

Comments on Mitchener and Voth's "Trading Silver for Gold"

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Quick Summary

1. Examination of pre-WWI exports using gravity model
 - a. Finding: Gold (not silver) boosts exports a lot
 - i. Claim: monetary regimes plausibly exogenous for colonies
 - ii. Why then delay adopting gold?
2. Political Economy Explanation
 - a. Exporters engineered “lock-in”

Three Issues

1. Is gravity model mis-specified?
 - a. Yes, but doesn't matter
2. Is there a "delay" issue?
 - a. Yes, but not explained here
3. Is silver standard a currency union?
 - a. No, but result still interesting

Issue #1: Gravity Model

- Problem: don't have GDP data (serious?!)
 - Solution: control only for population
 - Reasonable? Yes!
- Consider post-WWII data
 - Standard gravity model for log bilateral exports
1950-2006, 196 countries, .5 million observations
 - Controls: log(distance); log(population product);
common language/RTA/border; islands; land area;
colonial history, time effects
 - Interest: currency union dummy

Currency Union Coefficient, Bilateral Export Model

	With GDP	Without GDP
Pooled	.45 (.11)	.42 (.14)
Dyadic (Pair)	.61 (.09)	.79 (.09)
Country-Specific	.81 (.10)	.82 (.09)

Dropping real GDP product makes no difference!

Issue #2: Should we worry about why countries delayed adopting gold?

- Gold stimulated exports (trade?) more than silver
- Why didn't Asians adopt gold faster: a serious issue
 - Answer given is “lock-in” effects from political influence of exporters
 - Really? Big possible trade gains!
 - Table 2: both GS effects > both silver effects
 - Ditto Tables 3,4, (all 4 silver effects negative!)
 - Table 5: GS > Silver for $\frac{3}{4}$ (and both FE)

Evidence seems Unconvincing

- Ex: Eiichi Shibusawa :

“.. the price of exports has fallen while the price of imports has risen. This has promoted the development of industries, technical progress, and growth ... these benefits exceed the costs of being a silver standard country.”

- Induced terms of trade decline described favorably!

- Why don't potential exporters count?

- Especially if silver effects actually negative!

Issue #3: Is the Silver Standard a Currency Union?

- If gold standard is a fixed exchange rate, why isn't silver standard?
 - Might make results *more* interesting (but less relevant for this conference/project)
- Authors argue "coins from different countries circulated freely side-by-side through East Asia."
 - Seems to be a stretch!

SILVER MONEY

By

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PRINCIPIA PRESS, INC.
BLOOMINGTON, INDIANA

1939

S	PREWAR		S	R	S	POSTWAR		S
PENCE	COUNTRY	COIN	CENTS	RATIO	PENCE	COUNTRY	COIN	CENTS
						GERMANY	MARK, ETC.	
130			280		130	ESTONIA	2-KROON	280
						ITALY	20-LIRE	
						UNITED KINGDOM	SHILLING, ETC.	
120			260		120	RUMANIA	100-LEU	260
110			240		110	SWITZERLAND	5-FRANC	240
						LITHUANIA	LITAS, ETC.	
100			220		100	BULGARIA	100-LEV, ETC.	220
90			200	10	90	POLAND	10-ZLOTY, ETC.	200
						STRAITS SETTLEMENTS	DOLLAR	
						ITALY	10-LIRE, ETC.	
80			180		80	FRANCE	20-FRANC	180
						IRISH FREE STATE	SHILLING, ETC.	
						NETHERLANDS	FLORIN, ETC.	
						NETHERLANDS INDIES	FLORIN, ETC.	
						HUNGARY	PENGŐ, ETC.	
70			160		70			160
	GERMANY	MARK, ETC.				LATVIA	LAT. ETC.	
	UNITED KINGDOM	SHILLING, ETC.				ALBANIA	SUBSIDIARY	
	FRANCE, ETC.	SUBSIDIARY				GREECE	20-DRACHMA	
	UNITED STATES	SUBSIDIARY	140	15		UNITED STATES	SUBSIDIARY	140
	FRANCE, ETC.	5-FRANC				ALBANIA	5-FRANC	
60	NETHERLANDS	FLORIN, ETC.			60	CZECHOSLOVAKIA	10-KORUNA, ETC.	
	NETHERLANDS INDIES	FLORIN, ETC.				UNITED STATES	DOLLAR	
	UNITED STATES	DOLLAR	120			MEXICO	PESO	120
						AUSTRIA	SCHILLING, ETC.	
50	STRAITS SETTLEMENTS	SUBSIDIARY			50	STRAITS SETTLEMENTS	SUBSIDIARY	
	PHILIPPINES	SUBSIDIARY				BRITISH INDIA	RUPEE	
	PHILIPPINES	PESO	100	20		PHILIPPINES	SUBSIDIARY	100
	STRAITS SETTLEMENTS	DOLLAR				SIAM	BAHT	
	JAPAN	SUBSIDIARY				PHILIPPINES	PESO	
40	BRITISH INDIA	RUPEE			40			
	SIAM	TICAL	80	25				80
	MEXICO	SUBSIDIARY						
	STRAITS SET.	DOLLAR BEFORE 1907						
	JAPAN	SUBSIDIARY BEFORE 1907						
30	PHILIPPINES	PESO BEFORE 1907			30	INDO-CHINA	PIASTRE	
	MEXICO	PESO BEFORE 1907	60					60
20			40	50	20			40
10			20	100	10			20
0			0		0			0

