Mar 15, 2023

Honorable Rachel Hemphill
Chair, Life Actuarial (A) Task Force (LATF)
Honorable Philip Barlow
Chair, NAIC Life Risk-Based Capital (E) Working Group (Life RBC)
National Association of Insurance Commissioners

Re: Economic Scenarios (E/A) Subgroup

Dear Ms. Rachel Hemphill and Mr. Philip Barlow,

Please accept this comment on the NAIC LATF Economic Scenarios Subgroup Draft Charges.

Sincerely yours,

Mark S. Tenney

4313 Lawrence Street, Alexandria, VA 22309-1235
(703) 799-0581 • Fax: (703) 799-4964 • marktenneymfc@gmail.com • mfcesg.com

The 3 factor CIR model tuned to the lower bound and moderate negative rates is overly focused on that region. This results in extreme values of reserves and capital. This is an artefact of the model's limitations.

Regime Switching DMRP does not have this limitation. It can model rates trapped at the zero lower bound or negative rate regimes without overweighting to zero or negative rates.

Currently, the Fed is running inflation higher than the two percent target in the past. Prior to the recent increase, the actual value of inflation trended below the target. Greg Mankiw talked to me after a recent Brookings event in February 2023. During the session he indicated that inflation at 3 percent would be treated as being as good as two percent by the Fed.

I brought up the view that the Fed wanted to be relevant. It did not want to be stuck at the zero lower bound and have its policy irrelevant and therefore it was running inflation intentionally higher now in order to have room to lower rates.

The Federal Reserve's model of the economy, FRBUS, is structured very differently from multifactor CIR or the Regime Switching DMRP. In its standard setting, zero is a lower bound on the Fed Funds Rate, but treasury yields can be negative even in this case.

The two models, RS-DMRP and FRBUS both have negative rates but they can have more moderate impacts on pricing in some cases or for some calibrations while still having enough of a tail of negative rates for regulatory purposes. If FRBUS is more moderate on negative rates than is the 3 factor CIR GFF in its current calibration, then the Fed model should guide a recalibration of the 3 factor CIR GFF model to be more moderate on pricing. This is because the GFF does not really contain fundamental economic information on negative interest rate episodes.

It is proposed that the Economic Scenarios Subgroup study using RS-DMRP and the Fed's model as replacements for the 3 factor CIR GFF or to modify its calibration. It is proposed this be added to its list of charges. This could save the industry from having to substantially retrench and remove many product designs. This would result in a huge loss of jobs. This would only be justified if it was based on fundamental economic data and models. The FRBUS model is the best empirically of such models. It is eclectic compared to a more academic DSGE model.

In addition to the above, there should be an effort to explore the Fed agreeing to lend to insurance companies during episodes of negative rates for their cash needs. This could then be modeled. This would result in substantial relief of reserve and capital strain from negative rates. For this purpose, the RS-DMRP or the Fed's own FRBUS will be more useful than the 3 factor CIR GFF model.

Equity models can be linked or be part of the RS-DMRP. These models do not have to have the extreme march down to almost zero wealth ratios. Stock market decline regimes tend to be short is what the published literature has found.

The subgroup should proceed on an evidence based approach. This should be added to its charges or made explicitly part of them. This currently favors the view of less negative rates than in the GEMS calibration in the US and of equity stock market returns that do not have the extreme down movements. The extent of low and negative rates in the 3 factor CIR model arose from limitations in the model's structure. From an evidence based approach, RS-DMRP especially is better at having some negative rate scenarios but not being required to be overweighted to it. In addition, RS-DMRP is easier to understand and control for this purpose. The Fed's model has at times changed, and so use of it as the main economic scenario generator is risky. Along with its other flaws, this favors RS-DMRP. It can provide some low for long and negative rates but it doesn't become trapped into an excessive amount of those. This then reduces the strain on reserves and capital.