How may the new architecture of financial regulations Develop?

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Public lecture by Professor Charles Goodhart

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The global financial crisis

What I want to talk about is the regulatory response to the crisis that we have had. And, in particular, one of the set of buzz words nowadays is the need to move on from micro-prudential supervision, which is really the way in which the authorities look after the individual institutions, to be much more concerned with macro-prudential supervision; that is, trying to see how robust and resilient the system as a whole might be. These are very different.

If you cast your mind back to mid-2007, at that stage, the capital ratios and the profitability of banks of virtually all countries was at an all-time high. It was thought that the condition of individual banks was so strong that a relatively minor shock to a small section of the mortgage market, admittedly in the biggest country in the world, shouldn't be capable of having the effects that it turned out to have. One of the reasons that it turned out to have such a large effect was that the system as a whole was subject to severe pressures. These pressures were interactive, as a result of the fact that everybody was over-extended in leverage, with the effect that when things started to go wrong, individual banks had to lighten their positions and sell assets, lowering prices and worsening the position of everybody else. Effectively ,you got a self-amplifying spiral.

One of the things that we have learnt in the course of this crisis is that the achievement of price stability doesn't guarantee financial stability. Until the crisis struck – and I want to give it a specific date, 9 August 2007 – the central banks had been remarkably successful over the previous 15 or so years in maintaining price stability, in maintaining inflation at low and stable rates, without having much volatility in output. Indeed, in my own country, output growth had been positive in every quarter since the end of 1992 until early 2008.

Not only is it now clear that the maintenance of price stability does not carry through to financial stability, you can even argue that they run counter to each other. The reason why they run counter to each other was effectively explained by an under-appreciated American economist called Hyman Minsky, who in many ways produced some of the most insightful writing on financial cycles in recent years. He argued that stability generates instability. Effectively, what he meant was that if you have a very stable period, and particularly if you think that the authorities can maintain that stability indefinitely, it then becomes your view that risk is reduced. We have had a generalised view throughout almost the whole of the developed world that risk had been contained. In part, there was this expectation that central bankers had become so good that they were able to counter any significant crack or collapse in financial markets. What was known as the Greenspan put – which effectively meant that if the markets collapsed, the authorities could and would lower interest rates sufficiently quickly and sufficiently far to restore the situation and bring about recovery in the markets – had become credible because, after all, it had effectively worked. It had worked on Black Monday, on 19 October 1987. It worked again in the South East Asian crisis of 1997 and 1998. It worked in the LTCM crisis and it worked again at the time of the NASDAQ bubble and bust in 2000 to 2001. In each case, Greenspan and the Federal Reserve held interest rates sufficiently low in order to bring about recovery pretty quickly, and the developed world never really suffered a severe crisis during these times. So there was a belief that Alan Greenspan in particular, and central bankers as a generality, were almost walking on water. They had the ability now to make the system safe.

If the system is safe, particularly when interest rates are low, and particularly when you are promised that interest rates will remain low for any extended period of time, it is more or less an incentive, a signal, to commercial bankers and financiers around the world to go out and put on leverage. Anyone who didn't put on massive leverage was regarded as a wimp! As Hyman Minsky effectively said, "as people believe the risk is being removed from the system, they expand their position, taking on more and more leverage, to a point where a relatively small shock can knock over the whole house of cards". And that effectively was what happened.

Inflation, deflation and the role of the monetary policy regime

Now, one of the implications and results of that has been that a number of people have argued that the inflation-targeting regime (which the Reserve Bank of New Zealand initiated back in 1988-89) was flawed because it concentrated too much on price stability (at least goods and services price stability) and didn't take enough account of asset price stability. I don't think that is correct because the attempt to achieve both of these targets with a single instrument, which is of course the official interest rate, causes a variety of problems.

Let me tell you about one particular problem at the moment. Just now, there is a great deal of uncertainty about where the world is going. Half the people I talk to are frightened that there may be massive great inflation. Huge increases in liquidity are being injected into the financial system by the world's central banks over the last nine months to 12 months. The reserve base of the commercial banking system is being expanded explosively. Asset prices have been recovering. It seems clear that, for political reasons, the Americans are going to go on expanding pretty rapidly for quite a time. And that is potentially inflationary.

