Calculating correct test statistics requires adjusting the sample size assumed by the logit program to account for the lack of independence between firm-year observations. For the hazard model, each firm's entire life span is one observation. Thus, the correct value of n for test (chi-2) statistics is the number of firms in the data, not the number of firm-years.

Dividing these test statistics by the average number of firm-years per firm makes the logit program's statistics correct for the hazard model. It is rather “multiplying”

Indeed, let us suppose for example that we have 4 firms observed respectively during 5, 7 , 8 and 4 years; the number of firm-years is 5+7+8+4=20 and the test statistics calculated in the static Logit procedure is:



where there are k estimated moments being tested against k null hypotheses, μ0.

Thus n=20 and n should be 4. Multiplying the previous statistics by the average number of firm-years per firm, that is 20/4, gives the expected chi-2 statistics:

