

PS 0500: International Trade

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<https://williamspaniel.com/classes/IR2021>

Outline

- Absolute Advantage
- Comparative Advantage
- Winners and Losers
- Trade Rivalry
- GATT and WTO
- Resolving Trade Disputes
- Absolute vs. Relative Gains

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International Trade

- International trade is *very* popular.
 - World exports (2014): \$17,979,000,000,000
 - U.S. exports (2016): \$1,471,000,000,000



Autarkic States

- North Korea (Juche)
- Taliban Afghanistan
- 1980s Romania
- Post-civil war Spain

Autarkic States

- North Korea (Juche)
- Taliban Afghanistan
- 1980s Romania
- Post-civil war Spain
- Other places no one wants to live
- Other places for very short periods of time before someone realize how bad of an idea this is

Why do states engage in trade?

Absolute Advantage

- One reason: some states are better at producing some goods than others
- States can make what they are good at and trade for what they aren't good at making

Example

- California produces a lot of wine
 - Grapes are easy to grow in the Napa Valley region
- Mexico produces a lot of tequila
 - Tequila is a derivative of agave, which grows in Mexican deserts



Example

- California has an absolute advantage making wine, while Mexico has an absolute advantage making tequila

**Production
Chart**

Make Wine

California

10

Mexico

2

Production Chart

Make Tequila

California

4

Mexico

8

Consumption in a
No Trade World

Wine

Tequila

California

5

2

Mexico

1

4

	Wine	Tequila
California	5	2
Mexico	1	4

**Production in a World
of Trade**

	Make Wine	Make Tequila
California	10	0
Mexico	0	8

Yo, Mexico, I'll trade you
three bottles of wine for
three bottles of tequila.

California

Mexico

Make Wine

Make Tequila

10

0

0

8

Yo, Mexico, I'll trade you
three bottles of wine for
three bottles of tequila.

California

¡Claro que sí!

Mexico

Make Wine

Make Tequila

10

0

0

8

Consumption after
Trade

Wine

Tequila

California

7

3

Mexico

3

5

7	3
3	5

Consumption in a
No Trade World

Wine

Tequila

California

5

2

Mexico

1

4

	Wine	Tequila
California	5	2
Mexico	1	4

Trade vs. No Trade

	Wine	Tequila
California	$7 > 5$	$3 > 2$
Mexico	$3 > 1$	$5 > 4$

Trade vs. No Trade

	Wine	Tequila
California	$7 > 5$	$3 > 2$
Mexico	$3 > 1$	$5 > 4$

Next Question

- What if one state is better at making *everything*?
 - Is trade still smart?

