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Markus' Academy with Lord Mervyn King Webinar transcript
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Markus Brunnermeier: So welcome back everybody to another webinar series organized by Princeton for everyone worldwide, we're very happy to have Lord Mervyn King with us. Hi Mervyn.

Lord Mervyn King: Hello Markus.

Markus Brunnermeier: Good to see you. It's a pleasure to have you. We will talk today about central banking inflation and many other hot topics going back a little bit in history, how central banking has managed past challenges and looking forward into the future a little bit as well. I would like to start our conversation by asking: we have the challenge that inflation is going up a lot and the central banks are trying to orchestrate some soft landing. How do you best orchestrate a soft landing, with some historical evidence, you know that we can actually achieve this. easily or how to best achieve it was already too late, and you also introduced at some point in some speech and also in your book The Madonna approach to monetary policy, you can explain to us whether that will help us, or what is the Madonna approach to monetary policy.

Lord Mervyn King: And I'm very pleased to be on your webinar series Marcus but the first question is about as difficult as you could answer, I don't pretend to know whether it's going to be possible to engineer a soft landing. I think it's going to be very difficult, because of one obvious point which is that if the Federal Reserve were to ask us today, "what should we do?" The only sensible answer will be to say I wouldn't start from here. They have got themselves into a position in which almost irrespective of how you think about forecasting inflation, whether you think about the Taylor rule or any variant of the Taylor rule, looking at the monetary aggregates or thinking about the budget deficit fiscal theory of determination of inflation. All of those have the same one thing in common, which is interest rates today or well below where they would be if you wanted to keep inflation stable. So I think that the challenge for the Fed and what is going to make a soft landing extraordinarily difficult is that you know you look at the excited commentary in the press about maybe three or even four interest rate rises in 2022. Let's suppose there were four quarter point increases: interest rates would still this time next year be well below anything that a Taylor rule or almost any view about how to bring inflation down would suggest that you need to get to. If the Fed moves a lot faster, then, what will happen is that almost inevitably with higher interest rates, asset prices relative to incomes will be lower than before. And some of that will be brought about through higher income levels through higher inflation and some of it, no doubt, will also come through falls in asset prices. And that will lead people to sell, asset prices are down and that will dump in the economy, we better stop that if it mustn't go too quickly. But to get to the right level of interest rates, you just have to accept that the consequence of that is a lower level of asset prices relative to incomes, so I think that maybe events in the world will conspire to make it easier to meet a soft landing, but unless something makes it relatively easy and the conjuncture I think it's gonna be very hard for central banks to bring about a soft landing.

3:53

Markus Brunnermeier: Do you think you know, we have put enough macro potential safeguards in place that the financial sector can absorb that interest rate increase of that size, what's needed in order to bring inflation down or do you think it's unavoidable almost to have some havoc in the financial markets?

Lord Mervyn King: I think my feeling is that the bigger risk here is less what you might think of as a matter of prudential response or concern about higher interest rates and much more that we're going to move into a world in which it will be clear to everyone that zombie companies won't be able to continue being zombie companies for that much longer, and they will have to recognize the fact that they won't be able to repay all their debts and lenders will have to recognize losses on the balance sheet. This isn't just a question of corporate debt, it's also their sovereign debt. There are serious concerns about sovereign debt around the world, and I think this means we're going to move into a period in which debt restructurings will become much more common and not just in one economy. We hear a lot about China and ever grand in debt problems in the Chinese economy, all the major economists are going to be experiencing a transition in which those companies in sectors where demand has basically been stopped and supported by unsustainably low interest rates, those companies will have to restructure their debts, contract the size of the companies, and the good news is that they will be releasing resources that can be transferred to sectors and companies that can actually expand over the next five to 10 years, but that is not going to be something that it's easy to manage as a slow and seamless transition. I think we will see episodes in which events occur that people will find disturbing. But I guess an inevitable consequence of trying to get back to a world where real interest rates are back at more normal levels. And they’re not, I mean I look today that real interest rates in the US on government bonds are markedly negative at every maturity. It's not just the short term, it's long term too and it's hard to see how that can be sustained in a growing market economy.

Markus Brunnermeier: So when you talk about death restructuring, you talked a lot about the corporate sector domestically. Do you think the household sector is better shielded compared to the last financial crisis where the housing sector was very negatively affected, then we also have sovereign debt restructuring and emerging economies and developing economies, if you look.

Lord Mervyn King: At things like the prospects for households that will depend on which country you look at if there is a great deal from one country to another, whereas I think for corporate debt, the same problems are there in all major economies and for sovereign debt. I don't think this is a big issue for the G7 economies, but I do think it's an issue for emerging market economies and also for the large number of low income countries where the IMF have identified anywhere between 80 and 100 economies as needing help in order to avoid a resort to significant debt restructuring. I think the concern is that although we've had some experience with dealing with debt restructuring of one or even a small number of low income economies and emerging economies we haven't really seen that problem when we've had a large number of economies all at the same time, experiencing the same issue, so I think that the issue of debt restructuring will be a major structural problem facing monetary and fiscal authorities in the next few years.

7:53
Markus Brunnermeier: Do you have a take on this new common framework the IMF is pushing in a sense, some people argue it's not really specific yet so the specifics still have to be worked

out and the biggest challenge is essentially to bring China into the boat to have essentially a debt restructuring which includes it's all creditors, including China.

Lord Mervyn King: Well, this is always the issue with any debt restructuring, which is creditors don't want to participate unless all creditors involved they don't want to give up a claim on a debtor country if the money is simply going to another creditor rather than to themselves, and I think that for low income countries, we had an effective mechanism in the Paris Club that really does not take into account commercial bank lending and the problem is that China finds it convenient to argue that loans made by their state banks which are really in essence Chinese state loans to those countries should be treated as commercial bank loans, rather than loans relevant to the Paris Club. I think it's gonna be difficult to bring everyone together on this. I think a reasonable amount of goodwill to find a way through it, but that doesn't mean that it will be straightforward to achieve that by any means, given the number of countries that potentially could be involved.

Markus Brunnermeier: So far you wouldn't see high inflation helps in solving this problem, because you inflict some of the debt away.

