

Trading Secrets: Disclosure Dilemmas in International Trade

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The Problem: Disclosure Dilemmas

- South Korea and EU dispute over shipbuilding pricing in 2011
- EU says S Korea unfairly subsidizing ships
- S Korea refutes the claims BUT says it can't prove its innocence
- Giving the EU info on its cost breakdowns would help its rivals
- EU can't tell whether S Korea is telling the truth or avoiding demonstrating guilt

Problem

- Disclosure dilemmas are a major problem in international relations
- States want to enforce agreements, but can't if this exposes secrets
- As a result, states may not cooperate to begin with
- Occurs in many areas: nuclear, war crimes, peacekeeping
- Focus on trade – disputes often require confidential info to resolve
- If a state won't provide it, unclear if confidential or incriminating

Problem

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Solution

- IOs such as the WTO can help solve these dilemmas
- WTO vets & protects sensitive info, allowing fair dispute adjudication

- Existing literature
 - Cooperation requires quality information about compliance
 - Old solution: institutions as clearinghouses (Keohane, Mitchell, Dai)
 - Key assumption: IO information *widely disseminated*
- Our innovation
 - *Sensitive* info can expose secrets that could help competitors
 - Institution's function: *preventing* wide dissemination of key details
 - Institution still improves states' confidence re: compliance
 - IOs must develop a secrecy capability – not expected in lit

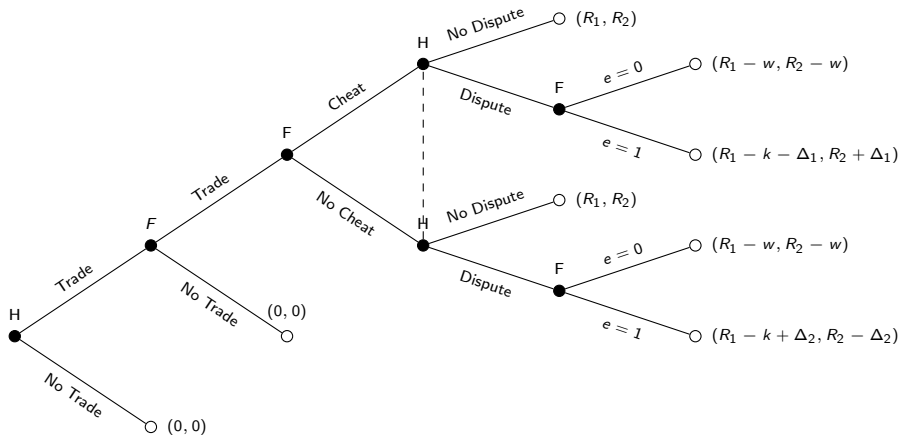
Sensitive Info in Trade

- Many kinds of trade agreements involve sensitive info to enforce
- Price of inputs, cost of credit, terms of gov support etc
- Importance of protecting info stated in WTO agreement, but shown in Boeing-Airbus
- One disputant requests, and panel must agree it's necessary
- Measures include: redactions from documents, restricting access to documents, limiting location where documents are viewed and how handled, creating legal liability
- Such info relevant for diverse industries, trade rules, member states

Model Sketch: Set Up

- Two countries, H and F
- H decides whether to trade with F ; if no, game ends and both get 0
- If yes, F chooses whether to trade with H ; if no, both get 0
- If yes, trade begins and F chooses whether to violate the agreement
- H can't tell due to random productivity shock; accepts outcome or disputes it
- F can provide confidential info to show the truth at cost k
- If F does not, both lose w as cooperation breaks down
- If F 's evidence shows cheating, F gives Δ_1 to H
- If F 's evidence shows no cheating, H gives Δ_2 to F
- Analyze this, then add WTO, which reduces cost of revealing info

Game Tree



No WTO

- The costlier it is for F to release its info, the less likely it will do so, and the more H believes it has violated
- Trade cooperation breaks down often

WTO

- The more the WTO reduces the cost of revealing info, the more F reveals, and the more they cooperate
- H is more likely to choose to trade with F

Table : Summary of Predictions

	IO Unable to Protect Info	IO Able to Protect Info
No Sensitive Info	Info Sharing Trade Cooperation	Info Sharing Trade Cooperation
Sensitive Info	Info Withholding Cooperation Breakdown	Info Sharing Trade Cooperation

Testing the Hypotheses

- We operationalize a decrease in k using the 2004 Boeing-Airbus dispute for WTO members
- New category of information “highly sensitive business info” with special procedures
- Stand-alone computers in locked room in Secretariat
- Restricted individuals who could view
- Interviewees indicated this increased confidence that WTO could handle such info
- (Over 40 WTO/legal/trade officials in Geneva and DC interviewed)

