Trade

November 11-13, 2011

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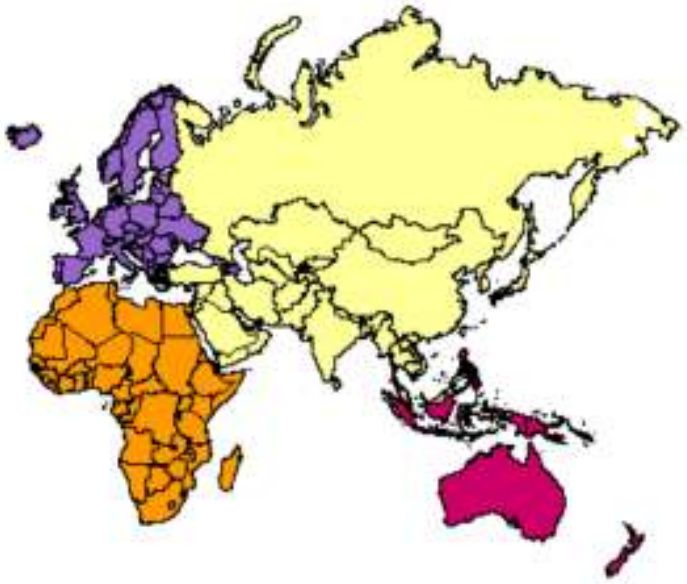
www.antonydavies.org

There are two countries.

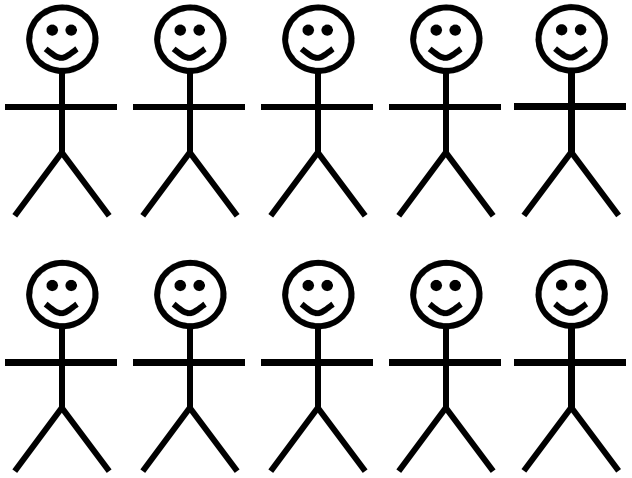
West

East

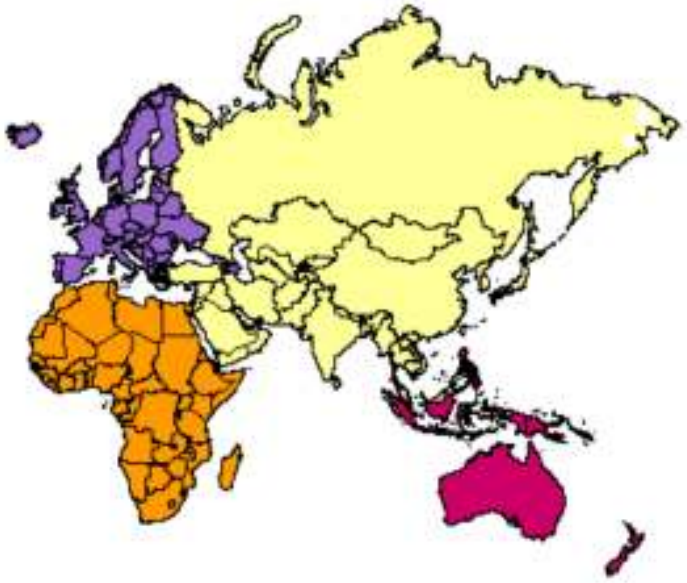


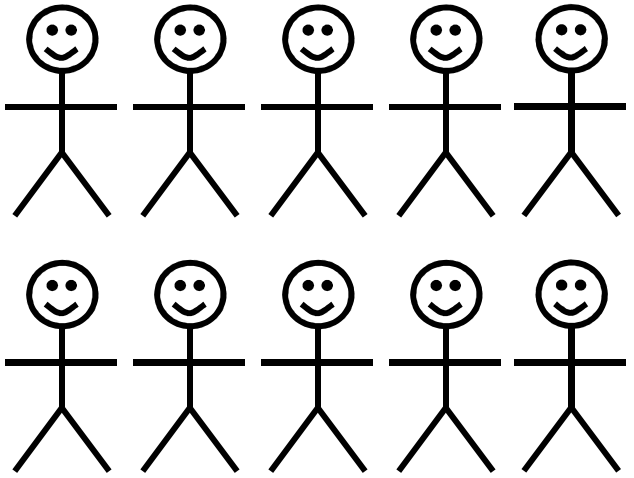
In each country, there are 10 workers.

West



East

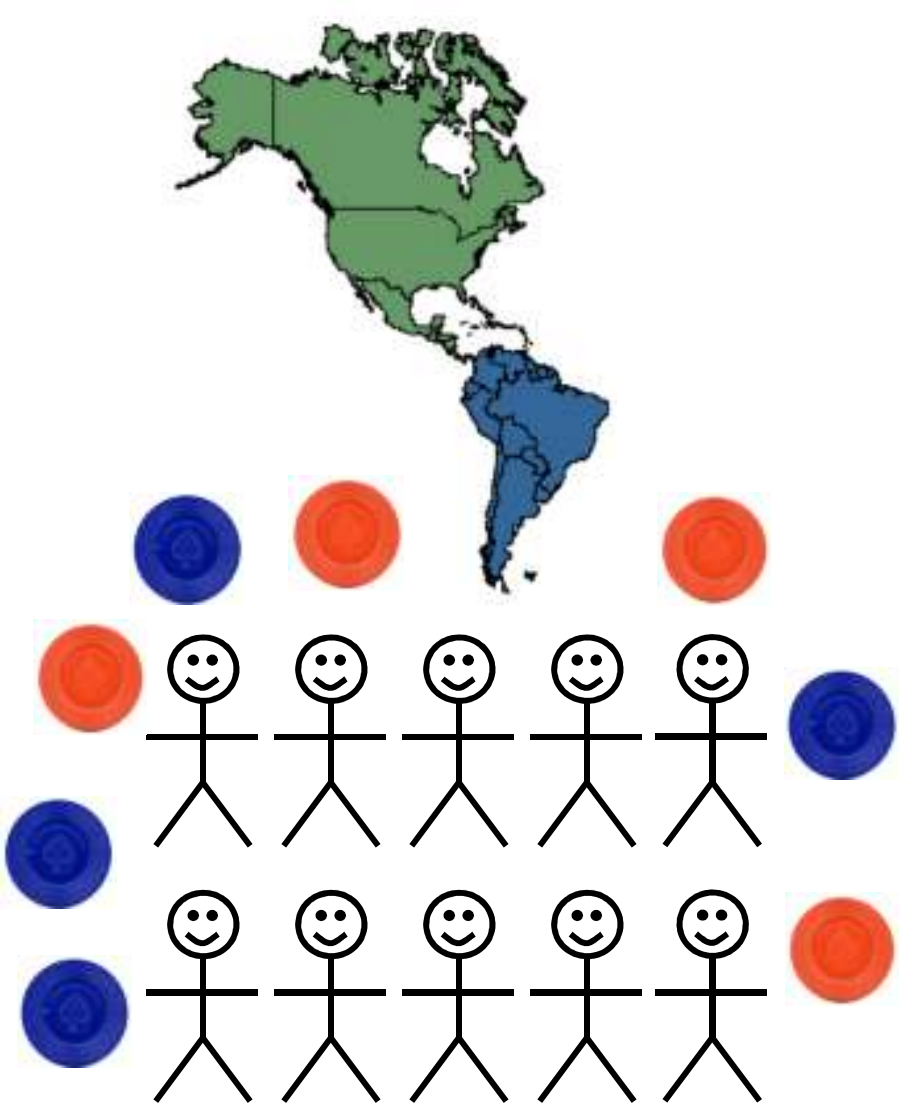




The workers make RED stuff and BLUE stuff.

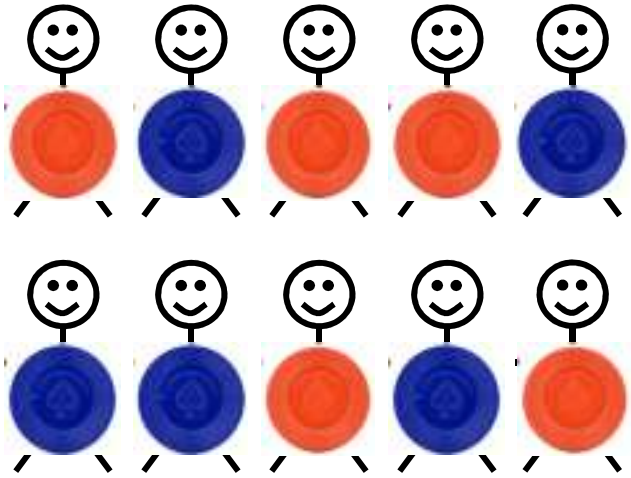
West

East

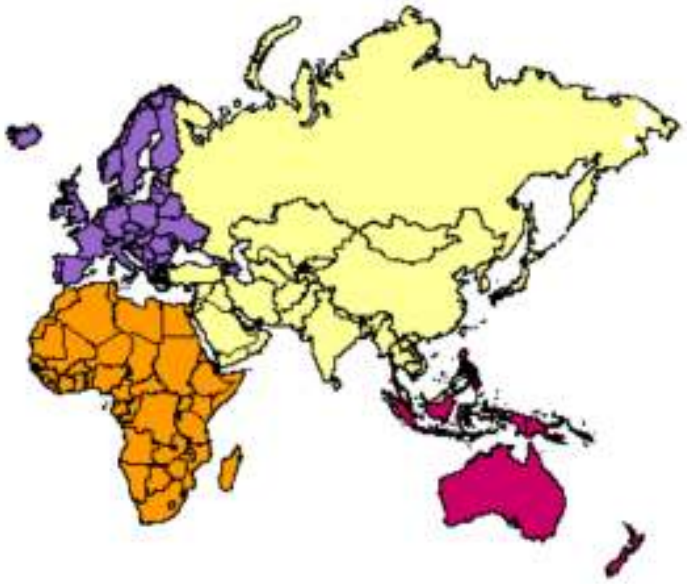


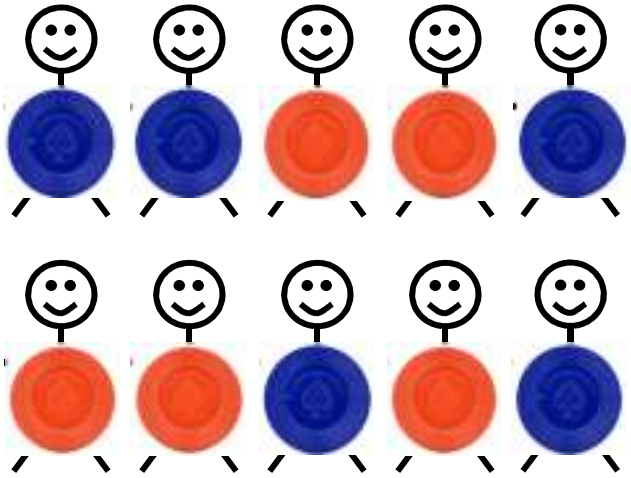
The workers eat the RED stuff and BLUE stuff.

