

Interview

Andrew Scott and Jordi Gali

Transcript

Andrew Scott: Good morning, Jordi. Thank you for being agreeable to this interview.

Jordi Gali: Good morning.

Andrew: The Euro Area Business Cycle Network is funded by the central banks of Europe, as you know, and basically is there to encourage research in the business cycle in general, but obviously European business cycle specifically. The aim is to try and make sure that academics are contributing to the policy debate, and that policy makers are posing questions to the academic community of theory and econometricians. I know it's been a tough few years for the general population. It's obviously been a great time to be a business cycle economist - lots of new challenges and new questions, and of course, above all else, a renewed interest in what we study.

As you're someone who's been hugely influential in developing the New Keynesian view of the world, which has clearly influenced policy makers, I thought it'd be great to start these interviews of assessing where we stand in business cycle research as it looks like perhaps the major economies are beginning to recover and to start the program with your goodself.

Perhaps I'll just start off with a very simple question, which is how have you been spending the recession? What have you been doing? Who have you been talking to, and what questions have they been interested in?

Jordi: Well, to some extent, it has been business as usual from a work point of view because most of my research, as you know, focuses on monetary policy and economic fluctuations. So, following the crisis has not meant a diversion from my work. There has been a change of focus perhaps more towards short-term developments, and we're now looking at things in real time. But, to be honest with you, I have been more an external observer and, if you want, a consumer of research on the crisis than someone who has been actively doing research on the crisis itself.

Now, in terms of what I have been doing, how have I noticed the crisis, if you will, there has been an unusually large number of requests. People suddenly have become very interested in macroeconomics.. They did not really care before, but now they are interested, so I've gotten a lot of requests to participate in all kinds of events aimed at broad audiences. This is somewhat unusual. I don't usually get many of those requests.

Andrew: It's striking, isn't it?

Jordi: The crisis has made a big difference. I remember giving a talk about the crisis at my kid's high school, which was really challenging, actually. Of course, there have been lots of conferences in which I have been involved on panels. They have been really interesting. I have also read more than usual, or more carefully than usual, if you want, many of these reports that central banks and other institutions put together. In some respects, I've learned much of what was going on through the lens of those reports, and I found some of them very useful, in particular some of the financial stability reviews or reports that different central banks have published.

Andrew: I think it's only right. I've just realized now that the Great Moderation was actually bad for the business of macroeconomics, and as the recession gets worse, we get busier. So, I wonder if we're a leading indicator or a lagging indicator of the business cycle.

Jordi: We're certainly countercyclical.

Andrew: Definitely. I think the phone's ringing less these days. What questions do you think are being posed now that are different from the ones before?

Jordi: Research wise?

Andrew: Research wise or from the sort of people who are interested in macro, not just the researchers.

Jordi: Well, I guess the questions are not different. The questions maybe are always the same; just the particular actors and the specifics change. Some of the central questions have to do with asset pricing and bubbles and how should central banks respond to those. This is a topic that has interested economists for a long time, and suddenly obviously there has been a lot of particular focus on this. This is not something that we have a clear answer to.

Most of our models use rational expectations. We still keep it as a benchmark. I think there are many aspects of the crisis that have called that into question, so when you hear intelligent, well-informed people questioning some of the things that we do, they tend to point to that assumption even though they may not use that term "rational expectations" explicitly as something that calls into question some of the things that we do.

Andrew: Obviously, as macroeconomists, we've always been interested in asset prices as something in their own right, but presumably the greater interest in asset prices and bubbles is also an awareness of the impact they have on the real economy. I wondered if you felt that was a particularly important part of this recession, or whether actually that's always been the case that there's a very important interaction between asset markets, and the financial sector and the real economy.

I guess the point I'm pushing here is I think you've made some very interesting observations that actually the questions are different because we're in a different stage of

the business cycle, but the questions are just basically the same ones about economic fluctuations.

One of the things I notice a lot is we now talk about the boom years and the dangers of those words, "Oh, it's different this time." But, I can't help, but feel that in this recession, we're also doing the same thing. "It's all different now. We've never seen a recession like this."

I guess one question is do you really think that this recession has been unique in any way, or whether it just opens up the same old questions that we've always been interested in as business cycle economists?

