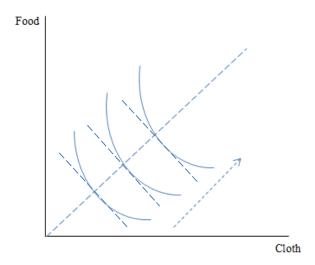
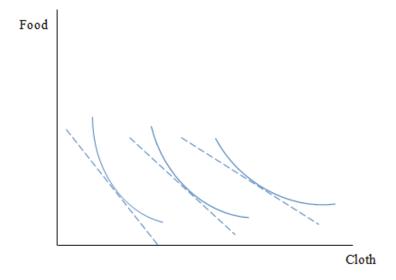
## A Note on Indifference Curve within Trade Context

1) When income rises without relative price change, consumers choose to increase consumption of both goods at the same proportion. Indifference curve (IC) moves parallelly to the northeast direction, as shown below.



2) When income rises along with relative price change between the two goods, which is the case from the autarky to free trade, there are both *substitution effect* and *income effect*. With relative price of cloth declining, consumers substitute cloth for food; with higher income, consumers increase their total consumption, moving IC to a higher level. As a result, relative to graph in 1), IC moves to the southeast direction. With relative price of cloth continuing to decline, more and more cloth will be consumed. As a result, consumers' marginal utility from cloth declines, and marginal rate of substitution (or MRS) between cloth and food increases, which makes IC flatter and flatter. See the graph below.



3) Similarly, with relative price of food declining, consumers substitute food for cloth, IC moves to the northwest direction. When the relative price of food continues to decline (or with relative price of cloth continue to rise), more and more food will be consumed. Marginal rate of substitution (or MRS) between food and cloth increases, and IC becomes steeper and steeper. See the graph below.

