# Answer to SVAR problem set[*]

Everyone who turned in the problem set got the basic idea. There were a few sources of confusion, however.

- Only one person correctly pinpointed the source of concern about identification in the Ah and sh matrices. The problem is not with a possible Ah(1,2) or Ah(2,1) zero, but rather with the possibility that Ah(2,3)=Ah(2,4)=0. This would make the first two equations indistinguishable. All the subsequent analysis of rotated systems does in fact impose these restrictions and is thus exploring the implications of a system that is not identified by its zero restrictions.

- The Schwarz criterion is possibly unreliable here because of the presence of potential unit roots. However, with restrictions only on the contemporaneous coefficient matrix, it is likely that the "unit root" components of the likelihood match in constrained and unconstrained models, asymptotically, so that the simple SC is after all asymptotically OK for these model comparisons. It was a good idea to compute the more general model comparison criterion that accounts for the covariance matrices, and this was possible based on the xxi, S, and Hh data that the program provided. However, people who tried this were confused by the fact that fh in the program is *minus* the likelihood (`csminwel` minimizes, not maximizes).

- Only one person thought to comment on the responses of the interest rate to other shocks. It turns out that these make sense, showing interest rate rising with inflation, and output growth, and money growth, and this helps confirm the reasonableness of the identification scheme.

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