Jordi: I think this is a recession that is quantitatively important, if we measure it by the cumulative decline of GDP or employment in most countries. I think this is out of the question. But it could have turned into something really ugly, something closer to the Great Depression, but it didn't. If we look at things with some perspective, this is one example of a recession caused by a financial crisis, and there are so many such examples. It's true in recent years they have tended to occur, not just in emerging economies or not in the most industrialized countries, but they have happened in industrialized countries as well. The Scandinavian countries in the early '90s are an example, and Japan.

One reads Kindleberger's "Manias, Panics, and Crashes" book, and you can see that the history of industrialized economies is the history of recurrent financial crisis. They have all a similar structure, a similar "anatomy," in Kindleberger's words. The details change across crises, and this is one more example of such a crisis.

Recessions caused by financial crisis tend to be deeper, tend to last longer, and may leave scars at the end, but it's not a unique event, not something that was completely out of the radar of macroeconomics.

Andrew: I tend to agree with you, but I guess that then raises the question whether or not we were prepared for such a recession, and particularly whether the paradigms that had become commonplace in central banks over the last decade or so really have become invalid, or whether what we've been caught up is a rare but still not uncommon event that because it hasn't happened for many decades in the rich countries is one we've perhaps downplayed its significance. Do you think the existing previous paradigms, the form of the Taylor rules, the operations of inflation targeting have been questioned by this crisis, or do you think that they can be modified, or do you think that actually they're not valid for these particular circumstances and there are other models or other equations that need to be used to supplement them?

Jordi: I guess I would agree with the latter viewpoint. The paradigm that has emerged as the workhorse paradigm is one that is clearly applicable to normal times, I would even say normal times in developed, stable economies. You can see that just looking at some of the underlying assumptions, the kinds of imperfections that the paradigms focus on and so on. Does the crisis render that paradigm useless? I would say no. It suspends its

validity or its usefulness for a while. I think when things get back to normal, we can keep using it and central banks can keep using it.

It's not obvious to me that we should engage in large modifications of the standard model to accommodate some phenomena that we may not see again or we may not see again in the specific form that it has taken this time around.

So, I'm a bit of a skeptic, though I understand and I sympathize with some of the current efforts to introduce, say, financial imperfections in the standard DSGE model and so on. I'm a bit skeptical about its usefulness when things go back to normal, and I have to say I'm also skeptical or very pessimistic, if you want, about the possibility of using such augmented DSGE model to explain the crisis itself endogenously.

Andrew: And why is that?

Jordi: Because I don't think the crisis has been the result of a specific shock that has occurred at some point in the summer of 2007. But, it has been the result of a buildup of imbalances, and possibly large deviations of asset prices from fundamentals and so on that have been accumulating over the years up to a point where those imbalances become unsustainable or are perceived to be unsustainable by market participants, and then the whole situation unravels. I don't think our models, or at least the kind of DSGE models that have been developed in recent years are too stationary to accommodate such phenomena in my view. Maybe someone will be able to contradict me, but their current structure is one that is useful to explain how the economy responds to regular shocks that occur on a continuous basis more than this sort of crisis like the one we observe.

Andrew: Let me try and delve around a little bit into that idea. One view of bubbles is there are various financial market imperfections, and that if those financial market imperfections exist then the economy is going to be very vulnerable to those bubbles, which suggests that there's a mechanism that can take exogenous shocks and make them a frequent source of macrofluctuations. Are you suggesting that that's not the way you think about this current financial crisis, and it was just a once-in-a-lifetime long-term development of forces to do with global imbalances and financial innovation, rather than a regular business-cycle phenomenon?

Jordi: Yes, I think that even though macroeconomists are being blamed for everything that has happened, quite unfairly I would say, I really think that the problems that are at the root of the crisis are inherently micro, and they have to do with incentives and contracts, and regulation. It's not obvious to me that as macroeconomists, we want to look deep into those issues.

Andrew: That's interesting.

