A prototype trade model with imports in two stages

# Purpose

To build a didactic trade model with a small number of goods and regions, focusing on the import behaviour. The initial model shall have two Armington style CES nests aggregating imports of various origins to a single import flow and then imports and domestic origins to total consumption. The model shall be useful for developing a revised model that allows the creation of new trade flows that none existed in the calibration point.

# A two-stage CES model

We assume that for each good[[1]](#footnote-1), the single consumer in region acts as if minimizing the expenditure needed to reach a given level of utility . The good can be of either domestic origin or imported.

subject to

1. For simplicity of exposition, we assume that there is only one single good. The GAMS models allows for an additional index “comm” containing the set of commodities modelled. [↑](#footnote-ref-1)