West

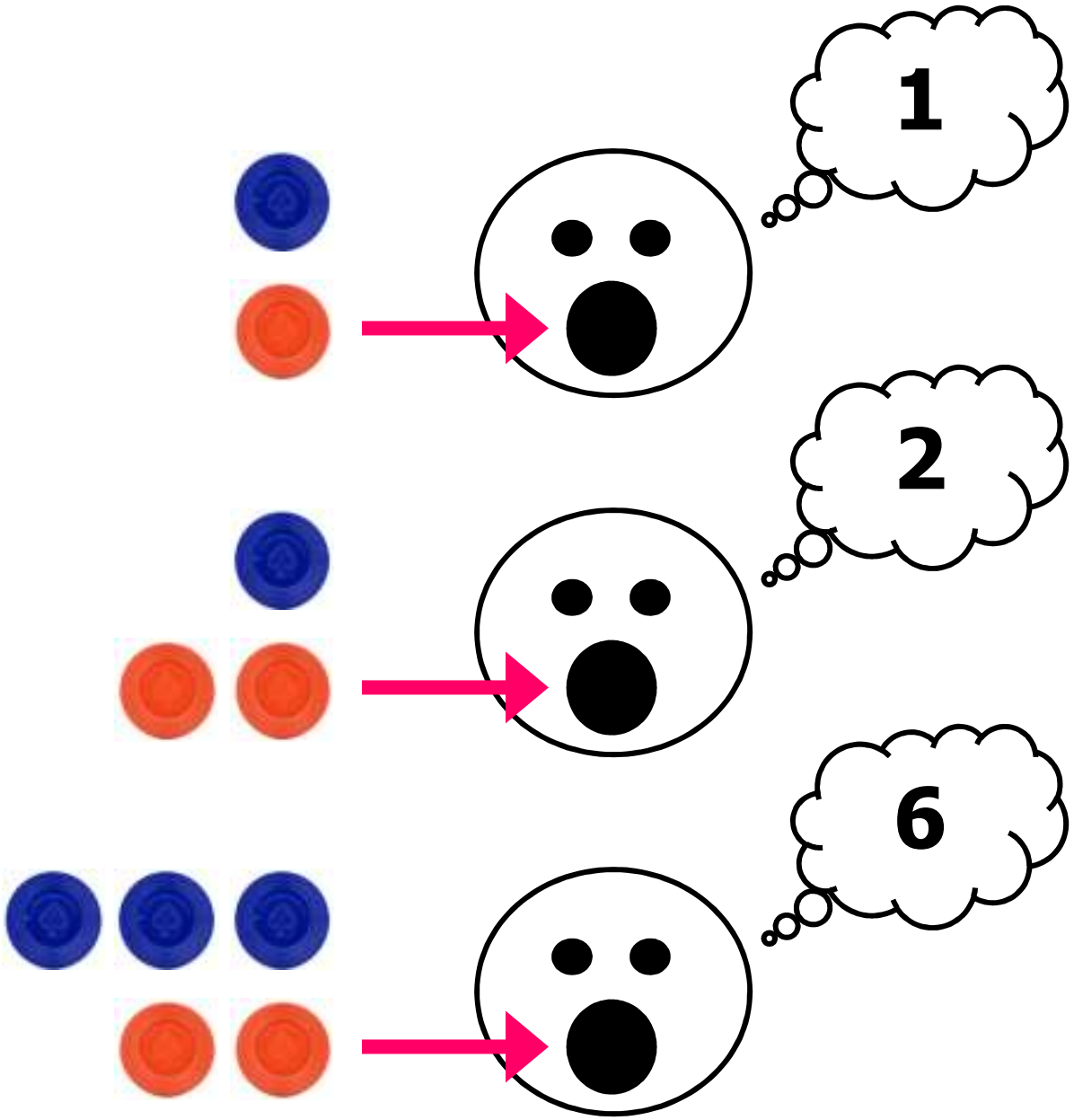


East

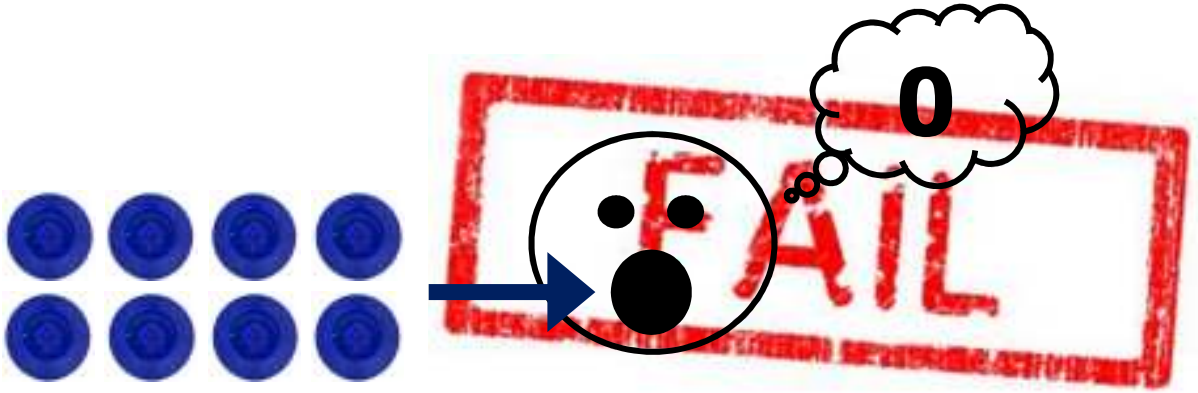


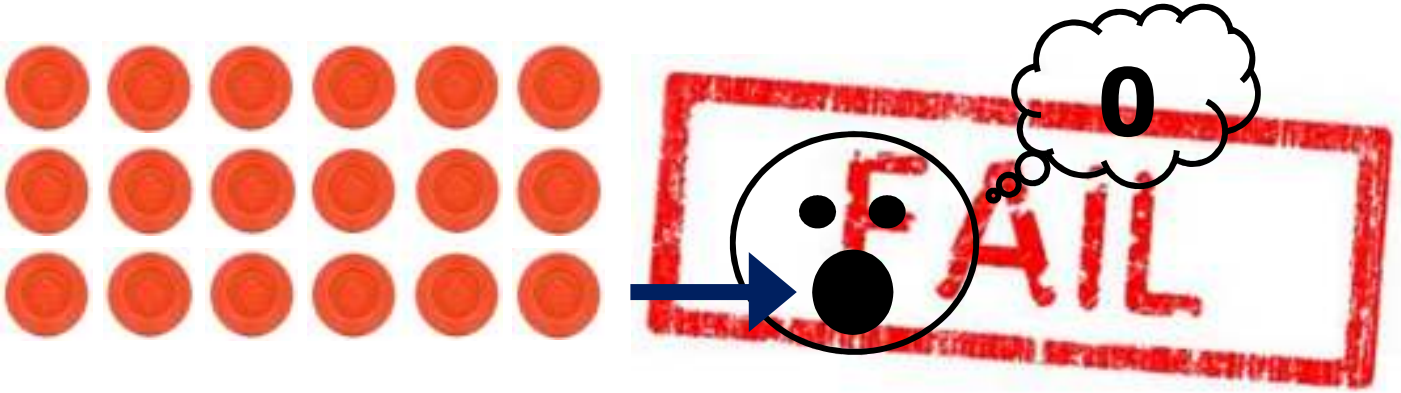


Happiness = (RED stuff eaten) (BLUE stuff eaten)



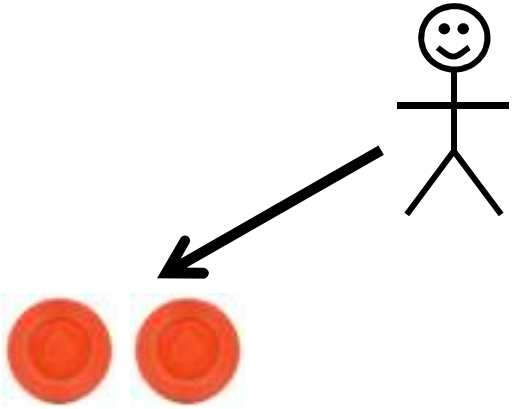
Happiness = (RED stuff eaten) (BLUE stuff eaten)





A single workers can produce RED stuff…

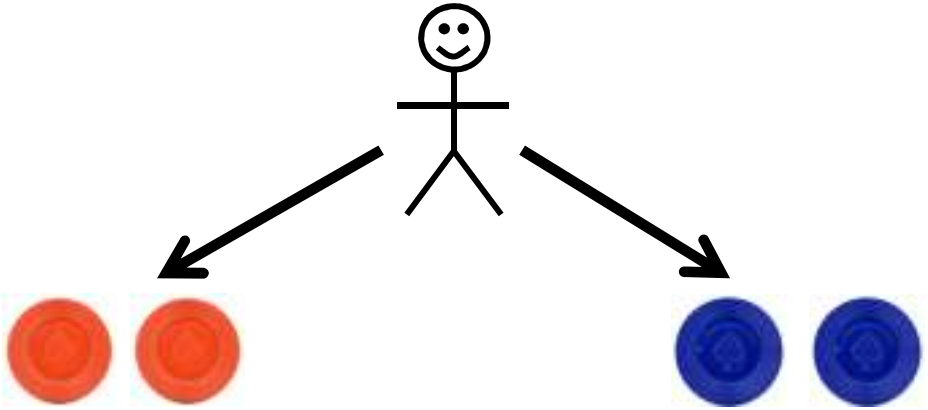
West



Labor Allocated to Production of Red	Units of Red Produced
0	0
1	2
2	4
3	6
4	8
5	10
6	12
7	14
8	16
9	18
10	20

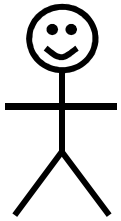
…or BLUE stuff.

West



Labor Allocated to Production of Red	Units of Red Produced
0	0
1	2
2	4
3	6
4	8
5	10
6	12
7	14
8	16
9	18
10	20

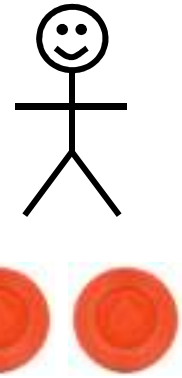
Labor Allocated to Production of Blue	Units of Blue Produced
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10

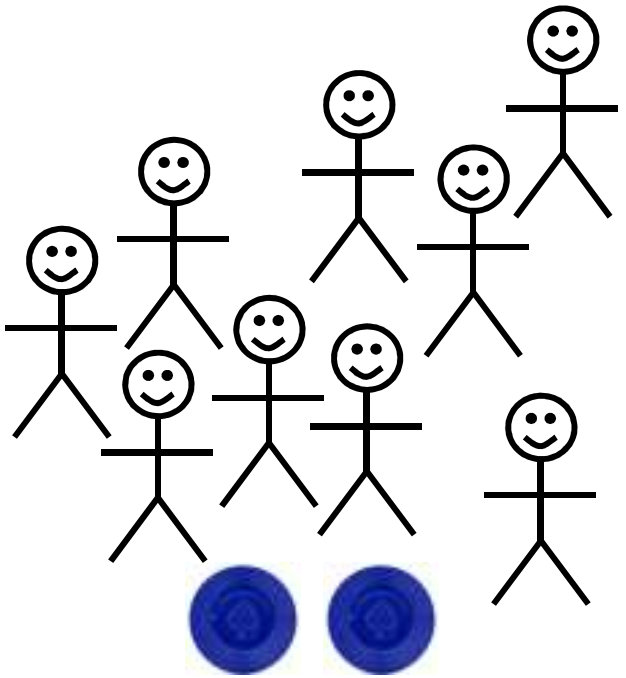


1 worker to Red

Labor Allocated to Production of Red	Units of Red Produced
0	0
1	2
2	4
3	6
4	8
5	10
6	12
7	14
8	16
9	18
10	20

Labor Allocated to Production of Blue	Units of Blue Produced
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10





1 worker to Red

and

9 workers to Blue

Labor Allocated to Production of Red	Units of Red Produced
0	0
1	2
2	4
3	6
4	8
5	10
6	12
7	14
8	16
9	18
10	20

Labor Allocated to Production of Blue	Units of Blue Produced
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10

Production: 2 Red and 9 Blue

You must decide how many workers to allocate to the production of RED stuff and how many to allocate to the production of BLUE stuff.

Your goal is to attain the most happiness possible for your country.

Example (using West):

Labor Allocated to Production of Red	Units of Red Produced
0	0
1	2
2	4
3	6
4	8
5	10
6	12
7	14
8	16
9	18
10	20

Labor Allocated to Production of Blue	Units of Blue Produced
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10

Suppose West chooses to assign 2 Workers to RED production and 8 Workers to BLUE production.

$2 + 8 = 10$

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue
2	8	4	8	X	X

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
4	8	32

Round 1: Autarky

Allocate 10 workers to maximize your country's happiness.

$2 + 8 = 10$

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue
2	8	4	8	X	X

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
4	8	32

Round 1: Autarky

Solution for West

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue

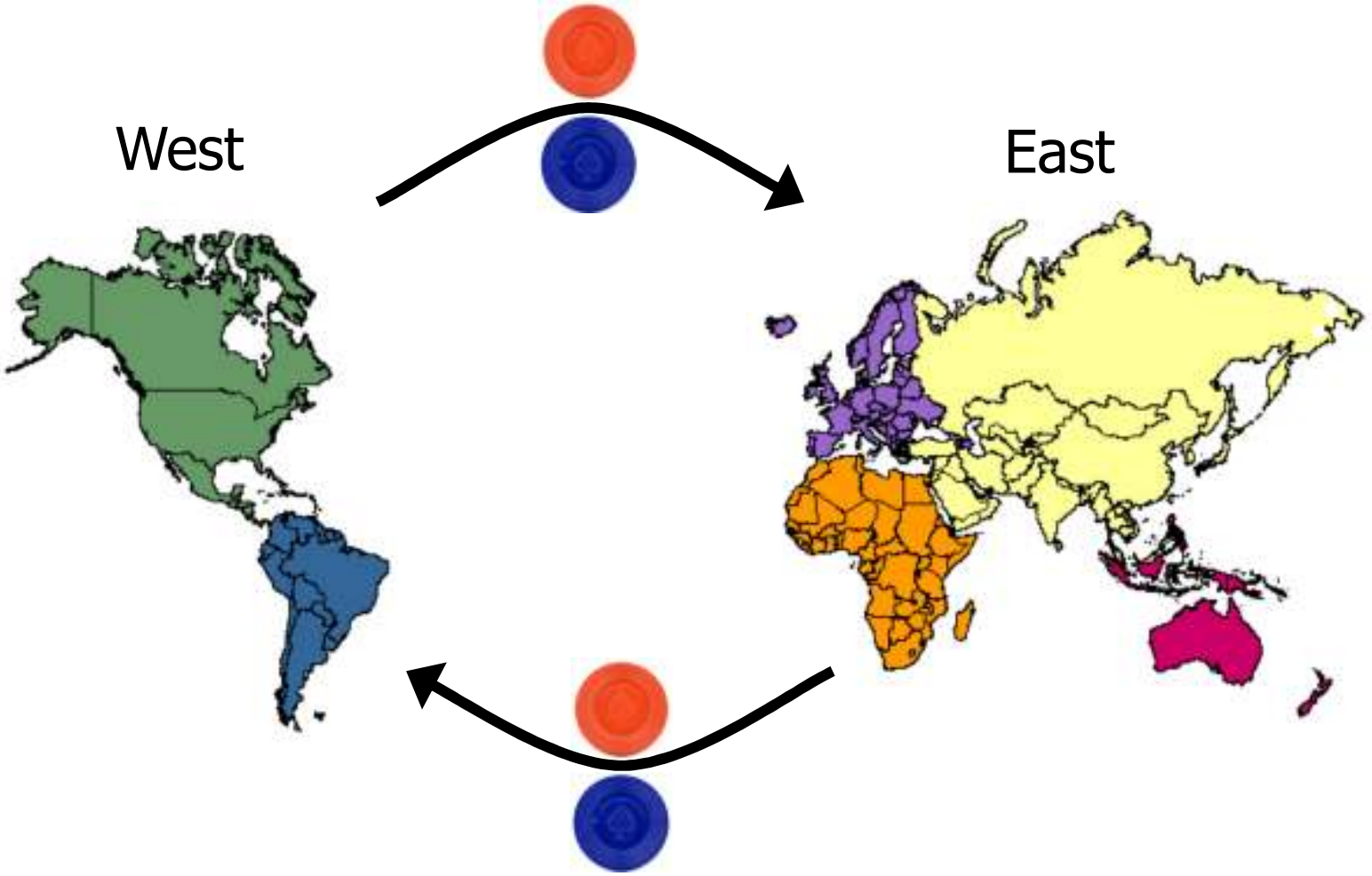
Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
	5	50

Solution for East

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
	10	50

Round 2: You may trade (if you want).



