

Workshop on Monetary Policy and the Money Market

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Concluding remarks

by

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First of all I would like to congratulate the colleagues of the Federal Reserve Bank and of the European Central Bank who have organised such a stimulating workshop. A particular thank goes to the authors of the presented papers and to the discussants, who have provided the invaluable lymph to the interesting exchange of views which has taken place in these two days. Last but not least, I think I can express a common feeling by thanking the colleagues of the Fed for the impeccable logistics of the workshop.

The fact that the organisers have invited the person that looks after the market operations in one of the two promoting central banks to close the workshop - for which I thank you – must mean that you expect me to try and sum up in what ways we will be wiser on Monday morning, when will go back to our desks or, more precisely, to our screens: what practical lesson have we learnt which can help us better carry out our duties?

Indeed this workshop has examined, with powerful analytical tools, the crucial market for the implementation of monetary policy: the money market, where the supply of liquidity of the central banks meets the demand expressed by commercial banks. One way to measure the value added of the seminar is to assess the contribution that it can give to a better implementation of monetary policy.

One first conclusion is that there seems to be a consensus that the implementation of monetary policy consists of bringing, or more appropriately keeping, the short term money market at the level which the monetary policy strategy determines as appropriate for achieving the final objective of monetary policy, which there is a consensus to identify with price stability. Thus, thinking of monetary policy as being composed of three elements: first the final objective, second the strategy to get to that final objective and, third, the implementation to bring about in practice the desired results, there is a strong agreement on the first and the third components, with the differences of opinion mostly affecting the strategy, which was not the topic of this seminar.

This first conclusion is qualified, but not subverted, if we consider the experience of Japan, in which the targeting of a zero level for interest rates is no longer sufficient for adequately defining monetary policy implementation and monetary policy operations aim at providing an apparently ever increasing amount of reserves. Just to recall the staggering figure, an amount of around 260 billion dollars or 220 billion euros. With an opposite sign, this recalls the “Volcker experiment” at the turn between the seventies and the eighties, about which we talked several times at this workshop, when the Fed targeted non-borrowed reserves. One could try and generalise these two experiences, saying that the targeting of short term interest rates is appropriate when inflation is not too far from a range loosely consistent with price stability. When inflation departs too far from this range, either in the direction of an excessive inflation or of deflation, the control of interest rates is substituted by a control of some monetary “quantity”. A way to rationalise this is that it is well known that the interest rate suffers, in situations far from price stability, from a fundamental ambiguity as indicator of monetary policy. If the price level moves too far in one or the other direction one can no longer assess monetary policy on the basis of the interest rate, which could be high because of high inflationary expectations or because of a real tightening of monetary policy. Symmetrically, the rate could be low, and even zero, because of deflationary expectations, without really indicating accommodating monetary conditions. Having identified the first conclusions, what are the others which emerged from the workshop?

It is useful to look at what the organisers had indicated as the scope of the workshop to better organise what we have learnt. “The money market is the first step in the transmission of monetary policy and a key source of information on expectations about monetary policy.” Thus, we can divide what we have

learnt in two categories: first, what do we know better about the role of the money market in the transmission process? Second, what have we learnt about reading expectations from money market developments? I would like to examine the two topics in turn.

The paper by Craig Furfine clearly tells us something about the first topic, indeed his paper is a straightforward, if admittedly not yet definitive, evaluation of the ability of a “Lombard” facility to cap interest rates and thus stabilise them, arguably improving the transmission of monetary policy. In Europe, there is no doubt that this is indeed the case, as shown by the fact that, from the information which the ECB has on individual transactions in the EONIA (Euro Overnight Interbank Average) market, the transactions above the rate at which the Eurosystem lends under its Lombard facility are rare: in the last 4.5 years, 99.82% of contributions were below the relevant Marginal Lending Facility (MLF) rate and only once EONIA fixed at the level of MLF rate- in April 2001, in the aftermath of an underbidding episode. In the US this does not seem to be the case, at least as yet. The stigma long attached to borrowing from the discount window seems to affect also the borrowing from the primary facility, thus limiting its stabilising effect. I am not sure this will come as a surprise to Fed officials, but the analysis confirms that the elimination of any stigma effect is necessary for the innovation to display its full positive effects.

