

**SUMMARIES OF LECTURES in ECO 303Y1:
the Economic History of Modern Europe, to 1914
for the Academic Year: 2012 - 2013**

Updated: Thursday, 29 November 2012

XIIa. Week no. 12: Lecture Topic no. 13B: on 28 November 2012

The 19th-Century Transportation Revolutions, continued

2. Steam Powered Oceanic Shipping:

a) **importance:** created for the first time (though in combination with overseas railways) a truly integrated global economy: one that fostered or forced an international division of labour, and the operation of the law of comparative advantage – to the extent that Free Trade prevailed in the 19th century.

b) **particular advantages for Great Britain:** but chiefly only from the 1870s

i) allowed Britain finally to gain world supremacy in shipbuilding: from New England

ii) allowed Britain to gain world supremacy in international shipping, trade, banking, maritime insurance, and finance (especially in acceptance bills – bills of exchange):

iii) allowed Britain to import far more merchandise than she exported: from these revenues from shipping, banking, finance, and insurance

iv) allowed Britain similarly to gain naval supremacy: so necessary to protect international shipping lanes

v) forced Britain, but only in conjunction with Free Trade and the Gold Standard (next day's lecture) to obey the Law of Comparative Advantage: to shift from agriculture to industry, trade, and banking – by importing foodstuffs far more cheaply than they could be produced at home.

c) origins of the Transportation Revolution in Steam Shipping:

i) when the Dutch lost their supremacy in shipbuilding, in later 18th century, they lost it not to England, but to New England (the US), with comparative advantages in timber and ship-building skills: as seen in the 19th century supremacy of the Yankee Clipper Sailing Ships

ii) 1783: French experiment on the Saone river, near Lyon: but did not succeed

iii) 1788-89: first successful use of steam power in Great Britain, for primitive paddle wheelers, in Scotland

iv) 1807: an American, Robert Fulton credited with perfecting the steam-powered paddle-wheeler for commercial use on rivers and for coastal shipping

v) **problems with paddle-wheelers for trans-oceanic shipping:**

- (1) wooden ship hulls and iron machinery could be damaged or destroyed in ocean storms
- (2) machinery and immense amounts of coal fuel required left too little space for cargoes & passenger
- (3) inefficient: required far superior form of steam-powered machinery and also needed iron

d) **Coming of Iron Built Ships:** why iron was so necessary

- i) far greater strength and resistance to high powered stress from more powerful machinery
- ii) lower weight: an iron built ship cost 25% less than a comparable sized wooden (oak) ship
- iii) far more durable, and less likely to suffer leaks or storm damages
- iv) by 1840s, iron-built ships cost 15% less to build than oak-built sailing ships
- v) iron construction permitted and promoted far, far large scale ships
- vi) first uses of iron-build ships, from the 1840s and 1850s: the British Navy, the East India Company, and the Trans-Atlantic Inman and Cunard Lines

e) **Brunel and Steam-Powered Ships:**

- i) 1836: Isambard Brunel (owner of the Great Western Railway, with the 7 ft gauge): invented the steam-powered screw propeller (as with all modern ships): but needed more powerful steam engines, and iron
- ii) 1854: first practical compound steam engine for ocean shipping: followed by triple and quadruple maritime steam engines in the 1860s and early 1870s
- iii) 1884: Charles Parsons invented the steam-turbine for maritime shipping
- iv) results: 10-fold increase in power, with 90% reduction in fuel costs, and 60% reduction in freight rates, by 1900

f) **Trans-Atlantic commercial shipping:**

- i) **Inman and Cunard Lines:** offered far superior passenger shipping, compared to 'steerage' offered on sailing ships
 - (1) individual staterooms, beds, linen, soap, etc
 - (2) three cooked meals a day, with fruits and vegetables (against scurvy)
 - (3) on board doctors and nurses
- ii) **cut passenger fatalities by over 90%** from what had been common on sailing ships: at double the price
- iii) **vast global importance:** in promoting cheap international migrations, especially to the Americas and Australia-New Zealand
- iv) **comparisons of the Sirius in 1838 (wood: with sail and paddle wheel) vs. Mauritania in 1907 (steel, with steam turbines:**
 - (1) tonnage: Sirius - 700 tons, vs. Mauritania - 31,938 tons