Example (using West):

Labor Allocated to Production of Red	Units of Red Produced
0	0
1	2
2	4
3	6
4	8
5	10
6	12
7	14
8	16
9	18
10	20

Labor Allocated to Production of Blue	Units of Blue Produced
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10

Suppose West chooses to assign 1 Worker to RED production and 9 Workers to BLUE production.

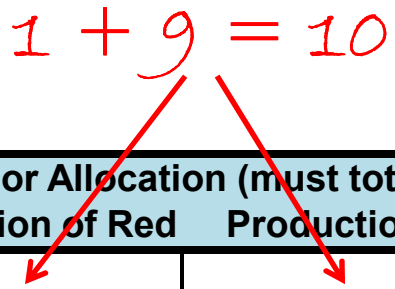
West agrees to trade East 5 BLUE for 3 RED.

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue
1	9	2	9	3	-5

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
5	4	20

Round 2: Trade

Allocate 10 workers then trade (if you want) to maximize your country's happiness.



Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue
1	9	2	9	3	-5

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
5	4	20

Round 2: Trade

Price of Red
1 Red = 1 Blue

Solution for West

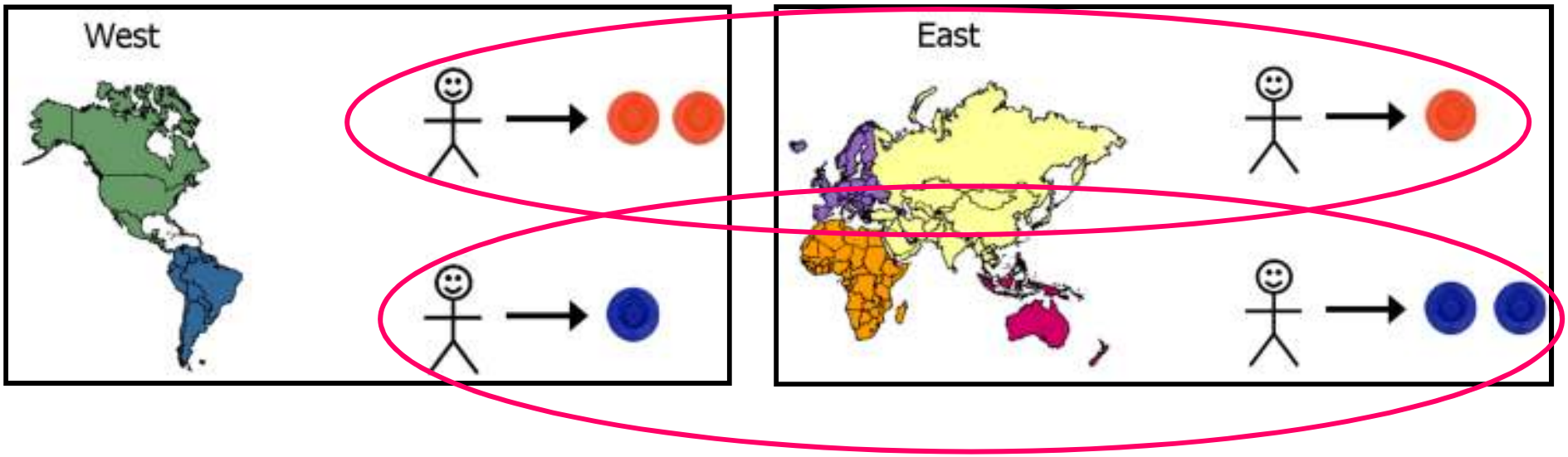
Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue
				-10	10

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
	10	100

Solution for East

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue
				10	-10

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
	10	100



West has an <u>absolute advantage</u> in the production of RED stuff.

→ In West, 1 unit of RED costs 1/2 worker. ☺

→ In East, 1 unit of RED costs 1 worker. ☹

East has an <u>absolute advantage</u> in the production of BLUE stuff.

→ In West, 1 unit of BLUE costs 1 worker. ☹

→ In East, 1 unit of BLUE costs 1/2 worker. ☺

What if East has an absolute advantage in the production of both RED and BLUE?

Labor Allocated to Production of Red	Units of Red Produced
0	0
1	2
2	4
3	6
4	8
5	10
6	12
7	14
8	16
9	18
10	20

Labor Allocated to Production of Blue	Units of Blue Produced
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10

Labor Allocated to Production of Red	Units of Red Produced
0	0
1	3
2	6
3	9
4	12
5	15
6	18
7	21
8	24
9	27
10	30

Labor Allocated to Production of Blue	Units of Blue Produced
0	0
1	6
2	12
3	18
4	24
5	30
6	36
7	42
8	48
9	54
10	60

Round 3: Autarky

Allocate 10 workers to maximize your country's happiness.

$2 + 8 = 10$

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue
2	8	4	8	X	X

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
4	8	32

Round 3: Autarky

Solution for West

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue

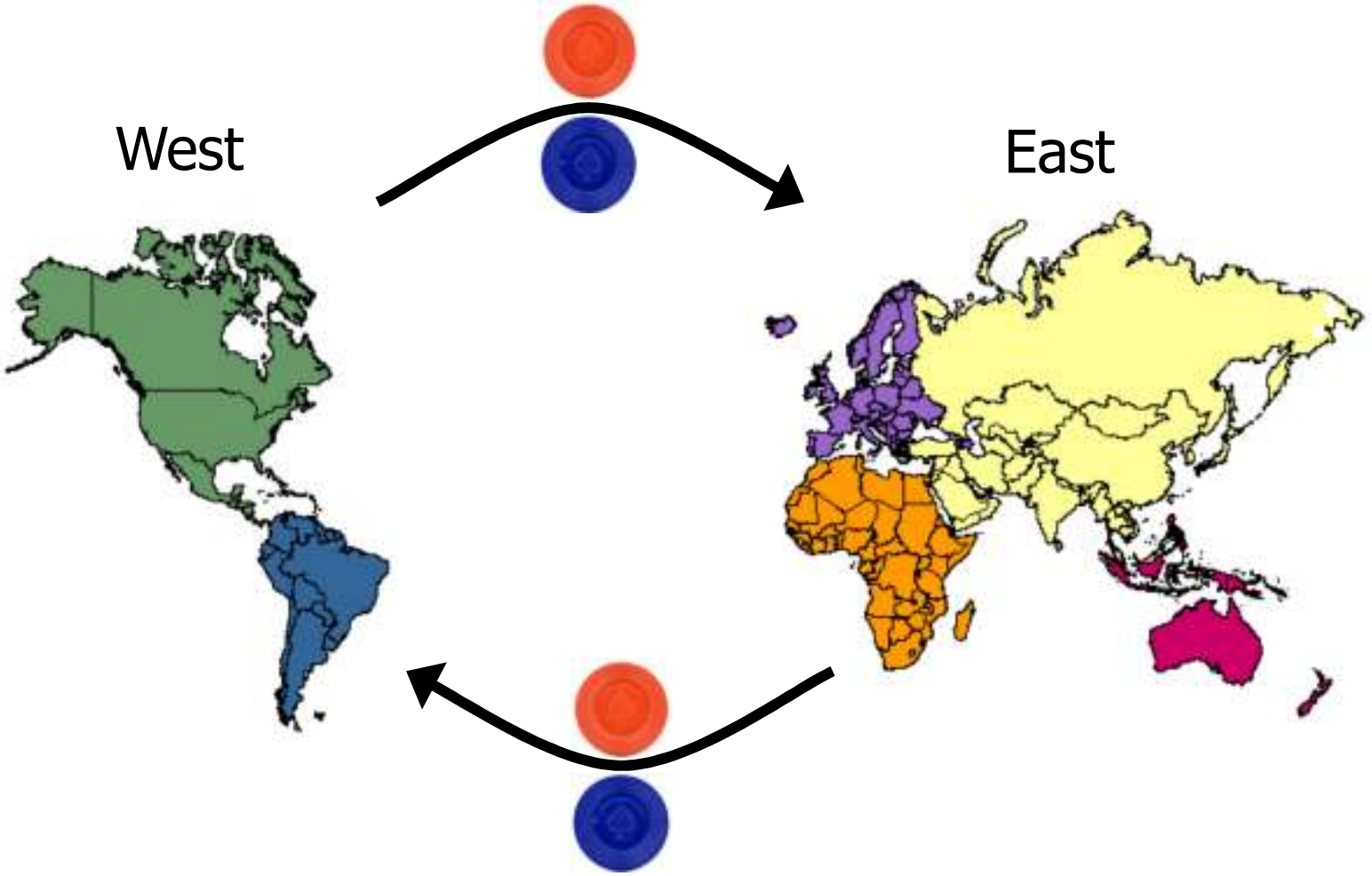
Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
	5	50

Solution for East

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue

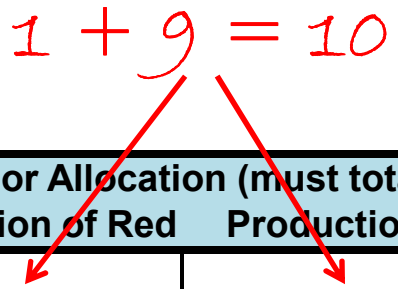
Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
	30	450

Round 4: You may trade (if you want).



Round 4: Trade

Allocate 10 workers then trade (if you want) to maximize your country's happiness.



Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue
1	9	2	9	3	-5

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
5	4	20

Round 4: Trade

Price of Red
1 Red = 1 Blue

Solution for West

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue
				-10	10

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
	10	100

Solution for East

Labor Allocation (must total 10)		Production		Imports (negative = exports)	
Production of Red	Production of Blue	Units of Red	Units of Blue	Units of Red	Units of Blue
				10	-10

Consumption (production plus imports)		Happiness (red consumed x blue consumed)
Units of Red	Units of Blue	
	50	500

Are we thinking about the problem correctly?

When you produce more RED stuff, what do you give up?

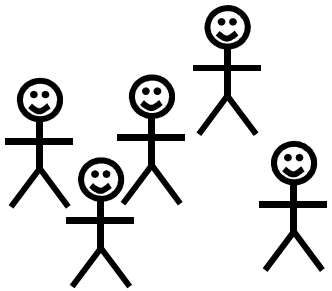
When you produce more BLUE stuff, what do you give up?

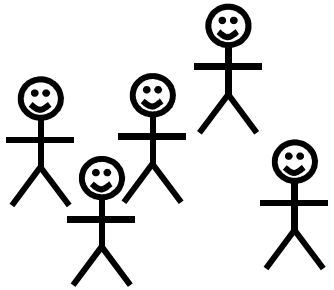
A country doesn't give up workers when it produces stuff.

It gives up the other stuff it could be producing instead.

→ The cost of BLUE stuff isn't a worker.

→ The cost of BLUE stuff is RED stuff!

