MNB Panel Discussion with Olivier Blanchard*

(Péter Benczúr)

A citizen of France, Olivier Blanchard has spent his professional life in Cambridge, U.S. After obtaining his PhD in economics at the Massachusetts Institute of Technology in 1977, he taught at Harvard University, returning to MIT in 1982, where he has been since then. He is the Class of 1941 Professor of Economics, and a former Chair of the Economics Department. He is currently on leave from MIT, as Economic Counsellor and Director of the Research Department of the International Monetary Fund.

Mr. Blanchard is a macroeconomist, who has worked on a wide set of issues, from the role of monetary policy, to the nature of speculative bubbles, to the nature of the labour market and the determinants of unemployment, to transition in former communist countries. In the process, he has worked with numerous countries and international organisations. He is the author of many books and articles, including two textbooks on macroeconomics, one at the graduate level with Stanley Fischer, and one at the undergraduate level.

He is a fellow and Council member of the Econometric Society, a past vice president of the American Economic Association, and a member of the American Academy of Sciences.

– The first topic of our discussion is current monetary policy issues. I would like to start by raising two issues. First, there are many new proposals floating around about modifying, or even abandoning, inflation targeting as a monetary policy strategy. Some argue that the current inflation targeting regimes should be replaced by more flexible versions or even by 'nominal GDP targeting'; or that inflation targeting should be complemented by financial stability considerations. Second, even if we stick to inflation targeting, is there a case for setting a higher target than what we previously thought of as the optimal inflation rate?

– These first questions could be the topic of the next three days! But there may be some key points. First, inflation targeting per se has shown its limits. If you look at many countries before the crisis, inflation was on target, the output gap was relatively stable and yet, things behind the scenes were developing in a way that we got into the crisis. So, it is absolutely obvious to me that the goal of the monetary authority / financial supervision authority (and the slash is important and I will come back to it) must be much broader than just targeting inflation or targeting the mix of the output gap and inflation. We know now that it can look like we are achieving perfection, and still have a system which is incredibly dangerous behind the scenes.

This implies that the monetary authority / financial supervision authority has to have a larger number of targets: inflation, output, the composition of output (for example if housing becomes a big part), and the composition of assets and liabilities in the financial sector. I think these are all very important targets. At the same time, fortunately, there are more tools as well: not only the policy rate, but also intervention in markets other than the short-term bills market, and then there are macroprudential tools. And so, I think that is point 1: many targets, many tools.

* The views expressed in this article are those of the author(s) and do not necessarily reflect the offical view ot the Magyar Nemzeti Bank.

Now, the next issue is that this becomes a really complicated problem when you have all these targets and all these instruments. Can you as a first approximation keep inflation targeting and the policy rate as what the monetary authority mainly does and have a financial supervisor in charge of macroprudential tools? And here the answer is that they do interact. When the monetary authority decreases the policy rate, it changes the incentives of financial institutions in terms of the type of risk they take. The rate cut probably increases risk taking in the financial system, so macroprudential tools are needed. And, the same way, macroprudential tools are likely to have a macro effect. Suppose you decide that there is a housing boom and you are going to use maximum loan-to-value ratios in order to limit the amount of borrowing. This is going to have an effect on housing, which was your objective, but it is going to have an effect on the economy through the demand for housing investment.

In a world of benevolent and competent policy-makers you would want to put everything under one roof with one authority, which understands all the implications and takes all the decisions. In reality, I think it makes sense to have some separation of the two – to have a monetary authority and to have a financial supervision authority.

The question is how much separation. Countries around the world are exploring different ways. If there is no separation, there is only one institution having all the tools – that can create dangers. If you have an independent central bank and you have a government which is in charge of using a large set of macroprudential tools, it could clearly misuse them for political reasons. If you separate the two institutions completely then the lack of communication is clearly an issue. We have seen this in various countries. So you try to find ways. My sense is that the UK compromise might be a good thing: that you have two committees – the Monetary Policy Committee and the Financial Stability Committee – in the same building, they interact and try to take a set of coherent decisions. So I think that is point 2.

Point 3 is thinking about the mandate of monetary policy, whether it is inflation targeting or output, or a mix of output and inflation targeting. The crisis has not changed my views very much. I like the US mandate, which is that the central bank is in charge of making sure that inflation is right and the output gap is small and then it tries to do the best it can. It does not have explicit weights on inflation and the output gap. I see nominal GDP growth targeting as just forcing the weights to be equal, since you have nominal GDP growth as the sum of real GDP growth and inflation. That makes it more explicit that there is some commitment to output, but it seems to me more like a trick than major progress.