(2) horsepower: Sirius - 320 HP, vs. Madonna - 70,000

XIIIb. Week no. 12: Lecture Topic no. 14: 28 November 2012 (final lecture of Semester I)

Great Britain and the Age of Free Trade: Finance, Foreign Trade, Capital Exports, and Imperialism in the 19th Century (1815 - 1914):

1. British Foreign Trade and the Free Trade Movement:

a) follows logical from the previous lecture on the two steam-powered transportation revolutions:

1. in railroads (national & continental economies) and
2. oceanic shipping (global):
3. the Free Trade Movement made possible a more globalized economy made physical possible by these transport revolutions

b) British foreign trade in the 18th century involved following economic transformation:

- i) an almost exponential, 25-fold expansion in the real value of world trade from the 1840s, for which Britain was a major beneficiary, especially in world shipping
- ii) the British-born philosophy of Free Trade: from the Classical School of Economics
- iii) British, European, and American capita exports to the rest of the world
- iv) The adoption of the Gold Standard internationally: necessary component of Free Trade
- v) Transformation of the British economy by Law of Comparative Advantage: forcing a contraction of the agricultural sector and shift to industry, commerce, and finance ==> marked improvement in living standards
- vi) European imperialism: both the 'Imperialism of Free Trade' (1840-1870) and the 'Era of Capitalist Imperialism' (1870- 1914): who benefited (not the victims of Imperialism)

2. The Classical School of Economics and the Free-Trade Movement

a) Adam Smith and Classical School of Economics:

- i) **a full-scale assault on the principles and policies of Mercantilism:** i.e. Protectionism, Navigation Laws, etc. (during which era Industrial Revolution took place)
- ii) **therefore an attack on Colonialism:** and thus on Imperialism itself

b) Basic principles of Classical School Economics:

- i) **Laissez-Faire:** from the French, 'to leave alone, to let be, without hindrance'
 - (1) that the government must refrain from any interference with the market economy, and allow the market economy function by the profit-maximizing 'laws' of the 'Invisible Hand'
 - (2) that the government must restrict itself to law and order, national defence, and ensuring that principles of fair

competition prevail (i.e., no monopolies, special licences, etc.)

ii) **Law of Comparative Advantage:** that countries prosper best with the optimum national and international welfare gains if each country specializes in pursuing those economic activities (plural, not singular) in which it enjoys a comparative advantage, allowing other countries freely to do the same, while freely-trading with all other countries: i.e., exchanging surpluses efficiently produced

c) **Free Trade (and total anti-Mercantilism) was thus the logical outcome of both policies:**

i) **Eden Treaty with France, in 1786:** showed the impact of Free Trade principles (when France was influenced by a similarly anti-Mercantilist movement: the Physiocrats)

ii) **but that ended with the French Revolution:** in 1789 (and ensuing French Revolutionary wars)

3. Hindrances to the Coming of Free Trade, until the 1840s:

a) **the French Revolutionary and Napoleonic Wars, 1792 - 1815:**

i) higher taxes on trade, by all combatants, to finance warfare

ii) other war-time impediments to international trade: blockades, embargoes

b) **Mercantilism of British Businessmen:** when the Industrial Revolution had developed and prospered under Mercantilist, protectionist umbrella: 'if it ain't broke, don't fix it'

c) **Foreign tariff barriers against British goods:** rising trade barriers both during and after the Napoleonic Wars, to protect European industries against lower-cost British competition

d) **The British Corn Laws:** proved to be the chief barriers

i) Protection of English/British farmers goes back to the 1690s, with various Corn Laws (Corn = grain)

ii) War and Population growth had caused wheat prices to soar from 1790s to 1815, encouraging British farmers to add high-cost marginal lands that proved unprofitable at the end of the war

iii) Sharp fall in post-Napoleonic War grain prices ==> protectionist clamour

iv) **New post-war Corn Laws:**

(1) 1815 Corn Law: total ban on grain imports unless grain prices rose above the war-time average of 80s a quarter; but proved to be unworkable