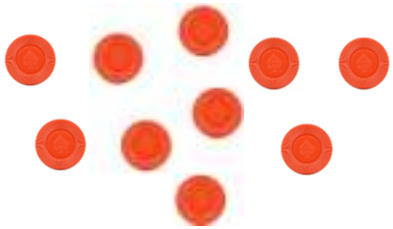


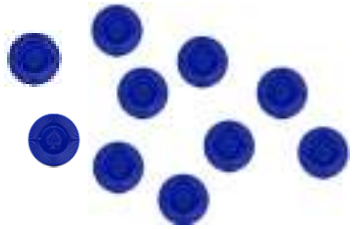


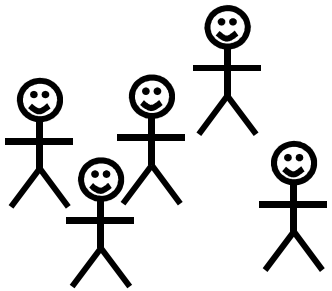
Labor Allocated to Production of Red	Units of Red Produced
0	0
1	2
7	14
8	16
9	18
10	20

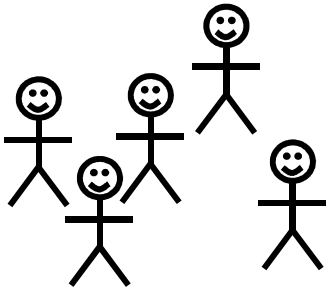
Labor Allocated to Production of Blue	Units of Blue Produced
0	0
1	1
7	7
8	8
9	9
10	10

For West: 1 BLUE cost 2 RED





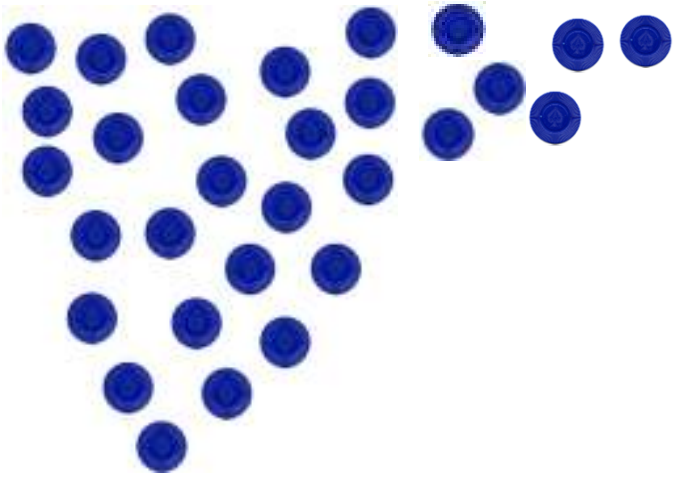




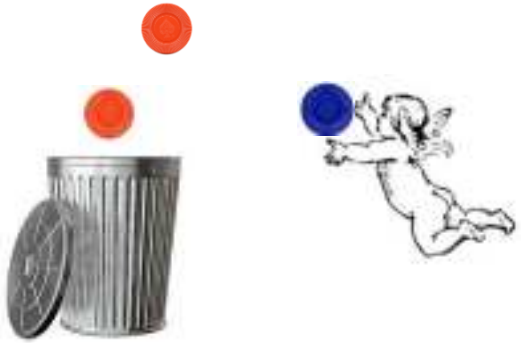
Labor Allocated to Production of Red	Units of Red Produced
0	0
1	3
7	21
8	24
9	27
10	30

Labor Allocated to Production of Blue	Units of Blue Produced
0	0
1	6
7	42
8	48
9	54
10	60

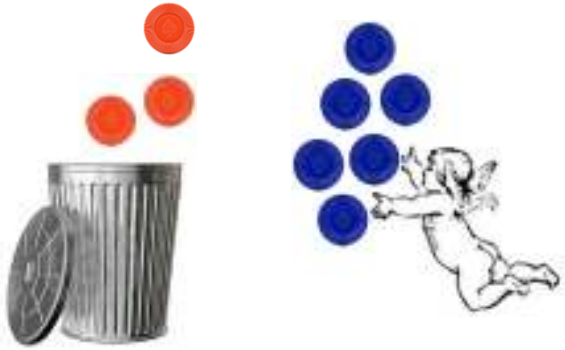
For East: 1 BLUE cost ½ RED



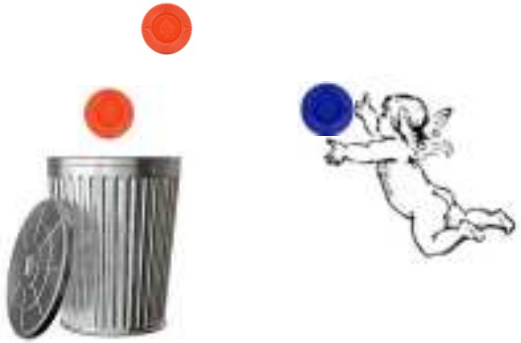
For West: 1 BLUE cost 2 RED
1 RED cost ½ BLUE



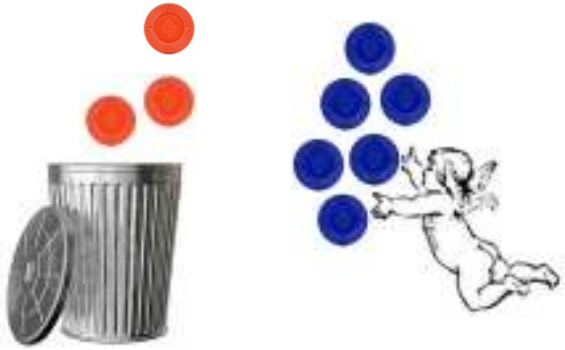
For East: 1 BLUE cost ½ RED
1 RED cost 2 BLUE



For West: **1 BLUE cost 2 RED**
1 RED cost ½ BLUE



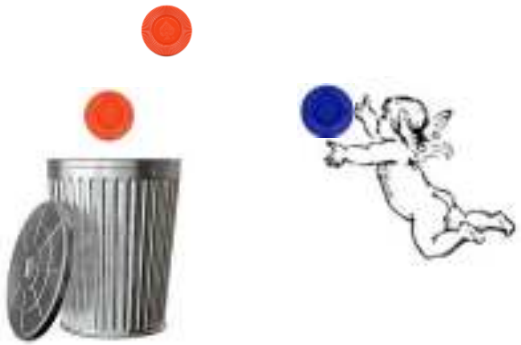
For East: **1 BLUE cost ½ RED**
1 RED cost 2 BLUE



Relative Advantage: Blue

For West: 1 BLUE cost 2 RED

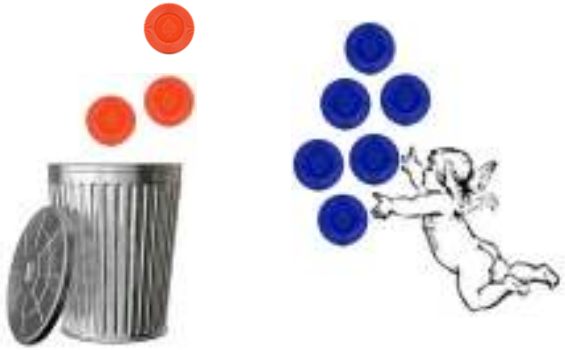
1 RED cost ½ BLUE



Relative Advantage: Red

For East: 1 BLUE cost ½ RED

1 RED cost 2 BLUE



Relative Advantage: Blue

The Power of Relative Advantage

No matter how large, small, rich, or poor, by definition, every country has a relative advantage in something.

Conclusions:

1. Trade is a positive sum relationship.
2. Exchanging goods is what's important. Money is only a tool that facilitates the exchanging.
3. Every country has a relative advantage in something.
4. Trade is the combination of exchange and specialization. Specialization is the directing of resources toward the countries relative advantage.

Assumptions About Trade

Protectionist Assumption:

Trade leads to a centralization of political power, decreased competition, and the transfer of wealth.

Globalist Assumption:

Trade leads to a decentralization of political power, increased competition, and the creation of wealth.

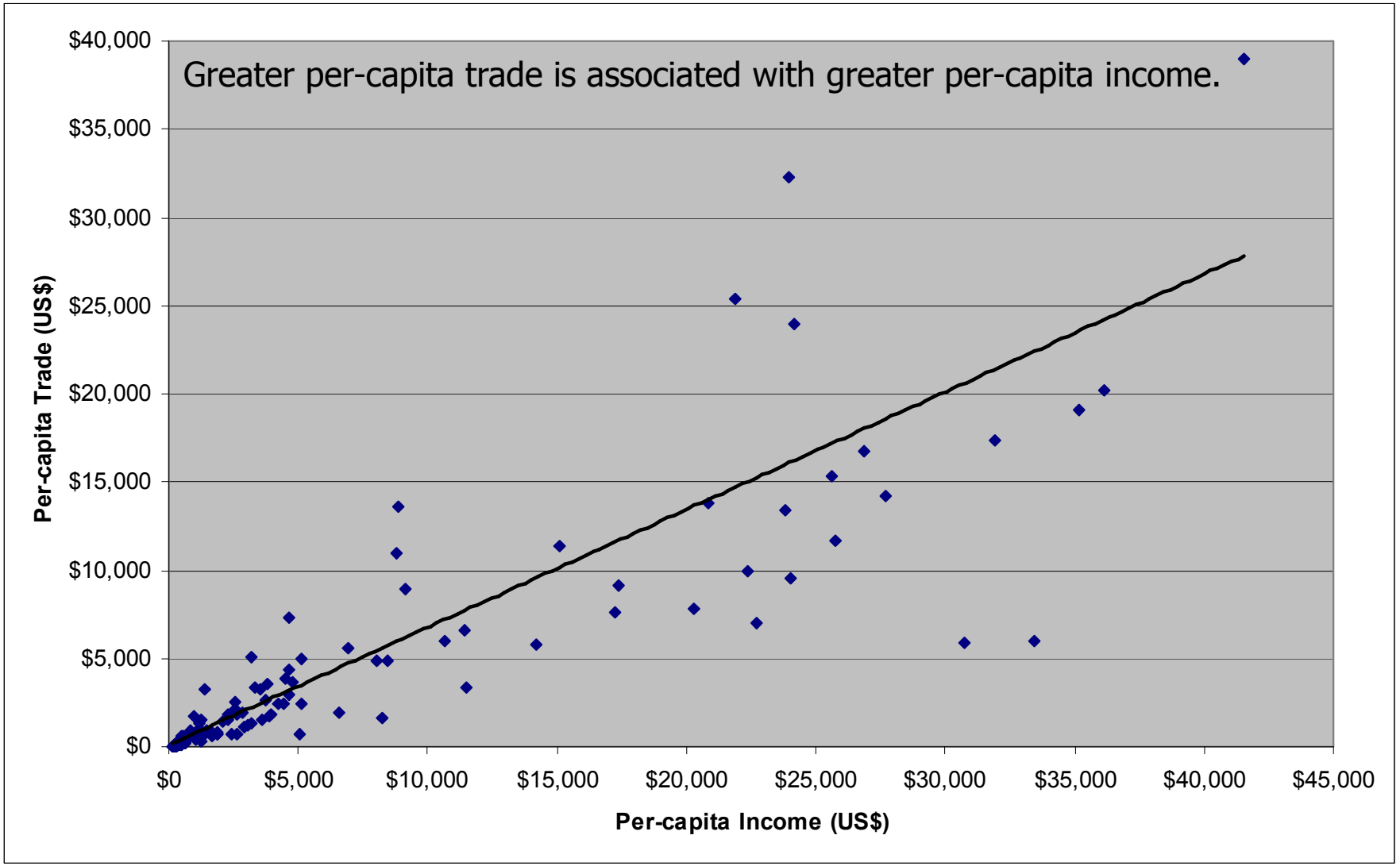
Trade and Income

Protectionist Assumption:

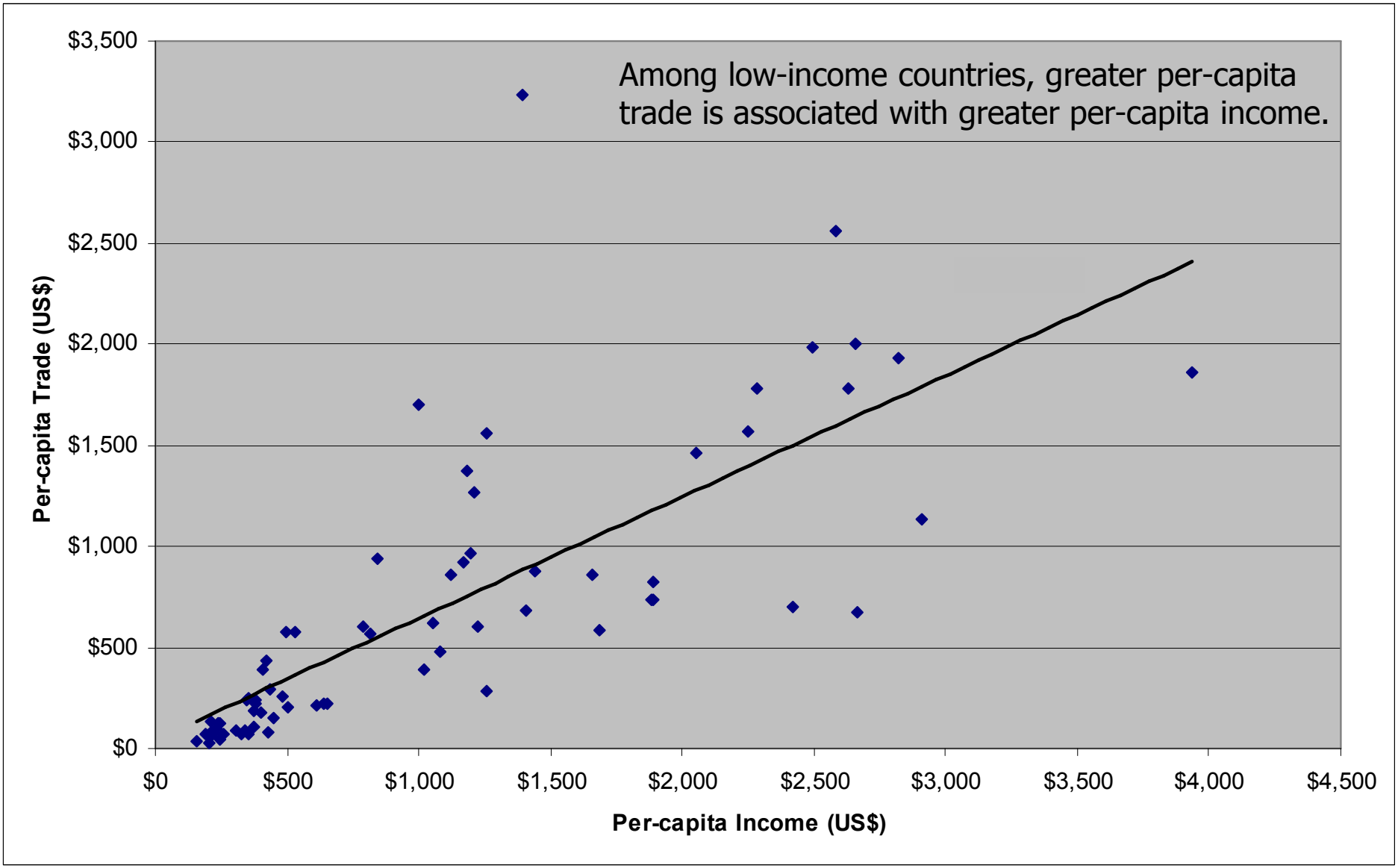
Trade is exploitive of peoples and industries, therefore per-capita income will be lower for countries that trade more.

