small fields that can be brought online; we are not talking about big mega-projects that take seven years. You can absolutely incentivise smaller companies to do that.

Nathan Piper: If I may say so, we might have to be realistic about where the UK North sea is—it has not been a terribly well-looked-after piece of our national infrastructure, let us say. The rates of investment in the North sea have varied at different points; there have been windfall taxes at different points. It has not been entirely clear what the philosophy behind the UK North sea is.

If you contrast the UK with Norway, for instance, there are two things to note, just quickly. In 2020, when the oil price fell, the Norwegians brought in a tax incentive to incentivise investment. The other bit I would contrast is the rate of exploration in the two sides of the North sea. In Norway, they drilled 40 wells last year; in the UK, I don't think we got to 10 exploration and appraisal wells.

The health of the basin and the ability to do things in the medium term that Amrita is talking about really relies on exploration drilling. You have got to keep putting new investment in to try to find new fields, to try to unlock new play types. The Johan Sverdrup field in Norway, which has just started producing—I think—400,000 barrels a day that would be quite useful at this time, was a new play concept. You get a 78% tax rebate on your exploration drilling in Norway, so the Norwegians have set up a huge incentive to keep up a consistent development of their basin.

In the UK, quite frankly we have not. So here we are: we are 50% dependent on imports for gas. It is not quite the same for oil—that is about 10%, 15% or 20%, because we have had a bit of a resurgence in oil production for the past few years. Actually, I will place renewables too in an energy transition. The whole thing together has to be consistent and thought about in the medium term, and I don't think you could say of the UK energy strategy that it has been terribly consistent or thought about in the medium term.

Maybe there is one thing to highlight. I know that the debate quite quickly moves from the UK North sea, which is a proven conventional production area, where there are lots of platforms and lots of sunk carbon, if you like, and the developments are already there. The sorts of things that people could bring onstream fairly quickly are tiebacks to these existing large platforms and pipeline networks.

Fracking is a bit of a red herring. In the US, where you have swathes of uninhabited desert and it is as flat as a pancake with relatively simple geology—I do not want to bore you about geology at this time in the afternoon, but it is a very simple geology; lots of drilling has been through it and it is fairly uniform over long distances—you can unleash an industrial process to increase production to a high level. The UK is a relatively populated area and, as the coalminers will tell you, the geology is quite complicated, so there just isn't the same scale of opportunity. I do think—if there is anything I express today, it is this—that the UK North sea has plenty of life in the old dog if it is given serious consideration, but fracking is a wee bit of a rabbit hole, frankly.

Q111 **Gareth Davies:** You have made that point; thank you very much. You have been covering the markets for a while. I read over the weekend that the Chancellor has been briefed on the 1973 oil price shock. On Bloomberg this morning, one of your counterparts was talking about the 1990 oil price shock. What would you look at as a relevant precedent for what we are going through at the moment? If you were the Chancellor, what would you be looking at as a guide for what to do about it?

Nathan Piper: I think we've got a brand-new 2022 shock, I'm afraid. And there is further good news, because we do not just have an oil shock; we have a gas shock, which you didn't have then, we have a coal shock, which you didn't have then, and almost every other commodity—oil and gas feed through to the feedstocks of lots of other things: fertiliser, wheat, food prices. I am terribly sorry, but I could go on; it is a long list of things with prices at record levels.

It is probably convenient and appealing to look at the 1970s oil shock because we know what that was about, but this is a demand recovery shock, which was already in place, with not enough supply, and we have layered on a wee bit of geopolitics just to keep us honest—forgive me for being flippant. It all comes down to this. Oil demand is 100 million barrels a day; we are supplying roughly 100 million barrels a day. Global inventory levels have not been this low since 2014. The US shale industry is not dead, but it is not going to recover to the same levels as before because people want a return on their investment. If your sources of new supply are going to be Iran—take a view—Venezuela, Saudi Arabia—there is not a convenient outcome here. In the 1970s, we started drilling in the UK North sea and we found Brent and all that good stuff.

We really do not have an awful lot of good news for you, because it is not just an oil price shock—it is crucial to express that. Also, this is not just a Russia-Ukraine shock. That is added on top of what was going to be a high oil price and a high gas price this year anyway, and for a number of years. We have to be up front: this is going to last for a while. This is not just for this year and maybe, if there is a peace accord between Ukraine and Russia, it all goes away. Maybe it moderates, but this is going to be a cost of living crisis for people for a long time to come, or an inflationary—goodness me, I am a geologist, not an economist, like some people here, who really know what inflation is all about. This is a situation that is going to last for some time.

Q112 **Gareth Davies:** I am running out of time, so this will be my last question. I just want to get in a point that others have made: we consume more oil and gas than we produce and we are exporting around the world. Is there anything that the Government could do to prevent or reduce exports so that they can be used for domestic consumption?

Nathan Piper: You need the right type of crude. Every different refinery refines better with a different type of crude. We have Brent and Forties and those sorts of crudes with their particular make-ups. The European refineries are all set up to take Urals, the Russian crude. An export ban is a bit counter-productive, because you might end up with what you don't want.

Dr Sen: You are going to ratchet up the price globally. By the way, one thing that hasn't been mentioned is nickel. You use nickel to make batteries. If you are going to do an energy transition, that is the one thing you are going to need.

Gareth Davies: Thank you very much for your answers.

Q113 **Julie Marson:** If I may, I will stay with you, Nathan, because I have some questions about the impact on UK firms. One of the most high-profile things we have heard is BP's announcement that it will sell its 20% stake in Rosneft. It has talked about a financial hit of up to £19 billion on its stake. In general, how realistic is it for BP to divest, and at what cost? Is what we have heard realistic?

Nathan Piper: I think the total hit is 25 billion, actually, between the Forex and what they are carrying on the balance sheet. To BP, it was a stream of dividends that they got from Rosneft—I think it was about $600 million last year—so in terms of their overall take from Rosneft, the bottom line is not as significant as it might appear from the $25 billion.

There are potential buyers of those assets, but I think you would be a pretty brave person to get involved there. Other owners of Rosneft are the Qatar Investment Authority—this is all public—and Glencore is another. Normally in oil and gas M&A transactions, you look at other people who already own the asset—and the Chinese of course—as potential buyers, but I think you would be very unlikely to see anybody come in and try to buy those assets for any price at the moment.

Q114 **Julie Marson:** What is the scale of this issue? Do you have a feel for how many UK-based energy companies have investments and are in a similar position?

Nathan Piper: BP's is by far and away the largest. Shell has a stake. To be clear, both the UK-listed majors, BP and Shell, have been absolutely clear that they will divest from Russia. Shell has the Sakhalin project, which is an LNG project on the east coast of Russia—that is their big, high-profile development. They are looking to divest that.

Essentially, the cost of doing business for those companies is to divest their exposure in Russia. We have seen various degrees of that from other oil majors around the world, be it Total, Exxon or Eni. The clearest and—to give them credit—most straightforward straight line, as Amrita called it, has been from BP and Shell, who say that they are going to exit and divest those positions—at any cost, essentially.

Q115 **Julie Marson:** In a wider sense, is the position that there will be no buyers, or is it just, "At what price will they do this?"

