THE MACROECONOMICS OF TRADE SANCTIONS

Coventry University, UK & International Institute of Social Studies (ISS), Erasmus University of Rotterdam, the Netherlands

Murshed@iss.nl

Presented at the University of Marburg, 14th December 2019

Trade Sanctions

- Like Trade Policy
- Macroeconomic Trade Policy affects output and Employment: Mundell, Ford and Sen
- In the North-South Context : Murshed, 1992a and 1992b
- Structuralist North-South Macro models: South different from North. In this case needs a good from the North which is important to capacity utilization or aggregate supply. South like a supply constrained regime.

Sanctions: North to South

- Super sanction: restrictions on exports that affect aggregate supply in target country. The sanction has a price or tax equivalent (v).
- Lighter trade sanctions: restrictions on imports from the South. Like an import tariff (τ). But the tariff revenue is lost to the importing country
- Goods market equilibrium: excess demand causes price to rise

In the North

- $P_N\,Y_N(P_N\,) = P_N\,A\big(Y_N + vX_N; P_S(1+\tau)\big) + P_N\,X_N\big(Y_S; P_N\,(1+v)\big)[1 +$

P_N= price of the composite good in the North;

P_S = the price of the composite good in the South;

Y_N= aggregate output or income in the North;

Y_S= aggregate output or income in the South income;

X_N = exports of the North to the South, which is a positive function of the South's income, Y_S, but negatively related to P_N;

X_S = imports of the North from the South, which is a positive function of Y_N but negatively related to price, P_S

A= absorption or expenditure (sum of private and public consumption and investment) in the North)

v = the ad-valorem tax equivalent of the restrictions on the North's exports to the South, which also has a negative impact on output in the South, the revenues from which are re-distributed back to households in a Meade like lump-sum fashion. In other words, they do not alter the distribution of income;

τ = the ad-valorem tax equivalent of the restrictions on the exports (imports) of the South (North) to the South

Note that in equation (1), $A_2 = \frac{\partial A}{\partial P_S} = X_S(1-\varepsilon) > 0$, where ε is the elasticity of real absorption with respect to real income, this is the Laursen-Metzler (1950) effect; see Murshed (1997, pp 24-25) for a detailed derivation. A rise in the South's relative price or a deterioration in the North's terms of trade causes its real income to decline but real absorption falls less than proportionately, so there is an aggregate demand boost. The Laursen-Metzler effect played a key role in Mundell's (1961) analysis of the macroeconomic effects of trade policy, as well as in Ford and Sen (1985) and Murshed (1992a and 1992b).

Furthermore: $A_1 > 0, A_2 > 0, X_{N1} > 0, X_{N2} < 0, X_{S1} > 0, X_{S2} < 0, f_1 > 0,$

South

- $Y_S = \mathrm{g}(P_S, v) \cdots g_1 > 0, g_2 < 0$ aggregate supply
- $P_S g_S(P_S, v) = P_S E\big(g_S(P_S, v)\big) + P_S X_S\big(Y_N + vX_N; P_S(1+\tau)\big) - P_N X_N\big(Y_S; P_N(1+v)\big)$
- E is total public and private expenditure in the South

Super Sanction

- There is excess demand in the North due to the sanctioned export rent being diverted towards domestic expenditure. Price goes up
- In the South the price rises as well under plausible conditions. There is excess demand in the South due to falling aggregate supply or capacity utilization. There is inflation due to a supply shock, unless the inflation is suppressed as in a Malinvaud (1977) type fix-price model via rationing. Thus, clearly super-sanctions hurt the target country.

Lighter Trade Sanctions

- Excess demand in the North if $X_{S2} > X_S$, in other words the price elasticity of demand for the South's good is elastic. The elimination of the Laursen-Metzler effect on absorption in the North will also serve to enhance aggregate demand, as the effect works in a negative direction in this instance.
- Trade sanctions are immiserizing for the South, its terms of trade decline
- Both types of trade sanctions damage the South's economy.