



Wicked Problems - Episode 11: Alderman and Sheriff Professor Michael Mainelli on Covid19, The Price of Fish, and Long Finance

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Episode Transcription

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Transcription starts

Toby Corballis. Time code: 0:05

This is the wicked problems podcast, a regular look at the world's seemingly intractable problems, problems that appears to defy resolution. You'll hear from practitioners and academics about the ways in which people are trying to solve the most difficult problems, problems that impact businesses, the environment, different social groups, in short problems that could impact any of us at any time. I'm Toby Corballis, a change specialist. Throughout my career, I've worked with some of the world's largest organisations on solving some of the most challenging problems. I'll be your host on what promises to be a fascinating journey into known, often easy to



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identify but crucially hard to solve conundrums, or, as they're known in academic and professional circles, wicked problems.

Toby Corballis. Time code: 0:58

My guest today has an impressive pedigree Professor Michael Mainelli is the Executive Chairman of Z/Yen Group, a qualified Accountant, a Securities Professional, Computer Specialist, and Management Consultant. He was educated at Harvard University and Trinity College, Dublin, and gained his PhD at the London School of Economics, where he was also a visiting Professor of Innovation and IT. His career spans aerospace and cartography, science, accountancy firm partner, and director of Ministry of Defence Research. Michael founded and chairs Z/Yen, the City of London's leading commercial Think Tank famous for instrumental factor indices, including the Global Financial Centres Index, Global Green Finance Index, and Smart Centres Index, Michael has helped found numerous technology and financial firms, and over the years clients have included virtually all major investment banks, as well as many exchanges, insurers, fund managers, regulators, and financial information providers. He is Emeritus Professor, Fellow Trustee at Gresham College, where he created the London Finance Initiative, asking "when would we know our financial system is working". He is non-executive director of the United Kingdom Accreditation Service, Fellow of Good Enough College, Trustee of Modern College, and an Alderman for Broad Street. Michael is a Past Master of the World Traders and a Livery Man of the Furniture Makers, Water Conservators and Marketors, as well as a Craft Learning Freeman of the Waterman Enlightenment. His third book, *The Price of Fish, a New Approach to Wicked Economics and Better Decisions* won the Independent Publisher Book Awards, Finance, Investment and Economics Gold Prize. As if all of that didn't keep him busy enough, his other interests include skiing, wood carving, glassblowing, bagpipes, racing sailboats and sailing Thames barges. And just when you thought there was no more, Michael has the honour of being Sheriff of the City of London 2019 to 2021.

Toby Corballis. Time code: 3:05

Welcome, Professor Michael Minnelli to Wicked Problems. Good to have you.



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Professor Michael Mainelli. Time code: 3:09

Well, great to be here, Toby. Thank you.

Toby Corballis. Time code: 3:11

I understand you were a professor at Gresham college back in 2005. Is that correct?

Professor Michael Mainelli. Time code: 3:17

Yes, that's right.

Toby Corballis. Time code: 3:18

Tell me about that.

Professor Michael Mainelli. Time code: 3:19

Well, Gresham college is one of the world's great resources. Back in 1575, Sir Thomas Gresham, who was arguably the wealthiest man of his time in Europe, and I say arguably because we brought out a new biography of Sir Thomas Gresham last year in 2019, written by John Guy, the famous Tudor historian, who has been responsible for Mary Queen of Scots and Thomas Beckett, etc. Gresham at the time, he was writing his will in 1575, bequeathed half of his money to the City of London Corporation, and half of his money to the Worshipful Company of Mercers of which he was a member, as was his father, uncle etc. And these two organisations had enjoined upon them to create a college. He died in 1579. His widow contested the will. But finally, in 1597, up springs the very first educational institution in England outside of Oxbridge and it was giving free lectures to the public. It's what I call a tutor Open University. And now we're talking you know, well over four centuries later, it's still doing that at it provides about 125-130 lectures every year. The origins of Gresham are interesting. But what is particularly cool is what it's influenced over the years... So, in it's very first year in 1597 Henry Briggs popularised logarithms but not natural logarithms, which Napier had been doing but it's actually decimal logarithms which are far more useful to businesspeople. The Royal Society was founded at Gresham. Christopher Wren and Robert Hooke were both Gresham professors. In fact, the Royal Society state at Gresham college for half century right up to the present day where we, we have some of the finest lectures in the world. So, it... back in 2005, I've always been a bit of a Gresham fan. It was near to my office