Lord Mervyn King: It depends on the duration of the debt, I mean the trouble is that much of this debt is short term and, of course, if the duration is short, you know the markets will be rolling over the debt too quickly you don't get very much relief from higher inflation before the interest rate you're paying on the debt as you roll it over it goes up and what you already see is, which I think will surface quite significantly in international meetings, are the IMF another saying to the United States “look be very careful when you raise interest rates, because you'll do damage to low income countries that have borrowed in dollars.” Well, it wasn't the fault of the United States. The best thing the US can do now really is to get control of inflation in the US.

Markus Brunnermeier: So coming back to the inflation expectations, do you think the market has it right, I mean the market is still a bit of a benign view of future expectations? Or do you think, you know, the market is getting it wrong and I guess your Maradona approach means also you make some moves in the central banks, where the market doesn't anticipate your moves the right way.

10:41

Lord Mervyn King: Well, the whole point of the Maradona approach to monetary policy, which is the idea, based on a great footballer Diego Maradona, sadly now past away who beat five English players by running in a straight line, and you know how can you beat five players by running in a straight line? Because they expected him to go to one side or the other, and that's the idea that, if you are a really credible central bank, you may not need to move interest rates very far in one direction or another, if the markets anticipated. The trouble is that depends on having a really credible central bank, and I think one of the problems that central banks have fallen into the trap of in the last few years is to believe that somehow that credibility is independent of the actions that they take. So you find in some forecasting models that the credibility is assumed to be that everyone believes that inflation in the medium term will come back to the target, irrespective of the policy that you perceive. That cannot be a sensible approach to thinking about credibility. If you start printing lots of money or have excessively low rates for a long time, people will question whether in fact inflation will come back to the target in the medium term. And so I do think that there is a real problem now. To me the most astonishing fact about this is to contrast the last decade when, in the United States, the Fed's preferred measure of inflation PCE measure of inflation was always between one and 2% a year for a decade. It never got to zero. There was never any hint of having any deflation there and from the perspective of the 1990s, when central banks around the world were becoming more independent we're thinking about inflation target, one to 2% a year was heaven, it was nirvana, you couldn't have a better outcome than that. And yet we got obsessed by the fact that “oh gosh you know inflation's only 1.4% we can't get it up to 2%.” And so you know the Fed I think fell into the trap of thinking “what we'll do is just announce flexible average inflation targeting will say that we’ll have a little bit of an overshoot for a period to compensate for these undershoots” (Which are pretty small and any event). No one when that framework was introduced ever said, “you know, it would be a good idea to have inflation at 7% for a while, in order to compensate for the undershoot” and this belief that somehow you can get inflation up to 2% of all very difficult well once you stop trying it's amazing what you can do we've managed to get to seven really pretty quickly. And these things happen, and I think the important thing is just to focus on the narrative that the Central Bank can give to people in the economy: what is going on, why is inflation high, what action are we now going to take to bring it back down, and how long is that likely to take. I think the trouble about the present situation is that central banks have clearly been taken by surprise by what's happened. And they have for a long time kept promising people interest rates will stay low for a very long time, believing that those statements will actually generate faster growth, and push inflation up from 1.4 to 2%. This was fine tuning of a kind of I think beggars belief in light of what we've seen in the last 12 months, so I think that central banks have a very tough job on their hands now to restore credibility and to present a narrative about what's going on, that people believe in, as opposed to the view these people don't know what they're doing, they've lost control that's where things become damaging and we're inflation expectations can pick up.

Markus Brunnermeier: So, if you look at the inflation anchor, do you think it might be easily broken? What is the strength of the inflation anchor? How would you measure, if you look at household expectations of inflations or the market, the bond trader’s expectation? What is your best indicator of how strong the anchor is, and do you think that people who never experienced inflation, they have a different take on inflation expectations, because that didn't live through the 1970s let's say and do they have a stronger anchor, they belief more it will come back or have a weaker anchor because they never experienced it?

15:29
Lord Mervyn King: I think the anchor is linked to the sort of narrative that people have about what's going on, and I think the best definition of price stability is Alan Blinder’s definition which is “price stability is when people stop talking about inflation.” And it doesn't enter their calculations where they think about their economic lives and we achieve that, we got to that point. Well people sure are talking about inflation now, so I think that it's the case that the anchor is certainly dragging quite badly and I think, possible to put a convincing quantitative story to that because if you use market expectations, then market prices can change very quickly, so what you're really concerned about is a longer term narrative. Now what I find from my experience was that one of the enormously beneficial aspects of what we were doing in the 1990s and early 2000s was to try and put in place a monetary policy against the background where most people could remember high and volatile inflation of the 1970s and in the 1980s. And that the memory of that was seared in their minds, and they were very supportive of policies that would bring about a return to low and stable inflation. Initially there was real skepticism that it could ever be done, I mean there were beliefs, back then, in the 1980s, there were real beliefs amongst many people that inflation would always be high, we simply couldn't break it down. And that was, I think, just as foolish as the view in the last decade that inflation is going to be low forever and our problem is too low inflation, rather than too high inflation. The younger generation now we're in a situation where most central bankers don't remember the

1970s. And so, that is, I think, a feeling that since inflation hasn't been the main talking point for quite a long time that the narrative was one in which we just take press stability for granted and, in many ways that's a good thing, that's what you want. But I think the younger generation, looking at the situation today will be asking “what's going on, what is happening? We don't understand this, we were told that low inflation was here forever and the real problem was the inflation was too low. Now we suddenly find ourselves at 7% inflation, what is happening?
I think the challenge for the Central Bank, therefore is not to worry so much about a market measure or even a survey measure, but actually to try to tell a narrative themselves and make people believe, yes, inflation is very high, now, but that does not mean we can't bring it back over a period to where it was before, and I think it's certainly within the power of the Fed to bring inflation back to 2%. But they've got to recognize that the current level of interest rates is way too low for what's happening to try to understand why we are in that position and to tell a story about what happened to the economy, as we transition back to price stability.

Markus Brunnermeier: Could make the case, in a sense or try to give a story, that everything is just transitory. That was the narrative they tried to push too hard, but I think that story lost credibility by now.

