

ITFD 2008: The Rise of the Global Economy

Trade

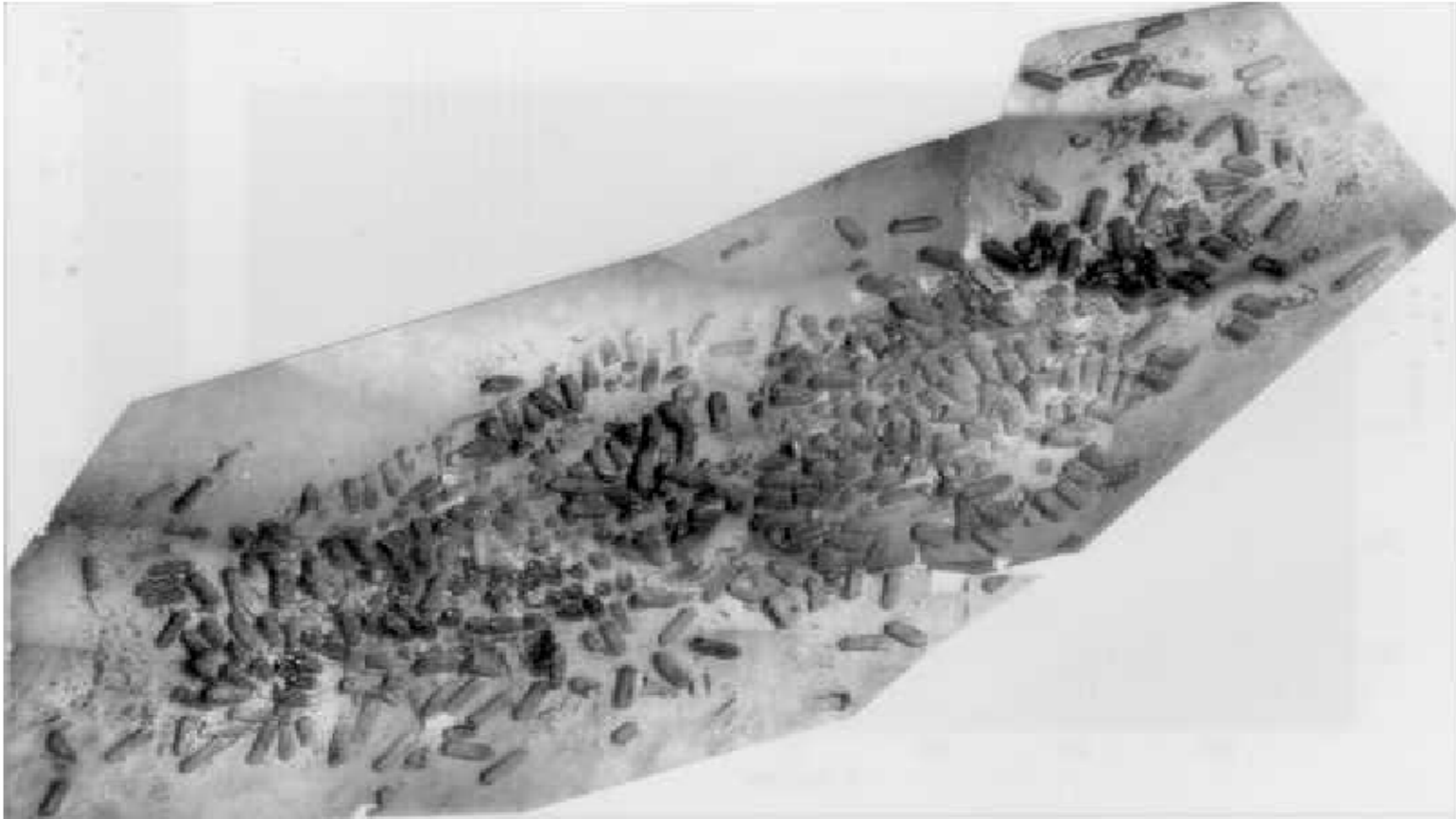
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Overhead 1

Origins: When did trade as we know it start?



Origins

¶ Two ships

- Probably sank in the 8th century BC (pottery, algae deposits, "factories"), Phoenician
- 14 meters long, 6 meters wide
- Wide berth – cargo ships, not warships
- Found by sonar
- Wood rotted away long ago – only cargo left

¶ Each carrying 400 amphoras

- 18 liters capacity
- Identical in size
- Direction + location – probably going to Egypt

Origins: When did trade as we know it start?