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and I started going to these free lectures, which were typically lunchtime or evening and my wife, I showed my wife, the ad said, hey, you're, we're looking for a new professor of commerce. My wife said she'd kill me if I didn't have apply because it was, it was so me. And I didn't anticipate getting the post because I'm not an academic. I got a doctorate. I study a lot, but I'm really a businessman. And lo and behold, I got it. And that meant I was cast out to do seven full-tilt lectures for four years, 28 lectures in total, one hour lectures, approximately if you want to look at that way, seven to eight thousand words per lecture and research it and I realised I had bitten off more than I could chew. Each lecture was taking me about 100 hours and so I was spending a quarter to a third of my work time preparing these lectures, and I chose as my theme choice, I thought, what is the role of choice in the modern world. And this led on to me getting deeper and deeper into economics. And at the end of it, I had these 28 lectures, and I signed it off in late 2009, with possibly the most unusual thing, almost a 1960s psychedelic event, but John Horrell, the famous saxophonist, and I, and a friend of mine, Bill Joseph, we created a montage of all of the lectures to celebrate over this metamorphosis, which was 2000 years old in 2009. And so, you sit there, and you looked at this enormous corpus, it came to about a quarter of a million words by the time I was finished, and then I thought to myself now what do we do with it?

Toby Corballis. Time code: 6:49

And what did you do with it?

Professor Michael Mainelli. Time code: 6:51

Well, funnily enough, a chap by the name of Nick Brearley, Nick had been an old good, good, business acquaintance of mine, and Nick came up to me after the third lecture as a publisher and said, Well, I would like to publish this book. He insisted on calling it The Price of Fish. He said that was the one concession we had to make was to call it The Price of Fish, which frankly, I loved, not least because I had been very deeply involved with my colleague Ian Harris, in the formation of the Marine Stewardship Council with John Gummer, Unilever, WWF. And so there was a good strong fish theme running through. But as you know, you know, "The Price of Fish" is, "what's it mean to me"? And then we came up with a subtitle because during the course of this and relevant to your podcast, I had gotten deeper into Wicked



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Problems. I first came across Wicked Problems at Harvard when I was doing Town Planning research in the 70s, but I didn't pay that much attention. And by about 2007 / 8, I was beginning to realise that they had a lot more applicability. So you know, Wicked Problems are typically is you don't understand the problem to develop the solution. In fact, there's no definitive statement of the problem. There's no stopping rule, good enough will often do. And so I thought to myself, wow, there's so many things in economics that are really Wicked Problems. And so this Commerce and Economics Wicked Problem came together. And so we decided, ultimately, to call the book, *The Price of Fish, A New Approach to Wicked Economics and Better Decisions*, reflecting that bit about decisions and choice. Nevertheless, faced with a quarter of a million words, and a vicious publisher who insisted that we were below the hundred thousand mark, I very definitely handed this whole to my colleague, Ian Harrison said shorten that will you. It came out to be quite a good book. We languished for a couple of years, it never really sold in the UK. Never 100% sure why. But we did in fact, get entered into a US book competition, the ippy awards, the independent publishing awards, and we were thrown onto a stack of 5000 books and came out as the Gold Prize in 2012, the best finance, economics and investment book of the year. So, it's quite an honour. And it's also been picked up in translation, particularly in China, and South Korea, where the book sells quite well actually-

Toby Corballis. Time code: 9:13

It's a very good book. And I have to say, if anyone's listening who, who's interested, it's *The Price of Fish*. And I'll leave a link where people can either go and get it on their Kindle, or they can buy a print copy at the bottom of the episode that it's well worth reading, and has great discussions around things like the whole sort of problem of trust, I suppose, is one of the big ones that springs to mind from, from there, the whole theory of it being a currency and Nash equilibriums and how people actually don't respond in the way that those Game Theorists would have predicted back in the 50s. or whenever it was,

Professor Michael Mainelli. Time code: 9:53

Yeah, we were inspired oddly to when I began this series, I opened in I think it was September 2005. with reference to a very interesting book by David Deutsch called *The Fabric of Reality*, and in that book Deutsch says that: Do you realise that to the