Nathan Piper: Possibly at what price, but I think it would be a pretty brave person who puts their hand up and says, "I will buy that for this price"—20% or a stake in Rosneft at this moment in time. Possibly, at some point in the future, there might be a politically acceptable time to do a transaction, but I cannot imagine that will happen any time soon.

Q116 **Julie Marson:** The situation is clearly very linked to the situation in Ukraine, but do you see this as the start of a longer-term process of divestment and distancing of business in Russia?

Nathan Piper: At points, the majors have gone into Russia in bigger ways than they are at the moment—the TNK-BP debacle is really what generated BP's stake in Rosneft—so there was a point, if you remember, in the '90s and the early 2000s, where the west tried to engage with Russia. Really, the majors' engagement with Russia reflected that. Obviously, it is the third-biggest oil producer in the world, so oil and gas companies will try to go in there and see if there is an opportunity for them—that sort of follows—but it has been pretty clear that they are all going to try to get out or limit their exposure to Russia. I do not think that is a position that they are going to reverse any time soon. I am not sure what else there is to say about it other than that there is a direction of travel, and it is that way for now for British companies.

Q117 **Julie Marson:** Tony, in the same vein, do you agree with Nathan's assessment of the longer-term prospects?

Tony Danker: I think that is right. I do not think companies are trying to make long-term calculations about when this war might end or otherwise. I think they have made that calculation; they have made that judgment; and now they are seeking to exit the market. I think Nathan's assessment is completely right.

Nathan Piper: One point I would make is that you have to think about the institutional investors here. If you are an institutional investor in BP or Shell, you want to make sure that there is no Russian exposure, so in a way, it is a self-correction that the companies have to make and have to make fast if they want to maintain public investment, or institutional investor interest, in their companies—they are their ultimate owners.

Q118 **Julie Marson:** Thank you. Tony, you mentioned companies that still have companies in Russia. Vladimir Putin has said that he is considering seizing assets. What impact would that have on UK businesses in the short term?

Tony Danker: I think the businesses who are there are genuinely struggling with the moral question of, frankly, abandonment—of abandoning employees; of severing ties; of supplies of food and medicine in particular. Those are pretty tough moral questions. Those are the ones they are immediately grappling with. They are linked, in a way, to the question of whether the Russians seize operations, because that is what current employees in those companies fear.

Obviously, I think that closes Russia as a market to us for a considerably longer time than anyone would have imagined. That is the implication. For Britain, which does not export or import in massive amounts to Russia, it is not a devastating hit, but it is a closed market for the medium to long term. That is the implication.

Q119 **Julie Marson:** You have mentioned that UK firms accept the sanctions. Do you see that that has been an immediate impact, or do you think there has been more of a cumulative impact by some firms? For instance, Shell is having to apologise for buying crude oil from a tanker. Do you think there has been a cumulative impact of, first, accepting the sanctions and then taking further action?

Tony Danker: Because we are all glued to the news, we feel that this conflict has been going on forever. In fact, it has only been a few weeks. It was a matter of a couple of days before any firm that was thinking twice stopped thinking twice. In relative terms, yes, there may have been some cumulation over the course of the last three weeks, but it has been incredibly rapid. I have been surprised by that. I think this is the first time in our living memory that we have prosecuted an economic war rather than a military one. The cost of this war, therefore, is not measured in tanks, planes, bombs and soldiers. It is measured in what we are seeing around lost revenues, having to make very big decisions about markets overnight and impacts on consumer cost of living. Everybody has been digesting this incredibly quickly, but on the whole, I think people universally have been saying that it is time to find ways to get out of Russia.

Julie Marson: Thank you.

Q120 **Rushanara Ali:** My questions are on the Russian response to sanctions. Before I ask them, can I pick up on the point you were making, Tony, on prosecuting an economic war, not a military one? It has only been a few weeks, but what are the overarching points that can be learned from what is likely to be effective or not effective in prosecuting an economic war?

Tony Danker: Military and defence experts are better placed to judge the effectiveness of sanctions than I am. What I think has come to light from the events of the last few weeks, including everything we have been involved in in terms of firms exiting and the discussion we are having now, is that we do not really have true economic independence from Russia. If we want to have that, it is going to require bolder moves. It is going to require us to completely rethink our energy market. It is going to require trade strategies to find our commodities from elsewhere, and it is going to soon require, I suspect, cyber-security resilience. It is also going to require us to tackle the dip that is coming in business confidence and investment. That kind of economic resilience is what you need to stand firm in the face of Russian aggression, should it continue, because otherwise we will be vulnerable. That is what we have learned.

Rushanara Ali: That is really helpful, thank you. Did anyone else want to add to those points?

Professor Chadha: First, I want to say how upsetting it is to have to discuss the consequences of a war on the European continent, which is something that is at the front of most of our minds and is not going to go away, it seems, for some time to come. The point about economic sanctions is an interesting one. When you actually look at the imposition of economic sanctions, they have been on an upward trend over most of the post-war period, by which I mean since world war two, rather than any other war that I have in mind. It has been increasingly more frequently used. The outcome of people trying to examine the impact of those is that they tend to not have an immediate effect. They tend to have a long-run effect. In the short run, they are not things that typically damage the elites in the economies, who continue to have access to foreign exchange earnings. We see that most recently with sanctions imposed on Iran.

We need to be careful when we ask ourselves whether something would have an immediate impact on a Russian economy that seems to have been preparing for things along these lines for some time. We also know that elites have ways of hedging their position. There is another more germane, immediate aspect of this, which is that, in the absence of restrictions on oil and gas exports from Russia, what has happened, as we have heard clearly from colleagues this afternoon, is that prices have gone up. That has provided an unfortunate hedge for the Russian economy, in the sense in which you would typically expect the rouble to go up if oil prices went up because their economy is so dependent on oil and gas imports, but of course because of the political and defence risks that Russia is now taking the rouble has fallen. We might want to go into that a little later, and its consequences for inflation, but oil and gas prices have risen at exactly that moment, which in foreign exchange terms has provided the Russian economy with a large hedge.

We might come to this point a little later, but that also means that, on the immediate impact, unless the sanctions go further either on oil or gas, or indeed the financial sanctions actually bite in terms of their being unable to effect the trades that they have in place, the Russian economy is much more insulated from these shocks than we might initially have thought. There are two points there: the long run—how you need to keep them in place over a period of time—and whether the current sanctions that we have are significant enough to affect the Russian economy.

Q121 **Rushanara Ali:** Probing on this point, do others want to come in on whether the current sanctions, which are pretty unprecedented compared with other things, are going to have a significant impact? Very quickly, because I want to go on to some of the Russian responses.

Dr Sen: Very briefly, the biggest issue is that SWIFT and the central bank sanctions in particular mean that the flow of dollars, or any G7 currencies really, has completely stalled; they are just not going into Russia. The challenge in terms of whether it is effective or not really boils down to whether we have a unified response—not just a European or US response, but Asia too. Right now, there are issues around them buying oil as well, but clearly there is movement.

Let’s say no British company takes a stake in Rosneft. Chinese companies are already looking into that. That is where European consumers could lose out more, because if Russia push out not all of the oil and gas but half of it—or let’s say they do more LNG—to the far east, they will still get higher prices. They are therefore somewhat insulated to the sanctions that Europe is imposing, but European consumers will absolutely feel huge effects of inflation, not just in the short term but for years to come.