19:16
Lord Mervyn King: The trouble is that almost any coherent theory of inflation will suggest that high inflation is transitory in the sense that once you put in place the appropriate policies, you will be able to bring it back down. In that sense that what we're seeing now is transitory and well that wasn't the sense in which the word transitory was being used. It was being used to say all there are some supply side shocks have come along. That will die away very quickly and underneath it well, this is a return to price stability, and I think the concern now is much broader than that. Policy can still bring it back and even if you look at the monetary aggregates, where I think the broad monetary aggregates are relevant, but not the monetary base. You've already seen a significant fall back in the growth rate of money, so this is something which means that we are facing a burst of inflation now, but it is likely to come back. But what's crucial, I think, is that the Federal Reserve has got to relate the path of inflation, to the policy actions that it's taking. And that means, unfortunately, I think admitting that policy was just too loose in the last couple of years. That's not easy for a central bank to do, but without that recognition, it's going to be difficult, I think, to describe a narrative in which policy could bring inflation back.

Markus Brunnermeier: So there's one striking fact: would you say Japan is different because inflation did not spike in Japan so far and so would you say in Japan, you need a different narrative? Or what is so surprising that outside of Japan, outside of Asia, you know there's this huge inflation spike everywhere, but in Japan you don't see the same kind of similar measures over this. What's your explanation for this difference?

Lord Mervyn King: So I think there are two things, one is that people, when looking at the monetary stance in Japan, tend to look at the monetary base, not at the broader measures of money held by the public. And secondly, that they've had such a different, much longer period in which inflation has been low and growth has been not too bad at all in terms of growth per head. Japan has had a performance right up there with the rest of the G7 economies, so I think there is a difference there. They've been in this position much longer and I didn't think that some of the policy statements have made a great deal of sense, and indeed it seems to me that. When they announced that they were going for yield curve control they wanted to take the 10 year bond yield. What was so remarkable about that was that anyone who had looked at monetary history realized this was the complete reverse of what happened in the United States in the early 1950s, when the accord between the Fed and the US Treasury permitted the Federal Reserve, not to pick 10 year yields any longer precisely to give the Fed the power to control inflation. So basically the independence of the Bank of Japan was handed to the finance ministry. And there has been a very cautious approach to policy stimulus in Japan as a whole, if you look at almost all their fiscal stimuli that they try to put in place they're always accompanied by strong statements saying we'll do it this year but next year will unwind it. I don't pretend to have a coherent story for the whole Japanese experience, except to comment that the Governor at the time for much of this period, including the crisis in Japan, was always pointing out that we shouldn't assume that there is something unique about Japan that couldn't happen in other countries and that structural factors are very important in determining what was happening to underlying economic growth.

Markus Brunnermeier: So let me come back to the narrative which I think is very important, Bob Shiller popular wrote a whole book on narrative economics. But, in a sense, a model is all the narrative, it's a particularly complicated narrative. And you wrote a book after completing your terms of the Bank of England as Governor, before that, as a chief economist. You came up with the word radical uncertainty and I was wondering whether we can go a little bit in that direction, where do you see the role of models, the limits and the importance, and you know, in order to spell out one form of the narrative is also spell out the the reaction function of the Central Bank. We don't sometimes have the impression in certain parts of the world that there's no clear reaction function in a sense that if inflation stays high, how will they react. Can you elaborate a little bit on that dimension.

24:35
Lord Mervyn King: Yes, the world is very complex that's why we build models to simplify it so that we can get our head around a problem that can be very complex and we have to simplify as much as we can to understand the essence of the problem, and then we draw lessons or intuitions or the examples in our mind, which we think carry to the real world, when we set policy and I think that the big problem with the application of models to monetary policy is that too many people set policy in the model and not in the world and the whole point of a model is not to describe the economy. You can't do that, there's no model that describes the whole economy, the point of a model is to simplify a certain aspect of the world, so you can get your head around it and learn something about it, it provides enormous illumination about things that you can use to think about the actual world and, in many ways, the most useful models are the ones which are most unrealistic because they may tell you something which really changes the way you think. George Akerlof’s lemons model was incredibly helpful in understanding why the first year textbook example prices set by the intersection of demand and supply is not the whole story when there are differences in information between the two sides of the market. An idea that, like all good ideas, seems rather natural and simple when it's explained, and it was done in the context of the second hand car market. But that model told you nothing about the second hand car market, really, it wasn't meant to describe the second hand car market, it was accountable. But the parable was incredibly powerful because it gave you intuition that you could then carry to the world, keeping in mind when you were actually confronting real world problems and making decisions. And I think that one of the weaknesses in monetary policy in recent years has been the belief that the incredibly simple models like the ones that are used to think about the dynamic setting of monetary policy with agents, or agents anticipating the future, are very useful models to give us intuition and understanding about how to think about policy, but it's an awful mistake to set policy in the model and believe that that's a description of the world, other things are going on. A simple example is that I remember the Bank of England one monetary policy committee started in the mid 70s. The staff will produce forecasts of inflation and what was so striking was that it didn't seem to matter what policy we said inflation always came back to 2%.

So we said well why does inflation come back to 2%? The answer was you have to have something to close the model and people didn't want to use –for understandable reasons– relationships based on monetary aggregates or some other observable variable, so it was closed by a reaction function which essentially assume that inflation would come back to 2% and it was assumed that everyone believed that it will come back. And there was no easy way in that model, and then the forecast that was produced to ask the question: is the policy that we are pursuing running a risk with our credibility, such that the assumptions underlying the forecasts are clearly false and you need a narrative you go to the models useful as inputs into a discussion. But the policy has to reflect the discussion, and not just the output of a single model.

28:56
Markus Brunnermeier: So I take it that if I make this salt water with this freshwater device you're more on the salt water simple illustrative morals with insights. But if you look back at your experience in policy making, you know both of these models have big quantitative models come to the table and the simple models come to the table. Isn't it nice to have both on the table, but you would say the latter have more influence in people's thinking than the simple models when decision makers around the table make decisions that shape your decision making more?