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ancient Greeks, a learned man was one who, who knew everything, and that you couldn't know everything was what were they talking about. They didn't mean you knew the name of every sheep in a Greek village or anything like that. He meant that you had a way of putting the world together. And Deutsch took that in *The Fabric of Reality*, and laid out epistemology, quantum mechanics, evolution, and what was the fourth one, the fourth one as his sort of four theories you had to know? And I thought that was a really good question for commerce. So, I picked up on choice economic systems and evolution. Interesting the overlap there but choice economic systems and evolution were there and then I began to realise that it was this wicked problem idea that was... was holding those four strong streams really, as opposed to theories together. This then, of course, coincided in 2007/8/9 with a series of financial crises, as I termed them. And so it was almost an ideal time to have a book of that nature. And this inspired us, we were already doing some work in 2005, six and seven. And so, by 2007, we had come up with the idea of what I call Long Finance. And in fact, I published a couple of papers on Long Finance Wicked Problems back in that period, with *The Journal of Risk Finance*. What we're trying to explain there was that the question you might want to ask yourself is: when would we know our financial system is working?

Toby Corballis. Time code: 11:43

That's what you mean by Long Finance, not some people might think I'm going to invest on a long-term basis, some money and hopefully get some returns in 10 years down the line, and that'll be my pension. Thank you very much. You're talking about the bigger thing of the financial economy itself.

Professor Michael Mainelli. Time code: 11:59

Very, very much so that be the long-term investment features within that is subsumed with it. But there are a lot of good questions, for example, where finance tends to get confused is the short of the long term. So, short term finance isn't too bad. I don't know about you, but I trust my bag to make payments and all sorts of things. I just don't trust my bank with my mortgage. I don't trust it with my pension. I don't trust it with anything long term. And why is that? Well, actually, there's very good reason. Take pensions, we've been unable in the west to develop a pension product that could last for a person's typical requirement. So what is that



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requirement? Well, you could join the workforce 1620 I'm not trying to pick it. These days, you're quite likely to live to 100. The pension obviously affects your dependents and your children to some degree. So, you're looking at 100-year product. It's not even 100 years since we had the Second World War, and we've had pension crisis after pension crisis after pension crisis. So, we're not very good at that long-term stuff. Take forestry. You know, we're very bad at long term investment in forestry, fisheries, which, of course, is the title of the book, Jeffrey Sachs has a wonderful, you know, explanation of, you know why fish, so long as they grow slightly less than the discount rate will be, in fact, exploited and eaten into extinction. And this applies for all sorts of slow growing fish, you know, like, the Hokie and things like that. So, it's a weird situation that finance which is supposed to be this great choice and decision-making tool, makes sub optimal decisions. Now back in 2005, to seven we were focused on climate change. And we brought out a major report in 2007, called the London accord, part of long finance that was looking at an agreement amongst 24 investment banks to share investment research to help save the planet. It was quite a quite a big programme. But at this time now, we're beginning to see finance itself as the issue and it was around 2007. I asked, well, because everyone was going as we're saying, today about Coronavirus Oh, when things get back to normal and I was like, well, when would you ever know that finance was working? And the more I mulled that over and shared it with friends, more friends said, Yeah, it's a darn good question. You wouldn't know.

Toby Corballis. Time code: 14:13

So, you wouldn't know. Because you didn't know before that finance was working optimally because it hadn't been because well, we can see that. It's been, as you said, this pension crisis, and stock market crashes, and banks go bust, and all sorts of problems in the markets themselves.

Professor Michael Mainelli. Time code: 14:30

Yeah. And anytime somebody says, the classics are I've got an externality. I've got some kind of agency problem. I've got asymmetric information, the classic market market, or an oligopoly, or a monopoly, those classic market problems, what you begin to realise is that they're saying actually, finance is good for solving things, but not for solving this problem. We were making these exceptions constantly, as we can



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see at the moment with COVID 19 where suddenly we've we've got all these decisions coming out. So, I tend to look at five factors, the four that I mentioned earlier as being externalities, information, asymmetries, agency problems and monopoly or oligopoly. But the fifth one to me more, and we started doing that back about 2007. In our eternal coin project, the fifth one is the monetary system itself. And in fact, the eternal coin sub programme, there are four sub programmes on finance. The eternal coin one asks the question, could you ever build a coin that doesn't lose value? And I happen to think no, by the way, that's but but it's been a rich source of debate.

