```
Outer Iteration (maximum iterations defined by it max bga)
     Inner Iteration (maximum iterations defined by it max phi)
     end Inner Iteration
     If linesearch == 1
         Linesearch (maximum iterations defined by it max linesearch)
        Lend linesearch
     If struct par opt == 1
         Structural Parameter Optimization
(maximum iterations defined by it_max_structural)
        Lend Structural Parameter Optimization
end Outer Iteration
```

If posterior\_cov\_flag == 1
 Calculate posterior covariance