Appendix Table 1: Study assumptions and hypothesis tests for model Specifications

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| **Hypothesis** | **LR Test** | **𝑥2 Critical Value (0.05)** | **Degrees of freedom** | **Decision** |
| H0 = The translog SFPF can be reduced to a CD SFPF | | | | |
| H0 = βij = 0 | 36.75 | 14.067 | 7 | Reject H0 |
| H0 = Technical inefficiency effects are not in the model (H0: γ=0) | | | | |
| H0: γ = δ0= δ1= . . . δ13 = 0) | 51.14 | 3.84 | 1 | Reject H0 |
| H0 = The distribution of inefficiency can be reduced to half normal from truncated normal | | | | |
| H0 = 𝜇 = 0 | 1007.52 | 23.65 | 13 | Reject H0 |