Lord Mervyn King: For sure that the Bank of England we always talked about and used a family of models, we didn't want just to use a model. And the models we use to produce alternative views as to what might happen, and then you ask the question, so "why is it that one set of models is producing one forecast another set of models gives a very different outcome? What's the economic difference between them that's generating it? But that's the use of models, to get you to stimulate discussion, but in the end, you have to come back to a judgment because no one model is meant to be a description of the world. Models are devices to ensure that you can't get away with sloppy arguments or a lack of rigor. It's imposing rigor on the arguments; it isn't a method of describing the world, and that is the big difference from, you know, say physics, or a natural science, or there are fixed laws of nature where you can discover the law of nature, now, and after a couple of hundred years you believe this is a genuine law of nature and it's unchanging we're not in that world that's what radical uncertainty is really all about things are changing all the time.

Markus Brunnermeier: So let's perhaps move to the time when you started at the Bank of England as chief economist before you took on your long tenure as Governor of the Bank of England. You know, inflation targeting in the 90s took over, but you know first you know the England/UK had challenges with exchange rate. How did this play out and how did it come to inflation targeting in the beginning? Perhaps you can look back in your own experience a little bit and tell us what the decisive elements were and what made people change the paradigm towards inflation targeting and then later we might talk about the limits of inflation.

Lord Mervyn King: In the 1970s, I think there was a view that something had gone badly wrong because it had been assumed that you could run the economy at a very high level of activity without producing inflation. It was the time of the natural rates hypothesis, rational expectations. Basically, the proposition was that there's no long run tradeoff between inflation and employment and output. Therefore macroeconomic policy needed to ensure that there was a monetary policy framework, which would ensure price stability. 1980s, the first attempt to do this was based on monetary aggregates, the problem was that policy had changed the structure of the financial system, very markedly. The abolition of a number of important controls, not least exchange controls, which meant that the quantitative interpretation of monetary aggregates proved really problematic. So then, there was a switch to first implicit and explicit linking of the exchange rate to the Deutsche Mark to try to inherit the credibility aspects that the Bundesbank had built up and the problem with that was that another unexpected event occurred which was German unification, which meant that Germany needed a much tighter monetary policy with higher interest rates to dampen down domestic demand, given the integration of East and West Germany and so being in the exchange rate mechanism linking Sterling to the Deutsche Mark turn out to be highly deflationary. Now that certainly helped to bring inflation down, no question about that. However, it led to such a deep recession that this was not something that anyone believed could really continue politically and so when Germany raised interest rates again, there was a crisis in financial markets, but people said look there's no way British governments are going to be prepared to raise interest rates to the levels necessary to maintain the exchange rate link and we had September, 1992 is when Britain was forced out of the exchange rate mechanism by massive speculation. At that point we had to put together a domestic monetary policy framework and our experience of having the intermediate targets, whether you think of the monetary targets, either monetary base or broad monetary aggregates or exchange rate link, none of these had worked because there was structural changes going on in the economy that made them hard to implement. And so a much simpler heuristic would be to target inflation itself. That's what the public could see, and we can produce a narrative on a regular basis that would explain to the public why the actions we were taking were consistent with maintaining price stability in the medium term and to bring inflation back towards the target if it deviated from that, and that proved incredibly successful because we still had to use data on whether it was the monetary aggregates, the exchange rate, the Labor market. One of these things had to be discussed and debated, but that could be done if you live in an expert environment where economists in the city and elsewhere could participate in that debate, but the upshot was people could see that the Bank of England was setting monetary policy to achieve a low and stable inflation target initially ultimately at the target of 2%. And that proved, I think, extremely effective at demonstrating that there was a degree of professional competence involved in setting interest rates that had not been there before because interest rates had previously been set by politicians. And this was a big regime change there's no question about it, and you can see that from ‘92 to '97 Bank of England developed and evolved an independent voice in monetary policy, then in 1997 we were given full independence to set interest rates and that led to pick for in measures of inflation expectations in financial markets and made a very successful period, you know after that. The transparency was a key element to it.

Markus Brunnermeier: Yeah, so I wanted to ask. What’s nice about this setup in the UK was essentially the treasury was determining the target and the implementation was then done, this separation between the UK Treasury and the Bank of England was a very intuitive framework at that time. But the second innovation of inflation targeting is essentially with transparency and you alluded to that. To what extent is transparency important to have a convincing narrative? Do both have to go hand in hand, can you have a convincing narrative without transparency? And what role does press conference inflation reports, Fan charts which were invented at that time. What does that mean? Perhaps you can elaborate on this dimension.

37:06
Lord Mervyn King: So I think you have to have a degree of transparency, in order for the narrative to carry any weight, so you can't just say, “the Bank of England has looked at the situation, we believe that inflation will come back to delegate.” That isn't a very compelling narrative. And I was very struck by the fact that, as our new framework evolved, particularly after independence, nine Members on the monetary policy committee that published the minutes of those meetings, had big differences of view, and if you as Governor, I was in a minority on three occasions. And that didn't undermine the credibility of it rather enhanced it, because people would say, “I don't agree with the decision you made last month, but I'm really

happy with the framework because my feelings about it and the arguments I would have liked to see win the day were actually discussed at the meeting, and I can see that, because of the minutes." So I think you've got to set out an argument which basically says, you know, there are these reasons for thinking that perhaps inflation is going to be above target, we need to raise interest rates, another set of reasons that says actually it's not a good idea to raise interest rates now. And to put those on the table, be open about it, and then to say actually a majority of the committee came down on this side, rather than the other side, but not pretend in the way that politicians always do, that their position is obviously right, and the position of the opposition is obviously wrong. It's not, it's a nuanced position, always. And in doing that spreading that out you gain credibility, and I think the important thing about the narrative is that it has to evolve and change over time so, you know, we were learning about the economy or the time, one of the good things was that the Bank was probably the first institution in the country to recognize the significance of large numbers of people coming from Eastern Europe into the UK, which meant that actually there was no fixed supply of Labor that more demand generated its own supply, so the Phillips curve became very flat. And to talk about these things in an open way, but I want to also say what transparency is not. I don't believe that transparency is about having transcripts of meetings. Because, as soon as you have the written as soon as you require meetings to have to publish transcripts 5,7,8 years later, that meeting stops being a useful meeting and all that happens is you get a series of people going around the table reading out a prepared statement., which is of little value and certainly is not the decision making process, so you know what happens at the Fed and I think now, the Bank of England is that the real meetings, real discussions, take place before the meetings at which you are compelled to produce transcripts.