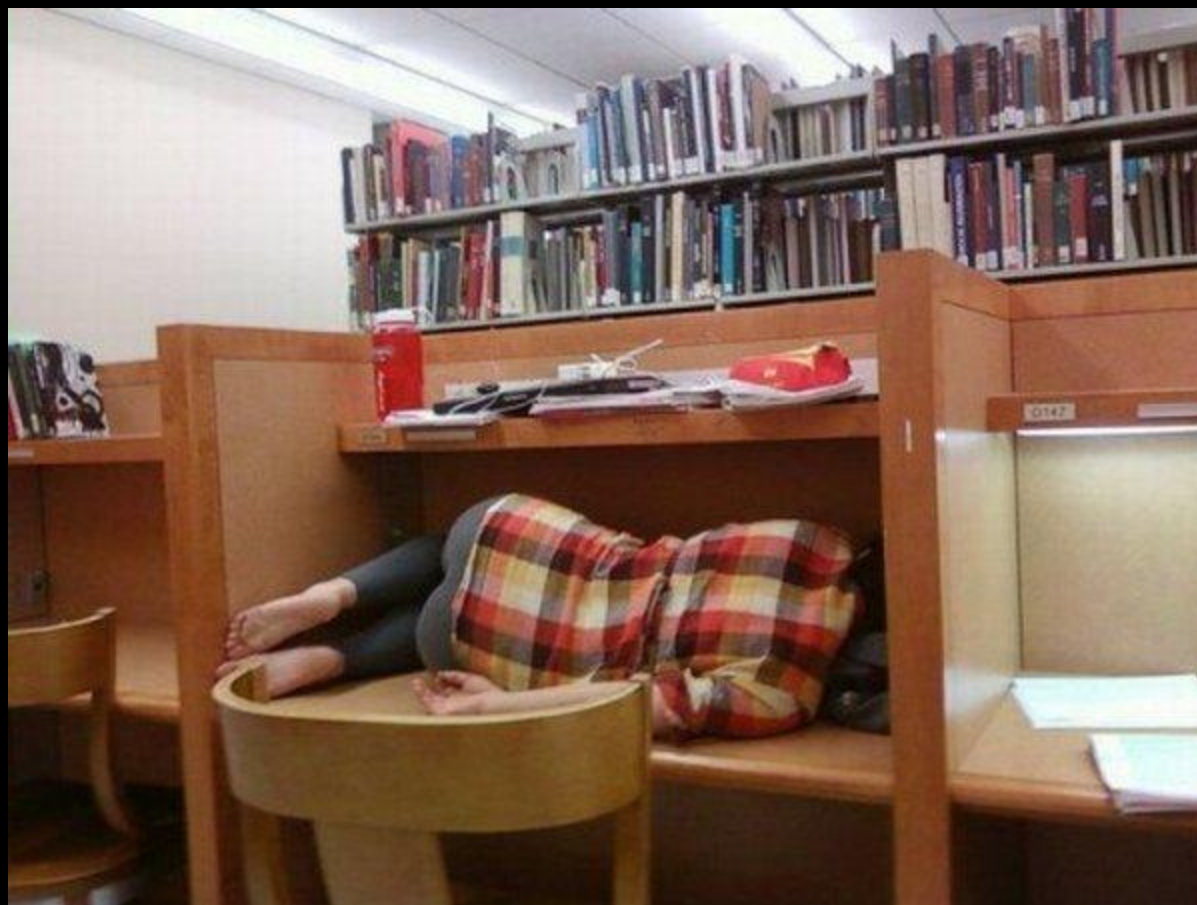
Outline

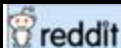
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Why trade if you are better at making everything?

Comparative Advantage

- Trade is trivially useful when no state has an absolute advantage in making every good
- But why trade if I'm better than you at everything?
- Trade still works!
 - Focus instead on *opportunity cost*, what someone has to give up to do something else





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**Production
Chart**

Make Wine

California

10

Mexico

2

Production Chart

Make Tequila

California

10

Mexico

8

Consumption in a
No Trade World

Wine

Tequila

California

5

5

Mexico

1

4

	Wine	Tequila
California	5	5
Mexico	1	4

HAHAHHA!!! We don't
need you anymore.

California

Mexico

Wine

Tequila

5

5

1

4

HAHAHHA!!! We don't
need you anymore.

California

Jajajaja...OK.

Mexico

Wine

Tequila

5

5

1

4

Production in a World
of Trade

Make Wine

Make Tequila

California

7

3

Mexico

0

8

Make Wine	Make Tequila
7	3
0	8

California

Trade you three bottles of
tequila for a bottle and
two glasses of wine.

Mexico

Wine

Tequila

7

3

0

8

Oh. Okay then.

California

Trade you three bottles of
tequila for a bottle and
two glasses of wine.

Mexico

Wine

Tequila

7

3

0

8

Consumption in a
World of Trade

Wine

Tequila

California

5.5

6

Mexico

1.5

5

	Wine	Tequila
California	5.5	6
Mexico	1.5	5

Consumption in a
No Trade World

Wine

Tequila

California

5

5

Mexico

1

4

	Wine	Tequila
California	5	5
Mexico	1	4

Consumption in a
No Trade World

Wine

Tequila

California

$$5.5 > 5$$

$$6 > 5$$

Mexico

$$1.5 > 1$$

$$5 > 4$$

Consumption in a
No Trade World

	Wine	Tequila
California	$5.5 > 5$	$6 > 5$
Mexico	$1.5 > 1$	$5 > 4$

Comparative Advantage

- Every bottle of wine California makes is one fewer bottle of tequila it makes
- Every bottle of wine Mexico makes is four(!) fewer bottles of tequila it makes
 - Mexico pays a higher opportunity cost to make a bottle of wine
 - Thus, Mexico still specializes in tequila and California still specializes in wine

Outline

- Absolute Advantage
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- **Winners and Losers**
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Who Wins?

