Notes for Module 4 Lecture 4D

Slide #4

With two independent variables and hence parameters to estimate/test, each uses 95% confidence. Then the probability that both statements (for the two parameters) are correct is $(0.95)^2 = 0.9025$, that is, the confidence level lowers from 95% to 90%. Thus, if we can imagine that if they are many parameters (say K parameters) to estimate/test with each using 95% confidence, then the probability of all K statements are correct can lower from $(0.95)^K$; for instance, if K = 10, then the confidence level can lower to 80% - potentially a big compromise.

Slide #6

Recall C_{jj} is the j-th diagonal element of $(X'X)^{-1}$.