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MONETARY POLICY IN A WORLD OF UNCERTAINTY

COMMENTS

on Professor Otmar Issing's "Monetary Policy in a World of Uncertainty"

by **Eric Chaney**[1]

Professor Issing gives a fair and comprehensive description of the three main sources of uncertainties that have to be taken into account by monetary policy authorities: uncertainties about the state of the economy, its structure and the reaction of economic agents, both in their actual decisions and their expectations. As an 'economy watcher', I am particularly interested in the first two sources. As a market participant, I am one of the objects of the third category. For the three of them, I feel there is a need for further elaboration on the nature of these uncertainties. More precisely, are these uncertainties mainly linear and thus by definition symmetric in terms of impulse-reaction, or is it a bit more complex?

My sense is that non-linearity, partial irreversibility and asymmetric reactions are prevalent and thus shape the very nature of these uncertainties. Let me take a few examples. For the convenience of analysis, I will use Professor Issing's typology, but, in fact, all three sources will appear deeply inter-linked when focusing on their nature.

UNCERTAINTIES ABOUT THE STATE OF THE ECONOMY: THE CASE OF POTENTIAL GROWTH

If one synthetic indicator had to be singled out for its monetary policy relevance, I guess it would be the output gap. It's a very elusive concept indeed. What the output gap of a given economy was ten years ago is relatively consensual, as it can be measured as a deviation from its ex-post trend. However, as Professor Issing rightly points out, there is no consensus about the current output gap, simply because nobody knows ex-ante what is the current trend. The point I want to stress here is that the consequences of an overestimation or, conversely, an underestimation of the output gap are of different natures.

Let's assume first that policy makers have an overly conservative assessment of the potential growth rate. They will then underestimate the output gap and keep real interest rates higher

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than they should be. Two consequences might arise. First, hysteresis in unemployment, as a result of lower human capital. Second, sub-optimal investment, which, in turn, would translate into slower potential growth. Pushing the analysis to its limits, the underestimation of the output gap might remain concealed, as, over time, the actual (and not observable) output gap would shrink as a result of higher structural unemployment and slower potential growth. In other words, some structural parameters of the economy would have been modified, which is another nice example of quantum mechanics-type interference. Ironically, inflation could be a by-product of this judgement mistake if, for instance, a positive demand side shock occurs.

Now, let's turn to the apparently symmetric case. If policy makers overestimate potential growth and thus the output gap, as many observers think the Federal Reserve did in the late 1990s, real interest rates will be lower than they should be, all the more so if myopic financial markets make the same error. As a consequence, companies will over-accumulate capital and asset prices will overshoot their fundamental value. A one percentage point of error on the productivity trend might easily generate a 10% to 20% error on the value of stocks. In our world of floating exchange rates, inflation might even remain quite subdued, as a result of capital inflows pushing the currency higher. We all know the end game: at some point, the ex-post return on invested capital does not match expectations and both the real and the asset price bubbles burst violently. Asset price deflation and, possibly, goods and services deflation might be one of the outcomes of this failure to measure the actual state of the economy.

Back to my initial point, the nature of the uncertainty on the state of the economy is by no means symmetric, when the policy feedback is embedded in the analysis. In both cases, the result is a loss in the welfare function, but in the first case, the loss comes from a lower income level and, in the second case, from higher income volatility.

Uncertainty about the structure of the economy: the case of the NAIRU

Professor Issing mentions as a "more fundamental problem" the possibility of "structural parameters varying over time as a result of structural changes". The example I have in mind here to illustrate my concern about non-linearity is the NAIRU, a concept probably as elusive as the output gap, but nevertheless so useful that nobody wants to drop it. As Alan S. Blinder candidly explains in his popular book *The Fabulous Decade*, published in 2001, the Federal Reserve Board took the risk in the mid 1990s to assume that the NAIRU was declining on trend and thus was actually lower than what all econometric estimates, based on long-term time series, were indicating. On the other hand, my understanding is that the European Central Bank is sceptical about a declining NAIRU in Europe, but, of course, I could be wrong.

The worst case I can imagine for policy makers is a situation in which the actual unemployment rate would decline at a speed not very different from the unobservable NAIRU/NAWRU.

Here, the non-linearity would affect the short-term (augmented) Phillips curve itself and, by way of consequence, the transmission mechanism of monetary policy decisions based on Phillips curve models. I suspect that, in Europe, we might be in such situation, as a result of the secular increase of flexible job contracts such as temporary positions, fixed-term contracts and part-time jobs, which increases the weight of outsiders in wage bargaining.

However, the reality might be even more non-linear than assumed in this dynamic description. I even wonder if an aggregate NAWRU makes sense in a currency area where the workforce is not mobile. One can easily simulate an asymmetric shock where the aggregate wage rate might accelerate even if the aggregate unemployment rate goes up. This would happen if unemployment went down in one country, where the slope of the Phillips curve is steeper than in all the other countries, where the rise of unemployment would slow down wage rates, but not fast enough to offset the rise of wages in the overheating country. Maybe Professor Issing had such example in mind when he alluded to possible "non-linear aggregated relationships".

Strategic uncertainty and communication with the public: the merits of being candid

Professor Issing explains quite convincingly why "promoting transparency is in general in the central bank's own self interest". I could not agree more, especially for the ECB, which is still largely unknown to the wider public. In this regard, the remarkably smooth introduction of the single currency owes a lot to the well-designed, well-targeted communication by the ECB and all EMU central banks. That being said, there was a dark side to the introduction of banknotes and coins: some producers, especially in services industries, and many retailers seized this one-off event as an opportunity to raise their profit margins on the back of consumers. Let me spend a few moments on this episode, which is a textbook case of uncertainties on price stability. Back in 2001, the popular story was that tons of old banknotes would be traded for expensive goods by suspicious consumers just ahead of their obsolescence. I am told that Amsterdam jewellers enjoyed particularly strong end of year sales, so there might have been a bit of truth in this story. On the other hand, little attention was paid to upside risks on prices, maybe because little attention is being paid to asymmetries of information.