(2) 1828 Corn Law: permitted grain imports with a sliding scale of protective duties: the higher the domestic grain price, the lower was the duty; the lower the price, the higher the import duty

iv) **The Corn Law were the central, overriding issue in British politics,** and the chief barrier to the adoption of Free Trade, with two rival political parties

(1) Tories: or Conservatives: who were chiefly (not entirely) supported by land owners, who believed that their economic welfare depended on maintaining the Corn Laws (protection)

(2) Whigs: or Tories: who were chiefly (not entirely) supported by urban voters, especially merchants, bankers,

industrialists, professionals, academics, who were increasingly supportive of Free Trade, while many Whigs supported Free Trade just to punish the Tories.

e) **Fiscal Problems:** how to replace the important government revenues from import duties and other trade taxes if Free Trade were adopted (meaning the end of such taxes)?

4. Factors Promoting the Free Trade Movement from the 1830s:

a) conversion of more and more British businessmen to Free Trade:

- i) Those business who supported the Whigs came to support Free Trade if only to oppose the Tories
- ii) Growing belief that to prosper from exports Britain had to allow imports – to allow foreigners the purchasing power to buy British goods
- iii) demand for tariff free imports of industrial inputs, including agricultural goods
- iv) Ricardo's Wages Fund Theory: that wages determined by the cost of living (i.e., cheaper imported food)
- v) belief that British industrial supremacy removed any fear of foreign imports

b) Political Reforms favouring the Whigs:

- i) 1832 Reform Bill: redistributing parliamentary seats by population, thus giving far many more seats (ridings) to urban centres, where Whig support was the strongest
- ii) 1839: Anti-Corn Law League: formed to combat the ongoing 1836-42 depression with working class support

c) Tax Reforms: to resolve the Free Trade fiscal problem

- i) 1840: Royal Commission on Taxation: recommended drastic revision of import duties, most of which were shown to be too costly to administer
- ii) 1841 Election: victory of (ironically) the Tory regime of Robert Peel on Tax Reform
- iii) 1842 Budget: sharply reduced many import duties, removed other restrictions, and made up for the lost revenue by imposing the old income tax: 7d in the pound
- iv) 1845 Budget: more reductions in import duties, especially reductions and changes in the Corn Law, and a further increase in the income tax (undermining Conservative support for Peel)

5. The Repeal of the Corn Laws and the Aftermath:

a) 1845-46: combined agricultural disasters:

- i) disastrous harvests across Europe led to sky-high famine prices, and gold outflows (see lecture on Banking: Bank Charter Act)

ii) **Ireland:** also suffered from ruin of its potato crops (disease) bringing famine and economic penury: half a million died and two million emigrated

iii) Robert Peel, the Tory Prime Minister of the day, was forced to repeal the Corn Laws to permit free imports of foodstuffs, but depended on Whig support to do so.

iv) After the repeal, the Whigs combined with the angry anti-Peel Tories to bring down his government.

b) **New Whig or Liberal Regime:** brought in almost complete Free Trade by 1849, when the Navigation Laws were also repealed (but really by then a dead-letter)

c) **Free Trade Movement expanded in Britain and Europe with evangelical fervor:**

i) **1860:** Cobden-Chevalier Treaty with France: serving as a model:

(1) Britain had retained some high duties, up to 20%, on silks and wines (not protectionist, since Britain produced neither silks nor wines – though duties did protect beer and spirits)

(2) used as bargaining chips to have the French reduce duties against British goods

ii) **This treaty was used by Britain, France, and other countries** (e.g., German Zollverein) to negotiate a series of bilateral free trade treaties throughout Europe

d) **The 1873 ‘Great Depression’ and the end of the international Free Trade Movement**

i) **Fruits of the international transportation revolutions proved to be crucial issue:** ==> produced a flood very cheap foreign grain imports (from the Americas, India, Latin America, Australia, etc) into Europe ==> threatened ruin of European farmers

ii) The 1870s crisis also produced industrial depressions ==> industrial clamour for protection

iii) The ‘union of pork and iron’: united agricultural and industrial interests to restore tariff barriers and then to increase them steadily throughout Europe and Americas

iv) Only Great Britain remained staunchly true to Free Trade (until 1916).

v) Result in Great Britain: severe contraction of its agricultural sector, to be seen in first lecture in January: but with increased national welfare in rising living standards

vi) Law of Comparative Advantage thus transformed Britain more than any other country.

