International Trade: Trade Policy and Strategic Trade Policy

Lectures 11 and 12
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Trade policy

• issues popularized in media:
  • car imports to the USA from Japan in 80s
  • „steel war“ between USA & EU
  • „meat war“ between USA & EU
  • „cheese war“ between USA & EU
  • „banana war“ between USA & EU

• as opposed to theory – trade restriction DO exist
Trade restrictions

examples:

• specific tariff (100 EUR per item)
• ad valorem tariff
• quotas
• subsidy to EU production
• subsidy to EU exports
• „minimum content“ requirement before anything can be labeled „European“
• safety requirements
• voluntary export restraint (VERs)

(in most cases: the only difference between tariffs and quotas is the governmental revenue – it’s either not there or is sanctioned or revenue is collected by those able to get the quota – VERs are attractive for exporters if action is inevitable, hence we will focus on tariffs only; it does not hold in strategic trade policy – see below)
Effects of tariff on a small country

- In partial equilibrium (Harberger, 1959)

There are losers (consumers) and winners (producers and government) hence, there is an institutional bias AGAINST free trade.
Effects of tariff on big country

- imposition of tariff results in decrease of demand in the world – world price goes down

MAIN DIFFERENCE to small country: part of the governmental revenue is paid by foreign producers – welfare gains can overweight losses
Tariffs in GE – small country

1. small country (cannot influence TT)
   • free trade (FR)
     \[ MRS_{TR} = \frac{P_m}{P_f} = MRT_{TR} \]
     (country imports M)
   • Tariff ad valorem (TAR)
     \[ MRS_{TAR} = \frac{P_m(1 + t)}{P_f} = MRT_{TAR} > \frac{P_m}{P_f} \]
Tariff in GE – small country

EX w/o TAR

EX w TAR

IM w TAR

IM w/o TAR

TR production

TAR production

TAR consumption

TR consumption

PPF

EX w/o TAR

IM w/o TAR
Tariff in GE – small country

= double distortion by tariff

i. domestic price level deviates from the price level in the world market ➔ suboptimal production level ➔ income loss ① ➔ ②

ii. BUT that income level enables to consume ③ if at world prices

iii. However tariff leads to suboptimal consumption ④ from ①
The Offer Curve (introduced by A. Marshall)
The Offer Curve (introduced by A. Marshall)
Trading equilibrium
GE – a large country

• imposition of tariff recudes the volume of trade for any given terms of trade

conclusions: by imposing tariff on F, A can exercise its monopsony power on the market ➔ it leads to improvement in it TT – slope of the line OTAR is steeper than OTR.
tariff leads to higher relative price of M ➔ better TT
Welfare analysis:

• trade indifference curves (J. Meade, 1952)
• trade indifference curve = EX, IM constructions giving rise the same level of utility
Welfare analysis

• A imposes a tariff on $IMF_B$
• at TAR there is the highest trade indifference curve for A it can ever achieve! ➔ the tariff leading to this outcome is called OPTIMAL tariff
Welfare analysis

formal derivation: excess demand elasticity ($\varepsilon_B$)

\[ p \left(1 - \frac{1}{\varepsilon_B}\right) = MC \quad \text{(monopolist equilibrium)} \]

$P_A$ – price in A

$P_B$ – price in B charged indirectly through tariff  \[ P_B = (1 + t_A)p_A \]

$t_A$ – tariff imposed by A

\[ P_B \left(1 - \frac{1}{\varepsilon_B}\right) = P_A \quad \land \quad P_B = (1 + t_A)p_A \]

\[ (1 + t_A)p_A \left(1 - \frac{1}{\varepsilon_B}\right) = p_A \]

\[ 1 - \frac{1}{\varepsilon_B} + t_A - \frac{t_A}{\varepsilon_B} = 1 \]

\[ t_A \left(1 - \frac{1}{\varepsilon_B}\right) = \frac{1}{\varepsilon_B} \]
Welfare analysis

BUT! Retaliation ➔ trade war (example: The Great Depression Graph – „the spiral into the abyss“ caused by the Hawley-Smooth Act and retaliation (spider web spiral)
Strategic trade policy

I. Tariffs

- based on J. Bhagwati (1965)

• single domestic producer A – autarky
• small country (price–taker)

a) tariff $P_{world} + t < P_{comp}$
b) tariff $P_{comp} < P_{world} + t < P_{mon}$
c) tariff $P_{mon} < P_{world} + t$
Strategic trade policy
II. Quotas

- quota – tariff equivalence doesn’t hole anymore

- Bhagwati framework
- instead of tariff quota is imposed of the size $B - A$  
  $\Rightarrow$ domestic demand curve shifts as a result of quota $\Rightarrow P_{quota} > P_{world} + t$

**reason:** there is no FURTHER threat behind quotas for a monopolist

**recommendation:** if you must protect – tariffs are better than quotas

- based on Cournot model
  - 2 firms (A’s, B’s) – identical
  - export to the third market – no domestic demand

- how to shift A’s reaction curve?
  several possibilities – such as subsidy to produce goods in A
  [DOES NOT hold generally in GE framework – Dixit, Grossman (1986)]

- same setting BUT! they analyze Bertrand – type price competition and except for the fact that goods are imperfect substitutes

![Graph showing reaction curves and isoprofit curves with Bertrand competitive equilibrium marked.]

how t shift A’s reaction curve? export tax!

- replacing Cournot comp. with Bertrand comp. REVERSES policy

Reason:
- in Cournot competition – choice variables are “strategic substitutes“
  (higher output lowers π of similar move of rival)
- in Bertrand competition – choice variables are “strategic complements“
  (higher output rises π of similar move of rival)

it is general conclusion, however requires detailed knowledge of ALL secrets – it doesn’t exist

[RETAIATION – ALWAYS harmful]