On page 48 in the notes for the lecture on R&D spillovers, the following question is asked:

Based on the results, what is the predicted effect of an increase in US R&D by 10% on the TFP of a UK firm with all of its inventor activity located in a) the US; b) the UK?

Answer: The effect of log US R&D on the log TFP of a UK firm is defined as:
$$\frac{d\ln TFP_{it}}{d\ln for_{jt}} = \phi_1 + \phi_2 W_i^{US}.$$
Note that this is interpretable as an **elasticity**, indicating the response of TFP in percentage terms from a 1% increase in foreign R&D.

The estimates of these parameters are $\hat{\phi}_1 = 0.05$ (standard error 0.118) and $\hat{\phi}_2 = 0.076$ (standard error 0.024), see Table 3, column (2). We can thus answer the questions above as follows:

a) If all the inventor activity is located in the US, we have $W_i^{US} = 1$. In this case, the elasiticity of TFP with respect to US R&D is equal to 0.05+.076*1=0.126. Hence, if US R&D increases by 10% TFP increases by (approximately) 0.126*10=1.26%.

b) In contrast, if no inventor activity is located in the US, so that $W_i^{US} = 0$, then the effect of a 10% increase in US R&D on UK TFP is (approximately) 0.05*10=0.5%. Indeed, we know from the high standard error on $\hat{\phi}_1$ that we cannot reject the hypothesis that the true effect is equal to zero.