'Credit Frictions and Optimal Monetary Policy'

By Curdia and Woodford

Analyses and assessments of central bank activities have been unduly uni-dimensional in recent years, prior to 2007, focussing almost entirely on the role of their Monetary Policy Committees in setting interest rates, and virtually ignoring their other core purposes of maintaining financial stability and financial efficiency. By more, or less, exactly the same token the basic New-Keynesian DSGE macro-model is unidimensional in that it abstracts entirely from the key financial risk, that is default risk. The transversality condition, which embodies this risk-free assumption, allows the model to be made much simpler and more tractable, in particular by having representative agents. But it is nevertheless unsatisfactory. It is unrealistic; it is essentially non-monetary and non-financial, with no role for financial intermediation; academically it divides macro, with no proper role for default risk, from finance, where the relationship between risk and return and the probability of default are central.

I had hoped that a silver-lining to the financial turmoil of the last year would be that it would have demonstrated to the better macro-economists, and amongst these Michael is probably the best, of the fundamental error of their current approach. But so far I have been wrong. What Curdia and Woodford have done, building on the earlier Goodfriend and McCallum 2007 paper, is largely a botch job, to repair the outputs of the model without reworking the fundamental inputs. What they do, in effect, is to spatchcock a primarily exogenous and time-varying risk spread, a spread between rates offered to depositors and paid by borrowers, onto the model as before. Thus one

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has to adjust official policy rates, and expectations thereof, by taking account of the time-varying risk spread, and expectations thereof; but once that is done one largely, entirely in Goodfriend and McCallum, goes on as before.

I have to admit that for forecasting and descriptive purposes, it is a rather clever dodge. We all know that there are several features of the current credit crunch that are distinct and separate from measured spreads, for example denial of access to credit for sub-prime borrowers at any interest rate, tightening of credit conditions for those maintaining access to credit, etc., but these should be highly correlated with spreads, and thus for purely descriptive and forecasting purposes, the augmented model may well prove able to accommodate the events of 2007/8.

But this is because of the introduction of a 'deus ex machina', an exogeneously introduced time-varying interest rate spread. Where does this come from? Everybody knows that, in practice, this derives primarily from default risk; let me just cite Taylor and Williams, 'A Black Swan in the Money Market', NBER WP 13943, April 2008. Yet there is no mention of default in Goodfriend and McCallum, or at any rate in the early drafts of Curdia and Woodford. It is Hamlet without the Prince of Denmark. How can one sensibly discuss banking, or risk spreads, or money without treating default up front and centre?

There is, indeed, a debate whether the recent crisis was primarily driven by liquidity or default risk worries, but the two concepts are inextricably inter-twined. Concern with potential failure leads lenders to refuse to roll-over, and illiquidity can rapidly drive both individual banks and financial systems into solvency problems. The

anticipation of potential defaults leads to contractions of credit, deleveraging, which latter does most of the damage, even without the necessity of formal default events. Neither Bear Stearns, nor Northern Rock, nor IKB formally defaulted, but the prospect that they, and others, might, (alongside sub-prime borrowers, various hedge funds and SIVs), exacerbated the recent turmoil.

One response, though I believe that it is an inadequate response, is that modelling a system with default is just too difficult. I do not believe that this is so. Martin Shubik and Dimitri Tsomocos, the latter with my support and encouragement, have done so. Moreover, a major reason why modelling default is difficult is that it forces one to abandon the representative agent formulation. In this respect Curdia and Woodford have taken a major step forward, which I commend and applaud. They have realised that the introduction of financial frictions logically requires agents to be heterogeneous. But then the authors require all their agents to save and borrow through banks. No reason for this constraint is given. Why does it happen in practice? As Diamond and Rajan have explained, it is because banks should be better able to screen credit risks (pace some recent events) and a combination of withdrawable deposits and the central bank safety net should make bank deposits safe for depositors.

But once we leave, as we should, the world of representative agents, the complexity of models increases sharply, as I think is well evidenced by the theoretical sections of the current paper. It should not be beyond the capacities of someone as gifted as Mike, and his associates, to go the extra step and to incorporate default risk at the

heart of their analytical work. If I could only persuade him to do this, I would feel

that my own work in this field had been justified.