Toby Corballis. Time code: 15:39

A lot of people think Bitcoin is that ultimately, which I mean, we all know it's fluctuated, but there's people who prophesize it being worth a million dollars per coin at some point, the future and others who say it's going to go to zero. Where do you stand on that? Just as an interesting aside?

Professor Michael Mainelli. Time code: 15:55

Well, I'm drafting a paper at the moment, comparing gold bugs. you can never get rid of you'd've thought that sometime around 1693/94 we started to establish where gold sat. And yet we're 300 plus years later on that one, we still have gold bugs he can't put down. And in a spirit of full declaration, I happen to have sizable gold holdings. But I resent it. Why? Why should I be so called investing in a useless lump of yellow metal that's sitting at the back of a vault held by the Royal Bank of Canada? What sort of possible use is that to mankind? So, let's start there, but I think we're gonna have crypto cockroaches there. Any time the price of bitcoin gets down to a fairly low-level people will swoop in and buy some of it just on the off chance that it might go up. I personally have got a lot of difficulties with cryptos. My first one is this current generation doesn't make any sense at all. It doesn't have the volumes to be a payment mechanism, the energy costs in the current crypto techniques of mining is far, far too high per coin, the transaction cost is running anywhere from \$25 to \$75. I don't know about you, but I wouldn't buy a newspaper for a pound and then spend \$25 to \$75 actually doing the payment would I? So, there are a lot of problems with the current crop. It's possible some of this might be solved. It's almost to distract the focus. We're seeing this at the moment with the announcement of the Chinese central bank, digital currency. Central Bank, digital currencies are not crypto, they are



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merely a further digitization of our current fiat currency. For those listeners not familiar with this debate, Fiat is from the Latin Let it be. And the idea is that governments have made up currency out of nothing, and that's what we trade. I contend that is wrong. I think actually, we know exactly what we're trading. It's even written down. We're trading tax credits. That's what we're trading. The government is giving you a tax credit. It says to you this year. Hey, Toby, build a road for me. Here's 10 million worth of tax credits. What could I do with them? Well, you can trust us, we will tax you in the future. And you'll need these to pay your taxes. Yeah, but I don't want 10 million of credits now. Yeah, but you need to hire people to build the road today. They've got problems this year paying their taxes. So, we circulate tax credits. And that's where the eternal coin issue becomes interesting. So, is it gold? Is it crypto? Is it fiat currency? Is it some other type of commodity currency? Is it social worth? We've even had a lot of discussion, legitimate discussion, on energy, an old project called Emergy (e m e r g y) dates back to the 50s, a guy named Harold T. Odom, came up with it. So, energy should be the defining element. And I've had people propose things like DNA and stories, that actually what people always pay for is a story. So, if you can come up with the ultimate story, by story, I mean, in the abstract, it could be the meme of happy birthday. It could be a great piece of artwork. It could be an actual children's story, but something that people want to pass on, that's what really has value is what other people value.

Toby Corballis. Time code: 19:03

Because artwork fetches huge amounts of tax credits at auctions, as does gold over time, it seems to be a place that people love to run and hide their tax credits while they're waiting for markets to recover. Just to go back to the question, you kind of pose. Is there a, an ultimate coin or a coin that can remain constant? And does that exist?

Professor Michael Mainelli. Time code: 19:29

Well, I think self-evidently it doesn't exist today. So yeah,

Toby Corballis. Time code: 19:32

I suppose.



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Professor Michael Mainelli. Time code: 19:35