- Trade is efficient only at the *country* level
- If California and Mexico trade wine and tequila, who wins?

Lots of Winners

- Californian wine manufacturers
 - More customers in Mexico
- Mexican tequila manufacturers
 - More customers in California
- Consumers everywhere
 - Cheaper prices and higher quality products

Some Losers

- Californian tequila manufacturers
 - Can't compete with Mexico's
- Mexican wine manufacturers
 - Can't compete with California's

Key Point

- The sum of economic gains by the winning manufacturers and consumers is *greater* than the economic losses by the losing manufacturers

Barriers to Free Trade

- Gains are highly dispersed
 - Do you have incentive to lobby for cheaper TVs?
- Potential losers have the status quo advantage
 - More likely to be politically connected or have the money to lobby

Tariffs

- A government may then place a tariff on particular imports
 - Others might retaliate
- Tariffs lead to higher prices on foreign products, protecting certain domestic industries
 - Effectively ruins trade
 - Bad for consumers

Tariffs

- Creates another winner: government

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Some states may win
more than others.

**Production
Chart**

Make Wine

California

10

Mexico

2

Production Chart

California

Mexico

Make Tequila

4

8

Desired Consumption

- California: must consume at least 5 bottles of wine and 2 bottles of tequila
- Mexico: must consume at least 1 bottle of wine and 4 bottles of tequila

Consumption in a
No Trade World

Wine

Tequila

California

5

2

Mexico

1

4

	Wine	Tequila
California	5	2
Mexico	1	4

**Production in a World
of Trade**

	Make Wine	Make Tequila
California	10	0
Mexico	0	8

Consumption Possibilities

4

Wine

2

Tequila

California

5

2

Mexico

1

4

California's Ideal World

	Wine	Tequila
California	9	4
Mexico	1	4

Mexico's Ideal World

	Wine	Tequila
California	5	2
Mexico	5	6

Equitable Distribution

	Wine	Tequila
California	7	3
Mexico	3	5

Equitable, But
Favorable to California

Wine

Tequila

California

8

3

Mexico

2

5

**Equitable, But
Favorable to Mexico**

Wine

Tequila

California

6

3

Mexico

4

5

The Bargaining Problem

- States want to trade to realize benefits of production specialization
- But the states want to compete over the surplus!
 - California would like to take all of it, but so would Mexico
- If bargaining fails, both states receive *none* of the surplus

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Negotiating Trade

- Many incentives to not trade with each other
 - Might stop trade from happening even if both want to do it
 - General concern: I will play nice (grim trigger) while you just defect
- How to coordinate expectations?
 - Develop international institutions to promote trade between member states

Small Scale Agreements

- Norm for most of world history
- Bilateral negotiations for *most favored nation* status
 - High import quotas/low tariffs
 - Conceivably, at least as good as any other state's quota and tariff

Small Scale Agreements

- Group negotiations as well
 - NAFTA
 - European Coal and Steel Community
 - Mercosur
 - Economic Community of West African States