“The prerequisites for initiating international trade may thus be summarized as different relative scarcity, that is, different relative prices of the factors of production in the exchanging countries, as well as different proportions between the factors of production in different commodities (Heckscher and Ohlin, 1991, 48).”

- ¶ Today: we look at prices /relative scarcity, and examine trade
- ¶ In the past: from the existence of trade to relative scarcities
- ¶ What would we expect? How easy should trade have been?
 - Risk of seizure in port of destination, or commercial fraud – reputation equilibrium? [Maghribi traders, family members and fellow Jews, agents do]
 - Transaction costs high [punishments for dishonest scales etc.]

¶ Cargo

- Wine (residuals of tartaric acid found in the amphoras)
- Phoenician by origin likely (highly regarded in ancient sources)

¶ What do we learn?

- Shipwrecks common in the 13th century BC, then few until the 8th
- Egyptian sources depict cargo ships being unloaded for the earlier and later periods, too
- "dark period" after the civilizations of Mykene and Crete disappear, many cities in Greece burn to the ground, etc. ["sea people"]
- In the age before coinage [weights found on board], trade based on regional differences [in factor endowments? Technology?]
- Transport by ship cheap enough for relatively "bulky" commodities, even in biblical times
- Risks not "too high"
 - We find the ships – danger of shipwreck clearly there, but not a deterrent (few ships sail in January and February)
 - Sailing close to shore? [latest evidence – no]
 - Pirates – few weapons on board – either accompanying warships, low threat from pirates, or pirates looking for something else [slaves and ransom money]

- Extent of division of labor
 - Production of ships
 - Of amphoras
 - Retailing of wine
- Pryor, *Origins of the Economy: exchanges vs. transfers (reciprocity vs. one-way street)*
 - Colonies?
 - Tribute?
 - Balances suggest otherwise
 - Exchange likely
 - What were the Phoenicians getting out of this?
 - Isaiah (23:2-3) suggests that Egyptian grain harvests were exported (traders in Sidon importing)
- Factor scarcity? Wheat and wine embody "land" to the same extent, approx. – "technology" (or climatic constraints) much more likely

Table 7.1. Composition of British Trade (%)

	<i>Manufactures</i>	<i>Raw Materials</i>	<i>Foodstuffs</i>
<i>(i) Exports</i>			
1700	80.8	8.2	11.0
1750	75.4	16.8	7.8
1801	88.1	5.0	6.9
1831	91.1	5.5	3.4
1851	81.1	13.3	5.6
<i>(ii) Retained Imports</i>			
1700	28.4	45.0	26.6
1750	14.4	54.5	31.1
1801	4.9	56.2	38.6
1831	2.2	70.4	27.4
1851	4.9	58.2	36.9

Table 7.2. Shares of Major Exports in Total Merchandise Exports (%)

	<i>Cottons</i>	<i>Woollens</i>	<i>Iron and Steel</i>
1700	0.5	68.7	
1750	1.0	46.7	
1801	39.6	16.5	9.3
1831	50.8	12.7	10.2
1851	39.6	14.1	12.3

Sources: 1700 and 1750 derived from Davis (1969); 1801 based on figures for 1804/6 in Davis (1979), and 1831 and 1851 from Deane and Cole (1962, p. 31).

Table 7.3. Proportions of Gross Output Sold Abroad (%)

	Cotton	Wool	Iron
1760	50	46	
1801	62	35	24
1831	56	19	23
1851	61	25	39

Sources: Deane and Cole (1962, p. 185, 187, 196, 225) and for wool in 1760 based on Deane (1957, p. 215) for 1772.

Table 7.4. Geographical Distribution of Manufactured Exports (%)

	<i>Europe</i>	<i>USA, Canada, West Indies</i>	<i>Africa, Near East, Asia, Australia, Latin America</i>
<i>(i) All Manufactures</i>			
1699/1701	83.6	13.3	3.1
1772/4	45.0	46.9	8.1
1804/6	37.3	49.4	13.3
1834/6	36.3	34.7	29.0
1854/6	28.9	28.1	43.0
<i>(ii) Cottons</i>			
1699/1701	20.0	80.0	0.0
1772/4	20.4	79.6	0.0
1804/6	47.1	45.1	7.8
1834/6	47.4	19.8	32.8
1854/6	29.4	16.3	54.3

Source: Derived from Davis (1969) (1979) based on values in current prices, except for 1772/4 which are based on official values.