Yeah, yeah. And I think you've got to understand, in my opinion, that money is, is a social construct. And because it's a social construct, it depends on the way that we organise society today. And at the moment, we're organised around nation states. So you could take for example, a sort of a Nozick or Roseann definition of a nation state As a, an entity that has a monopoly on the use of force in a specified geographic area. So, it's no surprise that that, but often the use of force leads to taxation, that taxation leads to a tax credit system. And that tax credit system is rather geographically bounded. So for example, you know, I can take a 20 quid note and go 70 miles east of here in London to France, and I'll be told you go change it at the bank, I don't take your filthy English taxes, then I go 600 miles north of here to the Shetlands and I can spend the 20 quid happily. So, there's a very strong national boundary control over it. And of course, there are a lot of other thought experiments so such as the distance but when do you start using US dollars and things like that? Well, we use them in war zones. Why? Well, because the States control of that, monopoly on the use of force at a specified geographic area falls apart under civil unrest. And so, you begin to start to see, it's not a conspiracy theory view, it's a view that's just become more clear in its expression over the years. And I think that nation states themselves are not stable and therefore you can't have a stable currency in that sense, but we could perhaps see different versions of society. One of the problems about money is it has evolved by this is roughly 600 bc before that gold was seen to be a pretty thing, but so was lapis lazuli. So, we're ostrich feathers. It's only around then it picks up. Coinage and its various descriptions went through various machinations up to the point I picked on the Bank of England, which was 1693. The gold standards such as it was, wasn't a universal standard, but it was a reasonably held intergovernmental standard arising at the same time as the nation states arise. We then have Bretton Woods; we had the formation of SDRs; we had of course, the great economist, Richard Nixon, who in 72, went, hey, I needed the banks, I needed the government and I needed the gold, maybe I don't need the gold anymore, and broke the gold standard. So, we have seen these changes. But to most people money feels stable because over their generation, or generation at a bit, it has been stable, but it has had very punctuated periods. Just ask anybody who lived through the Weimar situation in Germany or Zimbabwe, or what have you.



Toby Corballis. Time code: 22:30

You made a very good point as well earlier that digital money is nothing new. And, in fact, I can't remember the exact percentage of quite, it's quite a low percentage of money that is paper that you can actually put in a wallet and go out and spend anywhere almost the vast majority of money is... is in fact just zeros and ones in computers somewhere.

Professor Michael Mainelli. Time code: 22:52

Very much so. You know, I mean one of the interesting things about the central bank, digital currency argument and a point I've been making for the last eight or nine years, has been that it's going to cause a genuine discussion about the role of credit in the modern economy. So, if you look at the creation of money, so the figures vary, and they adjust day to day, but something like 97% of it is actually created by the banks themselves. If we had a central bank, digital currency, all that would happen would be that you would potentially have a direct bank account with the Bank of England or the central bank that issues whatever currency you're playing in. So you've got this direct account with the central bank, and I want to pay Toby and I go to the central bank, and I say I've got 1000 Central Bank units. I owe Toby 50 of them. Could you move it to Toby's account, and they do all of that? Well, that doesn't actually require a bank of HSBC, Barclays Natwest or anything like that. It's just a direct account transfer with these tax credits. So, when the government comes around, Toby's got 50 more tax credits to pay his tax bill. Or to hand to other people who want them. So that's how that will work, then you're gonna say yourself Well, so what does a bank do then? Well, it'd be really helpful, Michael and Toby, if you would stop leaving your money with the Bank of England and give it to Barclays. Well, why? Is it unsafe? No, no, no, it's perfectly safe. Just we want you to give it to Barclays overnight. Why is that? Well, that's so that they can lend to other people. Right? Well, why can't I lend to other people? Well you can, you can, don't worry about that. But you just can't lend 15 times what you've got in your bank account, you can only lend one. Well, who the heck gave Barclays that right? And you begin to see this unravelling as people begin to understand how the credit system has functioned. It's not that complicated, but it's a bit like the fish swimming in water that nobody has really paid much attention to it. And where it's like trust are bandied about, I love



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reducing chief economist to you know, just on the four-year-old girl sort of issue of so what is money? What is it? What does it mean? You'd be amazed at how these folks will squirm. And yet that's supposedly their job. Well, it's... it's kind of, you know, it's something you trust in. Well, I trust in my mommy, she... No, your mommy's not money. You know, and there is no trust, in fact if anything Financial Services is founded on the exact opposite. It's founded on mistrust, if I actually trusted you, and you know, we had an agreement today that if my house burns down you and 30 other people I chatted to today would take care of me. I wouldn't need insurance, right. But instead, when I ring you up next year, you're kind of well, you know, Mike, gee, you know, the kids need an extra year school, and I'd love to help out. I did... I did mean that back in April 2020. But, yeah, you get used to it after a while. cardboard's actually quite a good insulator under Hungerford bridge. So, don't worry, you'll get over it like so because I don't trust you'll be there, and I don't trust you punt up 10,000 with 30 other people

Toby Corballis. Time code: 25:53

And even if I have the best of intentions, my situation can change right? So

Toby Corballis. Time code: 25:56

Precisely. So, so we have financial services because of mistrust. And, you know, go back to my earlier statement, would you trust any of the bank? I mean look at the scale of scandals every six months, we seem to come up with something, you know, whether it's precipice bonds, or it's RBS, GRG, or it's the financial crisis or the .com ramp up, or it just goes on and on and on. But they tend to be the longer-term delivery issues, they tend not to be actually on the near term. Payments and a number of other things are extremely good. But we trust them in the way that we trust electricity. You know, because their utilities. I don't think you switch on your lights at home every night and go Oh, thank God. It's because I trust London electricity. In fact, you get in a weird position where you expect it when maybe you don't have a right to expect it.

