

# Nested Boppart Model

**Due Mar 5th**

We looked at the Boppart (2014) model of structural change, which has two industries (goods and services). His structure, though, seems amenable to describing changes with more general structures. For this assignment, you should write down a model that has

1. Two top-level industries - goods and services - with preferences for them just as in Boppart.
2. Within each of those top-level industries, there are two sub-industries. For example, we could think of durable and non-durable goods, and personal and business services.
3. Given the spending on the top-level industry (e.g. goods), the spending on the two sub-industries is also described by a Boppart-ian preference structure. But the preferences for the sub-industries have a unique income and price elasticity terms.

Using your nested model, you should discuss

1. How a general increase in productivity in all sub-industries affects the expenditure share on each sub-industry
2. How a specific increase in productivity in a given sub-industry, holding productivity in all other industries constant, affects the expenditure share of each industry

You should write this up in Latex. I won't accept hand-written versions.