– There might be a major difference between the way inflation targeting is usually implemented and what, say, nominal GDP targeting would do. The question is whether it is an output gap measure that enters your objective function or it is the level itself which is not just the deviation from the trend.

– Conceptually, what you need to do when thinking about monetary policy or any policy which is going to affect demand is to think about the output gap. And nominal GDP is more a wording of the issue, rather than dealing with the issue. We have to think about output gaps. I suspect the reason you ask this question is also the reason I ask myself the same question…. There is a puzzle here.

On the one hand, we tend to think that in most countries, output is much lower than it could be. We clearly see demand falling. We haven't explicitly seen potential supply falling, but we have the sense that it has also fallen but not by as much. So, on the one hand, I think most of us think that it's quite a way to go back to the old path… Not even the old path, but the path which is feasible.

Let me say a bit more on this. I suspect that we can't go back all the way to the old trend. Historical experience from financial crises shows that you don't go back to the old path; you typically go back to the same growth rate but with a level difference. So, there has clearly been something on the supply side which we may not fully understand. But the decline is not as big as the decrease in actual output, so there is an output gap. So, that's one. But then, we have been trained, and I believe correctly, in thinking that if there's a positive output gap, so output is below potential, then there should be some downward pressure on inflation. If you think that expected inflation is now anchored by inflation targeting, the inflation should be lower. This has happened on a very low and limited scale, and Hungary is an example of that, but it is true in general.

So it seems that the output gap is fairly large, but the pressure on inflation, core inflation in particular, is very small. So the question is what to do next, right? Which I think is probably your question.

I have come to a conclusion, but at this stage it is rather just a hypothesis. I'll try to make it into a paper and if you have insights, I would be happy to listen. The main idea is that we have to distinguish short-run potential output and long-run potential output. Suppose you have an economy where there is a recession that has been going on for six months or a year – the kind of normal, cyclical movement that we have seen in the past. Unemployment has increased, output has decreased, but what has happened to potential output? Here, I simply define potential output as the level of output where there would be no upward or downward pressure on inflation.

Presumably, if the recession has been short, firms haven't changed their ways drastically. Perhaps they have decreased the number of hours, they have laid off some people, but to a large degree they have hoarded labour. They probably haven't changed their production practices very much. So if demand came today, firms would probably go back to the way they did business six months or a year ago. The output gap is there, we can see it, and then we go back.

Suppose instead that we are in the position where many countries are today, that there has been no growth or even negative growth for three or four years. By now, firms have really had to adjust. They must have stopped hoarding labour because it is too costly. They may have closed plants, which they could in principle reopen but it is more complicated. They changed the whole way they do business. Now suppose demand increases a lot. Firms would have to hire workers; they would have to reopen plants and so on – which are all very complex processes. I think firms would very quickly face various adjustment costs, leading to inflationary pressure. So, the longer the recession goes on, the more short-run potential output goes down. So, the output gap remains small. Just a bit more demand today creates inflationary pressure.

Suppose that this is the explanation. Then the policy implication is that even if you have a small output gap, it does not mean that there's no room for boosting demand. If you increase output a bit, potential output is going to increase as well. It is like Achilles and the turtle: you move, but you never quite get there. So maybe in the end you can actually increase demand substantially more without inflationary pressures – so long as you do not do it too quickly.

Two more points on this notion of a short-run output gap. The first is that it is related to hysteresis, but it is not the same: I am not talking about permanent effects; I am talking about adjustment costs. The second is that it might be worth looking at the data. The story would imply that the longer the recession has lasted, and the longer unemployment has been high, the smaller the gap and the pressure on inflation. This might be captured by a Phillips curve which has, instead of the difference between current unemployment and the natural rate, the difference between current unemployment and some weighted average of past unemployment. Initially, you have the output gap and downward pressure on inflation, but as you continue, the gap becomes smaller and the pressure on inflation goes away. I think such an empirical approach would have clear policy implications.

And then the last point: what is the long run output gap? It is very hard to know because all we see is the short run, the pressure on inflation. I think the main question is: Why should the crisis have decreased potential output and the natural growth rate very much? First, has the natural rate of unemployment increased? In the short run, when the financial and the housing sector decrease in size, the natural rate will be higher because of matching problems. But the net worker flows this implies are small relative to the gross flows which happen all the time (the movement of workers which takes place even if there's no change in the composition of production). Probably the estimates are about 1 percent more unemployment in the US; and it will not last long because people adjust. So why should the natural rate have increased much? My sense is that it should not have.

I was in Latvia earlier this year. The question, as you may know, is whether Latvia is a great success or a great failure. The Latvians think it's a great success, *Paul Krugman* thinks it's a great failure. What you conclude depends on your theory on the output gap.