Toby Corballis. Time code: 26:47

Although I also know that if I stick my finger in a light socket and turn on the switch, it's not gonna be pretty.



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Professor Michael Mainelli. Time code: 26:52

Don't be so sure it's always worth experimentation.... a little bit of scepticism

Toby Corballis. Time code: 26:57

I already don't have any hair so it's not gonna... it's not gonna stand on end and make it look funny, unfortunately. I think, you know, this trust issue around financial institutions. It's a good segue really into financial markets. And those are I mean, they're just up and down and all over the place at the moment, money seems to be flowing in the wrong directions it goes, the price of oil goes negative, albeit briefly, shares are we're told a steal at the moment, I could perhaps put some of my tax credits into them and come out with more tax credits in a few years' time and all because of this, this rather small organism that's doing the rounds called, you know, SARS-Cov-2, which is creating the whole COVID-19 situation. What's happening? Where are we with all this financial markets at the moment, where are we going?

Professor Michael Mainelli. Time code: 27:45

I think the interesting thing is that the rapidity of the change. Certainly, right up until March, nobody really saw this is having particular economic implications. We were slightly worried about the Chinese economy and some knock-on effects, but it wasn't Armageddon. And now all that has changed. And I think it's changed for the very obvious reason that we've shut our economies down. I'm not going over that decision. My issue isn't to complain about it. But just to back off and think for a minute here. Let's imagine that we are going to be down for what about seven weeks and other two to go at least here one would argue that's government has indicated, and a possibility of a lot of bouncing back up and down. So imagine that you said any business that's a qualified and credible business, or to be able to go for about a year without any revenues, and ought to be able to survive. That's a good business. Well, if you had been a so-called good business up until March, you would have gone bust. Why? Because none of your competitors would be doing that, they wouldn't have socked away a year's worth of expenditure in a bank account just on the off chance that something they didn't know about my pop up. Now you might say, well, I saw the Icelandic volcano. And I expect everybody to have at least two weeks' worth of expenditure stored up in reserves. That's fine. So, you're thing here is governments have stepped in and shut the economy down. And you are either supposed to or not



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supposed to have expected that. If you were supposed to have expected that, then you probably ought to go to the wall. You were foolish enough not to get good reserves. If on the other hand, you weren't supposed to expect it, then there's kind of nothing you can learn because the government has come in and said they're going to subsidise you and your workers in all sorts of ways to keep money circulating. And I think this is the issue. So, the issue is this one of resilience. I was asking you to be resilient, but I wasn't prepared to pay for it. I would go and deal with somebody who, who was getting things from me more cheaply than you who had actually saved up a year for reserves. And so, your prices were just that little much higher and competition erodes that. Now that type of resilience turns up in a lot of areas. So, supply chains are clearly being talked about, as they've been talked about a few other similar occurrences in the past. The brittleness of supply chains, and their choke points. Okay, fine. So, I now expect you to have multiple supply chains with multiple suppliers, even though it's inefficient going forward. So, I'm expecting your prices to rise. But you're saying that's sweet Michael, but how are you going to ensure that my competitors also make their prices rise and don't claim they've got 10 suppliers when they really have one, and therefore make more money? Second thing we've seen is resilience amongst governments. I think there's going to be a lot to play for politically here. We've seen all sorts of reactions. It'll be a lot to learn and poke over and I've got no thing on it, but in the United Kingdom, we've focused heavily on us being centralised, Public Health England doing its thing. And yet our numbers don't look that good against a country like for example, Germany. Which is highly federal and had many degrees of freedom to move forward on its health thing. And yet that's different in turn from South Korea and in turn different from China. And we'll see what happens in America. So, we're we're seeing a lot of distinctions here between where resilience meets brittleness and over specificity. And finally, on the financial markets, well, then that turns immediately to the role of credit again. We suddenly had a huge credit crunch. It happened almost so, so rapidly, we barely noticed it, but nobody wanted to pay and everything was coming down. And that type of the availability of credit, I think, is going to be a big discussion point in the future. So why is it that the government has effectively bypassed the financial system? And it had to. I mean, you can see what's been going on in the banks, you know, what have they got out 12,000 loans and umpteen weeks to 5 million businesses in Britain.