Jordi: Certainly, I don't think we want to incorporate them explicitly in our models because we want to keep our models reasonably tractable. Now, it's still important to understand how policy makers should react to the kind of distortions generated by those

micro problems whether they are spreads between interest rates, the bubbles and so on. So, we may want to introduce those in a kind of ad hoc or reduced-form way in our models to see how the economy may respond to alternative policies in their presence. But, again, I don't think our macro models will ever be able to capture the kind of distortions that were at the root of the crisis.

Andrew: OK, I think that's very interesting. Let me perhaps try and push things in a slightly different way. You talked about asset prices and bubbles, and clearly this whole experience has reignited the debate about whether central bankers should just focus on inflation, or they should focus on asset price bubbles. Clearly the focus on Taylor rules and inflation targeting is based around certain market imperfections in product markets - perhaps sticky prices, or labor market problems.

Now, you are suggesting that the bubble crisis was caused by financial market imperfections and incentives that are of a more microeconomic concern. So, one way of summarizing what you are suggesting is that if we want to worry about asset market bubbles, we need to supplement monetary policy with other policy instruments. I guess they would be called macroprudential ones.

But, if you refer to Tinbergen's Law you need as many policy instruments as you have policy targets. If you want to control inflation, then we have a framework to do that. If you want to control bubbles and worry about financial markets, you need a different set of tools, and perhaps a different institutional structure. Is that the sort of way that you see things going forward?

Jordi: Yes. I would fully agree with that view. And I think that it is important to incorporate some of these additional instruments in our models. It may be useful to have them explicitly. And so that may require introducing financial intermediation, even if it is in a very rough or simple fashion. But, the reason is that some of those instruments may be interacting with interest rate setting. So, it is not clear that changes in reserve ratios or capital ratios would be independent from interest rates or may not have an impact on market interest rates.

So, one should ignore that, and certainly take into account any possible interaction with monetary policy proper, which I view as the setting of short term nominal interest rates.

Andrew: I guess that leads right into a question which relates to central banks balance sheets which is we are not seeing such a big role for interest rates. We are seeing a greater focus on quantity variables. And I wondered what your views on that were, and whether this is something we should invest a little research time in, or if this is really just the macroeconomics of very bad times?

Jordi: Well, I think the focus that commentators have been putting on quantity variables is misguided. Because most of the interventions that central banks have carried out and that have involved unconventional policies along the lines of quantitative easing and so on, were ultimately aimed at keeping interest rates and the yield curve - not only the very

short term interest rates - but the yield curve, at the desired levels. So, it was more of an issue of implementation, of desired interest rate pattern, than quantity variables being important in themselves.

Andrew: Right, so the statement, therefore, is that the interventions have been affecting the market prices, and so although we may have other market prices, we worry about rather than just short term interest rates, it is still basically working on interest rate decisions.

Jordi: I would say so. Now, there are variables like aggregate credit and the growth of aggregate credit that seem to have played an important role in the period before the crisis. And I would not be surprised if much more emphasis is put on those variables in the future, and central banks monitor them more carefully, such as measures of aggregate leverage in the economy. However, ultimately, the mechanism through which monetary policy will affect private decisions will be interest rates, short term interest rates, or policy rates, and their impact on market rates.

And most of these unconventional monetary policy measures have aimed at keeping as close as possible of a link between market rates and policy rates. And to some extent they have succeeded, although there have been prolonged periods in which there has been a huge gap between the two.

Andrew: I guess this goes back to your earlier point that the impact of interest rates on the economy is going to depend on the structure of the financial system. So, we need to build in simplistic structures. But also, those constant interventions have been trying to affect market rates, long-term rates, corporate spreads, risk premia, credit default swaps. And do we really feel we have a mechanism to understand how those constant interventions will affect those prices, and do we see evidence that the prices have been affected?

Jordi: We have simple models that help us understand some of the mechanisms behind the spreads. I think the Bernanke-Gertler-Gilchrist model would be the main reference here, and the work that builds on that model, including very interesting recent work by Gertler and Karadi, as well as de Fiore and Tristani . The models are very simple, and they are based on the value of collateral, and how monetary policy can influence the value of that collateral, which in the end is what determines the spread that the financial intermediaries require in their contracts with private agents.

To some extent, I do not see the need to go beyond that. There are also alternative ways to model the same phenomenon that involves quantity, such as some kind of borrowing constraints.

