Comparative Statics Curves

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Understanding the curves

Use the following table to remind yourself what each of the comparative statics curves means. Note that comparative statics is defined on Wikipedia as "the comparison of two different economic outcomes, before and after a change in some underlying exogenous parameter." That's exactly what we're doing with these plots - we're asking, "what happens to the optimal bundle when we change..."

		Variable to Change (holding others constant):		
		Income	*Price*	*Other Price*
	Related Concept:	Normal or Inferior	Ordinary or Giffen	Comps/Subs
Space:	x_1, x_2	Income Offer Curve	Price Offer Curve	
	$x_1, Change^*$	Engel Curve	Demand Curve	

* *Change* corresponds to the variable which we are changing. See *italicized* column heading three rows above. Also, you should use x_2 if you're analyzing the effects on that variable.

Mechanism for plotting curves

The mechanism we use to generate the points to plot is to create a table with three columns. The first column is the variable that we're changing - we pick at least three values for it, whichever ones you like, at which to calculate the optimal bundle. With the second and third columns, we record the optimal bundles. Here are two sample tables, the first to analyze a change in income and the second to analyze a change in price.

Table 1:

M	**x₁**	**x₂**
6	1	4
12	2	8
18	3	12

Table 2:

p₁	**x₁**	**x₂**
1	6	4
2	3	4
3	2	4

Then, to plot the curves we simply take the relevant columns:

- Table 1: Plot columns 2 & 3 for Income Offer Curve, 1 & 2 for Engel Curve.

- Table 2: Plot columns 2 & 3 for Price Offer Curve, 1 & 2 for Demand Curve.

Please read Varian, Chapter 6, for a more complete explanation of each curve.