Q122 **Rushanara Ali:** The Chinese in particular could really play a part in doing that.

Dr Sen: Absolutely.

Q123 **Rushanara Ali:** Are there other countries that are likely to play that part? I understand that SWIFT creates some problems for the Chinese in doing that, but not enough.

Dr Sen: Not enough, because they are already bypassing that and coming up with their own systems—they have their own version of SWIFT—but also by just bypassing letters of credit. India as well are buying that, but on the relationship that China have with Russia, pipelines for both oil and gas mean that they are not likely to let this go. The thing about China—we have seen this with Iran sanctions as well—is that they will let the country that has been sanctioned come begging to them and say, "Look, you have to buy our oil," and they will get a good deal out of it for themselves, but it does mean that a significant amount of oil and gas can continue to flow to China.

Q124 **Rushanara Ali:** So the Russian response in essence will be looking further to the east, to Asia—particularly China, India and others. What else can they do to mitigate the damage of energy sanctions imposed by the UK and the USA?

Dr Sen: Pivoting east is the obvious one, and they can find some other homes, whether they be in west Africa, Latin America, or some other countries like that. This was a part of Rosneft's strategy anyway over the last few years: they were trying to sell less into Europe and pivot to the east. In some ways, although Europe has been talking about reducing reliance on Russian oil and gas, I think Europe has done far less in actually reducing reliance, whereas Russia has been pivoting more and more to the east. This simply accelerates that move for them.

Q125 **Rushanara Ali:** What else can the wider EU do in terms of their response to mitigation, as well as the UK and the US?

Dr Sen: To reduce reliance on Russia?

Rushanara Ali: Yes.

Dr Sen: Obviously, huge amounts of investment in renewables, like we discussed earlier, but I go back to saying that fossil fuels are not going to go away overnight, so investment in cleaner hydrocarbons, whether it is local or potentially the US, has to be one of the solutions. Germany came out to say that by 2035 their entire power mix will be renewables, but that is 2035, and we are in 2022. That is where I am coming at it from. Let us deal with the next 10 years before we have some of those targets.

One other thing that I think Russia will do more is pivot more to the east. We have seen ties with Saudi Arabia and the UAE—they have had strong ties with Putin over the past few years. You could see Russia potentially asking them for investment in upstream as well.

Q126 **Rushanara Ali:** How realistic is Russia's threat to turn off Europe's gas supply if it imposes sanctions on Russia?

Dr Sen: Given where things are escalating, you cannot rule out anything. The whole point is that if Russia's campaign is stalling, you could get it escalating further, which could mean restricting exports of gas, oil or strategic metals, or cyber-attacks, as I think one of you mentioned. Okay, I am not saying that that is the base case, and hopefully it will not come to that, but we cannot rule it out.

Rushanara Ali: Nathan Piper, did you want to come in?

Nathan Piper: I have a couple of points of reference. About 25% of Russia's gas exports go through Ukraine, as a rule of thumb. Also, we talk about Europe's dependence on Russian gas, but if you think about any of those eastern European countries—Slovakia, Hungary, Bulgaria, all the ones there—they are almost 100% dependent on Russian gas exports, and they are not connected to any LNG terminals or any other mitigants. However hard we want to push it, there will be some people who just cannot mitigate their reliance on Russian energy.

Q127 **Rushanara Ali:** On the point about reactions—irrational responses, perhaps, like turning off Europe's gas supply—and the real risk of things getting out of hand, how prepared to you think European Governments are?

Dr Sen: Not at all.

Nathan Piper: Not at all, I guess the evidence being that European gas storage levels are very low, and European Governments have not been very keen to sign, or have not signed up to, long-term LNG contracts. Asian countries—China, Korea, Japan—have lots of long-term LNG contracts. The global market can only produce so much LNG, and 70% of that LNG is already committed under long-term contracts, so we are playing for the last 30%, and because Europe has had a renewables-only strategy, because we all want to get on board with the energy transition and get there as soon as we can, we are now in energy reality, if you like. The fact that we have not wanted to put in place long-term gas sales agreements means that we are now playing for the last 30%. With low storage levels and the fact that countries—Europe in particular—have been so reliant on Gazprom, they have just danced to the whim of what Gazprom has been prepared to produce and store in Europe—a lot of European gas storage is owned by Gazprom. As I said at the start, the veil over how our energy works has been pulled back and we are seeing how interconnected people are. They were not prepared.

Q128 **Rushanara Ali:** We have been very aware of the interconnectivity between the UK and other parts of the world, particularly Europe, and so on. Where does that leave with us with resilience and transition? You mentioned the need for a bolder response, Tony, but we have multiple sets of challenges.

Dr Sen: The challenge comes down to the fact that—to Nathan's point—Europe as a whole has been pursuing this renewables-only transition policy. Are the UK Government willing to say, "Okay, I'm going to sign up to a 10 or 20-year contract with Qatar for energy"? That is where the tensions come in, because it becomes LNG and is therefore gas, and the oil and gas industry as a whole continues to be vilified, even though that is where a lot of the energy source is. That is where the tensions are. We will have to have a reality check.

One issue with Europe has been that, while Government transition policies have absolutely focused on curtailing investment for the medium term, demand has not reacted yet, so this car crash was coming anyway—even before Russia—where supplies and investment in supply were peaking well before demand was going to anyway. That is why now, the reality is, whether we at least have a bridge fuel, whatever it is.

By the way, even though Germany has talked about 2035 for all renewables, if you look at the fine print you see the Germans have also come out and said, "We are no longer going to retire coal by 2030." Those are the choices that Governments need to make, but in effect it is as stark as, "Are we going to turn off the lights?" versus getting clean coal, clean gas—whatever clean energies we can get—even if that means using hydrocarbons rather than a renewables-only strategy.

Nathan Piper: Briefly, the UK's strategy has been to be connected to all the markets—we have our own gas production, we have interconnectors to Norway and to the continent, and we have LNG import terminals. So on the one hand, we have great security of supply, but that is at any price, and that is a problem. We can get gas, no problem, but it is at a price, and we are now completely exposed to the LNG market and to the spot energy market, which is the most expensive part of it.

Rushanara Ali: I think my time is up. Thank you.

Q129 **Anthony Browne:** As I indicated, I want to talk about the macroeconomic impact on both Russia and the UK, and we'll look at Russia first. About 10 days ago, the NIESR published a report predicting that the Russian economy would go down by 2.6% next year. A lot has happened in the last 10 days, with more sanctions and the self-sanctions—a lot of western companies are pulling out of Russia. How big do you now think the impact will be on the Russian economy?

Professor Chadha: When my colleagues undertook that analysis, we looked at a number of channels that we thought would affect the Russian economy, so as well as energy prices we tried to understand political risk, which is one way of trying to understand some of the sanctions, as well as exchange rate depreciation—where we thought the rouble might go—and some measure of the cost of Government borrowing. We were trying to get a handle on what economists call the transmission mechanisms by which they would have an impact on the economy.

We arrived at a number that, as I said, was very much hedged by Russia's ability to continue to sell oil and gas in world markets at hugely elevated prices. If that were to be cut off, as we have been talking about today, you could imagine those numbers at least doubling or even tripling from where we posited them last week, so to 5% or more in terms of the contraction in the Russian economy. Once we are into those sorts of numbers, we need to go from a quantitative statement to a qualitative statement, which is to say that that will be a very large hit on the Russian economy, which will be terribly problematic and will have a distributional consequence: it will be particularly damaging for those on fixed incomes or low wages.