Globalist Assumption:

Trade is beneficial to both parties, therefore per-capita income will be higher for countries that trade more.



Data source: International Monetary Fund



Data source: International Monetary Fund

Vietnam

Workers in foreign-owned apparel and footwear factories rank in the top 20% of wage earners.

Indonesia

In 2000, Nike paid $720 annually compared with an average annual country-wide wage of $241.

Mexico

Firms that exported most or all of their product paid wages 60% higher than wages of non-exporting firms.

Source: Brown, Drusilla K., Alan V. Deardorff, and Robert M. Stern, "*The Effects of Multinational Production on Wages and Working Conditions in Developing Countries*," discussion paper no. 483, School of Public Policy, The University of Michigan, August 2002.

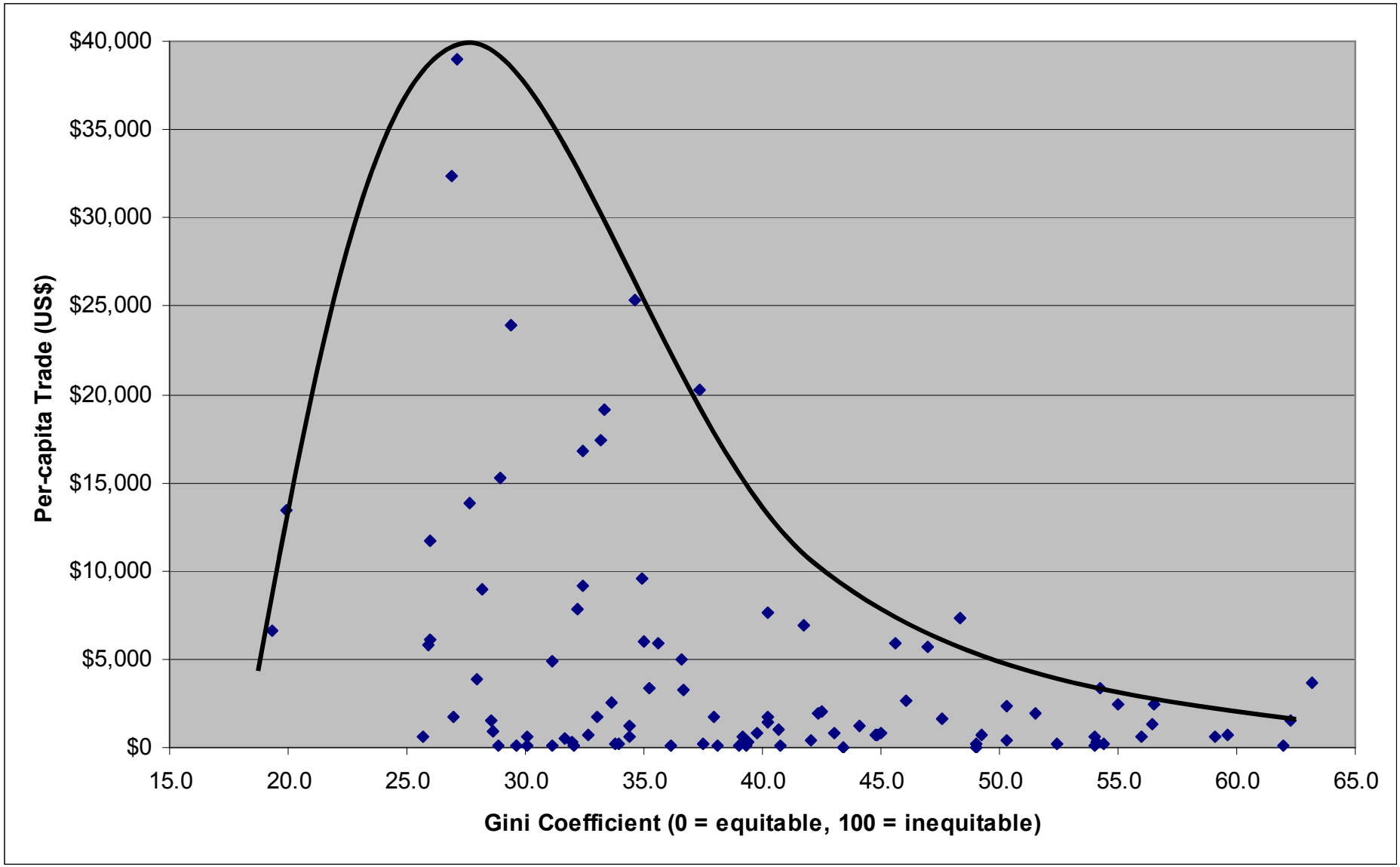
Trade and Income Distribution

Protectionist Assumption:

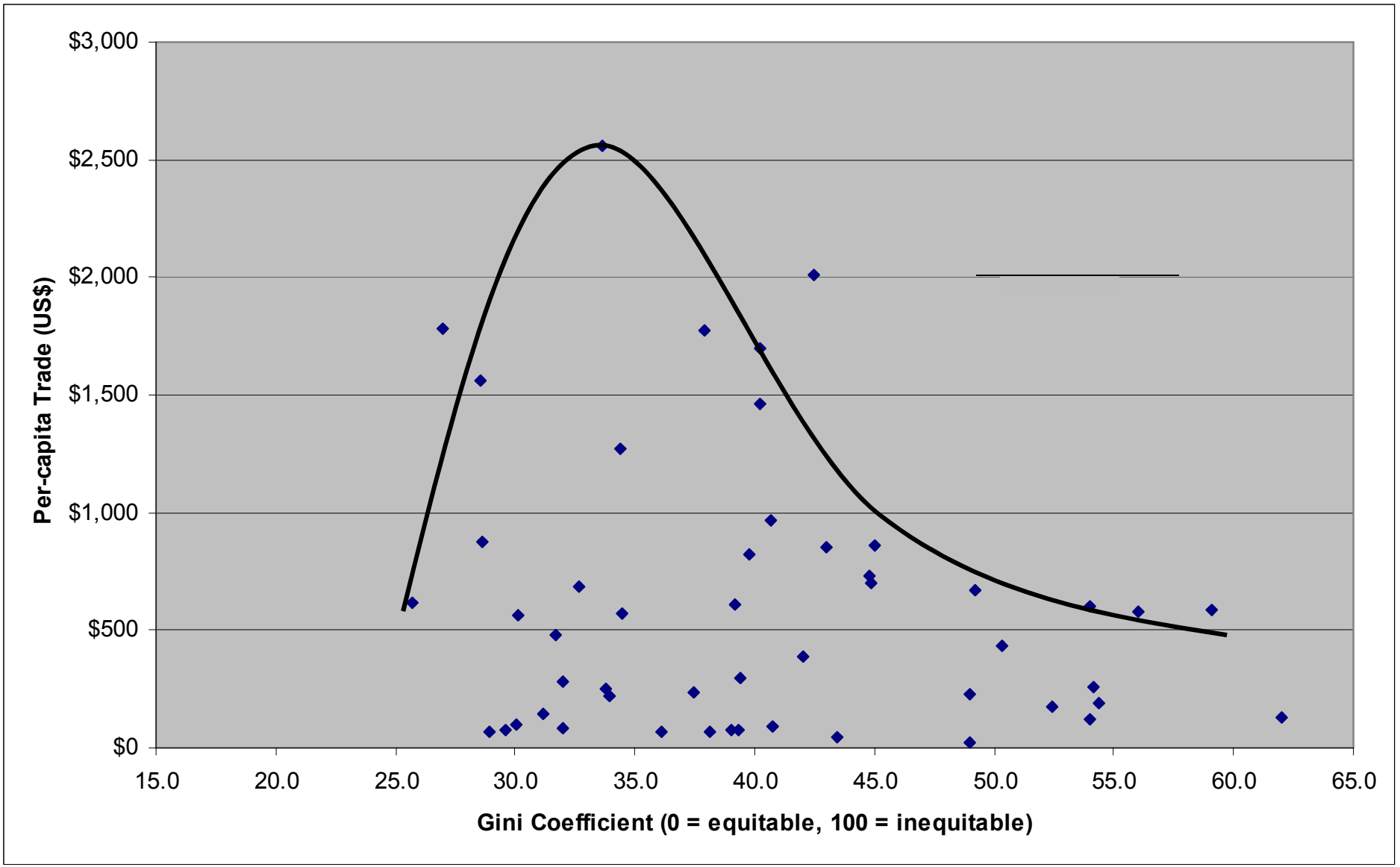
Trade consolidates income in the hands of the powerful, therefore countries that trade more will have a less equitable income distribution.

Globalist Assumption:

Trade creates income across trading partners, therefore countries that trade more will have a more equitable income distribution.



Data Source: *International Financial Statistics*, International Monetary Fund, and *Measuring Income Inequality: A New Database*, Deininger, Klaus, and Lyn Squire, World Bank.



Data Source: *International Financial Statistics*, International Monetary Fund, and *Measuring Income Inequality: A New Database*, Deininger, Klaus, and Lyn Squire, World Bank.

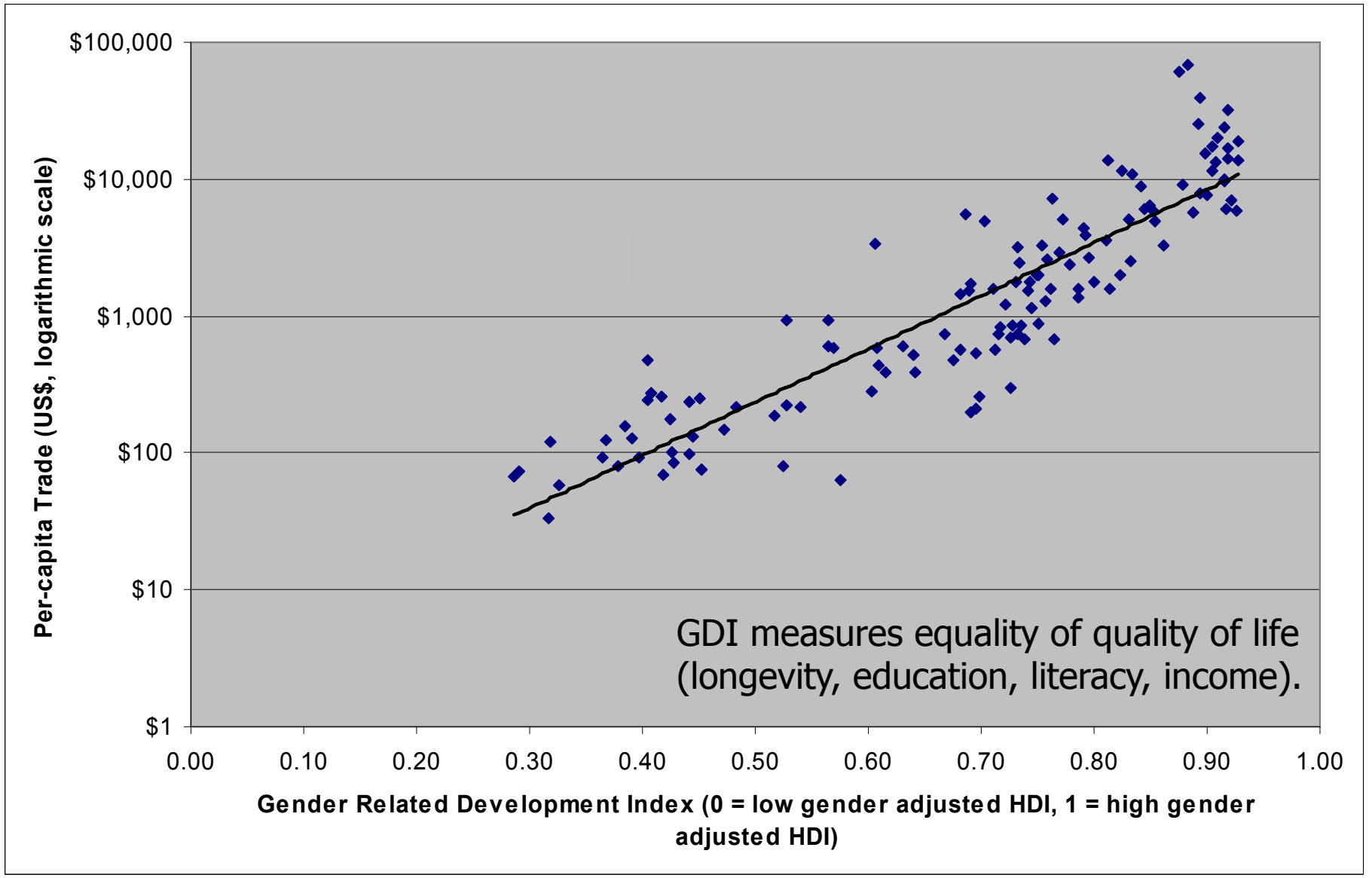
Trade and Power

Protectionist Assumption:

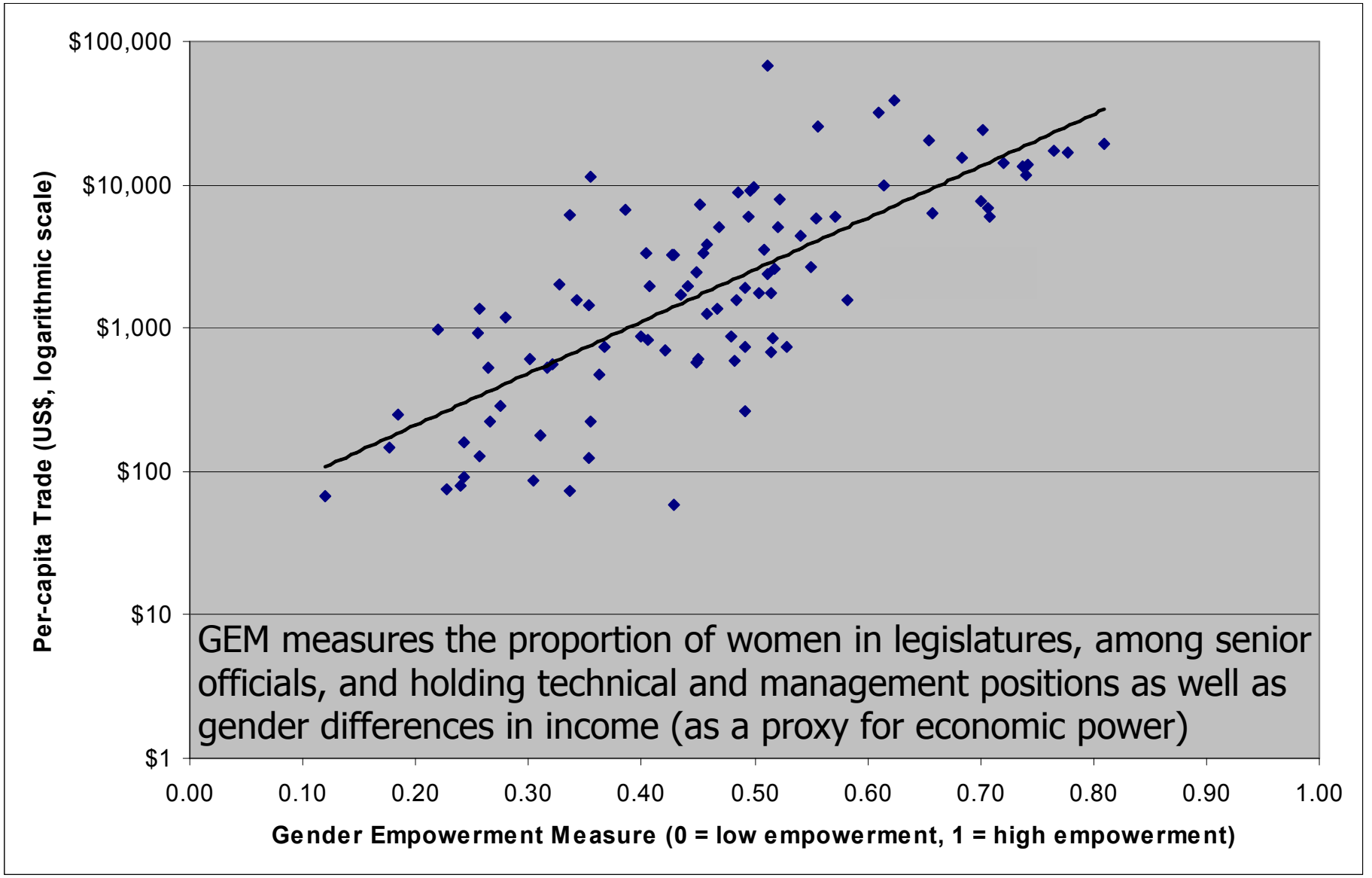
Trade exploits the weak.

Globalist Assumption:

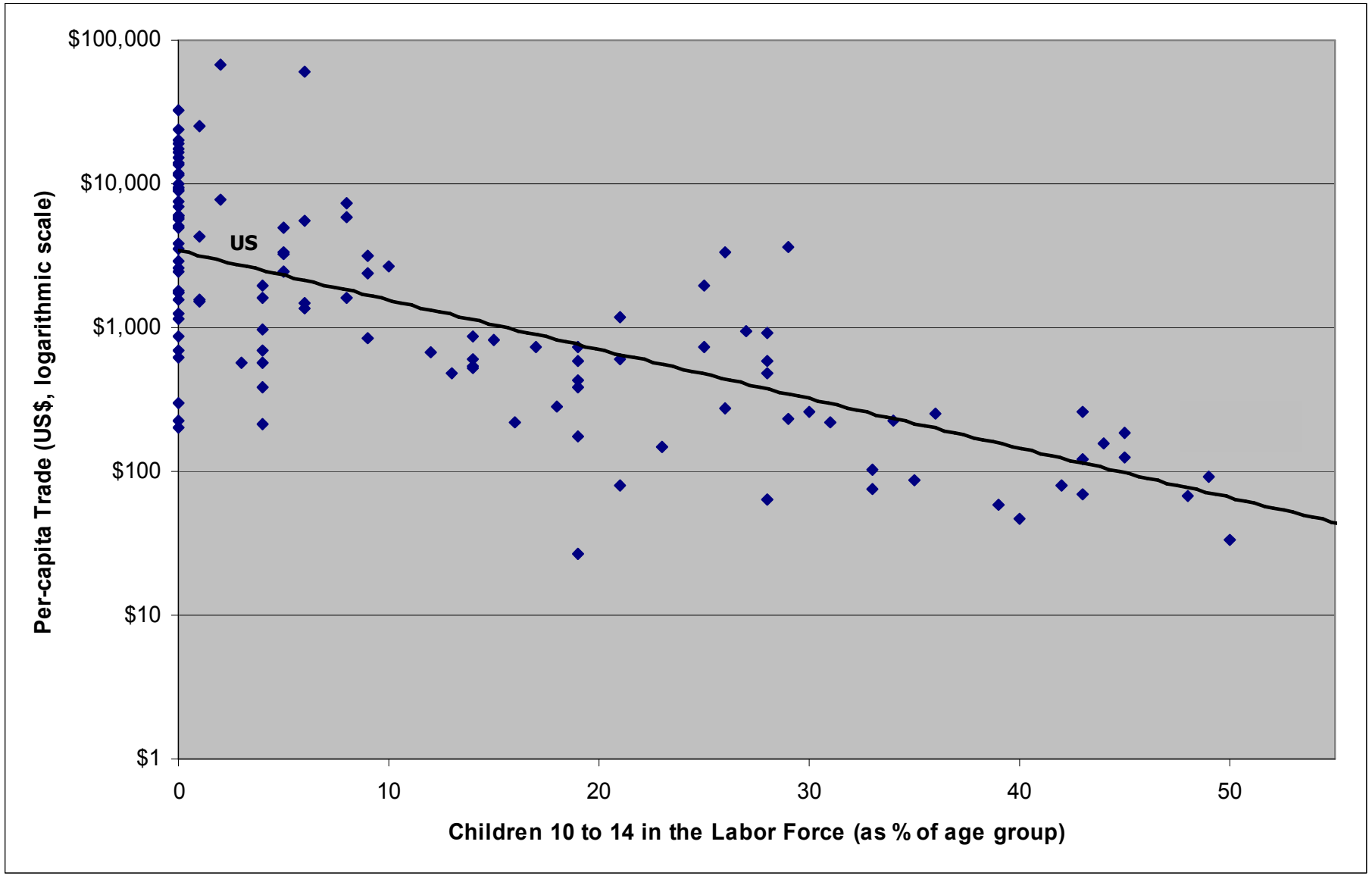
Trade empowers the weak.



Data source: *International Financial Statistics*, International Monetary Fund, and *World Development Indicators*, World Bank.



Data source: *International Financial Statistics*, International Monetary Fund, and *World Development Indicators*, World Bank.



Data source: *International Financial Statistics*, International Monetary Fund, and *World Development Indicators*, World Bank.

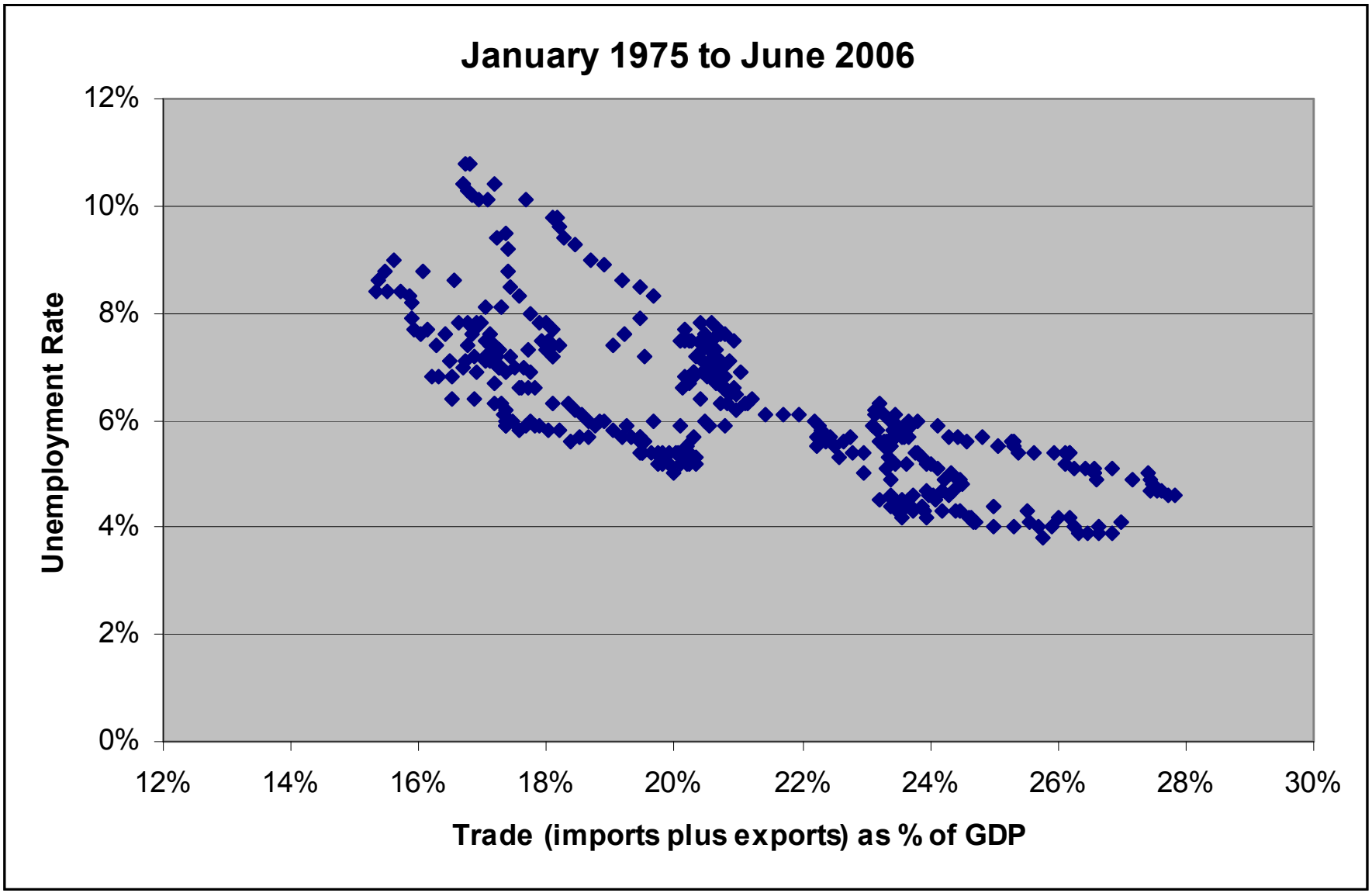
Trade and Jobs

Protectionist Assumption:

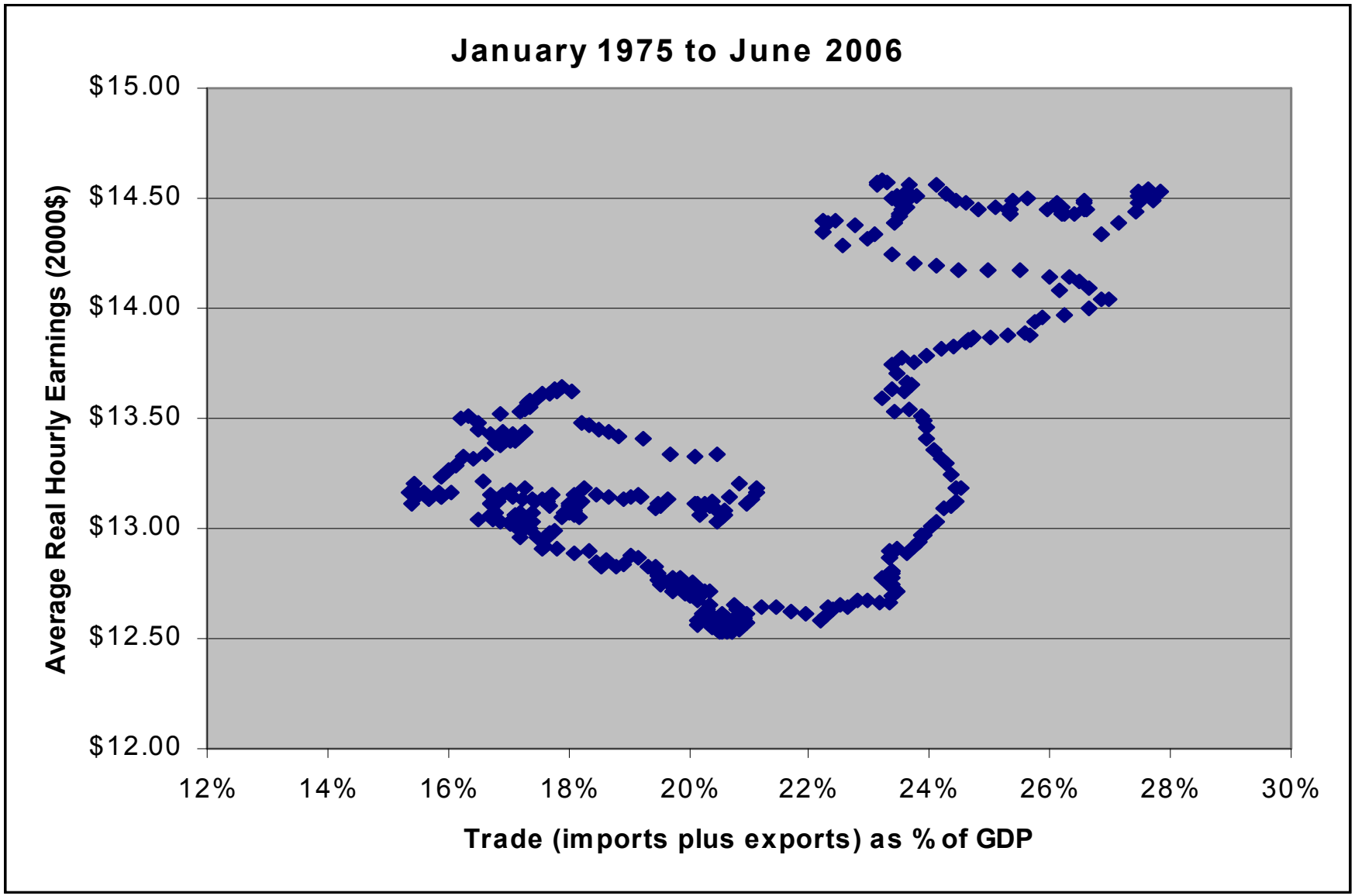
Trade destroys jobs.

Globalist Assumption:

Trade creates jobs.



Data source: Bureau of Labor Statistics, and Bureau of Economic Analysis



Data source: Bureau of Labor Statistics, and Bureau of Economic Analysis

What About Fair Trade?

Fair Grounds

Location: Brower Student Center

Fair Grounds serves Fair Trade Green Mountain coffee and also offers several organic foods. We will continue to add to our selection of organic, sustainable, Fair Trade and locally produced menu items at this location. If you have any suggestions, or a specific product you would like to see, email sdhmktg@tcnj.edu.

Trade. Ur doin it wrong.

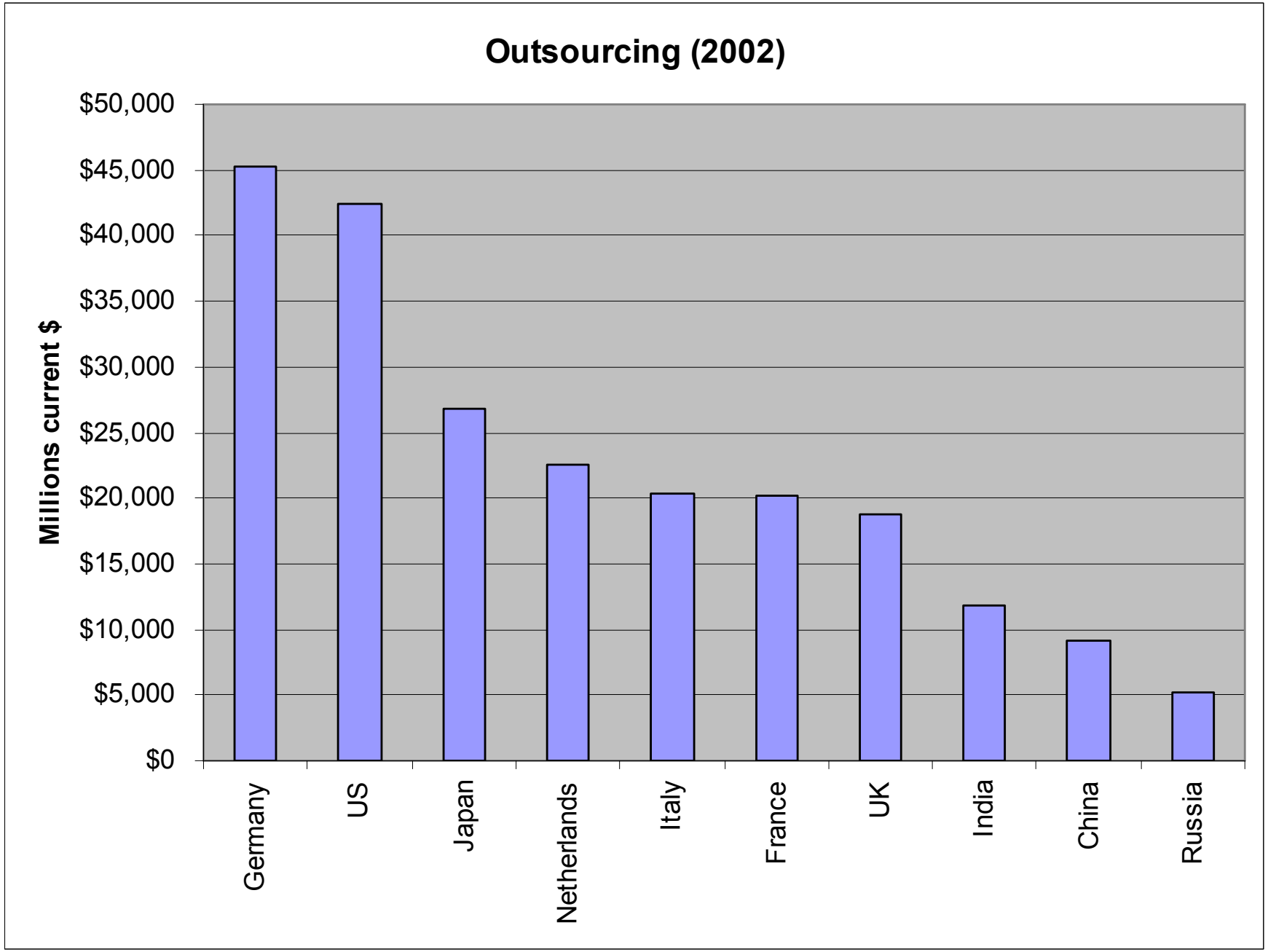
What About Outsourcing?

Protectionist Assumption:

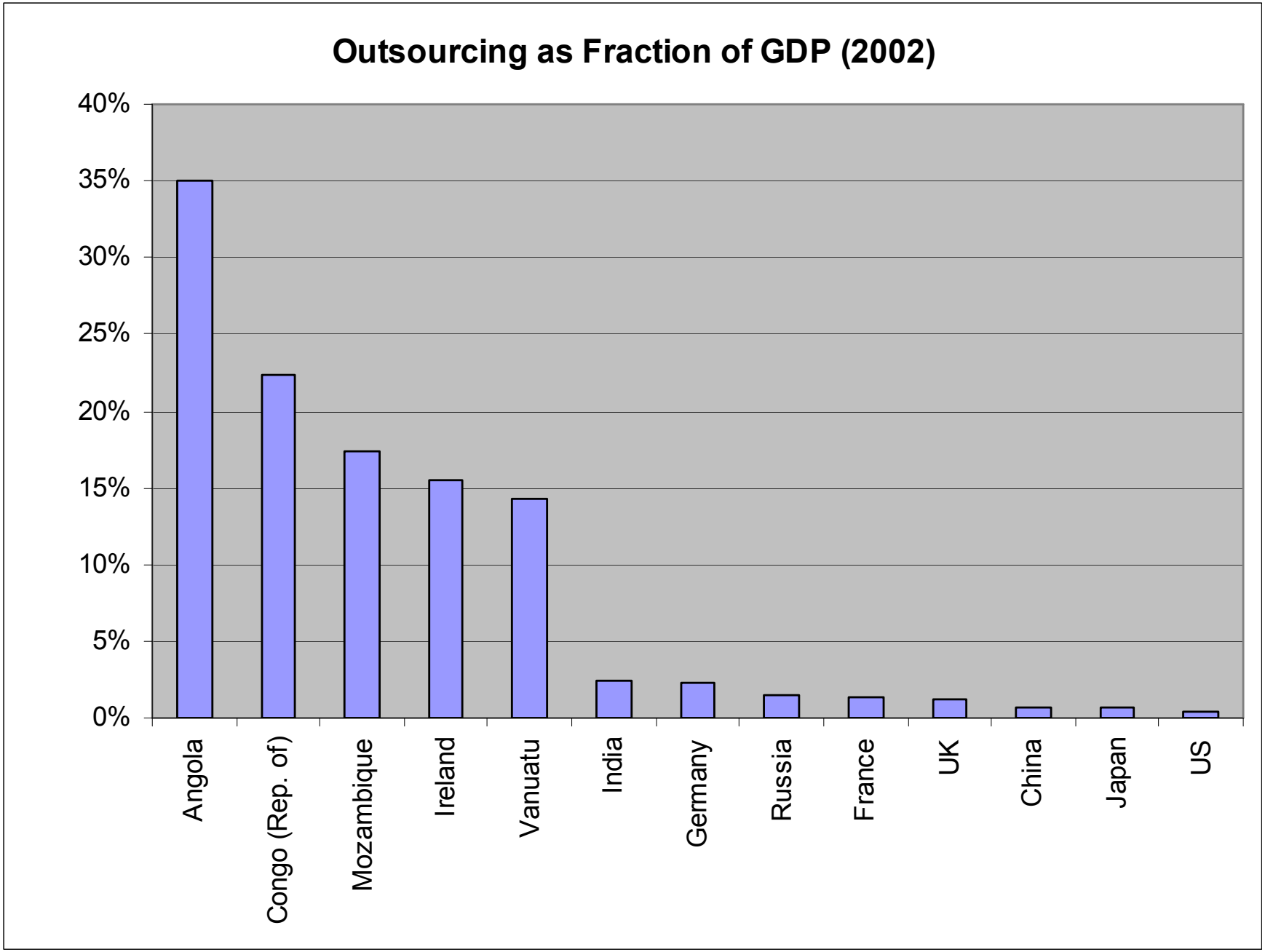
Outsourcing puts Americans out of work.

Globalist Assumption:

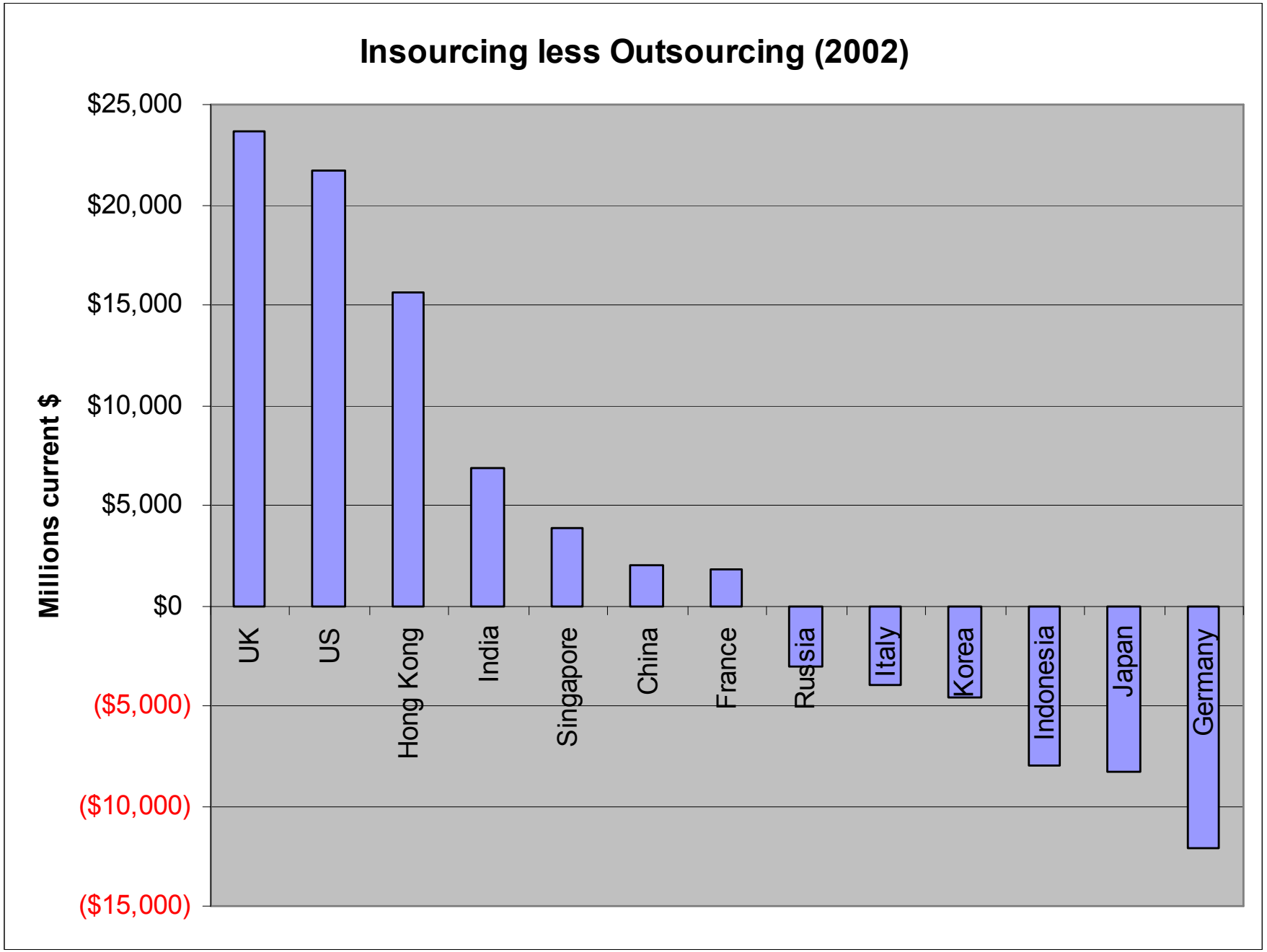
Outsourcing is trade (of labor), and trade is beneficial.