The Bigger Picture

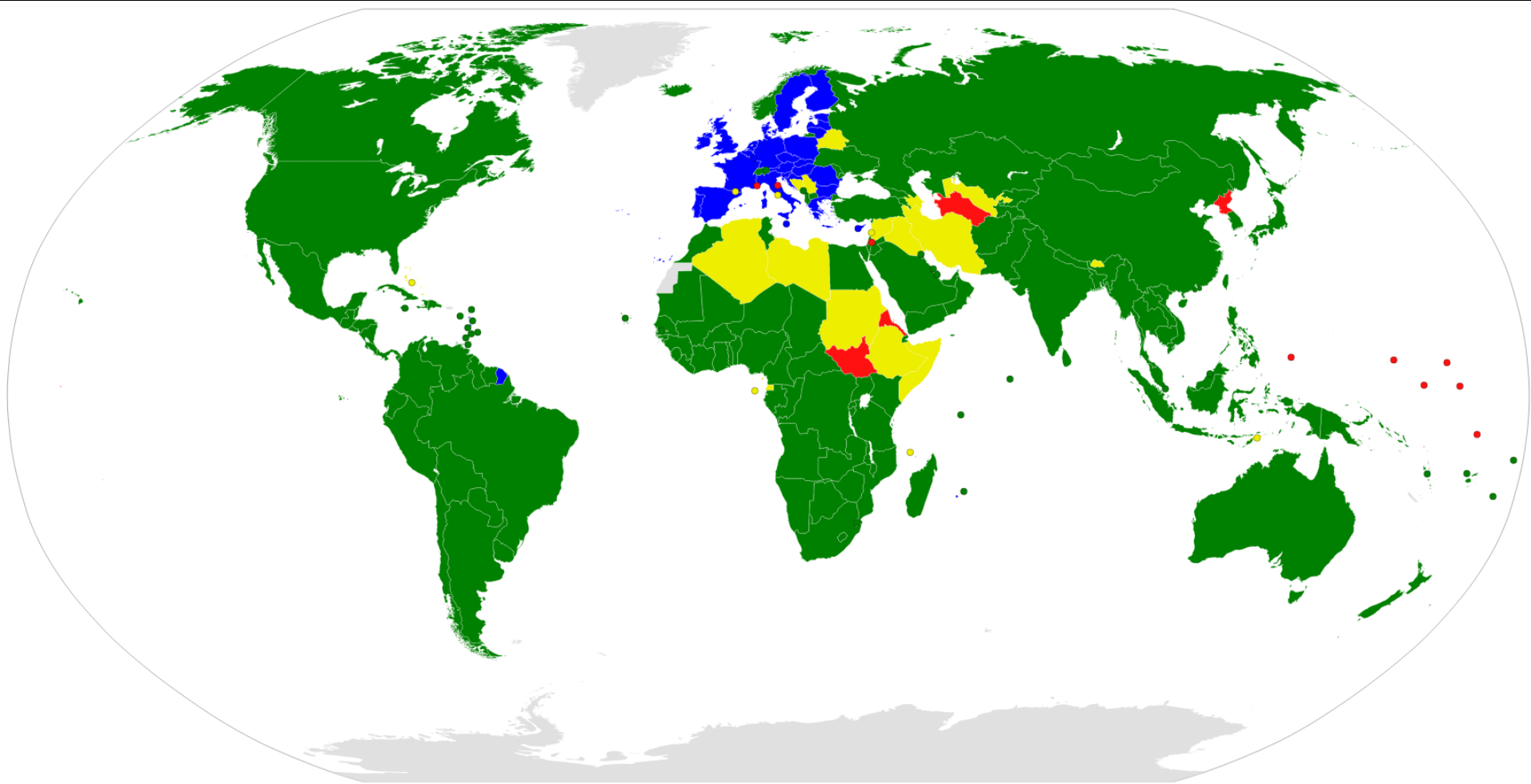
- Many concerns about free trade transcend a single border
 - If Canada is worried about the United States cheating on an agreement, Mexico might be too
- Benefits to negotiating in groups
 - Reduces transaction costs
- But why stop at small agreements?

GATT

- General Agreement on Tariffs and Trade
- First negotiated in 1947
- Extensions renegotiated eight times
- Purpose: reduce tariffs and other trade barriers and promote efficient trade between parties

WTO

- World Trade Organization
- GATT renegotiations create WTO in 1995
- Much bigger, much more powerful organization than GATT



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WTO Dispute Resolution

- GATT/WTO negotiate rules of “fair trade”
- But legislation is never “catch all”
 - Farm subsidies
- WTO has a (useful) court system to decide whether states are in compliance
 - Why is this surprising?

Puzzle

- WTO courts have no true enforcement mechanism
 - Domestic courts have the police to execute their rulings
 - World courts don't
- If states live in anarchy, why not ignore the court?

The Story

- A man and a woman want to get together for an evening of entertainment, but they have no means of communication
- They can either go to the ballet or the fight
 - The man prefers going to the fight
 - The woman prefers going to the ballet
 - If they don't end up together, they will both have to go home unhappy