The paper by Bindseil, Camba-Mendez, Hirsch and Weller also tells us something about the first step in the transmission process. The paper addresses fairly technical issues, such as the forecast and the modelling of excess reserves in the euro area set-up, but also the much broader issue of the reserve based vs. the interest rate based paradigm in the implementation of monetary policy, with a very strong conclusion in favour of the second. In terms of practical conclusions, I drew three from the paper. First, and more general, do not try to base the implementation of monetary policy on what I would call the “Kneipe effect” from the German name for the pub. In the explanation of Ulrich and his colleagues, excess reserves find their explanation on the bank treasurer’s desire to go and have a beer in his Kneipe, or a glass of wine in a “trattoria” and not to stay late in the bank to deposit some marginal amount of money in the deposit facility of the Eurosystem. This is convincingly argued to be too narrow a basis for monetary policy implementation. Its task instead, is to keep the overnight interest rate as close as possible to the rate identified by the Governing Council as appropriate to bring about

price stability. The second practical conclusion is that, just in order to achieve as much precision as possible in having the overnight rate close to the policy rate, an accurate estimate of excess reserves is necessary, lest they unduly affect liquidity needs. The third conclusion is that the simulated elasticity of excess reserves to interest rates could significantly affect the precision with which they are estimated and therefore the overall accuracy of liquidity management, in particular if interest rates moved significantly closer to zero. Here again, we may be forced to look more closely at the experience of the Bank of Japan.

The paper by Angelini can also tell us something about the transmission process. First, he confirms that there is a significant window dressing effect at the end of the month and quarter. I am not sure I would qualify this myself as an economically significant departure from the martingale theory, as it is limited in size and very specific in nature. The effect is however there and worthwhile recalling when examining the behaviour of short term rates. Second, he stresses that liquidity shocks have a significant effect only when they are perceived to last, not when they are purely transitory. I would add that the style in the management of liquidity should reinforce this conclusion. If the central bank behaves consistently, as I think we do at the ECB, in not signalling any intention to change rates with its liquidity management, then liquidity shocks should have hardly any effect on interest rates, except at the very end of the maintenance period. In this respect, my hunch is that now the effects on overnight rates of liquidity shocks are even smaller than estimated by Angelini. This is consistent with estimates carried out at the ECB by Flemming Würtz. In fact, to my knowledge, we have only on two occasions seen important effects of transitory liquidity supply shocks occurring before the last MRO of a maintenance period: during the cash change over, when market participants were exposed to great uncertainty about their liquidity position, and in March this year, when market participants apparently required a premium in order to average out the very large reserve deficits which accumulated as a result of underbidding. These cases being exceptional, we can take a fairly relaxed attitude in liquidity management until the end of the maintenance period, provided we act consistently to separate liquidity management from any signalling regarding interest rates. This result may of course be less applicable to the US, since reserve requirements and clearing balances only provide for much smaller buffers against liquidity shocks than in the euro area.

The paper by Cumby, Diba and Canzoneri lends itself somewhat less well than the others to my somewhat brutal extraction of practical implications. Basically, it tells us that the behaviour of interest rates which one can derive from a large variety of utility functions bears no similarity with the interest rates we observe in the real world. Indeed the two go in opposite directions when monetary policy changes. Reading the paper I could not resist thinking of the problem in Wicksellian terms, with the maximising conditions, on consumption rather than in production, generating the natural rate of interest and monetary policy, through its liquidity effect, generating the market rate, with the spread between the two exactly providing the leverage for monetary policy. Marvin Goodfriend presented in his comments his ingenious approach to deal with the problem, based on strings of surprises generated by a stop and go monetary policy. I fear, however, that we will continue to have a problem with higher interest rates bringing about, in reality, lower consumption and growth and equilibrium conditions in our models telling just the opposite. Be it as it may, what can one do in practice with the conclusion that the two rates of interest go on very separate roads, especially in times of changes of monetary policy? The best I can do here is to draw a humility lesson, possibly assorted by a hope for serendipity in policy making. The humility lesson is that there are many things we do not understand and that we should be ready to accept that we do not understand them and act according to the maxim: if you do not know what you are doing, do it gently. The hope for serendipity is that our theories are and will necessarily always remain simplifications, sometimes inappropriate ones, and therefore imperfect guides to action, to be complemented by intuition and judgement. This conclusion is particularly appropriate when considering the interface between the monetary and the real sector of the economy, for which we still have a good degree of ignorance.

If what precedes summarise the practical lessons that one, or at least I, can draw about the transmission mechanism what are the lessons in the other area the organisers indicated as the scope of the seminar, namely regarding interpreting market expectations about monetary policy?