CHART 3.—COINAGE RATIOS AND BULLION PARITIES OF SILVER COINS

TABLE G—(continued)
PREWAR COINAGE RATIOS AND BULLION PARITIES OF SILVER COINS

COUNTRY	MONETARY UNIT		BASIS OF SILVER COINAGE		
	Name	Par value in pre-1934 U.S. cents 0.2322 grains fine gold	Coinage Ratio	Bullion Parity	
				Cents per oz., 0.999 fine	Pence per oz., 0.925 fine
(1)	(2)	(3)	(4)	(5)	(6)
Denmark	Crown	26.798¢	14.88	138.8¢	63.4d.
Norway	Crown		14.40	143.4	65.5
Sweden	Crown		14.38*	143.6	65.6
Finland	Markka		19.295	15.50	133.2
Germany	Mark	23.82	13.17	156.8	71.6
Netherlands	Florin (guilder)	40.195	13.95	148.0	67.6
			15.62	132.2	60.4
			15.13*	136.5	62.3
			14.81*	139.4	63.7
Portugal	Escudo	108.05	12.84	160.8	73.4
Russia	Ruble	51.455	23.24	88.9	40.6
			11.62	177.7	81.1
United Kingdom	Pound	486.65	14.29	144.5	66.0
<i>Asia</i>					
India	Rupee	32.443	21.90	94.3	43.1
Japan	Yen	49.845	21.60	95.6	43.7
Netherlands Indies	Florin (guilder)	40.20	15.62	132.2	60.4
			15.13	136.5	62.3
			14.81	139.4	63.7
Philippine Islands	Peso	50.	21.27*	97.1	44.3
			19.94*	103.6	47.3
Siam	Tical	37.085	24.19	85.4	39.0
			21.50	96.1	43.9
Straits Set- tlements	Dollar	56.78	21.30	97.0	44.3
			19.07	108.3	49.4
<i>Africa and Australasia</i>					
Australia	Pound	486.65	14.29*	144.5	66.0
New Zealand	Pound				
South Africa	Pound				
Egypt	Pound	494.30	15.69*	131.6	60.1
<i>Coins in certain countries prior to recoinage in 1907</i>					
Japan	Yen	49.845	23.75	71.8	32.8
Philippine Islands	Peso	50.	32.25	64.0	29.2
Straits Set- tlements	Dollar	56.78	23.40	72.7	33.2

*Coinage ratio unchanged after World War.

SOURCE

Computed by the writer from weights and finenesses of gold and silver coins given in U. S. Bureau of the Mint, Monetary Systems of the Principal Countries of the World, Washington, 1917.

Is this a Currency Union?

Country	Monetary Unit	In pre-1934 US cents	Coinage Ratio
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Japan	Yen	49.845	21.60
Netherlands Indies	Florin	40.20	15.13
Philippine Islands	Peso	50.	21.27
Siam	Tical	37.085	24.19
Straits Settlements	Dollar	56.78	21.30

More from Leavens:

- At least three **national** Chinese *taels* existed (Shanghai, Kuping, Haikwan), varying by >10%
 - Many more local currencies!
- pp99-100: “The currency system of China ... if it could be called a system at all, was most complex, and made the country a paradise for the money changer. Leaving out entirely the question of foreign exchange, the exchange of the different domestic currencies was a science in itself. The traveler found that the coins ... of one city were taken only at a discount in the next. Even within a city there were one or more local taels ...”

Currency Unions Did Exist

- In 1863, Mexican silver dollars made legal tender in Hong Kong!
 - Hong Kong dollar created by British to compete with Mexican dollar in 1895

Five Suggestions for Future Work

- *Exogeneity*: even *if* monetary regime decided by metropole (not colony), does that really enhance exogeneity? Trade is bilateral! Colonizers endogenize colonial preferences.
 - Also, not all ex-colonies dropped currency unions
 - Also, non-colonies joined currency unions
- *Extensive Margin*: handle “zeros” issue of trade creation associated with monetary regime
- “*Tetric*” method: alternative to handle “gravitas” problems (Head, Mayer and Ries 2008)

- *Trade Diversion vs. Trade Creation*
 - Literature to date finds currency union members more open to both CU and non-CU members
 - True pre-WWI?
 - Note: not same as traditional issue, since no foregone tariff revenue (traditional source of welfare loss from asymmetric liberalization)
- *Sensitivity*: ensure robustness of results (change sample of countries; cross-sectional results, time-averaged data, ... I did 56 estimates in 1M1M)

Smaller Points

- Figure 1 hard to follow: who's in constant sample?
- Year effects should *always* be included (Tables 2, 3)
- Robust standard errors?
- Why the PPI as a deflator? (Doesn't matter with year effects)
- Handle measurement error associated with internal transport costs
- Add language/border/land area/island/Metropole-Colony variables to gravity equation

- Table 2 are *not* usual gravity results: low R^2 , small coefficients on economic mass
- Table 3: is Empire really time-varying?
- Table 4: are country-specific FE exporter/importer/both?
- Tables 4, 5: no Asia-only columns – why?
- How many country-pairs are there?
- More information on actual currency arrangements and how they changed over time
- More information on decline in price of silver