# Post-estimation Parameter Re-centering and Rescaling

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Recoding data prior to model estimation is a frequent part of analysis. For linear models this can be thought of as a “change of basis” that is common to the data and the model. Where the change of basis in the data is linear, the change in the model is also linear. We can calculate the transformed parameters (and the transformed parameter variance-covariance matrix) without actually recoding our data. The same mathematics that is used to design factorial experiments or design contrasts that include interactions can be extended to include re-centering and rescaling continuous variables in models with interaction terms.

This gives us a general solution to such problems as calculating standardized coefficients, or converting models expressed in American units of measure to International units, regardless of whether the models include interaction terms or whether we have access to the original data.

This is implemented here as a Stata program, stdParm, that produces centered and/or standardized parameters and precision matrices, post estimation.