Now, that does not necessarily mean that there will be further unrest. Sometimes these things take many more years to happen than we might think, but what we will be talking about is a very large hit to activity in the Russian economy from the sanctions that were announced a week or so ago and from the ratcheting up of them since.

Q130 **Anthony Browne:** Do you think there is a risk that the Russian economy could collapse, with hyperinflation, possible imposition of price controls and scarcity of goods, as we have seen in Venezuela?

Professor Chadha: Whether the Russian economy collapses, the traditional explanation for a hyperinflation is that the central bank starts to monetise debt in a fashion: there is no money coming in any more and people start getting given increasing numbers of tokens that are ultimately not backed by taxes that might be raised. That is a possibility if Russia becomes completely autarkic—if there is no trade and no foreign currencies coming into the country and people still needing to be paid. I think we are some way away from that at the moment. We currently expect inflation to go into the region of 20% to 30%. We have had chronic inflation in the past in Russia—you may recall that in the 1990s, it was 50% for a number of months or years. Whether that turns into a complete collapse will depend ultimately on the stability of the Government and how it is perceived domestically, and the operations of the central bank of Russia, about which we know little.

Q131 **Anthony Browne:** Turning to the UK, what do you think the likely impact is here? I am highly conscious of the 1973 oil price shock, which led to inflation going up to well over 20% and sky-high interest rates—

Professor Chadha: Happy days.

Anthony Browne: Yes, and it lasted a couple of decades—it took that long to feed through the economic system. Do you think we are potentially facing a similar scenario now, in terms of the shock to the economy, given all the things we have been discussing for the last hour?

Professor Chadha: The persistence you were talking about was, in a sense, the loss of monetary control or credibility in inflation. You had a shock, then another shock; the first was an oil price shock, then there was a commodity price shock in the early 1970s, and the loss of the monetary anchor—we moved away from the gold standard and had not replaced it with a stable institutional framework to guarantee price stability. We still have that framework here. We have an inflation target pursued by an independent Bank of England, which is one thing we didn't have in the 1970s. Also, a much larger fraction of wages were linked to inflation, almost automatically, so that led to more persistence in the shock at that time than we might currently expect to see.

In addition, the size of the shock at the moment—we have done our calculations on what we have seen in the last couple of weeks—would suggest an increase in inflation. We anticipated inflation this year, on average, to be somewhere between 4% and 5% anyway, and the shocks that we have seen so far would lead to us expect inflation this year to be somewhere in the region of 7% to 8%. It might peak at somewhere higher than that in the third quarter of this year, but that is still in itself far away from the kind of numbers that we saw in the 1970s.

I think it is worrying. We have a vulnerable economy—we have talked about this in previous meetings—and the supply side of the economy is not terribly elastic. We do not have the ability to provide things at the drop of a hat in the way that other countries can, and that leaves us vulnerable to this kind of shock. But it is too early to say that we have lost monetary control or that inflation will be in the realms of what we saw in the 1970s.

Q132 **Anthony Browne:** What do you think the fiscal impact will be?

Professor Chadha: The fiscal impact of the inflation will very much depend upon where—

Anthony Browne: Inflation and, presumably, slower growth.

Professor Chadha: We also think growth will be slower—somewhere in the region of 1% down this year and 0.5% lower next year on current forecasts. That in itself will tend to worsen the fiscal position. At the same time, however, the inflationary shock will help the fiscal position by reducing the nominal debt repayments that we would otherwise have. It is very important, within that circularity, that monetary credibility is retained, so that debt can continue to be financed at relatively low interest rates. That is why that important point about the monetary framework being considered credible is so important at the moment.

Overall I think the fiscal position is not materially damaged by the inflationary shock we are currently seeing. We will have to understand what the Chancellor's responses are to the shock and whether he will be willing to increase some taxes, possibly on income rather than elsewhere, in order to fund some more distributional transfer payments to those households that have been materially damaged by the changes in the economy over the last few months.

Q133 **Anthony Browne:** What is the CBI's view on the impact on the UK economy of the war and all the sanctions?

Tony Danker: I think they have a material impact on both consumer confidence and business confidence, and I will play out where I think we were and therefore what changes.

On consumer confidence and cost of living, right now it is particularly acute for those people on low incomes. There are still some household savings elsewhere in the economy, but people on low incomes are already suffering, and they are about to suffer more on fuel bills, food costs and so on. I think we will probably have later in the year an impact on aggregate consumption, and therefore growth. I think one would have to say, given the inflationary pressures from the energy impact, you are going to see aggregate consumption hit later in the year. That is growth challenge No. 1.

The business scenario is literally changing as we speak. The business discussion this quarter has been about tailwinds versus headwinds and what triumphs. The tailwinds were clearly that demand has bounced back. Clearly, covid has gone away, we hope, in terms of restraints on economic activity, but the headwinds were already input cost inflation, energy prices and labour shortages, and those things have now been exacerbated. Input cost inflation—the panel has already talked about it—goes up. Energy prices obviously go up—remember that businesses are not protected by price caps.

Now what I think you’re seeing is business confidence starting to waver. We have just done our regional and national council rounds—that is about 800 firms—listening to them in the last two weeks, and I think you are starting to see business confidence waver. Three months ago you had high levels of optimism, investment orientation and growth in numbers, and that was still true three weeks and now I think for the first time it is starting to shake.

The impact that has on policy, by the way, is that it is easier to stabilise business confidence now than it is to recover it when it is lost. I do think the spring statement lands at an interesting time when it comes to this question of business confidence, because I am worried that that’s the thing that now gets tipped over by the conflict.

Q134 **Anthony Browne:** So what is the key thing you would like to see in the spring statement in terms of boosting business confidence?

Tony Danker: First of all, I think we need an answer to energy resilience. I personally think we need to double down on renewable and clean energy solutions. There is a lot of money involved, by the way: first it was a choice about humanity; then it was a choice about economic opportunity; and it is now also a choice about national security. First, I would like to see the spring statement doubling down on new energy and clean energy markets. That is a business commercial investment opportunity. Secondly, I think we need North sea transition, for sure. We also need energy efficiency. One of the things we have not talked about is the demand side of energy. It is clear that we have done nothing yet in thinking about retrofitting and insulation.

In terms of investment measures, I think we need business investment confidence coming out of the spring statement. That speaks to super deduction part 2. How is the Chancellor going to do what he did at the Mais lecture—stand behind business investment as the missing piece in the UK story? It is also about skills incentives. People become a block on investment by not having the right skills, and there is an inability to train people fast enough. It is also about regulatory models that are pro-investment. There is a set of things that the Chancellor can do. There is a big fiscal hit from what is going on, and some big fiscal choices facing the Chancellor. What he does now, versus in the autumn, is his choice, but I think he should take measures now to stabilise business confidence.

Q135 **Anthony Browne:** Jagjit, do you want to come in there? What do you think the Chancellor should do next week to boost business confidence and stop the economic damage?