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You've seen it with the insurers who have there are cases of good insurers, by the way, but a lot of insurers are trying to make sure that the policies are null and void or discounted and ignoring claims. So, we've got problems there. And the government has just said, well, financial services we'll just park you. But hang on, I opened up saying financial services was one of the great decision-making mechanisms on the planet.

Toby Corballis. Time code: 32:14

Well, I mean, rather neatly, sort of leads me to ask about Modern Monetary Theory, right? So, we've been told for years, there's been no magic money tree, then the MMT purists would have said, actually, that's nonsense, because of the... There is we can just create money, because money is a trust thing, not a physical thing. And austerity was necessary to pay down all these debts... and suddenly here we are in this situation and all the money's coming out of government, huge flows of, of capital, is there something in MMT? Have they got something right there or?

Professor Michael Mainelli. Time code: 32:49

Well, MMT is a... it's a bit like sort of trying to discuss Buddhism. There are many, many different things, and many different strands and many things you can pull out of it depending on what you go in thinking. The reason I say that is arguably MMT goes back to some clarity of thinking around the 1850s and 60s, Charles Holt Carroll, around 1900, we had the Austrian School. So, the latest MMT, which has got, you know, the provenance of this US Congresswoman who is constantly promoting it is one variant of it. MMT really at its origins was pretty innocuous and followed very much by definition of fiat currency. But the definition of fiat currency about future tax credits leads to a question of how many future tax credits can I issue in a sensible fashion? And that's, in my opinion, that's a legitimate question. It's obvious that the answer might be more than you currently have in issue. But we also know from experiments like Weimar, Zimbabwe, that I mentioned earlier, that you can go too far. So, where do you pick the line? is a very good question and sticking to that much narrower version of MMT it is certainly worth discussing. However, the magic money tree argument itself folds kind of into the notion that money is a good, that it is growing, and I harvest it, and I've actually got something physical. No, I don't I've got the future expectations of the tax system, that's really what we're trading on. And



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then if you don't make it up, you still have the same number of people in the country, you still have them working the same number of hours. So, all the change in the money supply does is to alter the little decisions they make all the time, every way in certain directions that you wish. So, I think you've got to be clear, what decisions do I want them to make? In what way? And what do I want to alter the direction? So, a big question going forward might be how do I alter the decisions of these five, 6 million businesses so that they have higher reserves in order to be more resilient if there's a future crisis? Is that something I want to do? Is that something I want to pay for? Or do I want to say, long term economic resilience of a year's worth of lockdown is actually a government problem and not a private sector problem. These are going to be some really big discussions.

Toby Corballis. Time code: 35:05

And coming out of that, you know, we talked earlier you said, we don't know how far away we are from... from coming out of this. But let's, let's say it's at least two weeks, maybe it's seven weeks. Maybe it's six months. Maybe it's a year. I don't know. But we do eventually start coming out of this. How is our economic future going to be different to how we've experienced it in the past?

Professor Michael Mainelli. Time code: 35:28

Well, I... I can only speculate, so don't let me pretend like I know the answer. But I think I point to three areas I'm mulling over so the first one is how much of the behaviour change that we've seen in things like homeworking, teleconferencing, massively reduced airline travel is there, how much of that is permanent? I believe there will be a permanent cut of some form, but I can't imagine it's on the scale that we've seen. But I might be wrong there. So, it'll be interesting to see how much those people behaviours bounce back. To take a specific example. In my firm, I had found it extremely hard to get my team to focus on long term webinars, because they were sort of Hey, boss, I'm running a real event on a Tuesday real event on a Thursday, and you want me to, to focus on the, the International, so we weren't bouncing. Of course, with the shutdown, we've been able to focus on that we've moved up to a completely different level, internationally. And I think that's great. We wouldn't have done that normally. So, we'll see some of those things. I think the second thing that I would point to is we're going to be looking at different measures. So, I think people



