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 **ECONOMICS 303Y**

 **The Economic History of Modern Europe to1914**

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 **Lecture Topic No. 14:**

**III. GREAT BRITAIN AS THE UNCHALLENGED INDUSTRIAL POWER, 1815 - 1873**

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

**E. Great Britain and The Age of Free Trade: Finance, Foreign Trade, and Capital Exports in the 19th Century**

**1. Introduction: on the new role of international trade, 1815 - 1914**

a) **The importance of six interrelated economic phenomena of great importance not only for Great Britain but for the World Economy from the end of the Napoleonic Wars (1815) to the advent of World War I (1815 - 1914):**

(1) An almost exponential expansion in world trade from the mid 19th century, in which Britain was the chief beneficiary: in terms of trade itself, shipping, banking, and finance.

(2) The British-born economic philosophy of Free Trade, as a chief contribution of the Classical School of Economics (vs older Mercantilism and contemporary Protectionism): exercising the Law of Comparative Advantage.

(3) The adoption and spread of the international Gold Standard: a vital component of Free Trade

(4) The economic transformation of the British Economy by the’ Law of Comparative Advantage’ (in combination with the international Transportation Revolutions):

1. forcing a brutal contraction of the agricultural sector and thus a shift of resources into industry, trade, and finance, in which Britain had a comparative advantage
2. resulting in very large increases in real-incomes and national welfare
3. but almost unique to Britain, since Britain alone, after 1870, practised true Free Trade with the Gold Standard

(5) British and European capital exports to the rest of the world: the Americas and Asia in particular, but also Africa and eastern Europe

(6) combined with the scourge of Imperialism, both British and European: i.e.,

1. the subjection or subjugation of much of the rest of the world to their rule (or at least to European influence and control),
2. and without fully transmitting European welfare gains to the regions so subjected

b) **This topic on International Trade and Free Trade, ends the first term: and**

i) **follows logically from the previous topic on:**

(1) the two steam-powered transportation revolutions:

(2) in railroads and oceanic shipping -- especially the latter

ii) **it also provides a necessary link to the first lecture in the second term (January):** on British agriculture in the 19th and early 20th centuries, which necessarily also intrudes upon this lecture

(1) indeed the structural changes in the agricultural sector and in the overall British economy of the era between the Napoleonic and World War I (1815 -1914)

(2) As stressed in the previous lecture, the combination of steam powered railroads, built all over the world (i.e. Europe, Asia, the Americas) and steam-powered shipping promoted a vast increase in world agricultural production, especially in grain farming (wheat).

c) **The combined significance transportation revolutions and the great expansion in world (global) agriculture for international trade and the philosophy of Free Trade:**

i) **In physically integrating national, continental and world markets,** they exerted very strong pressures on national state governments, in Britain and in western Europe, to liberalize international trade in order to reduce input costs (raw materials, etc.).

ii) **A major point of this lecture is to see how Britain adopted Free Trade,** and then negotiated more liberalized trade treaties with many European countries.

(1) But, as we shall see, the subsequent and ultimate consequence of the transportation revolutions, for world agriculture, meant a flood of cheap grain imports into Western Europe.

(2) that, combined with commercial depressions, in the 1870s, meant an end to continental experimentation with Free Trade and a return to Protectionism, almost everywhere,

(3) except in Great Britain, to which we now turn, commencing with the other major issue: the agrarian question, on which the coming of Free Trade directly hinged.

d)  **British Agriculture and the Corn Laws [Corn = wheat]:**

i) **the debate over the Corn Laws and agricultural protection in Great Britain was at the very core of the Free Trade movement:** as we shall see in more detail both in this lecture and in the first lecture in January on British Agriculture in the 19th century

ii) **The core issue was agricultural protection in the form of the Corn Laws, and their abolition during famine conditions in the 1840s,** immediately brought about almost complete Free Trade, for reasons that we shall see more fully today.

iii) **Here I want to note that in this respect Great Britain was unique:**

(1) for virtually everywhere else in the world, the agricultural interests had favoured the adoption of Free Trade (i.e., to get cheaper machinery and manufactured goods),

(2) while the industrial interests had naturally favoured protectionism and opposed Free Trade, except for the period 1850 - 1873.

(3) **To repeat:** the impact of that flood of cheap grain imports into western Europe, along with commercial recessions in 1870s and 1880s, elsewhere in Europe, had these results:

1. a general return to protectionism, uniting agricultural & industrial interests
2. thereby leaving Britain virtually alone to champion the cause of international Free Trade into the 20th century (ending with the Great Depression, in 1929, or in Europe, after 1931).

d)  **Agricultural Contraction in Great Britain:**

i) **For Great Britain itself, from the 1870s,** we will also see in the next lecture that the combination of the transportation revolutions, especially in steam shipping, and Free Trade (along with the Gold Standard) finally brought about a very radical contraction in the agricultural sector,

ii) **as the British found it much cheaper to feed themselves:** by importing grain and other foodstuffs in exchange for the goods and services sold abroad.