Professor Chadha: The first thing to recall is that an increase in energy and oil prices in general, for a country that is an importer rather than a producer overall and is subject to supply disruption that is going to be elevated, is essentially something that will make that country poorer. There is not a lot we can do about that. We can smooth it. We can borrow a little bit, and it is particularly important that we do what we can for the increased number of households that are poor, in destitution and using food banks. There is a whole range of issues to be addressed that this Committee and I have discussed many times in the past, and which have to be addressed.

That is the key thing that has come out of this crisis, as with the covid crisis before it: this crisis has once again revealed the weaknesses of the structure of the British economy. Everyone has talked about that today. The weaknesses are energy supply frameworks, the way in which we are transitioning to net zero and the type of taxes we are imposing; we are imposing national insurance, rather than income taxes, on working people. What are we doing about income distribution in the economy that leaves many households in many regions vulnerable to these kinds of shocks? Are we planning around that? Some very important questions about defence have been thrown up by this crisis as well. It all adds up to a supply side of our economy that is constraining our choices. We are not able to do the things that we would want to do, as a result of choices we have made in the past about inventory management or how we have maintained North sea gas platforms.

There are some really important long-term issues here that we need the Chancellor to address. We do not particularly want a sequence of announcements or leaks in the week before the Budget about taxes that may or may not go up; what we need is a long-term economic plan. We need some form of Department for the economy, rather than thinking in terms of a particular impact on the fiscal side. I agree there may be a fiscal hit, but on the other side, there is no particular constraint on the Government's ability to issue debt at the moment. The capital markets are very happy to hold UK debt. If we want to ratchet up the amount of debt we have in order to deal with the genuine infrastructure problems we have—the transition to net zero and a range of other things we have talked about in the past—those are certainly possibilities that this Government need to face. Meddling with the tax system in order to nudge a particular policy in one direction or another is not the way ahead here. We are beginning to learn that if we do not plan for the long run, we will find ourselves, I am afraid, facing the shocks that will surely come along in the future while increasingly constrained in the options that we may have. What we need is a Chancellor thinking about the long run, not one thinking about the polls, if I am allowed to say that.

Anthony Browne: You are allowed to say that. I would like to ask some more questions, but I have run out of time.

Nathan Piper: Could I chip in with one final point on competitiveness? It is worth bearing in mind that the US is self-sufficient in energy, and its gas prices are $4 or $5 an MCF. Ours is $30 an MCF. The input costs for all of Tony's businesses are almost 10 times those of our US competitors.

Anthony Browne: A good point well made.

Q136 **Rushanara Ali:** My questions are on the impact on households. We have covered some of the points, but to put it into context, what we have had over the past few years is the backdrop of Brexit and the costs associated with that; covid costs; bigger, longer-term issues around energy transition and climate; and now conflict. The points that you are making about thinking through the long term are well made. In fact, some other countries, especially China, and India to some extent—Asian economies—have been able to be much longer term. We may not like some of the things that they are doing, but they are much less reactive, I would argue.

Looking to the future, you talked about the cost to businesses. Investment was down post Brexit anyway. What scale of numbers are we looking at for investment in businesses, and what sort of investment are we looking for to take the edge off for households, both low-income households and others who are on the edge, if you like? Lower middle-class families are struggling too because of the rise in the cost of living. What sort of numbers are we looking at with regard to what the Chancellor should be trying to respond to? There is the longer term but, unfortunately, there is an immediate challenge, given what is happening internationally. That is a question for all of you.

Professor Chadha: I will give a brief answer, and allow time for others to come in. Certainly, we ought to rethink the tapering of universal credit and think again about whether more households could be offered an extension, after it was taken away in September 2021. We have also been trying to think of a winter grant scheme that could be put together at local authority level to help households that face an increase in energy bills up to what we thought in February was £900—it might well be £2,000 by now. That is an enormous amount for households in the lower part of the income spectrum, so we need to address that and to try to think of a grant scheme so that they can meet their energy bills.

I have mentioned more support for food banks, and I want to consider whether it is a good idea to bring in the national insurance tax hike now. It could be postponed. I understand that it has been hypothecated to help with social and healthcare, but right now it might not be a sensible thing to hit those households that are earning just enough to pay it. It is mildly progressive, but it is not terribly progressive. One could certainly think about the alternative of an income tax on higher earners, even on a temporary basis, to fund things at the moment and help those poorer households. I go back to asking for more support for food banks and support for higher and further education colleges that could well provide online educational services for people, as well as grants for people to study. Those are the kinds of things—a set of issues could be introduced.

Q137 **Rushanara Ali:** I know that this is a value-judgment kind of question that requires a value-based answer. With covid, the Government's response was on a national scale for all households to varying degrees, but because this issue is hitting certain households harder, it is not getting the traction, despite the pressure on Government to do something about the cost of living crisis and fuel costs going up, and now conflict is fuelling that further. Is that what is going on in the urgency of this situation?

Professor Chadha: I will give a brief answer, because I know that there are people who know more about this. As Tony said, we imagine this war has been going on for a long time, but it has only been a couple of weeks. It has been dominant in all our thoughts. It has shocked us all, and perhaps it has caused us, rightly, to think about what we can do for the people who have been directly affected by it—Ukrainian migrants—and what we can do to help them, as well as the eastern European countries that are dealing with a massive flow of immigration and may not have the fiscal or other resources to deal with that. We have been focused on that, but you are right: we need eventually to turn the spotlight on those households that already had payment problems as a result of the increase in energy prices towards the end of next year but will increasingly face them over the course of this year. I think it is incredibly important that we draw attention to that, particularly as it is something that is so regionally diverse. There are parts of the country that will be more sorely affected by this than others.

Q138 **Rushanara Ali:** It undermines the levelling-up agenda.

Professor Chadha: Absolutely.

Q139 **Rushanara Ali:** Tony, you talked about investment, and inflation, import costs, labour shortage and energy prices—a bewildering number of challenges for businesses. What is the scale of investment that is needed in numbers in the forthcoming statement and in the longer term? What do you think the business community needs to try to stabilise both business confidence and the associated consumer confidence, which could take us down a recessionary route if we do not act now?

Tony Danker: The first thing, focusing on immediacy, is that I would echo all of Jagjit's views about low-paid households and the use of universal credit, targeting how we put that situation first. The second thing to say in terms of urgency—the reference to covid is interesting—is that what you have now is a lot of businesses, particularly smaller firms, whose energy costs are simply unaffordable. They are under massive cash-flow strain. The Chancellor did a very good job of having a toolbox to help firms with cash flow. I think that he is going to need to extend those tools, be that loan schemes or deferred payments. We created a soft landing so that firms could move on to invest. I am not suggesting that this crisis is exactly like covid. I do not think that it is, but the same principle applies, which is that some cash-flow support—the Government using their balance sheet, rather than necessarily DEL spending—would be advisable. There are also energy-intensive industries, which we have not talked about today but are particularly badly hit in the UK.

Coming back to investment, the first thing to remember is that the UK is currently bottom of the G7 league table on business investment. That has to change. The Chancellor will only have unattractive fiscal choices unless we get business investment up. It is going to be the only way that we can get growth moving. I think that he acknowledged that in the Mais lecture. Therefore, one should quantify what it costs to allow business investment policy like the super deduction. You will not need to be that expensive to stimulate. We cost the permanent 100% investment deduction in our Budget submission at something like £8 billion, so I think there are measures that the Government can take that will unlock what we think might be £40 billion-worth of business investment. Those are some numbers. I think if the Government incentivise that activity, it will more than pay for itself.