6. The Importance of the International Gold Standard for Free Trade:

a) **Free Trade cannot work without fixed exchange rates:**

i) for otherwise countries can defeat the purpose of tariff-free, tax-free Free Trade by devaluing their currencies: to make exports cheaper abroad and imports from abroad more expensive

ii) that was the cruel lesson of the Great Depression in the 1930s, when countries abandoned gold

b) The Provisions of the Gold Standard:

- i) that each country values its currency in a fixed number of grams of fine gold: and does not alter that rate
- ii) each country allows free and perfect conversion of paper bank notes into gold, and gold into notes
- iii) therefore, all countries on the gold standard necessarily permit the free exchange of their currencies with gold and thus with each other at fixed rates
- iv) exchange rates can vary only by the 'gold shipping points': i.e., the cost of shipping gold rather than paying by acceptance bills (bills of exchange)

c) benefits: for all countries

- i) free flow of goods, services, and capital – without exchange rate impediments
- ii) large savings on transaction costs
- iii) fosters foreign investments: by ensuring investors that they can receive their investment earnings (dividends and interest) and repatriate their capital in gold

e) costs for governments:

- i) **prevented them from engaging in fiscal and monetary policies** to stimulate and benefit their own economies – especially to combat unemployment
- ii) thus required balanced budgets ==> no deficit financing
- iii) impossible to maintain such a gold standard in times of war: and thus this system collapsed with World War I
- iv) question: how is the gold standard regime related to the use of the euro in the European Economic Community today – and how can the problems of Ireland, Greece, Portugal, and Spain be resolved??

d) Heyday of the International Gold Standard: 1840 - 1914 :

- i) Great Britain: effectively on the gold standard from 1721, and by law by legislation of 1816 and 1844 (Bank Charter Act)
- ii) France, Germany, Italy, Spain, etc. followed, with Russia the last country, in 1897.

7. British and European Capital Exports:

a) capital exports a major feature of European expansion of global trade in the 19th century:

b) major phases of British capital exports:

- i) 1792-1815: Britain financed the anti-French alliance, displacing the Dutch as the chief capital exporters

ii) 1815-1836: Britain exported far more capital in financing new European governments and state governments in the U.S – until the American financial crisis of 1836 (when 9 state gov'ts defaulted, as did some European gov'ts) ==> producing severe industrial depression in Britain

iii) 1842-1873: Britain resumed its role as an even greater capital-exporter in financing and building railroads throughout Europe, the Americas, Latin America, and Asia

iv) **1873 - 1914: the Era of 'New Imperialism' or 'Capitalist Imperialism'**

(1) when Britain became a 'mature creditor nation' engaging in a wide variety of international capital investments, thereby receiving substantial foreign incomes from interest and dividends on investments

(2) France, Germany, and the US also became major capital exporters

(3) Lenin: argued in *Imperialism: the Highest Stage of Capitalism* that:

- maturing capitalist nations had to export capital to survive in international competition
- that the very export of capital was imperialism subjecting recipient countries to control by the capital exporters

v) **Note from the table in the lecture notes that Britain always:**

(1) imported a greater value of goods than she exported (Commodity Account)

(2) more than made up that difference by 'invisibles' income: from shipping, banking, insurance, international finance, and foreign investments

(3) The resultant surplus on Current Account represents the growing positive value of overseas capital investments.

8. Capitalism, Imperialism, and Racism:

Finally, in this last lecture for the first semester, I provided a short lecture on Imperialism and Racism:

a non-Marxist interpretation. In essence, the concept of 'races' is pure fiction, but a very convenient fiction to justify Imperialism. Differences in skin pigmentation (presence or relative absence of melanin) in no way justify any concept of supposed 'racial divisions'; and I presented (or tried out) my Darwinian 'solar' hypothesis to explain the emergence of these differences, hinging on the vital role of Vitamin D (according to very recent scientific discoveries).

- read the lecture notes

- consider above all the ideological contradiction between Free Trade and Imperialism

- why is European Imperialism the source or foundation of modern racism, but going back to the Portuguese and other European countries' engagement in the African slave trade, from the mid 15th century.