Markus Brunnermeier: The US Fed has this rule, if there are more than three governors talking to each other…

Lord Mervyn King: I mean it seems to me absurd, because that's not transparency in order to generate a narrative that the rest of the world can understand and criticize. There has to be a room for private conversation, and what transparency really means when the Central Bank takes a decision, it should be forced to explain that decision and give the reasons for it, it doesn't mean that every meeting of the Central Bank should be either live on TV or in the form of a written transcript five six years later. But it isn't transparency that serves a purpose. I think it's counterproductive, so if you talk about the fan charts that will be produced, the one thing that I was actually determined to do from the very beginning, when I joined the bank, was to get away from the idea of point forecast. I find it hard to believe that anyone can issue a point forecast and regard that as a coherent statement. It isn't. There is a lot of uncertainty about it. And the most important aspect of a decision is very often are the risks more on one side of a central view than the other side and is there a great deal of uncertainty or not much uncertainty? These are the big questions. So the first inflation report, which was the document that underpinned our voice and independence in February, 1993 even in that very first report we had bands which illustrated the average forecast error from past experience to illustrate the uncertainty about the forecast and then we evolved that into a rather nice official fan chart with bands representing different probability intervals, which we published. To begin with, those charts were shown live on TV the day of our press conferences and then the producers of TV programs who struggle to cope with anything quantitative.

42:30
Markus Brunnermeier: I still vividly remember that, because I was at the LSE at that time, and the fan charts were presented, but coming back to your narrative, and perhaps also fan charts, you probably have to have one communication strategy to more sophisticated audiences who

read in minutes, and all this and then to the others who you know don't want to be bothered by inflation they're just want to make sure that inflation is not too high. So do you have different narratives of different subgroups or they have to be consistent with each other as well. How can you handle this communication strategy in which you talk to different audiences and make sure that there's a common narrative behind, but then there's fine tuning across the different audiences?

Lord Mervyn King: Well, I personally found that I would give the same explanations to any kind of audience, because if you can put across what may be a complex position in rather –not simple minded terms– but straightforward, clear and simple terms, and people can understand it. If they bothered to come to an event, they obviously have some interest in the inflation outlook, what's going to happen in the economy. But I found that some of the more sophisticated audiences allegedly were some of the least sensible because they want to get out their slide ruler and try and measure the precise value of the central forecast in the fan chart and I said this is completely pointless. It's the impression on your eye about how much uncertainty there is, and where the risks are that matters, and then we can talk about it and discuss it, but this wish to always come up with a precise numerical forecast for some future event is something that I found that people in government in many countries feel under great pressure to satisfy. And it's a disaster to get into it, because you'll always be proved wrong and you're not actually doing anything that's very useful. What you need to do is to get people to think about what is perhaps a likely path of events, but more importantly, what are the risks around that, where are the risks coming from, are there things we can do to mitigate those risks. Those, I think, are the key things in making a decision, not pretending that we know. I've always thought there was something very odd about the dot plots in the Fed's charts, and the fact is, the Federal Reserve doesn't have any idea where interest rates are likely to be a year from now. Now, certainly not three or four years from now, and it doesn't make any sense to pretend that we do.

Markus Brunnermeier: Instead of dots, they should give intervals?

Lord Mervyn King: Well, there is a challenge if you're trying to put across the ideas of a group of separate individuals, and I think we're much better not to focus too much on the numbers that individuals think, but to see if there is a collective agreement on a narrative about likely paths and risks to it above and below. I think the biggest challenge that we didn't solve at the Bank is how we presented the forecast when you've got nine people on a committee, you do not want to present nine different forecasts. That's just confusing and it tells you more about differences of view than anything else. You want to know what is the debate on the committee, what are the issues that people disagree on? Not that they have a dot plot that looks different, but why are they different? What are the reasons for being different?

Markus Brunnermeier: So you already raised some challenges of inflation targeting, perhaps we can go to the next block, which is stretching inflation targeting. Where do you see the limits of inflation target or the shortcomings and the world we are moving towards. We have forward guidance, so we have the national rate of interest, nobody really knows what r* or the national rate of unemployment, how to measure it. And we have many rates, not just the short term rates, we have perhaps even a national price of risk or risk premia, why only the risk free rate? So it's not obvious, and where do you see the future of the flexible average inflation targeting framework, you mentioned in the initial phase, now we have 7% inflation in the United States so will we correct for that subsequently or you know how do you see this coming and playing out and I think you're very much a money man, so for you money was always important, and a lot of inflation targeting moved to a framework where money was not the key in the monetary economics and monetary overhang aspect, and all this, perhaps you can allude to that. Do we have to bring money back? We have these cashless economy models, do we have to take money more seriously in our models going forward?

47:47

Lord Mervyn King: So two different questions I think well what sort of models, should we be looking at and then secondly, as should policy be set in the world and I don't think we should go back to the idea that there is one measure of money that can be used in order to determine policy. But I do think that if you observe, not so much the monetary base because we saw the error in the financial crisis that the whole point about having a rapid expansion of the monetary base was to prevent broad money from falling sharply, so it is broad money that really matters, money in the hands of the public. If that is moving either plus 20% a year or minus 20% a year, you have to ask the question, what is this telling us what is going on? And it doesn't mean to say there's a simple automatic answer to that, irrespective of circumstances, but you need to ask the question what is going on, and I think that's the point about this. The danger of setting policy in the model is that you believe you can fine tune what is going to happen and that, I think, is the trap into which flexible average inflation targeting has fallen, the idea that we can control inflation sufficiently precisely that we can, aim to have inflation say 3% of the year for 18 months, and then bring it back to 2% in order to offset previous under shoots of inflation below 2%. Well here we are, you know, a year and a half perhaps into the new framework and inflation’s at 7%. Well, that wasn't the conscious result of the application of the framework and in a sense, the framework just being overwhelmed by events. It is not sensible to have a framework that can be that easily overwhelmed by events. But I do think of a framework in which people ask the question: what's going on? People talk a lot about the natural rate of interest, but there's a real parallel with the lessons from the study of the natural rate of unemployment, there was a concept which was incredibly powerful in helping us to understand that there may well be no long run tradeoff between inflation and unemployment, let me put it in that very simple way: that was a very powerful intuition that you could take away. So people inevitably decided to go out and estimate the natural rate of unemployment. Now the trouble with it is that the idea, the intuition, that there isn't a long run, trade off came from model in which you could define a natural rate of unemployment, but Friedman’s definition of the natural rate of unemployment rate of unemployment was that will be ground out by the Walrasian equations. But we don't live in a Walrasian world, and we don't live in a world of complete markets, and so what happened was when people try to estimate the natural rate of unemployment, what do they find? Amazingly it actually seemed to follow the actual rate of unemployment, with a lag and it was very hard to believe that there was some independent measure of the natural rate of unemployment that was useful in setting policy. Well, I think the same is true of the natural rate of interest. 20 years from now, people will look back and say well guess what the natural rate of interest fell very sharply in the 2010s, stayed a bit low, perhaps in the 2020 years and then rose again, but that's not an independent measure or something that's going on in the world, and I think this is where there are limits to models, you have to ask the question is that we learned some very big lessons from the models with natural rate of unemployment, but does it really make sense to think that there is a stationary number that represents it, that we can actually use to set policy, and I think the answer is that it's helpful and it's I think that is certainly true, the natural rate of interest, so I’m skeptical that we should assume that we can write down a model in which these things are well defined and then basically set policy in the model, and then use those numbers and take it to the world, it is much more complex than that, and I think the last couple of years have demonstrated that.