In the long run, one of the areas where we are very uncompetitive, ironically given this discussion, is renewable energy markets. By our estimates, we as a country invest less than 1% on renewable energy markets and investment, compared with something like 1.8% in the EU and 3.4% in the US. The Government can therefore choose to compete with Joe Biden's Government, the German Government and other European Governments on public subsidy for renewable energy. I do not think that it will. I therefore think that it is incumbent upon them to think much more creatively about market making. Offshore wind is the success story for the UK, creating highly investable private sector investment in renewable energy, and we are still waiting for the Government to come forward with plans for hydrogen, carbon capture and so on. If the Government do not want to try to match European and American Governments on public investment, they have to think far more radically about how to unlock private sector investment. Certainly, for green projects the volume of funding available is huge.

Q140 **Rushanara Ali:** One last question, which is linked to the impact on households. The UK was already in the middle of a cost of living crisis before Ukraine. Torsten Bell of the Resolution Foundation said that the conflict in Ukraine means that this will be the deepest squeeze on living standards since the '70s, with real incomes falling by 4%. Do you all agree with that assessment, and is there anything that you want to add about what the Government should be doing, either in the next Budget statement or subsequently, to mitigate that rather dramatic reduction in living standards?

Nathan Piper: Just briefly, this gas and oil price rise has been quite insidious. The energy sector—the oil and gas sector—does not really get much attention apart from when things are going a bit wrong. What is happening is that diesel prices are now at 10-year highs, but half of that is fuel duties and VAT. On energy bills, which are a harder one, we are going to go from an average energy bill of £1,200 or £1,300 last October to £2,000 in April, and then, on the basis of current gas prices, to over £3,000 in October. However, 70% of that £3,000 is the wholesale price. VAT is only 5%, so it is not going to make a lot of difference. This is coming, and there is not a great deal that can be done about it in terms of energy bills. Something could be done on the fuel side, but this could mean subsidising oil and gas. I guess that that is the difficult conundrum we are in.

Dr Sen: On subsidising households, I gave the numbers earlier. The cost is anywhere between £25 billion and £50 billion to £60 billion. If we are talking about the poorer households, those kinds of subsidies will have to be given and announced. On Tony's point about renewables, we think we need at least $20 billion a year in investment in renewables. Again, that can lift business confidence, and at least helps mitigate the impact on the economy.

Q141 **Rushanara Ali:** Just one final question. Given the various things you have all said, are we heading for a recession?

Tony Danker: I think it is too soon to make that pronouncement. What is interesting about the Resolution Foundation work is that we are about to have not only the deepest squeeze, but the longest squeeze. It is the length that changes the nature of economic decision making now for the Chancellor, the Government and all of us. The first thing to say is that we now need to think about a medium-term growth plan and productivity plan. All the growth forecasts, not for this year but for next year, are heading towards 1% growth a year. What does that do to the fiscal position and the position facing the Chancellor? In the end, there are four levers. On spending, nothing suggests we will be able to cut spending any time soon. On tax, we are about to hit the highest tax burden in 70 years. On debt, the Government say they do not want to move. Then there is growth. We need to take action on one of them, because at the moment it does not add up. I understand that Jagjit said we might be able to do a bit more with debt, but certainly growth is the number that worries me most. If we are not investing in growth, we have to either borrow more, spend less or tax more—and I do not think those are meaningful options. The growth plan is the thing that is missing. It needs to be a plan not for this year—growth has bounced back because of the crisis—but for the next five years, and it needs to achieve higher levels than we have today.

Dr Sen: I think that the risk of a recession is very high. Speaking to Nathan's point, this is not just oil and gas, but raw materials, fertilisers and food. We may not be able to say it yet, but the risk is very high.

Q142 **Rushanara Ali:** Is that a global recession, or a European one?

Dr Sen: It is European more than global, but yes, in Europe the UK takes the bigger hit. And yes, it is global as well.

Rushanara Ali: Does anyone else want to add anything?

Professor Chadha: At current energy and oil prices, the UK is skirting very close to a fall in activity. It is going to be hovering around zero next year at current prices. If we think that a significant sequence of negative numbers corresponds to a recession, that looks likely, but not necessarily next year.

On the size of the state, we do not want to see public debt levels escalate, but we need to bear in mind, going back to the investment question, that public investment over the last 40 years has probably been about half what it ought to have been, on average, over that period. That has meant that the public capital stock is far below where it might be. There are shortages in FDI as well. When we talk about business investment, it is not only taxes that affect the level of that investment; there has also been an incredible degree of economic uncertainty in our trade links, for obvious reasons, since 2016; then again from covid, and again now. How we offset that is a really important question, which brings us back to the idea of a plan.

In the end, what determines the standard of living is productivity and how well we produce things. If we have an increase in our costs and we do not produce things in a more efficient manner, it will unfortunately mean that we are poorer than we would otherwise be. The question then for the Government is: do we take that hit in one year, or try to smooth it over time? I think we are all in favour of smoothing it if we can, but the long run end point is the same. Unless we change the way in which we do things, we are going to be materially poorer than we would otherwise be. That is where a long-term growth or productivity plan comes into play. Also, as I said earlier, a focus is needed on the long run, with a Ministry for the economy.

Just to pick up one point—it is not only China and India that think in the long run. There are many examples of countries around the world—Norway, Singapore—that think in the long run and provide physical, human infrastructure on an ongoing basis, which allows people to plan and leave countries less vulnerable to the kind of shocks that we are now unfortunately having to respond to.

Rushanara Ali: Thank you.

Q143 **Kevin Hollinrake:** I have a few more questions on the cost of living. I want to tackle a couple of points that you said earlier. Amrita, I think you said that there has been a lack of appetite from UK lenders for new investment in energy production, for example. Is that a commercial decision because they are worried about stranded assets—that those things won’t have a future—or is it driven by shareholders, directors, ESG and all that kind of stuff?

Dr Sen: Mostly shareholder and ESG-driven. It is not just UK; it is around the world. We are even seeing it in the US and Europe. We have been seeing this issue of investment and we will see it more and more from western international energy companies. Effectively, production is moving to national oil companies. Of course, there are issues associated with that; it gives much more power to OPEC members and even middle eastern gas. It is absolutely driven by shareholders and ESG mandates.

Q144 **Kevin Hollinrake:** Do you see that as a huge strategic mistake? If the Government are going to have a strategy for this, they have to look at it—and you can argue that they have or they haven't—but, actually, those key sources are undermining that strategy, aren't they?

Dr Sen: I think "mistake" is a strong word, but I do think that Governments, in particular in the west, can sometimes be short-sighted because of the election cycle. The point that all of us have been trying to make is that these days, with social media, it's very easy to come out with measures that say, "We're going to ban oil and gas production," just as an example, but we need to do much more on the demand side.

There are very few truths around energy transition, but one is that it will be very expensive. It was always going to be, because we are transitioning a huge oil market—100 million barrels per day—to renewable power. We need huge investments in grids and the stability of those grids.