(1) In other words, Free Trade and the transport revolutions forced Great Britain to obey the Law of Comparative Advantage,

(2) which in turn promoted both economic growth and much higher living standards.

(3) The Law of Comparative Advantage is indeed the chief lesson to be learned from the debate about entering a risky new era of Free Trade.

e) **The British and European Economies, from the 1870s to World War I:**

i) **And therefore, almost alone, Britain benefited -- and benefited strongly – in rising living standards, from the gains of trade (i.e., both free trade itself and lower transport costs):** in cheaper foodstuffs and raw materials.

ii) **For the true historic norm was really protectionism,** especially mercantilist or neo-mercantilist protectionism.

ii)  **despite another resurgence in the international Free Trade Movement after WW II,**

1. with GATT (General Agreement on Tariffs & Trade), now renamed WTO (World Trade Organisation),
2. and despite such regional free-trade groupings as the EEC (European Economic Community) and NAFTA (North American Free Trade Association),
3. one might argue that economic protectionism remains the norm today.

iii) **For indeed these regional free-trade blocs are themselves quite protectionist:** against the rest of the world.

f) **Free Trade Doctrines in the History of International Economic Development**

i) **This topic is also very important:** for again illustrating (as in the previous topic on British banking) the importance of both economic theory and economic ideology in influencing government economic policies

ii) **Thus again in illustrating the importance of the links between economic ideology,** the role of the state, and their impact on economic development: for not just Britain, but also the world economy.

iii) **Hence, we must now turn to the vital topic of the intellectual origins of Free Trade:**

**2. Intellectual, Social, and Political Origins of Free Trade:**

a) **Adam Smith's *Wealth of Nations* (1776)**:

i) **This is the bible of the subsequent Classical School of Economics,**

(1) which marks the real foundations of the Free Trade Movement,

(2) even if Smith did not himself invent the concept of free trade.

ii) **On this whole question of Free Trade,** read Peter Mathias, *First Industrial Nation*, chapter 11.

iii) **To a large extent, Smith’s *Wealth of Nations* was an assault on what Smith called Mercantilism,** a term coined (as ‘mercantilisme’, by the French school of Physiocrats)

(1) Adam Smith viewed Mercantilism as a conspiracy of merchants and manufacturers against the consuming public: in form of higher prices, at the direct expense of the consuming public.

(2) but, in fact, he did see some strategic justification in the Navigation Laws, for national defence.

iv) **For Smith, the whole purpose of economic activity was consumption at the cheapest possible prices** -- not production at the greatest unit profit.

b) **From The *Wealth of Nations* and the subsequent teachings of Classical School**: there emerged two key liberal economic doctrines that provided the core of Free Trade Movement:

i) **Laissez-Faire**: that the government should dismantle all regulations interfering with the economy: all of the old mercantilist laws and regulations, for both internal and foreign trade.

(1) Government should instead restrict itself to those necessary activities that could not be undertaken by private enterprise, such as national defence;

(2) The government should otherwise ensure that the economy was left free to work by the so-called ‘Invisible Hand:’

1. i.e., the laws of the market economy,
2. which supposedly, under conditions of perfect competition and the profit motive, would ensure that resources would be the most efficiently allocated and that production and incomes be maximized.

(3) Hence the maxim: ‘Private profit produces the general good.’:[[1]](#footnote-1)

ii) **‘Gains of Trade’ Doctrine**: or **Law of International Comparative Advantage:**

1. i.e., the international specialization or international division of labour,
2. a concept more fully developed by David Ricardo and John Stuart Mill: [[2]](#footnote-2)

(1) If each region freely concentrates on producing what it can do relatively the best (not absolutely), compared to other regions;

(2) and if each nation then exports the surpluses so produced by such specialization,

(3) then all trading countries would end up with more goods, at a lower cost, and a higher national income than if each region and country tried to produce everything itself without such trade.

(4) Example from David Ricardo, *Principles of Political Economy* (1818):

■ Suppose that Portugal had an **absolute** cost advantage over Britain in producing both cloth and wine [actually, an absurd notion, but we are quoting Ricardo here]

1. while producing wine more efficiently than cloth,
2. and that Britain (more obviously) could produce cloth more efficiently than wine.