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have focused way too much on GDP over the years. And I'm not alone to this. Diana Coyle's written a book on the silliness of GDP. People have remarked on this for ages, but it has been this single defining measure. And I think a lot of people sitting at home are beginning to say, hang on, if I can keep the bills paid and everything's kind of functioning, the government's actually giving me money to do that. What is the purpose in life, what am I trying to measure economically? So maybe some of these happiness indicators, maybe some of the satisfaction indicators, that maybe some of the discussion on universal benefit might lead to a different shaping of society at that level. And it certainly will lead to a lot of questions. Probably not necessarily inspired, intellectually, but of you know, why are you taking home 3.6 million when you furloughed all your staff? So I think we're gonna, we're gonna see a lot of those types of questions coming up. And I guess the final thing for me, post COVID is... is what I've been railing on about which is this. How much resilience do we really want? Is this stuff we should take in our stride? Because when you look at the cost per life saved, and there'll be a lot of discussion about that, too, it's very clear, there's... the range is unclear. And it could be that six months from now, we'll be looking at this and saying, we spent vastly more on saving every single COVID life than we do on educating children, keeping people safe on roads, etc. Or far less we, we just don't know the scale of it at the moment. But as you begin to look at the... the cost of life, and you sit there and you say, well hang on, I've also got asteroids. I've also got climate change. I've actually got a lot of other risks out there that are gonna hurt a lot of people, why aren't I spending comparable amounts on some of those?

Toby Corballis. Time code: 38:23

Or some of the more palpable perhaps close to home ones like poverty

Professor Michael Mainelli. Time code: 38:28

Completely. Hence, by pulling out universal benefits and homelessness and lots of things that need solving. Why did this one come to the top of the pile, when the strict economics of it wouldn't have led to quite the sort of shutdowns that we've seen from what we knew at the time that the shutdowns happened? Now it may turn out that some of the bold, and these are bold, decisions that politicians have had to make, I am not claiming I'd have done a better job by any means. I don't even say under done anything different. So, it's not, it's not what I do but what I would say is that these...



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these have been very bold decisions that they've taken. And they've taken them in ways that lead you to question why aren't we making bold decisions in a lot of other areas? And then again, back to but what are the resources to do so?

Toby Corballis. Time code: 39:13

Neatly that perhaps is because these are Wicked Problems, and they do defy definition at one level, and therefore there's no obvious solution. And so, we go iteratively around... around asking questions and chipping away at it, and well, who knows where we end up? But yes, I mean, bold decisions.

Professor Michael Mainelli. Time code: 39:33

One of the key people in this back in the 70s? riddle said, you know that, frankly, what you're looking at here is every solution to a wicked problem was a one-shot operation. And that's... that's a very tough role. One of the problems I've found repeatedly in Long Finance has been the recognition that finance isn't alone. We're really back to political economy. All these issues are political economy and the idea of a segregated economic area, in some senses requires what you spoke about earlier that money is some kind of measurable good. You know, we bring all these physicists in from all these other disciplines, all the natural sciences from all these other disciplines. And we, they would have defined what an electron was in their other area, or, you know, what's a mole? And suddenly we throw them in, and we say, well, don't trouble your pretty little head with what a definition of money is, but deploy all your mathematics. So, you've taken all this mathematics, which relies on a rigid definition of things. And now you're applying it to an area with no rigid definition. And this element called it trust, if you will, but this element of human value interacts with the numerical measures that are out there in ways that we can't foresee.

Toby Corballis. Time code: 40:46

Its, been an absolute pleasure, Michael. I think there's some really interesting points that have come up in there, and if anyone wanted to learn more about Gresham College of the work you do with Long Finance, where could they go?



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Professor Michael Mainelli. Time code: 40:58

As you'd expect, both of those are very open resourced projects so Gresham.ac.uk gives you access to something three thousand recorded lectures by the finest minds in the world. LongFinance.net gives you access to all of the Long Finance materials, something like a thousand reports of various forms and all of our fifteen hundred free events we've held over the years... So, both are big resources and I think in closing, I might leave you with what we call our Long Finance Kone (k o n e) – the Japanese idea of a thought puzzle you can mull on... And we always say, if you have trust, I will give you trust. If you have no trust, I shall take it away

Toby Corballis. Time code: 41:45

Excellent. Michael Mainelli, thank you very much.

Toby Corballis. Time code: 41:49

Thank you, Toby. It's been a real delight.

Transcription ends