52:17

Markus Brunnermeier: So all these rates are the short end of the yield curve. Once we move to manipulate the lower end of the yield curve, we move into the balance sheet of the Central Bank aspects now QE and we talked about the curve control already. Can you allude a little bit, how do you see the future of the central bank balance sheet looking? So we have increased the size of the balance sheets quite a lot, will they stay larger in all the futures or we're living now with a much larger central bank balance sheet even though we might have high inflation? Or will the balance sheet shrink again not to the same level we had before, but will it come back down, how do you see the optimal size of the central bank balance sheet playing out in the future, will it move up and down depending if we do more QE or less quantitative type thing, quantitative easing and so forth.

Lord Mervyn King: Sure, it will vary over time and of course the interesting thing is that there is no optimal balance sheet in terms of setting monetary policy, your ability to set monetary policy is not a function of the size of the balance sheet. You do it with any balance sheet size you like. What QE was designed to do, initially, when I talked about it, not the way, I think the Fed talked about it was to say after September, October 2008, what we saw was that commercial banks were desperate to contract the size of their balance sheet, both through regulatory pressure, but also market pressure. And therefore, they were pulling in loans, they didn't want to extend lending and you know the one iron law of economics is double entry bookkeeping, so that meant the size of their as their liabilities have to contract as well. That meant the bank deposits were actually falling, and I think there was a genuine concern that if the absolute value brought money in the economy was going to contract significantly, that would threaten something like a repeat of the great depression, so you needed to take some offsetting action. Well, interest rates have been really reduced to close to zero, so the idea that you could cut rates further and encourage people to borrow and banks would be willing to meet that demand for borrowing is not really a feasible option. So QE was actually in many ways, a rather traditional policy instrument, which was to say that central banks would buy government bonds, and that would boost the level of bank deposits of the institutions that sold bonds to the central bank by the same absolute amount as the QE purchases, so it helped offset the contraction of deposits by commercial banks, but since then commercial bank deposits are so much larger than the size of the Central Bank purchases and monetary base, then you had to have a big expansion of the monetary base through QE in order to have a noticeable impact on broad money. And so, a lot of QE was done, but it didn't lead to a significant growth rate of broad money. It prevented a decline of a mark size but it didn't lead to a significant expansion. So as soon as we close to 2020, 2021 that was not true, commercial banks were not contracting their balance sheets so the QE that was done added to the expansion of money.

56:07
Markus Brunnermeier: I think that's the explanation why the inflation spiked too much, because it was just adding to the money, like after the financial crisis was just substituting/replacing the shrinking of the private money with public money.

Lord Mervyn King: Yes, and I think that there are a whole series of things that could follow from that one is the portfolio effect of an expansion of broad money where the actions are taken to push up asset prices of other kinds of assets, but also it made it very much easier for governments to run big deficit because they didn't have to sell as much debt to the private sector, and so, whether you want to attribute it to the expansion of government spending or the expansion of broad money, I think you can choose whichever explanation you like these things happen simultaneously and they were linked. But I think what was done, I think, was undoubtedly something that was but that led to the inflationary spike and I think the interesting contrast between the US and Europe in this respect. I think in the US, because there was no furlough scheme unemployment was allowed to rise to very high levels for a short period, then brought back down again it was easier for people to use a narrative that confused what was going on under Covid-19 whether conventional business cycle, but just have a much deeper magnitude and I think that in Europe that wasn't true. The fiscal measures taken by governments in Europe, I don't like to use the phrase to describe them as fiscal stimulus because the aim was not to boost aggregate demand, the aim of the furlough scheme and the significant expansion of government budget deficit was to enable companies to survive while maintaining employment, the people weren't producing anything but they'll still being paid by companies, financed by transfers from government under the furlough scheme, and what that did was that governments are trying to prevent a further large contraction of supply, in the medium term. There was a big contraction of supply in the short term because governments closed parts of the economy, and households decided that they had no wish to go out to spend money on hospitality or cinemas or theaters, so a mixture of household decisions and government decisions contracted the size of the supply of the economy, but the government was trying to prevent that leading to a persistent contraction of supply in the medium term. By allowing businesses to survive, that was the nature of the increase in budget deficit, and I think of that as fiscal stimulus but intergenerational transfers to prevent the collapse of businesses and I think it was a very sensible thing to do. What was much less obvious was why a central bank wanted to print a lot more money. I think it reflects something that I am worried about which is that once you stop telling a narrative about what's happening in the economy in terms of economic variables that rely on the assumption of Central Bank credibility to underpin the medium term path of inflation, you end up with a position in which, central banks, think that QE is just something you always do when there's bad news. And whether it's Britain voting to leave the European Union let's do some QE, whether it's "gosh there's a pandemic, let's do some QE," but the important question to ask is what is the economic justification for monetary policy response. I think that argument and maybe many answers to that, but that question very often was not posed and central banks seem to take the position that it's important that we demonstrate that we're here. And "don't worry we're on the case" but being on the case has to be justified by a story about why the monetary responses are necessary and I think that we've Covid-19, the problem was that the very sharp falls in demand and GDP (in Britain have up to 20%) were actually matched by corresponding reduction in supply. And so that the argument was not, it was not a business cycle normally in a business cycle downturn you think that demand has contracted, maybe a loss of confidence, but basically supply and the economy hasn't changed very much and so you want to stimulate demand by monetary and fiscal policy to bring demand backup to the unchanged path of supply. Here, both demand and supply fell broadly together, and I think the risk of that is, if you think "oh gosh, GDP has fallen, we better do something," that you end up printing far more money than you should be doing, and you then get inflation, as a consequence.