■ Portugal would then enjoy a comparative advantage in wine, and Britain a comparative advantage in cloth;

■ and both countries would gain more cloth and more wine through foreign trade: wine exported by Portugal and cloth exported by Great Britain.

(5) **Note the importance of the Opportunity Cost theorem** (not well noted in many textbooks):

1. the cost of **not** obeying the Law of Comparative Advantage and therefore of devoting resources to the production of goods (and services) for which there is no comparative advantage:
2. the cost, thus, is to forego the gains of trade by devoting those resources to goods for which the nation does enjoy a ‘comparative advantage’;
3. i.e., the gains from exporting (trading) those extra goods to obtain that much *more* of the goods in which the nation does not enjoy a comparative advantage (more than if the resources were employed to produce them at home).

iii) **Both of these doctrines necessarily rejected philosophies and protectionist practices of Mercantilism;**

iv) **Indeed,** we must remember that Great Britain had achieved the so-called Industrial Revolution under this very protectionist or mercantilist structure.

v) **The impact of *The Wealth of Nations* and of these doctrines was felt almost immediately**

(1) when it bore fruit in the Anglo-French Commercial Treaty of 1786, known as the Eden Treaty.

(2) Note that pre-Revolutionary France was influenced by its own Physiocrat School of Economists, similar to the Classical School in strongly opposing all forms of Mercantilism.[[3]](#footnote-3)

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

a) **Warfare**: the French Revolutionary and Napoleonic Wars from 1792 to 1815. That meant the following:

i) **Conditions of total war involving all of Europe (and with the US in 1812),** which were hardly conducive to negotiating freer trade.

ii) **An increase in excise taxes and customs duties,** an increase in tax revenues in order to finance those wars;

iii) **a very high proportion of such taxes came from taxes on trade**.

b) **The Attitude of British Industrialists**:

i) **They were hardly willing to embark on the dangerous road to Free Trade,**

(1) especially not when Mercantilist legislation had served them so very well, allowing Britain to achieve an Industrial Revolution under an umbrella of protectionist legislation.

(3) i.e., they were not willing to accept Free Trade until they were certain that they could compete profitably -- i.e., outdo foreign competition, without any threatening challenges.

ii) **hostile reaction to rising tariff barriers against British goods:**

c) **European Tariff Barriers:**

i) **Both during and after the Napoleonic Wars, most European countries sharply raised their tariffs against Britain,** in order both:

(1) to provide state revenues for warfare and of course

(2) to protect their own domestic manufacturing industries against Britain's growing competitive advantages.

ii) **Obviously the British public was hardly willing to entertain ideas of unilateral free trade;** most wanted retaliation against such foreigners, especially when a majority of the British were xenophobic.

**d) The Corn Laws and British Politics**: to be developed more fully in the next lecture (first week in January): proved to be the chief barrier to the adoption of Free Trade.

i)  **the Corn Laws had provided the bulwark of agricultural protection,**

(1) they went back to the late 17th century (though earlier, medieval versions can be found):

(2) note that the English word ‘corn’ means the principal grain of a region, which, for England, was wheat.[[4]](#footnote-4)

ii) **in essence,** the Corn Laws were a combination of high tariffs and import quotas to protect English grain farmers.

iii) **After the Napoleonic Wars,** revisions in the Corn Laws were soon required:

(1) with the immediate post-war slump in grain prices, this protection was sharply increased.

(2) Much land that had been brought under the plough during wartime high prices was now uneconomic for grain farming,

(3) so that British farmers demanded complete greater tariff protection against foreign grain.

iv) **The two major Corn Laws of this post Napoleonic-war era:**

(1) **1815 Corn Law**:

1. provided a total ban on foreign grain imports unless above the war time average of 80 shillings (s.), i.e., £4 sterling, a ‘quarter’ (a grain measure = 8 bushels or 64 gallons).
2. but the law and import bans proved to be quite unworkable, unenforceable.

(2) **1828 Corn Law**:

1. permitted grain imports, but with a sliding scale of import duties:
2. the lower the grain prices, the higher were the import duties imposed.

v) **These Corn Laws were the central issue in British politics for three decades from 1815:**

(1) and indeed in the Free Trade debate (culminating in the1840s);

(2) for almost perverse reasons the Corn Laws issue provided British businessmen with their best reason to convert to the Free Trade doctrine.

vi) **Why? Chiefly because their Tory (i.e. Conservative) opponents supported the Corn Laws.**

vii) **The Structure of British Politics after 1815**:

(1) **The Tories (Conservatives)**:

■ found perhaps their strongest support in the landed classes and agricultural interests: the aristocracy, the gentry, and farmers in general,

■ though many business and professional men were also among their supports.