At the same time, we are having huge increases in spare capacity, massive unemployment, and although asset prices have increased, the monetary aggregates are still very sluggish. Bank lending is going down in most countries, so there is a whole other group of people who are terrified about deflation. In fact, some of the people I talked to are terrified about both happening – usually deflation followed by inflation! Under these circumstances, where people are very frightened about the possibility of our economic system and our price developments getting out of hand, what you need to be able to do is to reassure people that the authorities are not going to allow either inflation or deflation to take over strongly. In my view, that means that, more than ever, it is necessary to hold on to the straight inflation target and to dedicate effectively the official instrument rate to that particular objective.

There is also the point which has been made by Alan Greenspan and others, which I think is correct, that if you do get an asset price bubble and there is a lot of optimism about developments in the particular sector where the asset price bubble takes hold (whether it be housing, commodity prices or anything else), an interest rate increase that is sufficient to deal with the asset price bubble would probably knock the economy on its head. It is extraordinarily difficult for a central banker – consciously – to raise interest rates sufficiently to actually drive the economy into recession, purely in order to deal with an asset price development which you are never absolutely sure is unsustainable, and you cannot be sure is a bubble. Indeed, there is no decent definition of the word 'bubble', or the only definition of the word 'bubble' that actually holds water requires conditions which have never ever effectively been seen in modern markets.

So, if you want to leave the inflation target more or less untouched, as I do, then what you need to do, recognising that the authorities in general, and central banks in particular, also have responsibility for financial stability, is to collect or provide a set of further instruments to achieve this second target. It is this second set of instruments that should provide the basis for what is known as macro-prudential regulation.

Differences in approach to regulatory instruments

Now, the discussions on such a set of second instruments have actually rather differed between Europe and the United States, although I am exaggerating this differentiation between the European approach and the American approach somewhat, for reasons of trying to make a point. Essentially, what has happened is that the Europeans have focused on trying to develop counter-cyclical regulations which should be adjusted by the relevant authorities. In other words, what they are looking for is greater powers to be given to the regulatory authorities, and in particular the central banks, to try and control the banking developments in a way that will prevent these crises from recurring, or at least recurring in the same way. The Americans have tended very much more towards a market-based insurance mechanism, and here I think there is a difference in underlying philosophy. The Americans have seen that, in a sense, the paradigm of the relationship between the authorities and the banks has been somewhat changing. In the past, the paradigm, particularly of the relationship between the central bank and the banks, has been the old 'Bagehot principle' (Walter Bagehot, Lombard Street), whereby the authorities should provide liquidity support to banks which are illiquid but not insolvent; the ones that are insolvent should be let go. Now, clearly insolvency is a severe problem, as we have seen when Lehmans was let go. So the Europeans are trying to establish regulations that try and prevent the banks and other systemic financial institutions from reaching towards an insolvent position.

The Americans see the situation as changing, in the sense that, following Lehmans, there is a view that no set of authorities in any major country, for the foreseeable future, is actually ever going to allow any of its systemic major institutions to close. Whatever happens to the shareholders and managers, the big systemic institutions will from now on be supported. In other words, what we can say is that the authorities are moving from the banking principle to the insurance principle, in which, effectively, the authorities are now insuring both the solvency and the liquidity of all the major systemic institutions. This means that instead of worrying too much about regulation (since in any case the Americans have a tendency to believe that government officials, including central bankers, are always relatively incompetent at setting prices and that the banks will always run rings around them), the Americans are looking to try and use market mechanisms to encourage systemic financial institutions, and banks in particular, to self-insure, and where self-insurance is not possible, to try and price the insurance mechanism in such a way that it accords reasonably closely with market mechanisms. In contrast, the Europeans have much less faith in market mechanisms, and do not share the general American view that regulation is always a losing game. The American view is that regulation is static, by which I mean it takes a long time to introduce regulation and, when it is there, it remains in place for a long time, whereas markets are dynamic. This means that when the regulation comes out, the clever people working at the banks will already have worked out ways to get round it. The loopholes become bigger and bigger and bigger and, even at the outset, may be large enough to render the regulation ineffective.

What are the instruments?