1:01:30
Markus Brunnermeier: What do you think about going back to the balance sheet, you know you can actually buy government bonds, which is considered in many countries as a risk free asset, or you can also buy more risky bonds, or more risky assets like corporate bonds and other things in order to get the risk premium down. So you try to manipulate not only the transcript but also credit risk premia and other aspects to it and if you go to the European Union or the Euro area, there are certain bonds which are more risky and less risky and you essentially control some risk premium on top of it. Is this the role the Central Bank should also take? Let's suppose you go through a pandemic and there might be multiple equilibria, you try to avoid a bad equilibrium, and then you really step in and when do you know whether it's a bad equilibrium

you want to avoid or when do you know it's just undermining other and leading to inflation down the road?

Lord Mervyn King: I think there are two steps in this argument. The first one is the general economic proposition: is there a case for intervening to reduce risk premia or to try and choose one equilibrium, rather than another. That's an economic argument. The second argument is once you've answered that first question, which body should be charged with the responsibility of doing it? And my feeling is that the state should be buying risky assets, to try and reduce the risk premia or try to shift from one equilibrium to another, then it's not the job of the Central Bank to make decisions about which risky assets to buy. And, in the case of the European Union, which countries bonds to buy, the Central Bank should be buying the safe assets issued by government, because their mandate is to be price stability, and as soon as you allow an independent central bank to get involved in credit decisions, then the justification for political independence goes away, I think. And I think a good two examples one the serious one, which is the euro area, but the whole point of the European Treaty governing monetary union was that it was written in the European Treaty that it was not the role of the ECB to bail out governments that were struggling with sovereign debt. And if that was to be done, it should be done by the finance ministers of the euro area, reaching an agreement on a fiscal union. And what the problem for the European Central Bank is that they've been forced to adopt crazy fiscal measures in order to hold a monetary union together. In a way, that has the potential to undermine their reputation as a central bank, because they will be accused or could be down the road of trying to create the fiscal union through the back door. By pretending that there isn't one, these are just Central Bank actions. And the European Court of Justice has been willing to go along with that, because when this was challenged in the courts, the response of the European Court of Justice was to say, “But if the ECB decides it wants to do it, then, by definition, it must be monetary policy.” Well that's one of the craziest arguments I've heard, for a long while. I'll give you another example of a silly example, in a way it's true, and when I went to Parliament and people would say to me “you say you want to buy government bonds, but not private sector assets.” And I said “yes, we have no mandate for Parliament to make decisions about which businesses, we should be buying the instruments issued by those businesses.” And they said, “but this is terrible I mean, surely you can do far more to stimulate the economy by doing that” and I said “well true, I could think of a relatively small company in the Midlands and if they were to issue bonds or equity we bought them, I can guarantee it would boost consumer competence enormously in that region and boost them out.” They said “why wouldn't you do it?” And I said “well because the company I have in mind is buying the issue shares of Aston Villa Football Club, and if we were to do that consumer confidence will rise enormously.” “You can't do that, you can't do that,” they said. I said “well now you see my point.” You know, we don't have the authority to make that kind of judgment decision. If you think the government should get involved in deciding that the state should find a liability issued by one company, but not another company that is a political decision, don't give it to an independent central bank. Because the Central Bank could easily buy government bonds and then the government could decide itself which of the assets, which instruments from the private sector, it should buy. It doesn't stop it occurring but it's very important, something which I think is often overlooked in economics, which is that for institutions to be successful, you need to be very clear about what the responsibilities are for that institution. And, of course, in all our economic analysis, we tend to think of what will maximize social welfare and we don't really think a lot about which institutions should be asked to do, which measures to achieve.

1:07:15
Markus Brunnermeier: So your answer shows that you're big in sports and then you also have in your I guess also involved in many, many other things in the UK in the sports area and, of

course, football is big for you and for many people in England and across the globe, let me just go to another topic will be touched upon that already. Central Bank mandated independence, so we have to speed up a little bit we're running a little bit late, but you know there's all this debate, you know, central banks should care about climate change. They might be promoting specific sectors, we talked about that, what about the next financial crisis. So where do you think some limits central banks should go and not go into? And you know what's your take, can you give some guidance, how to think, and I think you alluded to in the previous answer.

Lord Mervyn King: Central banks should be involved in things which their instruments can make some impact on. And I think you know, one of the things I worry about is in the last decade, perhaps because interest rates were low and were hardly changed at all. So central banks are like “what are we doing?” you know they go home at night and say, their children ask them “Daddy, what did you do today at the Central Bank” “well, you know, we met with our friends again and decided to do nothing,” and this happens year after year, and so you want to do something. And so central banks felt they had to justify their existence by being involved in doing something. Climate change is a good example, no one would ever create a central bank in order to deal with climate change and the instruments of central bank are singly ill equipped to be the main methods of responding to climate change, whether it be in terms of monetary policy, which bombs, corporate bonds, do you buy under QE where you know, the Bank of England has issued a very good paper on this, but it reveals the difficulty. It ties itself in knots in trying to work out which company’s bonds you might buy. I mean you don't want to buy bonds of a company that isn't having large emissions and saying we weren't buying bonds of those companies. Because they have no influence on the companies at all at that point, they end up concluding that we ought to encourage the purchases of bonds issued by companies that we think in a subjective assessment are making the best efforts to try to reduce their emissions. Well a subjective assessment like that has no basis on which to convince people that you're using your powers appropriately and, although in terms of risks to the financial system it's very hard to deny that if there are risks from climate change to the financial sector that central banks need to think about these risks. The trouble is that although all the effort is going into only one kind of risk that is a risk and climate change, so people don't want stranded assets. More than gas underground, but if you want to see stranded assets, the last two years will give you much better examples: fleets of airplanes parked on deserts around the world, cruise ships floating in the ocean with no passengers. We know these are stranded assets, literally stranded, and there are risks, not just from climate change but from pandemics, from cyber security, geopolitics, always supposed to worry about banks and the financial sector lending too much to companies that have close relationships with Taiwan that could be severely reduced in value as a result of events by China in Taiwan, Russia in Ukraine. I mean there are so many risks and I'm not sure that it makes sense to think that central banks are the vanguard here of the appropriate policy measures to deal with climate change. It is not very convincing when governments that refuse to introduce a carbon tax turn around and say, “well, central banks must do their bit.” People in glass houses shouldn't throw stones.

