Be Comprehensive

It is essential that effect sizes are comparable. Several effect sizes are used in economics, the most common being elasticities, t-statistics and partial correlations.

Elasticities will in most cases be the preferred measure of an empirical economic effect. Examples of meta-analyses that have used elasticities include Dalhuisen, Florax, de Groot and Nijkamp (2003), Bijmolt, van Heerde and Pieters (2005) and Melo, Graham and Noland (2009). Unfortunately, elasticities are often not reported and neither are the necessary data to calculate them. In such cases, alternative effect sizes will need to be calculated.

Semi-elasticities are a useful measure in cases where the dependent variable is expressed in logarithms and the key explanatory variable is not. Examples of their use in meta-analysis include Rose and Stanley (2005), Stanley and Jarrell (1998) and Feld and Heckemeyer (2009).

Partial correlation coefficients provide a measure of the strength and direction of the association between two variables, holding other variables constant. They can be calculated directly from the conventionally reported regression statistics. The partial correlation enables the most comprehensive dataset to be compiled on a particular economic subject. Examples of their use in meta-analysis include Djankov and Murrell (2002) and Doucouliagos and Laroche (2009).

t-statistics are routinely reported and they can be calculated for all estimates that report a significance level. However, care should be taken when interpreting the meta-regressions. If the t-statistic is used as the dependent variable, without a corresponding transformation of the RHS variables, the interpretation of the meta-regression then relates only to the process of publication selection and not the heterogeneity among true empirical effects. See Stanley (2008) and Doucouliagos and Stanley (2009) for details.

Other effect sizes. There are several other effect sizes that are may be considered: (1) *Regression coefficients* can be used, but only if the scale and measures are identical. (2) *First-order correlation coefficients* can be used in some fields. However, these are often not reported in applied economics studies. Moreover, they are not widely used in economics because they do not capture the main association of interest to economists—the marginal effect. (3) Dollar values are frequently used in environmental economics meta-analyses; and (4) meta-analyses of experimental economics use various measures, such as the shares offered in ultimatum game experiments.