## Commerce

## J2P216 SE: International Cooperation and Conflict March 17/18, 2016

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**2** Gowa and Mansfield (1993) Class Presentation Discussion



#### **3** Gartzke (2007)

**Class Presentation** Discussion

The theory of comparative advantage:

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- Actors engage in foreign trade to realize benefits of specialization (division of labor)
- Principle of comparative advantage implies that country gains most by specializing in producing and exporting what it produces most efficiently
- Comparative advantage  $\neq$  absolute advantage

The Heckscher-Ohlin trade theory:

The Heckscher-Ohlin trade theory:

- Principle of comparative advantage suggests that countries produce and export what they do best and import what they cannot make very well themselves
- Heckscher-Ohlin trade theory argues that factor endowments determine what countries produce and export and what they import
- Country exports goods that make intensive use of its (relatively) abundant resources, and it imports goods that make intensive use of its (relatively) scarce resources

- Foreign trade allows country to follow its comparative advantage, which increases the efficiency of domestic production
- States at war do not trade
- Because states lose gains from trade when they go to war, the gains from trade become part of the cost of war

## Fabienne to present on Gowa and Mansfield (1993), "Power Politics and International Trade"

- Probability that a state uses force against other states depends on its military power
- Trade increases efficiency, which frees economic resources for military use
- Because trade enhances the military power of trading partners, it produces security externalities
- Trade with an adversary produces negative security externality and trade with an ally produces positive externality

Domestic market for a good that can also be imported at its world price from an adversary



Source: Gowa and Mansfield (1993, 409)

- Private marginal cost of import  $P_W$  (world price)
- Domestic output  $Q_0$ , domestic demand  $Q_3$ , import  $Q_3 - Q_0$
- Because of negative externality, marginal social cost of import  $P_W(1+t)$
- Tariff t can correct security externality

#### The standard optimal tariff game



Source: Gowa and Mansfield (1993, 409)

- Infinite-horizon game
- Grim trigger strategy sustains cooperation if

$$\mathbf{R}/(1-\delta) \ge \mathbf{T} + \delta \mathbf{P}/(1-\delta)$$

discounted sum of cooperative payoffs

sum of the one-shot gain from defection and the discounted sum of punishment payoffs

or

$$\delta \ge (T - R)/(T - P)$$

#### Tariff game between adversaries

- Because of negative security externality, a state incurs a marginal social cost from free trade that matrix above does not reflect
- Social cost that state i incurs is represented as a fraction  $(w_{ij})$  of the payoff that adversary j receives

$$\begin{array}{c|c} \mathbf{S} \ j \\ \mathbf{C} & \mathbf{D} \\ \mathbf{S} \ i \\ \mathbf{D} & \begin{array}{c} \mathbf{C} & \mathbf{R}_{i} - w_{ij}\mathbf{R}_{j}, \ \mathbf{R}_{j} - w_{ji}\mathbf{R}_{i}^{*} & \begin{array}{c} \mathbf{S}_{i} - w_{ij}\mathbf{T}_{j}, \ \mathbf{T}_{j} - w_{ji}\mathbf{S}_{i} \\ \mathbf{D} & \begin{array}{c} \mathbf{T}_{i} - w_{ij}\mathbf{S}_{j}, \ \mathbf{S}_{j} - w_{ji}\mathbf{T}_{i} & \begin{array}{c} \mathbf{P}_{i} - w_{ij}\mathbf{P}_{j}, \ \mathbf{P}_{j} - w_{ji}\mathbf{P}_{i} \end{array} \end{array}$$

Source: Gowa and Mansfield (1993, 410)

#### Tariff game between allies

- Because of positive security externality, a state receives a social benefit from free trade that matrix above does not reflect
- Social benefit that state i realizes is represented as a fraction  $(w_{ij})$  of the payoff that ally j receives

$$\begin{array}{c|c} \mathbf{S} \ j \\ \mathbf{C} & \mathbf{D} \\ \mathbf{S} \ i \\ \mathbf{D} & \mathbf{T}_{i} + w_{ij}\mathbf{R}_{j}, \ \mathbf{R}_{j} + w_{ji}\mathbf{R}_{i}^{*} \\ \mathbf{D} & \mathbf{T}_{i} + w_{ij}\mathbf{S}_{j}, \ \mathbf{S}_{j} + w_{ji}\mathbf{T}_{i} \\ \end{array} \begin{array}{c} \mathbf{S} \ i \\ \mathbf{P}_{i} + w_{ij}\mathbf{P}_{j}, \ \mathbf{P}_{j} + w_{ji}\mathbf{P}_{i} \\ \end{array}$$

Source: Gowa and Mansfield (1993, 411)