Amongst the European-style counter-cyclical mechanisms that have been suggested are, first of all, that the very process of trying to introduce systemic regulation and supervision, via the European Systemic Risk Board (ESRB), will help by itself. Now, the European Systemic Risk Board actually has no powers, because the power to implement regulations remains with the nation state. However, the

European Systemic Risk Board, which would be largely dominated and run and managed by the European Central Bank, will examine all potential systemic risks. When they see a systemic risk developing, they have the right to go to the relevant national authorities and ask the national authorities to do something about it and require the national authorities to report back within a space of time what they have done. The very exercise of being told to do something by the ESRB and having to report back will help by itself.

In addition, the kind of mechanisms that are available are capital requirements, which would be raised particularly on the riskier proprietary desk, market-related and shadow-banking aspects of the system. The capital requirements may be time-varying, in the sense that you raise capital requirements during booms and lower them during busts. This may or may not include the Spanish-type dynamic pre-provision, which in effect meant that when lending was going ahead very rapidly during a credit boom, the banks were required to provision on a generalised expectation that there would be a lot of bad debt developing. Think what is going to happen in China in terms of the increase in their non-performing loans in a year or two. When you get bank lending growing at 30 percent per annum, the number of bad loans that you could expect is quite large. But under pre-provisioning, then when bank lending hits bad times, you can release the provisions because they then become useful.

One of the problems here is that the Spanish dynamic pre-provision exercise runs entirely counter to all the instincts of an accountant. An accountant doesn't like measuring anything that he cannot touch or see. The accountants are rather like doubting Thomas, saying, "show me your wounds"! And the idea that you can estimate the future likelihood of being wounded by non-performing lenders, simply as a function of the fact that credit is growing far too fast, is something that is completely averse to every instinct of an accountant. But maybe policy-makers and economists can overcome the accountants' concerns.

There are also time- and state-varying liquidity requirements, which may well include not only liquidity requirements in terms of requiring differing asset ratios, but also time- and state-varying requirements on the ratio of core funding to loans. And then, in addition, there are margining requirements in other markets, particularly in the housing market, with the possibility of introducing time- and state-varying housing requirements. So as housing prices rise, relative to the norm of the level and speed of increase of housing and property prices, you would lower the loan-to-value ratio.

And there are a number of more fundamental suggestions, which are unlikely to occur. For example, a lot of problems arose because of the advantages and subsidies on debt finance, that is, fixed interest finance rather than equity finance. Accordingly, there have been various proposals to try and remove or reduce the tax allowance on interest rates. That is not likely to get anywhere because, to be effective, these regulations would need to be introduced internationally. An additional idea is to restrict limited liability in some ways. In particular, there was rather a nice idea that was floated in the pages of the *Financial Times*, that bankers and maybe other financiers should find that their accumulated bonuses during the period in which they had been with a particular bank, and for so many years after they left that bank, would be subject to unlimited liability, net of course of the tax that they had already paid. So, let's say that a particular bank chief had developed, shall we say, $10 million worth of bonuses (a relatively small amount these days), and the bank then ran into difficulties. The $10 million, net of any tax that he or she already paid, would be subject to complete and full clawback. There are a number of ideas along those lines.

Now, what are the problems with these kinds of measures? First of all, how do you measure and apply them? How do you make them counter-cyclical? What is systemic? What is a systemic institution? Again, the American government's proposals, and Barney Frank's proposals in the House Bill, are actually quite in line with most of the European proposals. They talk confidently about a set of systemic financial intermediaries. But what is systemic? Is it fixed? According to the conjuncture, barely. When people are frightened, a lot of very small institutions can be systemic. When there is a lot of confidence and markets are going up, you can absorb the loss of quite a large financial intermediary without necessarily having any contagion at all. So what is systemic is not a fixed feature; it varies.

And then the whole of this area is made vastly more difficult by the fact that any institution which is systemic is almost always, almost by definition, at the same time cross-border. Of the 19 banks that were subject to this credit crisis in the US – I haven't actually checked them out – I reckon that all bar one or two at most will have a significant part of their operations in other countries as well as in the United States. It is certainly true of every European country I know that all the systemic institutions, not only banks but insurance companies, the lot, have had major cross-border subsidiaries and also branches. Now, this raises huge difficulties because it means that, first of all, you have got to have international agreements on all your regulatory measures, and beyond that, the legal basis of dealing with the bank getting into difficulty differs from country to country. The bankruptcy laws, the whole mechanisms of insolvency, are enormously different from one country to another, and that means that dealing with the resolution of a failing bank and all your systemic institutions will entail dealing with the cross-border problems. And we have got no good way of doing that at the moment. It is a huge gap.