The paper by Rigobon and Sack is fairly straightforward here. Basically, I have learnt that the operation I carry out every morning is fraught with risk. As I get in the office and I switch on my screen, the Reuters page with exchange rates pops up first. The second operation is to access Bloomberg, which is my favourite for looking at bond and stock prices. In between the two operations I

try and forecast what has happened in the night to stock exchanges in the US looking at the dollar euro rate. The risk, Rigobon and Sack demonstrate, is to think the relationship between the exchange rate and the stock price as constant. Of course, I derive the conclusion about the riskiness of the operation by extension, because Rigobon and Sack do not include the exchange rate in their set of variables. I think, however, the general message to be important: one should not look at correlations between financial asset prices as structural and constant, but rather as variable. The important additional contribution of the paper is that it also gives indications on how the correlation can change: the simplified message from the paper is to look at the price which exhibits extraordinary variability as the likely cause of the movements of other prices, by doing this we can also guess the sign of the correlation. So, for instance, if yesterday the stock exchange was volatile, it is likely that it is the cause of the movement of interest rates today, with a positive correlation. If, instead, a monetary policy shock hits the economy, the correlation between interest rates and stock prices is likely to be negative.

Also the paper by Bernoth and Von Hagen has to do with the interpretation of the market movements. The first practical conclusion they draw, even if I am afraid someone soon will come with different conclusions, as has often been the case in this area, is that the futures are efficient predictors of future spot rates: so, by observing future rates we have a good idea of what the market expects from the central bank. The second conclusion, with which I am of course personally pleased, is that the ECB has managed to communicate well its intentions. Of course this conclusion requires, on the side of the two authors, an amount of judgement in the absence of a comparator. It is clear that both the extreme of a central bank that communicates its intentions perfectly, which would imply that nothing particular happens to interest rate expectations when it eventually communicates its decisions, and the other extreme of another central bank which is totally inept at communicating its intention, so that its decisions come as a total surprise, are implausible and, as our discussion showed, undesirable. So both 0 and 100 predictability are not really realistic cases. But what, then, is a “good” level of predictability? Bernoth and Von Hagen notice that there are only a few cases in which the market was surprised by the ECB action and this is the basis for their conclusion. Still, “good” may not be good enough or as good as possible and, indeed, this is what our Governing Council has concluded, similarly to Bernoth and Von Hagen, by deciding to refine its monetary policy strategy, in particular with a view to achieve a

better communication with the market. When a sufficient number of observations will be available, it will be interesting to repeat the analysis to see whether we have moved from “good” to “very good”.

Also the paper by Ehrmann and Fratzscher teaches us something about expectations, in some aspects confirming the findings of Bernoth and Von Hagen.

The first message is that, on both sides of the ocean, we should feel quite relaxed: we have 3 probabilities out of 4 to have our monetary policy intentions correctly perceived by the market, and their expectations about our moves are unbiased and efficient.

In addition, market participants manage to form overall efficient expectations of the economic news which are likely to move the markets. This reassures us that the practice of comparing the outcome on economic news to the expectations collected by the different information providers is a sensible exercise, in that it can really measure market participants’ surprise, and thus help us understand market reactions.

The second important message is that we Europeans have to look closely at what the Fed does to understand what happens to the euro area economy, and that monetary union has, in the estimates of Ehrmann and Fratzscher, increased the sensitivity of interest rate expectations to Fed action and to economic news in the US. This increased sensitivity applies to both average expectations and to their volatilities. So, it would be wrong if we thought to be more isolated from what happens in the US because of monetary union: the contrary seems to have happened. If I judge, on a small scale, the attention the ECB devotes to US developments by the number of times my colleagues and I comment US figures in our monitoring material, I get the impression that we do not underestimate spillover effects. If I do the exercise on a bigger scale and see how often our President, or the other members of the Executive Board, refer to developments in the US, I get the same conclusion. We may initially have thought of having reduced our interrelationship with the US because of monetary union but I think we have soon learnt this not to be the case. There is a third message in the paper by Ehrmann and Fratzscher: colleagues in the Fed are well advised to look at what happens in Europe. The effects in the East-West direction are estimated to be smaller than those in the West-East direction, but far from trivial. The growing, mutual US/Europe influence does, of course, not surprise as, as it is another instance of the more general phenomenon of economic integration taking place at global level. As I said, I think we in the ECB look closely enough at what happens on the American side of the Atlantic. I

leave it to the colleagues of the Fed to judge for themselves whether they look sufficiently often to economic news and whether Mr. Greenspan and his colleagues mention often enough developments across the Atlantic in their public utterances.

In conclusion, having listened to all the presentations and the discussions, I think we will go back to work having confirmed, in a more precise way, a number of things we already knew, having learnt a fair number of new ones and being reassured that there are still many we still not understand. This is of course a very stimulating factor for pursuing our research and for future exchange of views in this field, and possibly for another seminar as interesting as the one we just had.

Thank you.