

## Autoregressions: Problems

1. Under what circumstances is it appropriate to forecast simply by iterating a VAR forward?

Suppose that we have the following autoregression where  $y_t$  is output in \$trillion measured annually:

$$y_t = 15 + .9(y_{t-1} - 15) + u_t \quad (1)$$

2. Assuming no policy changes, and that gDP was 16.5 in 2013, forecast output from 2014-2020.

3. How would your answer to #2 change if you learned that starting in 2014, the U.S. Congress was going to raise personal income tax rates to a flat rate of 99.9%.

4. Why does forecasting the effects of a (never previously enacted) policy change involve the union of theory and empirics?

5. How might you select a theoretical model to use for forecasting with a policy change?