Counter-cyclical regulation

The whole basis of this counter-cyclical approach runs contrary to market forces. And inevitably so – that is the purpose of regulation. What you are doing as a regulator, when the market gets overly optimistic and when asset prices are going up, when bank profitability seems to be jumping ahead, when everyone is feeling terribly confident, over-confident – what you are doing is (in McChesney Martin's phrase) trying to take away the punch bowl just when the party gets going! For those of you with teenage children, the idea of taking away the punch bowl when your teenage children's parties get going implies you are not the most popular person in the world.

You are not popular with the politicians. You will remember sub-prime. Sub-prime, although it is now almost demonised, and I think almost unduly demonised, was, during its glory years of 2004–2006, the apple of the eye of the American politicians. Part of the reason everything went screwy was because the American politicians actually pressurised the main GSEs (Government Sponsored Enterprises) Fanny Mae and Freddie Mac to extend their ability to introduce guarantees to cover this wider range of sub-prime at work. So the politicians are against you. Inevitably, during the upturn of the boom, the financial intermediaries who are making a mint will be against you, and so of course will the borrowers and the people who are borrowing on sub-prime and think they are getting their foot up on the housing ladder. Had Alan Greenspan wanted to do it, trying to intervene against the run of the market to tone down the sub-prime exercise would have been quite extraordinarily difficult.

One of the great battles between regulators and academics is that regulators, particularly central bankers, tend to argue that conditions are always changing. Then, if you introduce a rule whereby you are required to make countercyclical variations in regulation, then the rule will never fit the particular events that happened to be developing. The central bankers say, "Trust me! Let me have discretion. I will deal with it.". Well, there are actually few central bankers out there, Paul Volcker and of course Alan [Bollard], who would take a sufficiently strong stand under these circumstances, and are brave enough to take on the wrath of the politicians, the media, the major banks and the borrowers and would really be prepared to stand up against the market and say: "To hell with it, I can't prove it, I think that this is wrong and I am going to try and stop it." But the number of central bankers who actually are prepared to do that in reality is small. Stopping what the market wants to do under these circumstances is extraordinarily difficult.

And so, what the academics want to do is introduce rules that actually require central banks to have to take steps, when bank lending, possibly in aggregate or maybe just to individual sectors, starts growing too fast, particularly when prices in these sectors start rising too fast. Now again, we understand that there can be occasions when the rules will self-evidently seem a bit silly and so most of us academics would actually suggest that what you want to have is a rule, but you either comply with it or explain why you do not comply with it. And complying or explaining on the basis of the rule is, I think, an exceedingly good approach.

Another of the arguments against counter-cyclical regulations is a question which largely comes from the commercial private sector, which is that you say that you will raise the regulation during booms, but can you reduce them in busts? Well you can, but it looks a bit odd. Just when banks are getting fragile, you say, well we are going to put down the capital requirements; we are going to put down the liquidity requirement. And then the argument comes that, well, you may do that as a regulator, but the market isn't going to accept it.

When you get a crisis, the market actually then goes into reverse and favours institutions which have higher capital and liquidity requirements. So the constraint doesn't become the regulator, it becomes the market. Under those circumstances, the bankers argue that what appears to be a countercyclical regulation, would just be higher regulation, more regulation throughout. And if it is more regulation throughout, and that is where we are getting to, will it restrict the size of the controlled banking system too much? There is always a border problem. You control and regulate one set, banks and systemic financial intermediaries, and you neglect the rest, the market for smaller, non-bank financial intermediaries, leading to a much easier system for them.

Inevitably under those circumstances, business will shift from the regulated across the border into the unregulated. You haven't, under those circumstances, necessarily reduced risk; you simply shifted it from one sector to another. And, what is more you may have handicapped your most efficient, most effective part of the financial system, and indeed the only part of the financial system, at the moment, which is capable of dealing with the financial requirements of persons, particularly through mortgages and small and medium enterprises. The large corporates, of course, can go to the market, so they're not as affected by this.