Compare the incentive compatibility constraints of the three games

• Standard tariff game:

$$\delta \geq \frac{T-R}{T-P}$$

• Tariff game between adversaries:

$$\delta_i^* \geq \frac{\mathbf{T}_{i} - w_{ij}\mathbf{S}_{j} - (\mathbf{R}_{i} - w_{ij}\mathbf{R}_{j})}{\mathbf{T}_{i} - w_{ij}\mathbf{S}_{j} - (\mathbf{P}_{i} - w_{ij}\mathbf{P}_{j})}$$
$$\delta_i^* > \delta$$

• Tariff game between allies:

$$\begin{split} \delta_i^{**} &\geq \frac{\mathbf{T_i} + w_{ij}\mathbf{S_j} - (\mathbf{R_i} + w_{ij}\mathbf{R_j})}{\mathbf{T_i} + w_{ij}\mathbf{S_j} - (\mathbf{P_i} + w_{ij}\mathbf{P_j})}\\ \delta_i^{**} &< \delta \end{split}$$

The influence of polarity:

- Extent to which allies trade freely depends on the discount factor  $\delta_i^{**}$
- $\delta_i^{**} = f(r_j)$  and  $\frac{df(r_j)}{dr_j} < 0$ , where  $r_j$  is the risk that ally j will leave alliance and join an alternative one
- Risk of exit is higher in multipolar than in bipolar systems
- Consequently, allies in a multipolar system discount future benefits from open markets among them more than allies in a bipolar system

Gowa and Mansfield test two hypotheses:

- **1** Fewer trade barriers exist within than across alliances
- Intraalliance free trade is more likely within bipolar than within multipolar systems

They regress (the log of) the value of exports by state i to state j in year t on

- a dummy variable measuring whether a bilateral alliance exists between  $i \mbox{ and } j \mbox{ in } t-1$
- a dummy variable measuring whether a multilateral alliance exists between  $i \mbox{ and } j \mbox{ in } t-1$
- (the log of) the GNP of i and (the log of) the GNP of j in t-1
- (the log of) the population of i and (the log of) the population of j in t-1
- (the log of) the distance between i and j in t-1
- a dummy variable showing whether i and j are at war in t-1

- Results mostly confirm hypothesis that bilateral and multilateral alliances have positive effect on bilateral trade flows
- Results also confirm hypothesis that the magnitude of the effect of alliances on trade is more pronounced during bipolar periods than during multipolar periods

#### Océane to present on Gartzke (2007), "The Capitalist Peace"

- Two necessary conditions for war:
  - States must be willing and able to compete
  - States must be unwilling or unable to resolve differences diplomatically
- Competition can be zero-sum (e.g., territory) or nonzero-sum (e.g., policy)

Capitalism (economic development, similar interests, free markets) causes peace

- In developed economies, resources that can be conquered become less important (in contrast, intellectual and financial resources become more important)
- Developed states are clustered, and territorial disputes mainly arise between contiguous states
- Therefore, development leads (contiguous) states to be less likely to experience conflict over resources

#### But . . .

- Greater economic, social, and political integration of developed states increases their incentive to influence policies of other states
- Developed states are richer and their military resources are not absorbed by territorial conflict
- Therefore, developed states are more willing and more able to engage in conflicts (over policy) far from home

- Capitalist states have common interests, which limits scope and scale of conflict over policy
- Lacking territorial conflicts, consensus over international order allows capitalist states to cooperate and accommodate minor differences that may exist over policy

- Differences over policy or resources do not lead to war if states can resolve them diplomatically
- States have incentives to bluff in negotiations, which hinders diplomatic solution
- However, making threats is costly for financially integrated economies because it can turn investors away to safer places
- Therefore, as markets reveal information, financial integration leads to less conflict

- Development leads contiguous dyads to be less likely to experience conflict
- Overlappe Development leads noncontiguous dyads to be more likely to experience conflict
- Similar state policy interests lead dyads to be less likely to experience conflict
- Financial or monetary integration leads dyads to be less likely to experience conflict

Gartzke regresses militarized interstate disputes on

- a measure of democracy
- a measure of capital liberalization
- a measure of trade dependence
- a variable measuring GDP per capita
- an interaction between GDP per capita and contiguity
- a measure for preference similarity (based on votes in the UN General Assembly)
- a set of control variables

# Gartzke (2007): "The Capitalist Peace" Findings

FIGURE 1 Relative Risk of a MID for Values of Democracy, Markets, Development, and Interests (Risk Relative to Maximum Value for Each Variable. Source: Table 2, Model 5)



Source: Gartzke (2007, 179)

- Results show that while development increases likelihood of disputes between states, it decreases likelihood for disputes between neighbors
- Results also show that states with similar interests and financially integrated states are less likely to experience disputes