National Self-Sufficiency and Location Quotients

Exports

Suppose the U.S. devotes 10% of its employment to a good, but only need 5% to supply U.S. domestic demand. It exports the other 5%.

Suppose a city devotes 8% of its labor force to producing the same good. Then the $LQ_i \frac{8\%}{10\%} = 0.8$, indicating no exports.

If only the proportion of U.S. employment needed for self-sufficiency is used $LQ_i = 8\%/5\% = 1.6$, indicating the city exports this good. So if the U.S. exports a good, the LQ understates city exports.

Imports

Suppose the U.S. devotes 5% of its employment to a good but needs 10% to supply U.S. domestic demand. So U.S. imports the other 5%.

Suppose the city devotes 8% of its labor force to producing the same good, the LQ_i is $\frac{8\%}{5\%} = 1.6$, indicating exports. But if the proportion of U.S. employment needed to supply U.S. demand is used $LQ_i \frac{8\%}{10\%} = 0.8$ indicating no exports.

So if U.S. imports a good, LQ over states X.