And then, there is finally the argument which I mentioned before, about whether the regulators can effectively do this or whether the financial intermediaries will all run rings around the regulators. And, in particular, a final point is that the international regulations done by the Basel Committee on Banking Supervision have always had one major failing, and that is the Basel Committee has never been set up by treaty – there is no legal basis whatsoever. Under those circumstances, the Basel Committee feel that they cannot talk about sanctions and penalties because that is a matter for the individual nation state and its legal system. They don't have, in their view, the locus to concern themselves with penalties and sanctions. Now, the problem with that is when the Basel Committee says what we want is 4 percent tier one or 8 percent tier two here and a particular liquidity ratio, this then becomes in fact a minimum and, if it is a minimum, it provides no flexibility or buffering at all. If you are required to hold at all times 8 percent of either liquidity or capital or whatever, then that liquidity in effect becomes totally and utterly sterilised. It becomes useless. The buffer that all the banks have was not the 8 percent tier two capital requirement, it was the margin above that, and that margin was actually very small indeed.

What is needed is a totally different approach whereby the international regulators actually get over their self-imposed denial of actually talking about sanctions and penalties and have a consciously determined ladder of sanctions and penalties, along the route that the FDIC Improvement Act of 1991 actually introduced. So that I would then start with a much higher, well-capitalised, or strong liquidity bank, and as the bank actually lowers liquidity, if you allow it to do, it then runs into increasing penalties, such as you cannot provide dividends or you are not allowed to have remunerational bonuses greater than a certain percent. And you can think of this as a kind of sanction, which in fact the Americans under the FDIC Improvement Act have already implemented.

The insurance approach

Now let me turn quite rapidly to the American-style insurance approaches. Here, one of the approaches is by Acharya and Richardson (2009), in a book called *Restoring Financial Stability*, who say there should be prefunded levies on riskier portfolios. In some sense, the points Obama raised, I think it was last week, goes along that route. It didn't hit all the bases, in part because it was ex-post rather than ex-ante, in part because of the riskiness of wholesale funding, which it was meant to attack, is related not just to the fact that it doesn't come from core retail deposits, but it is related to the maturity of that wholesale funding.

Wholesale funding, which is, say, for two years' duration, is relatively safe. A bank which doesn't have to repay borrowing from the wholesale markets for two years is in a fairly strong liquidity position. But the problems that we faced was that the major banks, and particularly the investment houses, were borrowing from the wholesale markets effectively overnight, and rolling over the wholesale funding at an extraordinary rate, which meant that if there was ever a loss of confidence, it then became self-reinforcing and the banks were forced very quickly to close. So that one of the areas here should have been that the penalties should not have been just on wholesale funding, but on wholesale funding interacted with the maturity of that funding.

Then again, there is the proposal (being suggested by some economists, Mark Flannery and others) for contingent capital, which is now known as CoCos or conditional convertibles. This kind of insurance mechanism is one whereby the banks are either encouraged or required to issue debt. A function of which is that, under crisis conditions, debt automatically transforms into equity. We will talk about the conditions under which it transforms fairly soon.

Then again, there are a whole series of other suggestions. The FDIC Improvement Act, which I have already talked about, tried to do prompt corrective action on the basis of capital. Others suggest that what you should do is watch banks' credit default swap (CDS) risk premiums, and when the risk of default is too high, you either close the bank or require it to raise more capital.

Some of these ideas are rather nutty. The reason is that CDS spreads tend to rise, just at the moment when the market is very weak. It then becomes extremely difficult for a bank under these pressures to raise new capital. Furthermore, the very sight of a bank being forced by an increase in CDS swap, to have to go to raise new equity in the market under very unfavourable conditions, would lead to an increase in the CDS rates of virtually every other bank in the system. And, if you could imagine every bank in a major economy being forced to go to a reluctant market simultaneously, it is actually a clear recipe for total disaster. And there are a whole other series of measures to try and prevent too-big-to-fail, including various proposals for limiting the size of the bank, and we have a very unclear example of that in the measures that were announced by Obama earlier this week.

And there are a whole series of other ideas. There is a splendid exercise by the economist Ricardo Cabellero, which was presented at the Jackson Hole Conference this August, where I was also present. It was suggested that the banks should be required to take out what he called 'tradable insurance contracts'. So that, depending on the asset that the Bank held, the bank should actually be required to purchase insurance contracts, which the central bank could intervene in the market, in order to change their price.