So, people like Tommaso Monacelli have emphasized this alternative view in which the amount of resources that the firms or households can borrow are subject to some quantity constraints, which is determined by the value of their collateral.

I mean, I think all of these modeling devices can shed some light on how the economy will respond to different types of intervention, and can be useful.

Andrew: Let me move on to a different topic, because you have obviously worked on both monetary policy and fiscal policy. And we have been talking about quantity variables, and obviously government debt is rising significantly. What do you think about the interaction between monetary and fiscal policy, and do we really understand the levels of fiscal policy, and to have a sound understanding of how fiscal policy may or may not constrain monetary policy in the next few years?

Jordi: My main concern about that interaction is the extent to which the increase in public debt that we see in almost every industrialized country—and which reaches dramatic levels for some of those countries-- may actually have an impact on interest rate setting. It is clear that central banks can help, in principle, mitigate or reduce the possibility of perverse debt dynamics resulting from the higher interest rates that markets may require, given the high levels of public debt and the perception of default risks in some cases and so on. The central bank can always offset, at least partly, those perverse effects on budget deficits and subsequent increases in debt by lowering interest rates. That would be dangerous because it would divert central banks from what should be their main objective, which is to stabilize inflation.

And on top of that it could potentially create the seeds of another bubble. So, this is a concern that I have regarding the interaction of monetary and fiscal policy.

Now, having said that, I think the way central banks and governments have responded to the crisis in the industrialized world has been very good, given the constraints of all sorts and the limited information and also limited knowledge about the impact of different policies and even the developments that were occurring.

You know, if we compare the response that we have observed in this crisis to the one that we observed in 1929 and subsequent years, the difference is huge. So, I think that we should give them some credit, and I think we should also give some credit to the economic profession as a whole for providing at least some clear principles or guidelines as to how policymakers should respond to a crisis of this sort.

Andrew: I tend to agree with you. I think that rather than it being a crisis in economics, it's actually been a victory, if we have managed to stave off a great depression. The only thing is that some people counter that actually we have perhaps staved off a great depression, but the way we've done it perhaps relies more on the undergraduate textbooks we teach rather than the frontier research. I wonder what you thought about that?

Jordi: That's probably true to a first approximation. Though you know our more sophisticated models also emphasize certain aspects that you don't see in undergraduate textbooks and that I think are important and have been important during the crisis and in the policy response to the crisis, which have to do with expectations - expectations about

future policies and the extent to which current policies will be kept in place for a long period and so on. So, that's not something that you would be able to get from standard undergraduate textbook models.

Andrew: Which brings me onto the subject of exit strategies. You mentioned earlier that the monetary policy rules we used to use should still be fine when we get back to normal times. I guess that raises the question, should the existence at times that might be abnormal affect those normal rules, and how do you make that transition from the non-conventional approach we have now to the more conventional setting that we used to have?

Jordi: One way to view this which I find useful - I think John Taylor among others has emphasized this - is to think of central banks as following an interest rate rule not too different from the one that they followed in normal times and which proved to work well, but one which applies to market interest rates as opposed to the policy rate. So, the idea is that central banks should engage in whatever interventions and should create whatever new institutions or instruments are needed in order to keep market rates, the rate at which consumers and firms can borrow, at levels that are warranted by inflation and output developments. That's how I like to interpret the way central banks have responded to the crisis.

So, one can view all the non-conventional measures that have been taken as ways of implementing this, let's call it, modified interest rate rules. So, as things improve and the economy recovers, I think that the wedge between the two will go away in a way that will be more or less permanent, the wedge between policy rates and market rates. So, the two rules, the standard one and the modified one, will eventually converge. So, I don't see any need for some special measures for this transition. It will be an unwinding of the extraordinary measures that were taken in order to keep market rates as close as possible to the desired interest rate.

Andrew: A number of commentators are concerned that these sort of interventions are themselves creating another bubble. I just wondered if you thought that modified rule was robust to those fears.

Jordi: That's a good question. We tend to talk about bubbles too lightly, I think. Certainly keeping interest rates low will encourage the growth of asset prices, it couldn't be otherwise. But that doesn't necessarily mean that they will generate a bubble. Bubbles, especially rational bubbles, have an important component that has to do with multiplicity of equilibria, and which equilibrium the economy converges to is not something that central banks can easily pin down. So, it's hard to tell whether these policies are likely to create a bubble or not.