Although economists did not see it coming, consumers quickly realised that they had been massively robbed. But instead of admitting the truth when it started to emerge, monetary authorities preferred to downplay the shock on prices and, instead, insisted on the subjectivity of consumers' judgement. Wouldn't have it been better for the sake of price stability and the long-term credibility of the ECB vis-à-vis the wider public to stand up as guardian of price stability and denounce this historical robbery? I wonder whether there was not some sort of conflict of interest in this matter.

Strategic uncertainty and communication with financial markets: the merits of clarifying models and of revealing the Bank's bias

Having the financial markets on one's side, when possible, is certainly desirable for a modern central bank, given the importance of financial markets in monetary transmission mechanisms. As Professor Issing says, markets can do "much of the work" through bonds pricing action. In this regard, the central bank should influence markets more than being influenced by markets. Indeed, a central bank that systematically underwrites markets' expectations as they are embedded in the short end of the yield curve would rapidly create a large risk premium on all bonds, since the uncertainty regarding future policy rates would come neither from the epsilons in the real economy nor from the Bank's reaction function, but would be generated by some sort of random walk. To be frank, I do not see this as a serious risk, especially for the ECB, which benefits from the highest degree of institutional independence in the world of central banks. That brings me to the issue of communication.

I do not share at all the popular view that financial markets did not understand the ECB's communication. Evidence of the contrary was given by the ex-post analysis of future markets, as, for instance, was done in the ECB Working Paper quoted by Professor Issing[2]. However, there is still scope for improvement, I believe.

The first area of improvement I see is the clarification of the underlying models used by the ECB. Professor Issing gives a very clear economic definition of the two-pillar strategy, as two sets of models, one centred on money, the other on supply demand conditions in labour and product markets. My own experience, taken from the relationship with our global customer base, is that, while the second pillar is understood, the first one remains mysterious and is often seen as a concession to the Bundesbank's tradition having no practical consequences. This is quite unfortunate, I believe. The global economy is currently struggling to recover from the burst of the biggest asset price bubble since the 1920s, and to avoid being trapped in Fisher-type debt deflation. This should be a reminder of how important it is to watch the indebtedness of private agents for a central bank that has a symmetric loss function. If, as I think it should, the ECB sticks to its two-pillar strategy, then the group of models "that accords an important role to money" should be made much more explicit than it is currently. For what it is worth, I find it easier to explain to clients what could worry the ECB in excessive money supply by focusing on outstanding debt, rather than on M3. I confess that, in this matter, I might be biased here by the reference to the "total domestic indebtedness" the Bank of France used before EMU.

The second one is the "bias assessment" about the nature of short-term uncertainties. Markets took very positively the careful but precise assessment on risks delivered by the ECB

2. Gaspar *et alii*, 2001. The ECB monetary policy strategy and the money marker, ECB Working Paper 69, July.

Council back in November. As a result, volatility declined substantially. Communicating about a bias was one of the positive innovations made by the US Federal Reserve earlier on. That the other big central bank adopts this strategy is good news for financial stability, inasmuch as it contributes to stabilising expectations. Hopefully, the ECB will prove time consistent and, from now on, will continue to assess its own bias. Although the meaning of "tightening" or "easing" biases is clear, there is a semantic debate about a "neutral" bias, versus no bias at all. Byzantine as it might look, this debate is important: a time consistent communication policy should always make explicit the bias. Think of it as a qualitative variable taking only three values, –1, 0, +1. As the Indians and the Arabs taught us, zero is more than nothing. Therefore, even a neutral bias is a piece of information.

I had in mind many other practical issues related to the uncertainties created by the unsatisfactory state of European statistics, such as flaws in the measurement of unit labour costs because of the structural underestimation of productivity growth, or inadequate volume-price split in CPIs. But coming from a statistical institute, I do not want to appear too severe with my former colleagues, who, I know, are doing their best. Therefore, I will end here my remarks after a short attempt to move on to a more theoretical ground.

Uncertainty and duality in risk aversion

If I read correctly the Maastricht Treaty, the European Central Bank was given a primary mission – price stability – but also a secondary one – to support government policies as the Council of Finance Ministers expresses them. I will assume that the Council's own objective is output maximisation. Secondary here means that the second objective is conditioned on the achievement of the first. I understand that this is indeed how the ECB interprets its mission. This asymmetry in the ECB's mission makes it singular and probably deserves some attention from theoreticians. Perhaps an instrumental framework could be of a leader-follower, Stackelberg equilibrium kind. But, since we are focusing today on uncertainties, I have another idea in mind. In order to reflect the prioritisation of these objectives, the loss function Professor Issing alludes to in his section on optimal rules could be seen as the weighed sum of two functions with different second derivatives, to formalise the fact that the Bank is highly risk adverse regarding the price stability objective, but less so for the output maximisation one.

Within this framework, I sense that Professor Issing dedicated his thoughtful analysis to the first function, but left aside the second one. Although I must confess that I have not done the maths, my intuition tells me that the Bank should err on the conservative side when risks on price stability are high, but, on the other hand, should act somehow as an insurer against the risk of recession when risks on price stability are low, because of its low-risk aversion to output volatility, which is low in comparison with private economic agents. Maybe this is a topic of choice for another Economic Policy Forum?

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