All of that aside, the other thing is that each and every one of us here will have to accept a lower standard of living, but are we willing to pay for that? That conversation hasn't really taken place in the west. We have focused on the supply side, not on reducing demand and increasing the efficiency of what we are consuming. That is where the mismatch has come in—from the transition talks versus the reality. If demand was following the supply trend, we wouldn't be having this conversation. That is where the tensions lie. Yes, OPEC is going to have more and more power in this market, precisely because of that.

Tony Danker: Can I add one thing on that? The Government can play a role on this culturally by backing their own North sea transition deal. The Government should simultaneously seek for the UK to become the fastest, most successful clean energy nation in the world, while also self-confidently backing their own North sea transition deal.

Dr Sen: Absolutely.

Tony Danker: Sometimes, oil and gas companies are deeply concerned that the Government will lose faith in the last part. Hopefully, that crisis changes this. I am not for a moment advocating that we should change the pace of renewal advancement, but alongside that, we should be self-confident about the need for transition. The Government could help to set that tone a little bit, in a way that may have more of an impact when it comes to the investor sentiment.

Q145 **Kevin Hollinrake:** That still follows our decarbonisation glide path based on CCS and stuff like that.

Nathan Piper: Yes, but it's full cycle, so you are getting more tax receipts on more production, which can then fund the carbon capture and storage. We have the technology and the understanding. The UK North sea is the best at subsea. They developed the technology, and that is being exported around the world. As Tony says, we should embrace it. The answer is both—it is not one or the other. It is not like changing from DVDs to Netflix. It is going to take a long time, but that is the way the debate has been characterised, sadly.

One quick aside: EV sales are at record levels, but because people have bought more SUVs, all the demand destruction of those EV sales has been more than undone by the number of SUVs people have bought.

Q146 **Kevin Hollinrake:** Obviously, that investment is important and is the money for those countries to invest in the North sea. There has been talk of a windfall tax, of course. I think that Shell and BP alone will make £40 billion this year, which is above their normal expectation. If we knocked a couple of billion off those producers, would that have a real effect in terms of the likelihood of investing?

Nathan Piper: That was not from the North sea. The biggest producers in the North sea, I bet none of you could name them. The biggest oil producer in the North sea is Harbour Energy, which is based on private equity investment. So the big owners of UK North sea are private equity companies, and some of them are not paying tax at the moment, because of tax losses. Because the UK North sea has been such a bad investment in terms of returns, for lots of different reasons, they have got huge tax losses.

The amount of money that would be raised through a windfall tax would be de minimis, but the signal that would give to energy producers would be pretty clear.

Q147 **Kevin Hollinrake:** Even if it was relatively modest compared to the profitability of some of those firms? Okay, Harbour Energy aside, but BP and Shell will make big profits.

Nathan Piper: But not from the North sea—that is what I'm trying to say. The ability of the UK Government to get their hands on the profits of BP and Shell is pretty small, but the signal that would send to the market—to go back to Tony's point—this should be seen as a holistic thing. Incentivising oil companies not to produce forever but to put the infrastructure—I mean, the carbon capture and storage investment is a huge infrastructure investment. You have to build loads of pipelines to connect the CO_2 producers to the reservoirs offshore where they will be injected.

There is a whole business case that needs to be built for that and investment made. Unless you create a stable fiscal environment for oil and gas producers today and for CCUS providers in the future, you will undo it again. And actually that is the story of the UK North sea. Windfall taxes, inconsistent policy and we are where we are. Norway? Long-sighted vision and you can see the contrast.

Dr Sen: But also in Asia oil and gas aren't going away anywhere. For them to decarbonise, they simply need to move away from coal and move more towards just gas, and they achieve all their targets. In the west, we have already pushed coal out and that is why we need to get rid of oil effectively from our fleet.

If you think about it, the UK and Europe as a whole can absolutely drive towards renewables fully, but there will still be a need for oil and gas in the world. And you can absolutely balance that. Even if you are domestically not consuming, you could be a clean exporter of this versus other countries that are not capturing CCUS. Right? That is always the balance.

Q148 **Kevin Hollinrake:** Thank you. Tony, before I get on to the cost of living, you talked about some of the economic impacts around sanctions. China is obviously giving Russia a kind of opportunity to evade the worst of the sanctions. Should we put secondary sanctions on some Chinese companies that are facilitating that?

Tony Danker: Look, I think that is a political judgment, but I think the one thing that we have learned from this discussion is that there is no such thing as cost-free economic warfare. I would ask the policy makers to think thoughtfully about some of these responses.

Just to come back to the previous discussion on windfall taxes, I think policy makers should think very hard about them. We have seen it with the gas price and with how oil prices were down at rock bottom, but are now high. I think we need to be very careful about making knee-jerk judgments. And I think that when it comes to China or other countries, we have just seen the true cost to our economy of economic sanctions. Now, does that make them wrong? No. I think we're all saying it makes them right. But there is a cost to pay. I would really urge caution on the part of policy makers before they start to think about spreading sanctions more widely.

Q149 **Kevin Hollinrake:** Jagjit, it was quite clear that you think we should postpone the national insurance rise or cancel it all together. You mentioned a grant scheme to ease the pressure on households, particularly those at the bottom end of the income scale. In February, the Chancellor did something that was pretty broad-based; I think that four out of five households got the council tax grant. What would you do specifically? You mentioned a grant scheme.

Professor Chadha: Not all households were able to access that council tax scheme. I think that if it was something that was put together at the local authority level, you could ensure a much broader base of households being able to access the scheme, and I think that is the way we would see it—

Q150 **Kevin Hollinrake:** So would you target it more directly at the lowest-income households rather than having it more broad-based?

Professor Chadha: Absolutely, yes; target it as much as possible, up to a certain amount of support that we want to give those households.

Q151 **Kevin Hollinrake:** And what kind of figure would you suggest the Chancellor would get to—?

Professor Chadha: We think that at the moment the offer is some £150 relative to an increase in fuel prices of the average household of £900. If we now think the increase in energy bills is more in the region of £2,000, I imagine that something approaching £500 would sound about the right type of level of support for households.

Many of these households will not have access to savings and will not be able to do anything much to smooth any increase in costs and, of course, we know that they have less disposable income available to them once they have taken account of all their necessities—they have less available for so-called discretionary expenditure. They not only are on lower incomes, but have less money available, so something along those lines would be potentially appropriate.

Kevin Hollinrake: A grant scheme, rather than a smoothing—

Professor Chadha: A grant scheme.

Q152 **Kevin Hollinrake:** Tony, do you have any thoughts on the national insurance rise? Are you a fan of postponing it, too?

Tony Danker: I was not a fan of it in the first place. The Prime Minister and the Chancellor are pretty clear that they are not going to shift it. I think it is up them which measures they want to use and when, but I do not think that you can avoid the reality of both the immediate hit on the cost of living for poor households and most likely a forthcoming hit to aggregate consumption later in the year, and of a pretty stark picture for business confidence and investment. I am happy to take the Chancellor and Prime Minister’s guidance on how they want to tackle that, but they cannot leave the national insurance rise in place and do nothing else. If they leave it in place, it is incumbent on them to work even harder to tackle those issues elsewhere. It is up to them which measures they wish to choose.