Battle of the Sexes

Woman

Ballet

Fight

Man

Ballet

Fight

1, 2

0, 0

0, 0

2, 1

		Ballet	Fight
Man	Ballet	1, 2	0, 0
	Fight	0, 0	2, 1

Battle of the Sexes

Woman

Ballet

Fight

Man

Ballet

Fight

1, 2

0, 0

0, 0

2, 1

Battle of the Sexes

Woman

Ballet

Fight

Man

Ballet

Fight

1, 2

0, 0

0, 0

2, 1

Battle of the Sexes

Woman

Ballet

Fight

Man

Ballet

Fight

1, 2

0, 0

0, 0

2, 1

		Ballet	Fight
Man	Ballet	1, 2	0, 0
	Fight	0, 0	2, 1

Battle of the Sexes

Woman

Ballet

Fight

Man

Ballet

Fight

1, 2

0, 0

0, 0

2, 1

Battle of the Sexes

Woman

Ballet

Fight

Man

Ballet

Fight

1, 2

0, 0

0, 0

2, 1

Battle of the Sexes

Woman

Ballet

Fight

Man

Ballet

Fight

1, 2

0, 0

0, 0

2, 1

Battle of the Sexes

Woman

Ballet

Fight

Man

Ballet

Fight

1, 2

0, 0

0, 0

2, 1

Coordination Problem

- A game with multiple reasonable outcomes depending on what the players expect the other to do
 - Stag hunt: agreement over best outcome
 - Battle of the sexes: disagreement over the best outcome

Coordination Problem

- The man and woman have incentive to cooperate but have opposing preferences on how to cooperate
 - *Mixed motives*
- They need some means of resolving the coordination problem

Rule of thumb: Friday
nights are fight nights.
Sunday nights are ballet
nights. Tonight is Friday.

Woman

Ballet

Fight

Man

Ballet

1, 2

0, 0

Fight

0, 0

2, 1

Rule of thumb: Friday
nights are fight nights.
Sunday nights are ballet
nights. Tonight is Friday.

Woman

Ballet

Fight

Man

Ballet

Fight

1, 2

0, 0

0, 0

2, 1

Trade Coordination Game

California

Agreement X

Agreement Y

Mexico

Agreement Y Agreement X

	Agreement X	Agreement Y
Agreement X	1, 2	0, 0
Agreement Y	0, 0	2, 1

Trade Coordination Game

California

Agreement X

Agreement Y

Mexico

Agreement Y Agreement X

	Agreement X	Agreement Y
Agreement X	1, 2	0, 0
Agreement Y	0, 0	2, 1

International Court:
Agreement Y should
be enforced.

California

Agreement X

Agreement Y

Mexico

Agreement Y Agreement X

Agreement X	Agreement Y
1, 2	0, 0
0, 0	2, 1

International Court:
Agreement Y should
be enforced.

California

Agreement X

Agreement Y

Mexico

Agreement Y Agreement X

Agreement X	Agreement Y
1, 2	0, 0
0, 0	2, 1

International Court:
Agreement Y should
be enforced.

California

Agreement X

Agreement Y

Mexico

Agreement Y Agreement X

Agreement X	Agreement Y
1, 2	0, 0
0, 0	2, 1

International Court:
Agreement Y should
be enforced.

California

Agreement X

Agreement Y

Mexico

Agreement Y Agreement X

Agreement X	Agreement Y
1, 2	0, 0
0, 0	2, 1

Coordination Problem

- The man and woman have incentive to cooperate but have opposing preferences on how to cooperate
 - *Mixed motives*
- They need some means of resolving the coordination problem
 - Courts coordinate expectations

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How can international trade
affect coercive bargaining?

Balancing Interests

- States like to trade—it creates something from nothing
 - States make *absolute gains* here because more stuff exists for both parties
 - Consuming eight bottles of wine is more than consuming six bottles of wine
- Consumption is positive sum

Balancing Interests

- But security relationships are zero-sum
 - You lose whatever territory I gain from war and vice versa
- Thus, in security, *relative gains* are important
 - Military power is relative
 - Having two tanks is really useful if you are fighting the Roman Empire but not as useful against today's United States

Consumption in a
No Trade World

Wine

Tequila

California

5

2

Mexico

1

4

5	2
1	4

Consumption in a
World of Trade

Wine

Tequila

California

8

4

Mexico

2

4

	Wine	Tequila
California	8	4
Mexico	2	4

The Problem

- Trade makes California disproportionately rich
- Mexico must be worried that California will take its relative advantage in trade and turn it into a relative advantage in security by investing in weapons

The Resolution

- Trade can still occur despite the relative gains one actor might make
 - It just must be that the relative potential security gain is less valuable than the increased production of the rival state
- Both parties gain relative to a third party