Table 7.5. The Net Barter Terms of Trade (1880 = 100)

1801	196
1811	169
1821	154
1831	136
1841	109
1851	108

Source: Imlah (1958, pp. 94–6); the figures are 5-year averages centred on the date shown.

Table 7.6. Rate of Change of Single Factorial Terms of Trade (% per year)

	$\Delta SFTT/SFTT$	$\Delta NBTT/NBTT$	$\Delta(Y/L)/(Y/L)$
1801-51	0.63	-1.20	0.87
1801-31	0.04	-1.23	0.29
1821-51	1.33	-1.19	1.57

Source: derived from Table 7.5 and the estimates of Chapters 2 and 4. Y/L was adjusted for changes in industrial capital formation based on Feinstein (1978, p. 41). Throughout w was taken to be 0.2.

Trade as an indicator – Temin paper

Two Views of the Industrial Revolution

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TABLE 1
CONTRIBUTIONS TO NATIONAL PRODUCTIVITY GROWTH, 1780–1860
(percentage per annum)

Sector	McCloskey	Crafts	Harley
Cotton	0.18	0.18	0.13
Worsteds	0.06	0.06	0.05
Woolens	0.03	0.03	0.02
Iron	0.02	0.02	0.02
Canals and railroads	0.09	0.09	0.09
Shipping	0.14	0.14	0.03
Sum of modernized Agriculture	0.52	0.52	0.34
All others	0.55	0.07	0.02
Total	1.19	0.71	0.55

Sources: McCloskey, “Industrial Revolution,” p. 114; Crafts, *British Economic Growth*, p. 86; and Harley, “Reassessing the Industrial Revolution,” p. 200.