Q153 **Kevin Hollinrake:** Jagjit, you were saying before that we should not worry too much about the Government support that we should provide, because if debt rises, okay, debt will rise, and the capital markets will okay with that, but where do we stop? Amrita was talking about £60 billion, presumably a year, to compensate people for the rise in energy costs—

Dr Sen: That is only if prices were at last week’s level, which is possible, but still.

Kevin Hollinrake: That, presumably, is every household.

Dr Sen: Yes.

Q154 **Kevin Hollinrake:** Okay, but also cancelling the £13 billion a year national insurance rise, there alone you have £73 billion more spending than you did. Where does that end? One thing we know about politicians is that they are not very good at stopping schemes; once they have started, they find it hugely difficult to stop.

Professor Chadha: As with the initial introduction of income tax during the Napoleonic wars.

Kevin Hollinrake: Yes, exactly. There you go. There are more recent examples as well.

Professor Chadha: I think we are all aware that we need controls, ultimately, on the fiscal position. We do want debt, relative to GDP, to be falling over time.

We have a situation for the poorest households that is potentially untenable, in terms of where they may end up as a result of the increase in energy prices that we have seen last year and earlier this year. This scheme does not have to be in place for evermore. It can be a one-off scheme for this year, of the type that we have outlined. There might be some case, therefore, for addressing the particular set of issues that we find ourselves in for what economists would call a state-contingent basis—for as long as this crisis is in place, we try to do that.

It is then important that we revisit the tax system, in order to draw down debt. If we reconsider the kind of things that we are spending on, so that we build up national assets and public investment, that then starts to move us towards a world in which we are going to have higher levels of growth in the economy, which is of course the denominator by which we deflate the level of public debt. Ultimately, it goes back to the points that I think that everyone around this table has made: sometimes we have to respond to the shocks that the poorest households are facing, but if Government can think carefully through a strategy for growth and a strategy for prosperity, that will lead to higher levels of growth in the future that will make that level of debt more affordable.

I know that is something that has been talked about in the past and was not necessarily followed through very well. It is something, I know, that politicians have talked about in the ’50s, ’60s and ’70s. What is different this time is that we have to think on a very granular level. This is not the person in Whitehall making the decision for the whole of the country; it needs planning at the local and regional level, to try to understand what is required in every individual area in terms of infrastructure or other types of intervention that will create sufficient numbers of jobs in internationally competitive firms, which will generate higher levels of demand in those areas. We have not got a set of regional or city plans across the board right now. That is what we need to move towards—that very granular set of interventions, not at the aggregate level.

Kevin Hollinrake: That is a conversation we could have for some time, but I am out of time. I apologise.

Q155 **Julie Marson:** We have covered a lot of the ground I wanted to cover, but I want to mention supply chains. Jagjit, we have this confluence of coming out of the pandemic, which has already had an impact, and of Ukraine and sanctions. What is the impact—on the economy and on businesses—on supply chains?

Professor Chadha: It is exacerbating a problem we were already facing. I think Nathan put it very well a few moments ago. We injected a lot of demand into the economy two years ago, to try and support households and firms at the time of the covid pandemic. Those impulses have not fully worked their way through the economy, which means, potentially, we have excess demand swilling round the system, not only domestically but around the world.

At the same time, not only is our supply side structurally impaired, for the reasons we are talking about, it is temporarily impaired because a lot of the bits of machinery we need to get the economy in motion are in the wrong parts of the world at the moment and cannot be translated to where they need to be at the prices we had in the past. It is just more expensive to move things around than it was.

You have this excess demand and the supply problem, and added to it now is a ratchet up in energy and oil prices, which will further impede our ability to produce goods and services. That will mean only one thing: an escalating concern about the price level and a higher peak in inflation, which we have already talked about. That will be the ultimate consequence of where we now stand.

Q156 **Julie Marson:** Thank you. Tony, just one final question. Do you have particular concerns about the sectors of businesses that are particularly reliant on energy? Should the Government be looking at doing anything particular for them?

Tony Danker: Energy-intensive industries are obviously particularly dependent on energy costs. We saw that last year with some of the issues around CO_2. We think we should be trying to reduce network costs, which I think the Government can help influence, and they can give them more exemptions from the renewables levy in order that they are competitive with European EIIs. Our EIIs are uncompetitive compared with Europe's for those reasons.

Those would be the immediate measures, but in general, once you go below well-recognised and acknowledged EIIs, you are into automotive, manufacturing—a lot of sectors that might not be totally energy intensive but are facing uniquely high energy costs compared with other parts of the world. That might change a little bit with the European situation, but it is a real drag on the economy.

Julie Marson: Okay. Would anyone else like to add anything?

Tony Danker: One thing I think is really important in this sort of economic versus policy discussion is the central point that the Government may be choosing not to prosecute a military war on Ukraine, but the economic war has consequences for us in terms of costs and policy. That would be the overwhelming sentiment that I would want to leave with policy makers from today's discussion.

Q157 **Kevin Hollinrake:** Nathan, you mentioned some numbers in respect of the cost of gas in the US versus the UK. Could you run through those numbers again?

Nathan Piper: The US gas price is roughly $4 an MCF—forgive the jargon. Ours, depending on what time of day it is, is running in a range of around $30 to $40 dollars an MCF—10 times, roughly speaking.

Q158 **Kevin Hollinrake:** We are told all the time these are world prices and it is a world market. Why is it not a world market?

Nathan Piper: As Amrita said at the start, oil is a global market. Gas is a regional market. Asia and Europe have a deficit of gas, which is why we have really high prices, but because the US is self-sufficient in gas in particular, it has a low gas price.

Q159 **Kevin Hollinrake:** If we did go gangbusters on development in the North sea, for example, and whatever else we can get gas out of, is there is a relative chance the UK could directly benefit in its prices?

Nathan Piper: I would love to say yes, but the UK North sea is not going to double its gas production to make it self-sufficient. I think the development of the UK North sea gives us energy security. But just contrast the input cost for some of the businesses that Tony will be representing. If they are competing against someone in the US, that person's gas price—so energy price—is a tenth of that of businesses over here.

Dr Sen: The US is a 10 times bigger producer.

Q160 **Kevin Hollinrake:** Sure. So there is no way that we can meaningfully influence the price of gas to the UK, even if we have 100% energy security.

Nathan Piper: Well, 100% energy security, yes, but getting to that point will be very difficult, particularly given the rates of investment—

Q161 **Kevin Hollinrake:** Is it impossible?

Nathan Piper: Pretty much impossible. Without going through the history, the southern North sea around Lowestoft and all that sort of stuff is the southern gas base and that has been well worked over. What we are really looking for is investments west of Shetland and elsewhere to try and unlock new play types, but I don't think that will happen any time soon, and therefore I don't think energy or gas independence is likely any time soon.

Q162 **Kevin Hollinrake:** Therefore, the likely effect on prices will be minimal, I guess.

Nathan Piper: The price will be minimal, but the security of supply, the tax receipts and all the rest of that good stuff and the jobs that go with it is the opportunity.

Kevin Hollinrake: Thank you.

Chair: Thank you very much for your evidence this afternoon. It has been absolutely fascinating, although very worrying in lots of different aspects. You have certainly given us an awful lot to think about coming up to the spring statement. I thank particularly Tony and Nathan, who I understand came along at fairly short notice, so I am grateful for your contribution this afternoon.