Andrew: Which goes back to your earlier comment that perhaps we just need a separate decision making process to try and focus on micro financial imperfections as opposed to monetary policy.

Jordi: Yeah, I would say so. What's really important, in my view, is that, let's call it the second pillar of policy is conducted by, it could be by a central bank or it could be by some other institution, but it's conducted in a way that is independent of the government. I think we should learn the lessons of the benefits of granting independence to central banks and apply them to these alternative or parallel policies. I'm concerned that some of these policies will remain too much in the hands of governments. I can be convinced they will be used properly in response to a crisis, but they are less likely to be used actively enough in the period in which the crisis is actually being conceived, in the boom period. That's the time when active counter-cyclical policies should be implemented. I don't see government, executives, having the guts to do that.

Andrew: I think that's right. The regulators this time around didn't and I think that's a problem. Well, I should reveal a hidden agenda here. Obviously, the EABCN is keen to promote research on European data. We still tend to benchmark everything by looking at U.S. data. I wondered if you thought there were any significant differences in how the U.S. or European business cycle had evolved or might evolve in the next year. Any significant differences in the policy response?

Jordi: I think the main aspects of the crisis have been very similar in Europe and the U.S. Most people point to the U.S. economy as the source of the crisis. In some respects, this is true. The events that triggered the crisis may be related to the U.S. economy. However, some of the developments that are at the root of the crisis, we observed in other countries - Ireland, the U.K., Spain and so on - in many respects, there were strong similarities between the developments in all those countries even though they may not have had as much of an impact as the U.S. economy, for obvious reasons. The policy responses have also been, at least in a qualitative sense, similar. What I think may be interesting, looking ahead, is to see how the recovery will play out and the extent to which employment will recover faster in the U.S. than in Europe, in particular in continental Europe. Whether we will still see some remnants of the so called hysteresis problem in Europe, whereby high unemployment rates tend to remain, if not permanently higher, nearly so for long periods of time due to large differences in labor market institutions, in particular different degrees of wage flexibility. I think that's something I look forward to monitoring closely.

Andrew: Yeah, I think you're right. I think there will be a big increase in labour market research from the very macro perspective. I guess that brings me on to my penultimate question, which is where do you see the most promising research areas in general going for the next few years? Where would you encourage people to put their time and devotion?

Jordi: Well, I think we have a model, as I said before, that works well for normal times. I think we have to stick to that model. However, we also should realize that the model has important shortcomings and we should make an effort to overcome those shortcomings. In my view, the main shortcoming of the standard DSGE model is that it focuses too much on nominal frictions. It does not incorporate sufficiently what we could call real

frictions or real distortions or real imperfections. There are two areas in particular that I believe are worth exploring.

One has to do with the one that we mentioned earlier that has to do with imperfections in financial markets. I think there may be useful ways and tractable ways of incorporating those in the current paradigm.

The second is the imperfections in labor markets. I think the way labor markets are modeled in the standard DSGE model is too simplistic. I think there are already efforts along those lines of trying to enrich labor markets. I have, myself, done some work in that respect trying to bring together elements of the search and matching literature and those of the new Keynesian literature in order to incorporate, explicitly, unemployment in the model.

I think, as you said earlier, we're likely to see high levels of unemployment for a while and there will be a lot of attention placed on that variable. It's a shame that it's not to be found in the current versions of the standard DSGE model. I think we have to fix that.

Andrew: And your own research in the next year or so? What are you focusing on, the labor market issues?

Jordi: Yeah, this is mostly what I've been working on and what I plan to work on. Not necessarily in a way related to the crisis, but I'm just trying to see what is the best way to bring real imperfections in labor markets, whether related to the presence of search frictions or rigidities in wages that go beyond nominal stickiness, to see what the implications of such frictions are for monetary policy. In particular, should central banks look at unemployment rates? Is there some information in the rate of unemployment, as we measure it, that is useful and that is not conveyed by other variables like output, growth or employment itself and so on? I find this an interesting and challenging issue, and one that keeps me busy these days.