The Latvians say that output by now has decreased by about 15 to 20 percent, but that's nearly all potential output, the output gap is close to zero. Unemployment before the crisis was 6-7 percent; it's now 15… that's all an increase in the natural rate. We don't have a current account deficit any more. Life is tough, but that is the way it is.

Paul Krugman says that if the natural rate of unemployment was 6 percent before the crisis, how can it be 14 percent today? What are the factors which would explain such an increase? And he says no, that's not the natural rate, that's the actual rate! The natural rate is probably still where it was before the crisis, 6 percent. So you have 8 percent to grow and if you're going to do that, which you haven't done yet, you're going to need an enormous adjustment in competitiveness in order to keep your current account down. And so his conclusion is total failure. The truth is probably somewhere in between.

The bottom line is that I do not see why the natural rate should be very different in the future from what it was before the crisis – although the actual rate may have been below the natural rate then. I do not see why productivity growth would be fundamentally different. I can see some effect on productivity of a more constrained financial sector for some time, so there is a level effect. And, so my sense is that the long-run output gaps are still fairly large.

– Coming back to the theory that you have just described, the short-term and longer-term potential output. That works as long as we assume that rebuilding lost capacity is easier than building new capacity – which implies that the potential growth rate after the crisis is actually faster than before. Do you agree with this characterisation?

– Since there has been less investment during the crisis, the capital stock is smaller than before. This decreases potential output. If we think that after the crisis we are going to return to similar investment rates as we had before, then the capital-output ratio will increase again. During this period, potential output growth will be, other things equal, faster than it was. But eventually, we will get to the pre-crisis capital-labour ratio, in which case what matters is total factor productivity. I do not know the rate of TFP growth, but I see no reason to think that it is very different from what it was before the crisis. Still, you are right that there is a period during which you get faster growth temporarily because you restore capital to its old relative level.

– I would add two qualifications. One is that the Great Moderation created a financial environment where a long-term liquidity illusion led to higher-than-potential investment levels for a decade or even more. And therefore I would expect that long-term trend growth would be a bit smaller than previously. The other thing is that we may still not fully understand the consequences of the globalisation process of the last 15 years. Its effect on wages and the competitive position of individual countries can be dramatic. And the adjustment that it requires to regain a country's competitive position on a systemic level may be a very serious challenge.

– Both concerns are very important. The second in particular opens a can of worms.

There is no question that at least some types of investment were too high in the 2000s. Housing is obvious, but maybe the investment rate in general was too high. To that extent, growth was maybe too high. I do not think, however, that an investment rate which is two percent lower in terms of GDP would have very strong quantitative implications for capital accumulation and potential growth, but qualitatively you're right.

As for the second issue, there is a deep question as to how to define potential output. Think in terms of the production function approach: we use labour, we use capital and we use TFP, we put them together and then produce. We just talked about the endogeneity of capital, but there is also the endogeneity of labour and that gets back to the natural rate and that gets in turn to issues like globalisation.

So, just to take an example, Portugal was part of global value chains and had a few niches, for example, in the automobile sector. They have more or less lost those, which means that now they have a very hard time finding what their comparative advantage is and it may well be that the wage consistent with a given level of employment is actually lower than it was before. If workers do not accept a decrease in the wage, then the natural rate will be higher, and if the natural rate is higher then potential output is lower.

You tend to think about the natural rate as something unrelated to globalisation. In reality, the change in the wage which is needed may easily depend on external conditions. So it may well be that the potential output in some countries (e.g., Portugal) is actually lower than we might have thought, so I take your point.

– I'd like to go back to the theory of potential output that you outlined, and my question is about its policy implications. There is clearly a role for policy interventions if there is some sort of externality behind this short-run output gap concept.

– No, there is no need for externalities. You could simply formalise this by assuming that the adjustment cost to an increase in production is increasing in the length of time during which a firm (or a country) has been operating at low levels.

– In such a case, would the policy of subsidising short-term employment, labour hoarding make sense?

– The rationale behind labour hoarding is that if you think the downturn is not going to last too long, you wait and try to save on the adjustment costs. But eventually labour hoarding is costly. Now the question is whether you want subsidies to avoid the adjustment costs.

– I think in a similar way, we were proposing in 2008–2009 to the government to offer guarantees on the loans of SMEs for example, arguing that if SMEs lose their markets, the additional cost of getting them back is higher than the possible cost of the government guarantee.

– Right. This is very similar to the discussion of the Dutch disease, for example. There you discover oil, and there is capital inflow which causes an appreciation. This makes your traded sector uncompetitive, so some of your tradables firms go out of business. And when investors do not like you any more, some of those lost sectors might not come back. It is indeed an open question: does it make sense to subsidise some industries in such cases? There are a number of papers which argue that that's indeed a reasonable policy, but the question is open.