Testing Hypothesis 1

F becomes more likely to disclose information as k decreases

- Case study approach of cases with panel report
- Code whether sensitive information involved and whether F shared
- F always discloses when information not sensitive
- Many cases when info is sensitive that F withholds pre-2004, but not post
- Aircraft, autos, steel, cotton, wheat gluten, bananas
- Only one case where F withholds info post-2004: Turkey-Rice '05-'07

Table : Summary of Cases Involving Sensitive Information

Dispute	Post-Reform?	Information Withheld?	Details
Australia – Salmon	No	Unclear	Australia provided some info
EC – Bananas (US)	No	Yes	US denied access to info
Brazil – Aircraft	No	Yes	See Canada – Aircraft
Indonesia – Autos	No	Yes	U.S. would not provide info; leak occurred
Canada – Aircraft	No	Yes	Canada refused – said panel could not protect
Korea – Alcoholic Beverages	No	No	
Canada – Dairy	No	Yes	Withheld
United States – Upland Cotton	No	Yes	US used substitute numbers, protect farms
Thailand – H-Beams	No	Yes	Thailand submits scrubbed info
Australia – Automotive Leather II	No	No	
Argentina – Textiles and Apparel	No	Yes	Customs documents redacted
US – Lead and Bismuth II	No	Yes	US says can't share -protect firm
Argentina–Hides and Leather	No	No	
Guatemala–Cement II	No	No	
US – Wheat Gluten	No	Yes	US withheld info
US – Lamb	No	Yes	US provides scrubbed, indexed info
Egypt – Steel Rebar	No	No	
US – Line Pipe	No	Yes	US would not show complete record
EC – Salmon (Norway)	Yes	No	
Mexico – Olive Oil	Yes	No	
US – Large Civil Aircraft	Yes	No	
EU – Footwear (China)	Yes	No	
China – GOES	Yes	No	
China – X-Ray Equipment	Yes	No	
China – Boiler Products	Yes	No	
China – Autos (US)	Yes	No	

Example: Canada-Aircraft DS 70

- Brazil accused Canada of illegally supporting civil aircraft industry
- Lots of sensitive information involved: pricing, cost, etc
- Canada worried that businesses would not apply for funds and Canada could be sued domestically if info revealed
- Provided heavily redacted info; Brazil said not sufficient
- Panel said such actions have “the potential to undermine the functioning of the dispute settlement system”

Example: Boeing-Airbus

- EC vs US various subsidies provided to Boeing and Airbus
- Similar sensitive information involved, but this time panel took extreme precautions
- Hand-written notes, secure locations, stand-alone computers
- Extensive confidential info provided- dedicated procedures going forward

Testing Hypothesis 2

As k decreases, trade increases for members

- Gravity model, 1948-2009
- Unit of analysis is dyad-year, OLS, robust SEs clustered by dyad, dyad and year FEs
- DV: logged imports
- IV: Reforms (post-2004 period) X Both in WTO
- Controls: GDP, GDPPC, current colony/colonizer, GSP, PTA, CU

Both in WTO X Reforms	0.363***
	0.058
Both in WTO	1.364***
	0.073
One in WTO	0.728***
	0.062
Log(GDP) _i	1.838***
	0.099
Log(GDP) _j	1.957***
	0.103
Constant	-29.436***
	1.283
R-Squared	0.704
N	1020182

Additional controls not shown

Testing Hypothesis 2

- Particularly true for industries in which confidential info likely an issue
- Identify such industries using R&D Intensity (OECD)
- 20 countries, 2000-2009, all WTO members
- Fixed effects for country-year, industry
- Industry-level covariates

Testing Hypothesis 2

ReformsXRDIIntensity	18.016***
	5.910
RDIntensity	1.756***
	0.458
Labor Costs	-3.770***
	1.280
Intermediate Inputs	10.690***
	5.550
Capital Stock	-2.227
	8.270
Constant	22.723**
	0.081
R-Squared	0.413
N	1160

Conclusion

- Disclosure dilemmas - generic problem for states
- IO as novel mechanism for facilitating cooperation (if properly equipped)
- Part of larger book project: looks at econ and security realms e.g. nuclear, peacekeeping, war crimes
- Policy implications: how to handle sensitive info; why IOs are important and how to improve
- Normative implication: tension between secrecy capability and global governance transparency

Table : Conditions Under Which Disclosure Dilemmas Arise

	No Adaptation to Harm Informed State	Adaptation to Harm Informed State
Non-Friend-Exonerating or Self/friend Incriminating	No Dilemma	No Dilemma
Self/friend-Exonerating or Non-friend Incriminating	No Dilemma	Disclosure Dilemma