One of the problems of this was, clearly, the amount of insurance depended on the riskiness of the asset. The central bank was actually required under that scheme to suggest the relativity between the riskiness of different assets, which effectively made the central bank into the credit-rating agency for the economy as a whole. Now, no central bank would want to be in the situation of trying to assess the relative riskiness and credit rating of the different banks.

There are a number of problems with the American proposals. First of all, most of these insurance contracts depend on various triggers with regard to whether a crisis has occurred. Who pulls the trigger? And can you imagine the Governor, the President, or the Chairman of the Federal Reserve standing up before the television cameras and actually saying, "Now I declare there is a crisis"? You could imagine what would happen to the markets the day after. And this, more or less, occurred when President George Bush stood up before the cameras and said, 'We are now facing a crisis". So, given the likely market reaction, the trigger would probably never be pulled or pulled far too late.

Then most of these insurance products effectively require the asset you hold to become much less valuable under really bad conditions. In other words, these conditional convertible bonds, transform into equity just when the bank is doing disastrously, the precise point when it needs a lot more equity. That effectively means that you lose a massive amount of money on your CoCos just at the very moment when all your other assets are going south at the same time.

It is a kind of catastrophe bond which hits you in the face just when the rest of your portfolio is getting into catastrophe at the same time. Now, anyone who has got any sense in terms of portfolio management will realise that this is the kind of asset that no fund manager in their right mind would ever want to hold, particularly not another financial intermediary. Because credit default swaps (CDS) were a form of insurance. That's what CDS was.

And when the CDS were effectively held in excessive volumes by AIG, it meant that the crisis went from Lehmans to AIG and you have a problem. So any sensible regulator would ensure that the CoCos are not held by leveraged financial intermediaries. That means that, effectively, their buyer base is going to be fairly limited.

Under these circumstances, what is the price and the cost for the banks of issuing these kinds of instruments and actually trying to get this kind of insurance? Again, this insurance only kicks in when things are really going badly. Will this insurance prove time consistent, in the sense that when things have just been going very badly, everybody is aware that the insurance payout can be very expensive? So what you do, and what is happening now, is you put a huge charge in your banking system, just when it is weak. Just when it is already risk-averse.

So, under these circumstances, you are putting your banking system actually into a position where its practices will cause the recovery to be delayed and put back even further. But as time passes, and the financial crisis goes into distant memory and nothing is happening, people will say, "Well, why do we have to pay all these heavy levies?"; and "We are safe, after all nothing has happened for 15 years". So that in the run-up to 2007, the FDIC was actually reducing the levies that it was imposing on the American banking system, because they reckoned they didn't need it. What you will find with this kind of insurance system is that the levies are much too heavy in the immediate aftermath of the crisis and much too light just when everyone is becoming too confident. So there are plenty of problems with these as well.

Conclusion

So what is going to happen? Well, we obviously don't know. The European and the American proposals are not mutually exclusive and actually overlap. In fact, the first CoCos were introduced in the UK rather than the US. What the balance will be between them, nobody knows. A number of complaints about the procedure of trying to introduce better regulation have been that the authorities have lost their momentum. I don't think that is true in the very slightest. Indeed, the fact that the Americans have taken quite dramatic steps to increase (or introduce) new measures of regulation over the last few weeks, I think, indicates that this argument that you mustn't waste a good crisis, and that we all should start introducing much tougher regulations much earlier, is without any foundation.

Indeed, I would argue rather the reverse, if anything: there is a tenancy to try and regulate too far. Indeed, one could argue that for the next five to ten years, the regulators and supervisors could all go home. The banks are now sufficiently risk-averse, aware of the problems, aware of how horrible the effects were and are likely to behave themselves for the next five years or so without any regulation at all. It is really after about 20 to 25 years, when memories dim and things become better again, that you need your regulation – just at the point of time where the private sector and everybody else would say it is unnecessary. Indeed, I think there is really quite a severe likelihood that the extent of regulation on our banking systems will be sufficiently tough to mean that the recovery from the current crisis and recession is going to be elongated and extended to a far greater extent than is desirable. But we will see.

And that brings me six minutes beyond the time that I was told that AC/DC was going to start, but I am glad to say that I haven't heard any music impinging, so if there is some time for questions, should anyone would like to ask.

References

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