– We are approaching our time limit and the next topic would have been turning more to academia and macro, which we cannot meaningfully address in five minutes. But let us still give it a try. You wrote a very interesting overview of the state of macro[1] around 2008–2009. Have your views changed since that article?

– That paper was written before the crisis and came out just around the crisis. And I had to explain myself a lot to Paul Krugman for the sentence: 'the state of macro is good.' I suggest you read the whole paragraph, from which the sentence is taken, and you will see that I gave in fact a fairly balanced assessment. Since then I have written a paper with *Giovanni Dell'Ariccia* and *Paolo Mauro* called 'Rethinking macroeconomic policy' in 2010,[2] which is an update of that.

My reaction is that the crisis has been good for macro (not so good to macro, which clearly came up short) in two ways. The obvious one is that while we had not seriously thought about the financial sector before the crisis, now it is central. Everybody is working on it. And the supply response is quite amazing: if I look at the proportion of, say, NBER working papers (which are listed on the net) which have something to do with the crisis, it is very high. I was surprised at how quickly the profession was able to recognise that there was something happening outside. So that is good news.

There are some ideas which are now central to macro, such as liquidity for example, which really were not there before. There were very good papers about them, but they were written by kind of outsiders – by the Jean Tiroles and Andrei Schleifers of the world – and though they turned out to be very relevant, they were not incorporated in macro. My sense is that we are starting to get a good sense of the financial system, of what financial networks mean.

[1] Blanchard, Olivier (2009), "The State of Macro", *Annual Review of Economics*, Vol. 1, pp. 209–228, URL.

[2] Blanchard, O., G. Dell'Ariccia and P. Mauro (2010), "Rethinking macroeconomic policy", *Journal of Money, Credit and Banking*, Vol. 42 Iss. s1, pp. 199–215, URL.

I think the crisis has liberated us from the sin that I had identified in my state of macro paper, which is that until 2008, if you were a macroeconomist and you submitted a paper in macro, you could not do partial equilibrium. This was considered unacceptable. You had to have a DSGE machine. So you had an insight, which would be Section 1, which is all what people should read, and then to please the editor, you had to add something like habit persistence, and the 'change in the change' in the cost of investment or whatever else. And that I viewed as incredibly detrimental. I think you should start with your insight, and then maybe at some stage you incorporate it into a fully fledged model, but you do not test whether a theory is right based on whether it fits the entire economy through a DSGE model. I think this phenomenon is gone (or at least going), because people have realised that the world is so complex that, if you understand one part of it, that is a contribution.

So I now see many more papers which look at one thing in an intelligent way and try to find evidence directly. Maybe somebody else will put it into a DSGE model later on, but you do not have that obligation any more.

Nevertheless, what I find at the Fund is that we still need models, and they have to have dynamics, be general equilibrium in nature, and give an important role to expectations. Put another way, we still need dynamic, stochastic general-equilibrium macro models. The reason is that we still have questions like what happens to growth in China if Brazil introduces a tax on imports. If I think really hard, maybe I can give the sign, maybe not. And I surely cannot give you the magnitude, and I'm not sure anybody can. But we should try, so we still need these DSGE machines.

In terms of models and tools, we are now at a point where we have a financial sector which is starting to look like the financial sector. We can look at the effect of say, capital adequacy ratios on intermediation and on output. Think of the 100-page papers that *Michael Woodford* writes now on heterogeneous agents, borrowers, lenders, so we moved away from the representative agent model. So in terms of the set of tools we have, I'm impressed by the progress the profession is making.

– And what is your view of handling expectations? I mean many people argue that the rational expectations hypothesis is a key cornerstone or bottleneck of general equilibrium macro models.

– I think we now accept that, for various reasons, agents do not behave in a way that the prototype expected utility maximiser does. Whether it is due to expectations or all kinds of things, I think there is, again, good work on it.

It is still the case that if I do a DSGE model, I would probably use rational expectations, because I do not think we yet have an alternative. I think there is much more thinking recently about the causes of excess leverage. Was it due to incentive structures and rational responses to them? Was it agency theory in some way? Or was it irrational expectations and if so, what does it mean precisely?

I think there is a lot of interesting work about these issues, but I do not see anything yet which can be introduced in our basic macro models. But again, this 'let a hundred flowers bloom' approach is very nice, and you are now allowed as a macro-economist to write a paper with bounded rationality – which *Chris Sims* or *Tom Sargent* had been exploring even before the crisis – and not blush.