■ with their strongest base still in landed wealth, the Tories ardently supported the Corn Laws and Protection,

■ because they saw or believed that their political future depended chiefly on safeguarding the farmers and agriculture.

(2) **The Whigs (Liberals)**: their opponents.

■ The Whigs, though originally also dominated by landed interests (gentry and aristocracy), came to find an increasingly strong support from British businessmen, industrialists, financiers, professional men, etc.,

■ and so to become increasingly a pro-business party.

■ But as noted, many Whigs supported Free Trade believing that Free Trade would injure the economic fortunes of the landed classes and thus of the Tories, to the Whig’s benefit.

(3) Nevertheless, we should not make too sharp a social dichotomy between these two developing political parties:

1. some aristocrats, gentry, and common farmers were, for various and sundry reasons, also to be found among the Whig supporters,
2. while some businessmen, as noted, continued to support the Tories.

(4) **Still, by and the large, the Whigs came to champion Free Trade**:

1. more and more of them had become true ideological converts to the liberal doctrines of Smithian or Classical Economics, in general,
2. and to the laissez-faire and Free Trade principles in particular.

d) **The Fiscal Problem:**

i) **Import duties and other taxes on trade had long provided an important source of government income:** with excise taxes on consumption, the most important source of revenue

ii) **Therefore, if Free Trade were to be adopted,** thus ending or cancelling these duties and this source of income, how would the government make up the revenue loss?

iii) **An income tax was no apparent solution,** since the wartime emergency income tax (7d in the pound, or 2.917% = 7/240d) was so hated that it was abolished in 1816, after the Napoleonic Wars

**3. Factors Favouring the Free Trade Movement from the 1830s:**

a) **Why More British Businessmen came to support Free Trade**:

i) **as noted, British Business supported the Whigs:** and supported Free Trade to oppose the Tories

ii) **Some businessmen believed in the Wages Fund theory of David Ricardo:**

(1) the view that wages were essentially determined by the cost of living,

(2) which in turn was based chiefly on food prices.

(3) Thus lower grain and food prices would lead to lower wages, an idea that many businessmen found appealing (but which the working class found appalling).

(4) Others believed or hoped, more generously, that lower food prices would release more income to be spent on manufactured goods.

iii) **industrial need for cheaper raw materials:**

(1) but the British tariff structure protected raw materials coming from the British colonies (Imperial preference):

(2) and thus many industrialists wanted free trade in industrial raw materials.

iii) **Business opposition** to government sanctioned monopolies in foreign trade.

iv) **The belief of many industrialists that they could not expand exports unless Britain reduced tariffs:** to allow expansion of imports and thus give foreign countries the spending power to buy British exports:

(1) i.e., that a nation had to import in order to export: or conversely, that a nation exports goods and services in order to import goods and services that it does not possess (or not in abundance)

(2) of course, as Smith pointed out, the purpose of exporting was to permit and provide imports of goods that could not be produced, or produced as efficiently, at home.

v) **In any event, by the 1830s,** British industrialization had gained such an insuperable lead that few British businessmen were then fearing foreign competition.

b) **Political Events of the 1830s that eased the way for Free Trade**:

i) **1832: the First Reform Bill,** which reorganized the House of Commons ridings (constituencies) for the first time since the 15th century (1430s).

(1) It eventually permitted the new industrial districts and towns, which were chiefly Whig (Liberal), far greater representation.

(2) This Reform Bill, however, did not immediately bring about any radical change in House of Commons representation;

(3) It is worth noting, however, that Whig ministries dominated Parliament in the 1830s, up to 1841[[5]](#footnote-5).

ii) **The Depression of 1839-42 and the Anti-Corn Law League**:

(1) severe depression and high food prices led to the formation of the Anti-Corn Law League in Manchester:

(2) It proved very effective in mobilizing much stronger opposition to the Corn Laws, in promoting Free Trade and pro-Whig political doctrines.

**5.** **Government Finance and the Coming of Free Trade in the 1840s**

a) **Government Finance**: by early 1840s, was the remaining problem (apart from Corn Laws themselves), as just noted, and the most important barrier to Free Trade.

i) **Obviously Free Trade and thus the removal of import duties,** including Corn Law duties, would reduce government revenues, especially since the government, as noted, was still deriving a considerable proportion of its national revenues from the taxation of trade.

ii) **Many import duties were more important for revenue than for protection;**

(1) and most had been instituted for fiscal reasons, to finance warfare,

(2) certainly from the late 17th century: with the Glorious Revolution of 1688, leading to England’s involvement in the Dutch king’s war against Louis XIV of France.