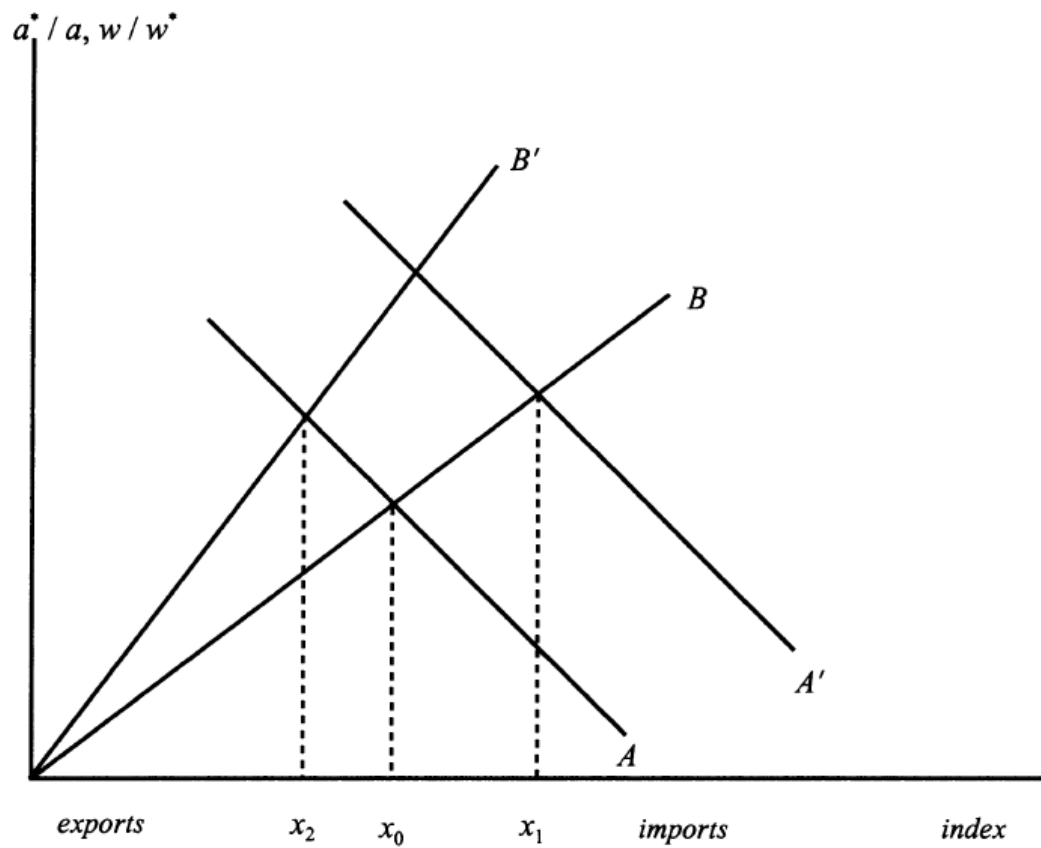


FIGURE 1

TABLE 3
EXPORTS OF OTHER MANUFACTURES, 1850–1852

Export	Value (pounds sterling)
Linens	4,694,567
Hardwares and cutlery	2,556,441
Brass and copper manufactures	1,830,793
Haberdashery and millinery	1,463,191
Silk manufactures	1,193,537
Earthenware of all sorts	975,855
Machinery and millwork	970,077
Tin and pewter wares and tin plates	904,275
Apparel, slops, and Negro clothing	892,105
Beer and ale	513,044
Arms and ammunition	505,096
Stationary/stationery of all sorts	373,987
Apothecary wares	354,962
Lead and shot	339,773
Glass/glass of all sorts	296,331

Plate, plated ware, jewelry, and watches	286,738
Soap and candles	275,200
Painters' colors and materials	237,880
Books, printed	234,190
Cabinet and upholstery wares	155,407
Cordage	155,127
Leather saddlery and harness	121,401
Hats of all other sorts	106,933
Musical instruments	85,006
Umbrellas and parasols	72,928
Carriages of all sorts	57,018
Spirits	52,843
Fishing tackles	41,607
Hats, beaver and felt	34,351
Mathematical and optical instruments	34,289
Spelter, wrought, and unwrought	22,097
Bread and biscuit	15,529
Tobacco (manufactured) and snuff	14,762

Source: U.K., Parliamentary Papers, 1852 (196), vol. 28, pt. 1.

TABLE 4
CORRELATIONS AMONG OTHER MANUFACTURING EXPORTS

Years	Number of Observations	Correlation
1811–1813 and 1830–1832	18	0.95
1830–1832 and 1850–1852	28	0.93
1811–1813 and 1816–1818	15	0.78
1816–1818 and 1821–1823	21	0.90
1821–1823 and 1826–1828	21	0.97
1826–1828 and 1830–1832	28	0.98

Source: U.K., *Parliamentary Papers*, 1812–13 (100), vol. 11, pt. 1; *ibid.*, 1818 (147), vol. 12, pt. 1.; *ibid.*, 1823 (220), vol. 12, pt. 1; *ibid.*, 1828 (130), vol. 16, pt. 1; *ibid.*, 1831–32 (310), vol. 26, pt. 1; *ibid.*, 1852 (196), vol. 28, pt. 1.

TABLE 5
VALUE OF IMPORTS, 1850–1852

Import	Value (pounds sterling)
Wool, cotton	23,670,472
Sugar	10,762,045
Corn, meal, and flour	9,167,600
Tea	5,796,086
Silk	5,163,865
Coffee	3,480,594
Flax, and tow or codilla of hemp and flax	3,123,329
Wool, sheep's	2,049,348
Hides, raw or tanned	1,999,233
Cochineal, granilla, and dust	1,909,848
Oil	1,793,320
Madder, madder root, and garancine	1,687,568
Guano	1,476,940
Tallow	1,333,889
Indigo	1,191,495
Wood and timber	1,153,477
Dye and hardwoods	1,104,308
Hemp, dressed or undressed	990,917
Spelter	957,540
Wines	927,721
Spirits	902,351

Seeds	719,017
Woollen manufactures	710,414
Rice, cleaned or in the husk	668,585
Bacon	653,214
Potatoes	562,595
Currants	559,919
Cotton manufactures	548,065
Cheese	537,322
Copper, unwrought and part wrought	477,778
Butter	466,357
Brimstone	383,691
Tobacco and snuff	367,685
Skins and Furs	367,269
Saltpetre and cubic nitre	355,564
Iron in bars, unwrought	336,706
Gum	298,147
Oil seed cakes	296,993
Glass	270,110
Lard	258,790
Ashes, pearl and pot	238,077
Bark	213,708
Turpentine	213,561
Pork, salted or fresh	210,692
Quicksilver	201,669
Tin	200,801
Sago	178,329
Raisins	170,443

Lead, pig and sheet	169,024
Borax	164,565
Terra japonica and cutch	150,035
Hair or goats' wool, manufactures of	148,473
Cocoa, cocoa-nut husks and shells, and chocolate	145,973
Tar	142,819
Bones of animals and fish (except whalefins)	140,049
Cinnamon	132,648
Beef, salted or fresh	122,855
Embroidery and needlework	114,999
Copper ore and regulus	113,166