Source: Balance of Payment Statistics Yearbook, IMF



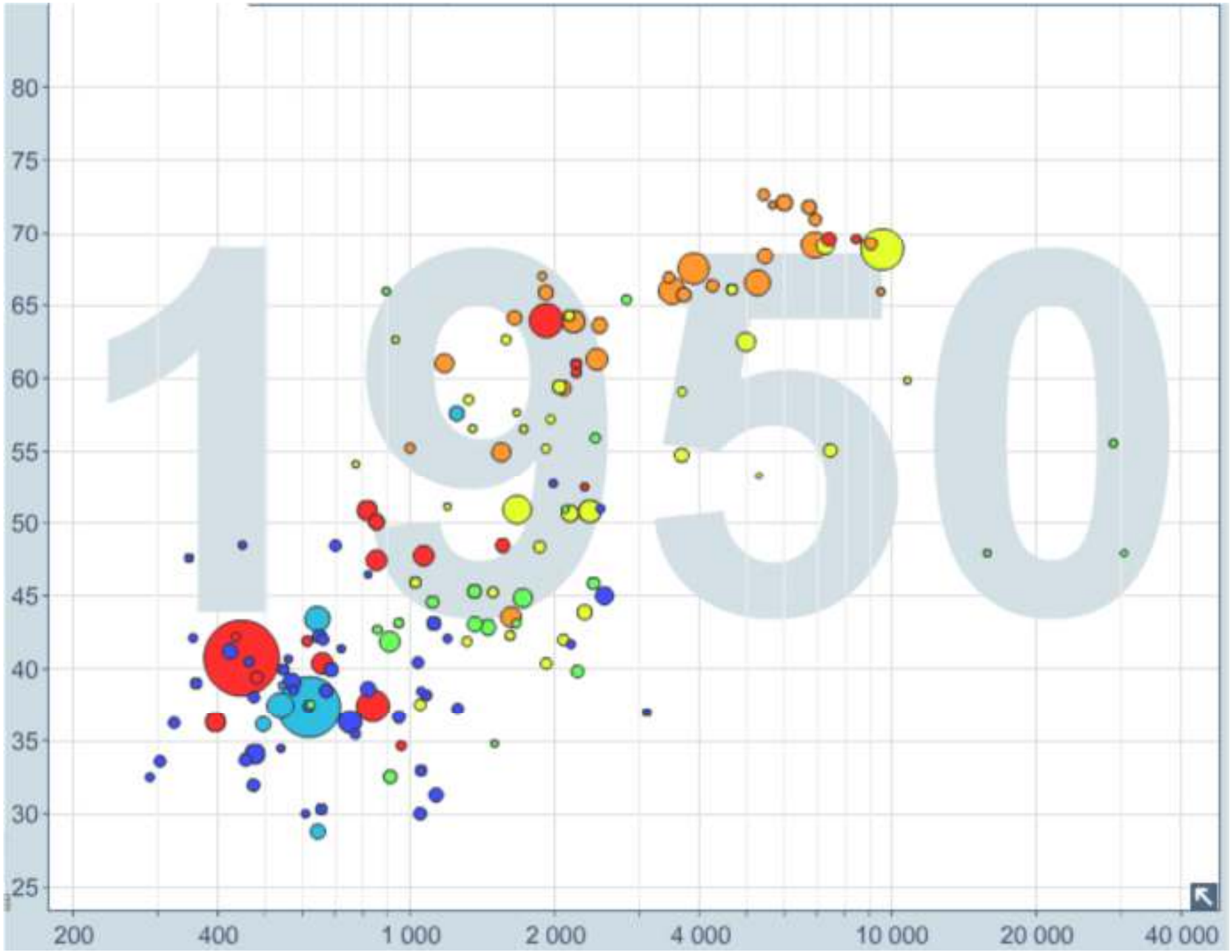
Source: Balance of Payment Statistics Yearbook, IMF



Source: Balance of Payment Statistics Yearbook, IMF

Name two metrics that distinguish the first world from the third world.

If you hit a light bulb with a hammer, will you make a mess?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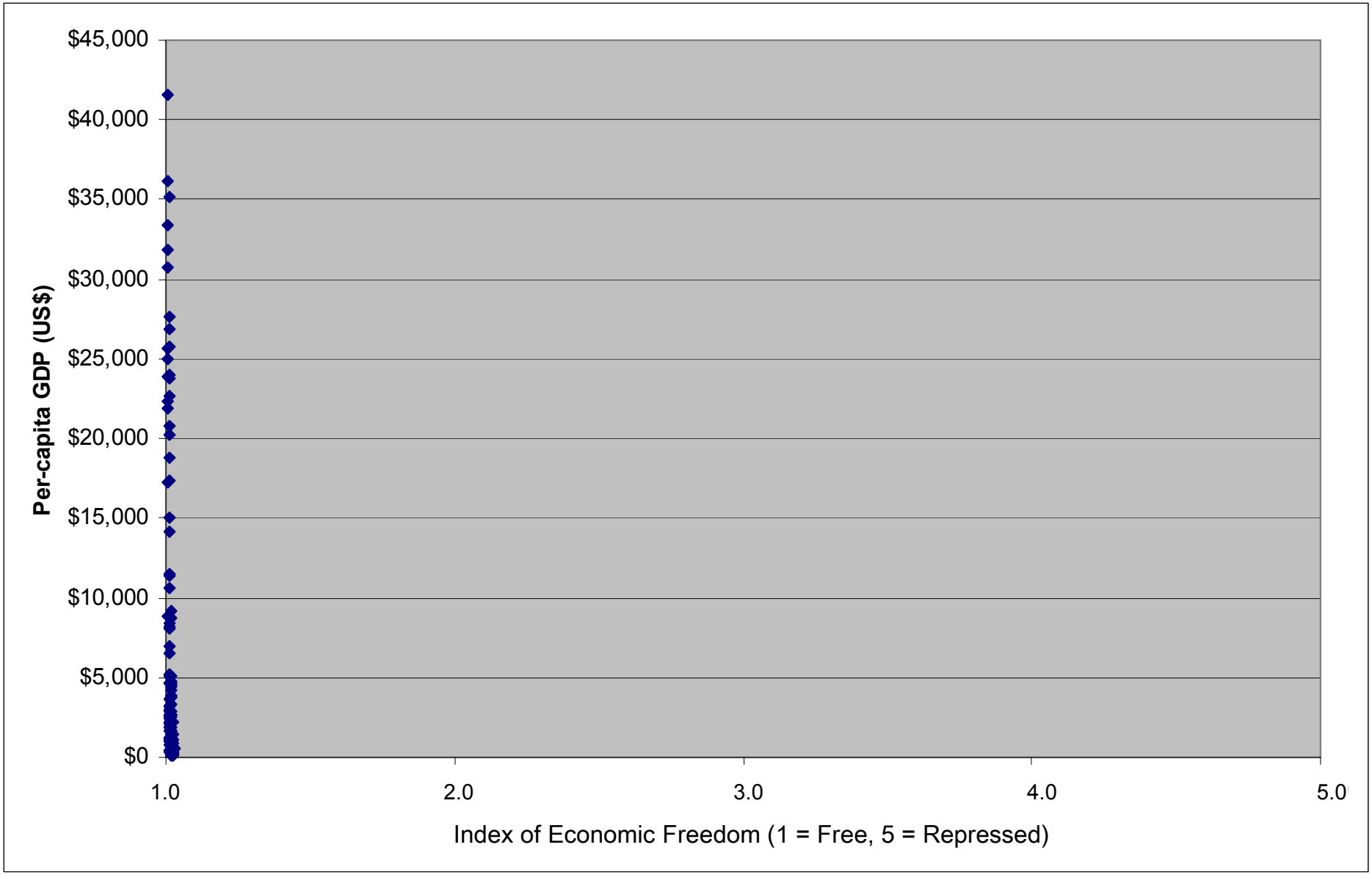
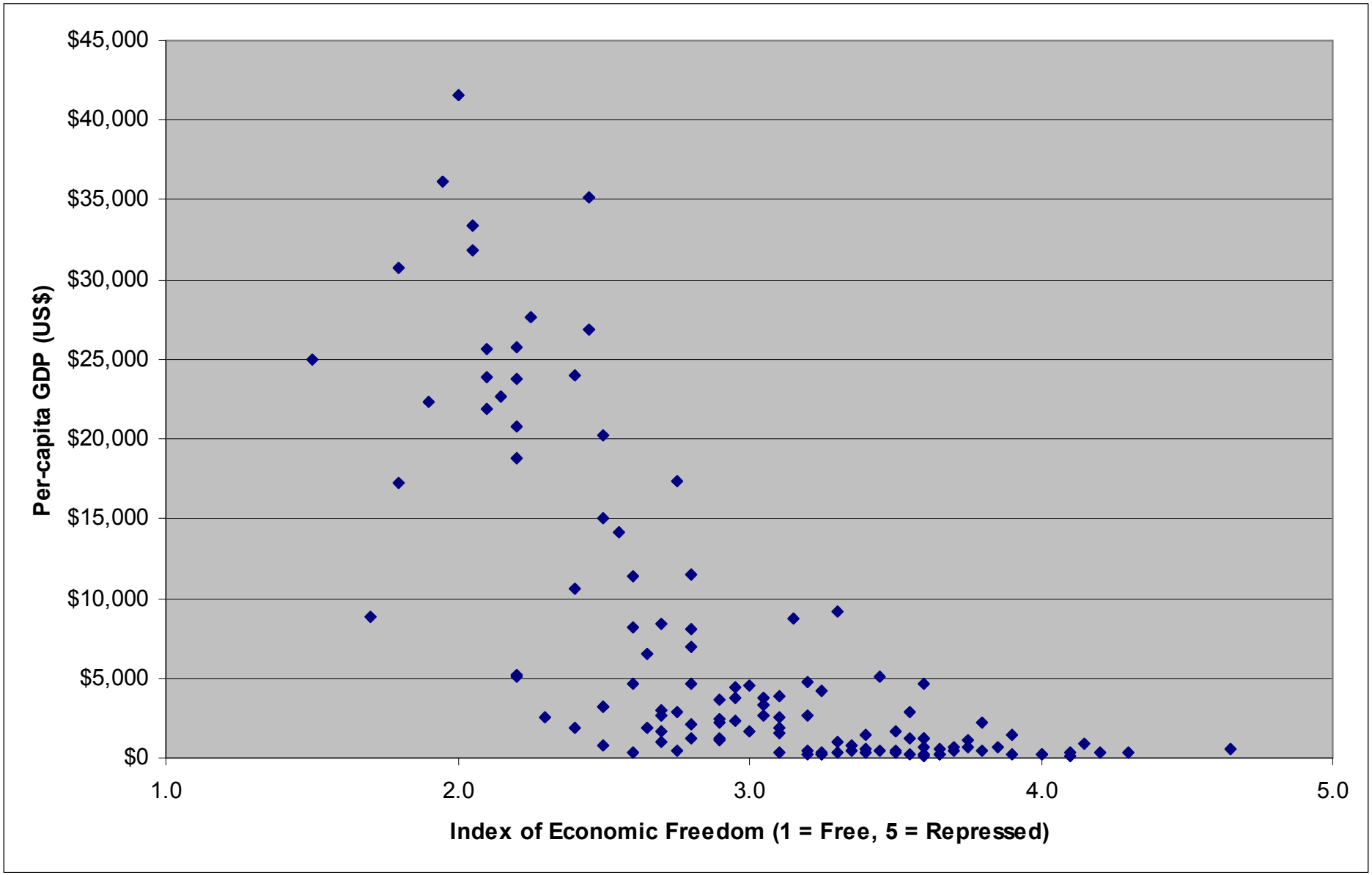


Source: United Nations International Financial Statistics and Heritage Foundation



Source: United Nations International Financial Statistics and Heritage Foundation

Political freedom makes economic freedom possible.

Economic freedom makes political freedom meaningful.

Trade

November 11-13, 2011

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www.antonydavies.org