1. In an equation for annual data, suppose that

where *int* is an interest rate and *inf* is the inflation rate. What are the impact and long-run propensities?

Answer: The impact propensity is .48, while the long-run propensity is .48 – .15 + .32 = .65.

1. In the FDL model

what do we need to assume about the sequence in order for Assumption TS.2 to hold?

Answer: The explanatory variables are and . The absence of perfect collinearity means that these cannot be constant, and there cannot be an exact linear relationship between them in the sample. This rules out the possibility that all the *z*1, …, *z*n take on the same value or that the *z*0, *z*1, …, *z*n-1 take on the same value. But it eliminates other patterns as well. For example, if for constants *a* and *b*, then which is a perfect linear function of *z*t.

1. In equation

what is the intercept for March? Explain why seasonal dummy variables satisfy the strict exogeneity assumption.

Answer: The intercept for March is . Seasonal dummy variables are strictly exogenous because they follow a deterministic pattern. For example, the months do not change based upon whether either the explanatory variables or the dependent variables change.