1:11:40
Markus Brunnermeier: So we're running away over time, but let me just raise one more issue, perhaps touch it briefly, which is about CBDC (Central Bank Digital Currency) and I just saw that two days ago, the House of Lords came out with a report. And I guess you were probably involved in writing the report, or at least providing feedback. And it came out pretty negative, I mean it said “a solution in search of a problem,” might lead to more state surveillance, might create financial instability, might give too much power, unspecified powers to central banks. But it might also be some good things like reducing credit card fees and transactional payment fees across the borders and financial inclusion. Where do you come down on that? So just a few

words at the end. You're very critical of CBDCs or you're open or perhaps you can give us your perspective.

Lord Mervyn King: This was a report from the Economic Affairs Committee of the House of Lords and I'm a member of that committee, and the report was central bank digital currencies, the title of it was "Central Bank Digital Currencies: a solution in search of a problem?" And what we were doing was not coming up with statements about what should or should not happen. But as a view that the Bank of England and the Treasury in the UK had to explain first what was the problem to which a central bank digital currency might be the solution, and we hadn't seen any convincing arguments to that effect, so far. First of all, a central bank digital currency is not a currency. If the Bank of England issues one, it will be in sterling and if the Fed issues one, it will be in dollars. It's about payment systems, so the question is, how can we make a more efficient payment system. And it is possible to argue that a CBDC might go some way to do that, but it's far from obvious and, in fact, you mentioned credit card fees, well that's a lot to do with competition, entry into the process, the idea that if we're worried about lack of competition in the private sector payment system, we solve it by creating a State run monopoly is not wildly convincing at first sight. And in terms of all the dimensions of payment systems that we have, they're all digital now anyway, I can make digital payments to you in the US or to anyone in the UK, pay my bills by going onto the Internet, couple of clicks, zero cost, payment made so in the UK context it's far from obvious that there will in fact be any real changes in the way the payment system would operate. The Bank of England has made it very clear that it does not want to issue a bank account to every citizen in the UK and it couldn't cope with having 65 million customers. It doesn't have any customers at present on the retail level. And so it will be done any way through a third party, whether it be commercial banks or other payment system operators, that would be operating a sort of digital wallet backed by the Central Bank. But central banks already back retail deposits. They do it through other deposit insurance schemes where if the system itself is really in trouble, they actually stand behind the banking system. You could improve that framework, in my view, by moving to something like the pawnbroker for all seasons idea I talked about in my book, *The End of Alchemy,* without having a central bank digital currency as such, the idea is that the Central Bank is ready to stand behind the payment system. That's the important point: you don't need a CBDC to do that and, at the wholesale level, the Bank of England, said to us in evidence that it felt absolutely no need to have a CBDC at the wholesale level. In essence, we already have one, called reserves held by commercial banks with a central bank. QE has been a significant increase in the effective wholesale CBDC issuance from the Bank of England, so there are a lot of people around who seem to think that it's all very exciting, it's new, because the word digital is somehow attached to it. But in practice, much of what they want to see happen has already been achieved, and whether areas where there is a clear need for improvement, with cross-border transactions, it's not obvious that CBDCs will in and of themselves solve that problem, because you need to have a large number of bilateral agreements between central banks in order to get to a system in which central banks are clearing with each other. And then internally their own payment system takes over. So there's certainly a lot to be done in terms of thinking about payments, that is certainly true. There are concerns about the regulation of either genuine digital currencies like Bitcoin or the 7000 other digital currencies. And there will be serious questions about the regulation of stable coin, these are big big questions, but simply creating a central bank digital currency, on the face of it, it's not obvious that it brings about the sort of transformation that people often assume it must lead to.

1:17:56
Markus Brunnermeier: Good so let's leave it at that, and then the different perspectives of course we are moving forward into a more digital world and it will be the case that perhaps

currency might be moving more fragmented so we're gonna have a lot of different currencies and and the CBDC might be a unifying anchor. But I can see that you know you might be achieving things like a unified currency with different ways. Also you know modernizing bank regulation, modernizing many other aspects in the central banking universe, so I would like to conclude that, because we are running really late, but I think it was fascinating to hear your perspectivem all your wealth of knowledge, you accumulated over your life, and you have been in many, many spots, you know. You’ve been chief economist, Governor of the Bank of England, of course, many international meetings be it in Basel, the international G7 and so forth. So, very few people will have this insight you gave us today, I'm very grateful for giving us this perspective, and we will think about it, and perhaps it will modify our research and modify our thinking and hopefully we'll we'll get to a world with more price stability and more financial stability down the road and I think that will definitely help us. To think of one main lesson I also took away from it that we in economics might be focusing too little on institutions and that you know, first of all important if you think about the real world as well. So thanks again and we'll stay in touch and thanks to all participants and next week, we will have Larry Summers and Paul Krugman talking about the inflation debate. We had this one year ago, where there was a very different perspective. Paul was less worried about inflation, it was more worried about political cohesion in the company while Larry was very worried about inflation already and was one of the early warning signs came up and he was really indicating inflation is coming, and we will have a second round after one year and see the different perspectives out there have evolved, so hope everybody would come and join us next week as well, thanks again.

Lord Mervyn King: Thank you for inviting me to appear on your webinar Marcus. Let’s hope we can make some real progress and economics and make things better over the next decade.

Markus Brunnermeier: Thanks let's work together and hope to see you soon again and also hopefully in the real world.

Lord Mervyn King: Exactly yes all right.