(3) Though, to be more precise, customs and excise revenues were primarily used to finance payments on the National Debt: i.e., for government borrowing, which was the direct vehicle used for financing warfare

(4) Refer again to the lectures on the Bank of England and the National Debt to see how this was undertaken.

b) **Royal Commission on Finance in 1840 (dominated by free-traders)**:

i) **this committee argued (admittedly, with biased evidence) that the whole system of customs and excise duties was an irrational mess:** that of 750 duties on imported goods, just 17 produced 95% of the total duty revenue.

ii) **So, even apart from dedicated advocates of Free Trade, there was growing support for general reform of the customs system;**

iii) **but those who advocated complete abolition of duties,** nevertheless and obviously so, had to come up with some fiscal substitute for those duties that did produce a lot of government revenue.

c) **The income tax**: might seem to you to have offered an obvious substitute:

i) **But in 19th-century Britain, the very idea of an income tax after the Napoleonic Wars had would been politically suicidal.**

(1) Britain had indeed previously experimented with an income tax during the Napoleonic Wars.[[6]](#footnote-6)

(2) But that was only because of very dire necessity: thus, only in 1799, during Britain's darkest days of those Wars, when military expenditures had vastly exceeded revenues, did the government introduce an income tax:

(2) a minor income tax of just under 3% (7d per £ = 7/240d = 2.917%), against tremendous opposition, from 1799 - 1816.

ii) **in 1816,**  **just after the Napoleonic Wars had ended,** that income tax was abolished, along with Napoleon;

iii) **and for a long time,** no one dared to reintroduce it, for fear of the strongly adverse political consequences.

d) **The Election of 1841 and the Tory Administration of Robert Peel, 1841 - 1845:**

i) **In 1841, the incumbent Whig ministry had been defeated in the House over a bill for reducing tariffs on foodstuffs.**

ii) **In the election that followed,** the Tory leader, Robert Peel, campaigned on a promise of fiscal reform, especially a reform of the customs administration, during the final phase of the severest depression of the 19th century.

iii) **But he also believed that a general reduction in the level of those duties and a step to freer trade was now necessary,** even though he and the Tories still stoutly defended the Corn Laws and protectionism in principle.

iv) **He won that 1841 election,** defeating the Whigs:

(1) and thus it is very ironic that a Tory, and not the Whigs, should bring in Free Trade,

(2) though he did so much sooner than anybody, including himself, had really anticipated.

v) **The Budget of 1842**: provided the first major step towards real Free Trade:

(1) the duties on 750 items were greatly reduced.

(2) all import prohibitions were removed.

(3) The new ceilings for import duties:

1. 5% on raw materials,
2. 12% on semi-manufactures,
3. 20% on manufactured goods.

(4) import duties on grain (Corn Laws) were also reduced.

(5) an income tax, indeed the former income tax of 7d in the £ (about 3%), was re-established to make up for the lost revenue from customs and excise.

vi) **The strong recovery from the depression after 1842:**

(1) convinced many that freer trade was responsible:

(2) and so political pressures grew for more cuts in import duties.

e) **1845 as a turning point: the political and economic events** **leading to Repeal of the Corn Laws and the beginnings of Free Trade:**

i) **The Budget of 1845**:

(1) it greatly reduced the differential on customs duties between Empire and non-Empire goods: the major achievement.

(2) Imperial wheat (from the British Empire) was allowed in duty-free, thereby maintaining some imperial preference: a major break with protection under the Corn Laws.

(3) it repealed or greatly reduced the duties on 450 articles.

(4) again raised the income tax -- but thereby reducing political support for Peel.

ii) **Repeal of the Corn Laws in 1846**: came suddenly and dramatically the next year because of a drastic harvest failure, and famine conditions in Ireland:

(1) summer of 1845: a miserable summer that ruined the European grain harvest and sent grain prices soaring by 1846.

(2) soaring grain prices in turn led to a drainage of gold, a credit contraction, and a general financial-economic crisis in 1846 [as we saw in the previous topic on Banking.]

(3 ) Worse, Ireland was also struck that year with a terrible famine, as a blight ruined its potato crop. (4) A terrible catastrophe resulted:

1. Half a million Irish died,
2. and another two million Irishmen emigrated over the next two years;
3. Ireland never really recovered in that century.

iii) **Peel had to act quickly and decisively in 1846:**

(1) he abolished all tariffs and all other restrictions on food imports; and then

(2) with the aid of the Whigs, in a badly split Parliament (with half the Tories opposed to him), Peel secured the abolition (repeal) of the Corn Laws.

f) **General Free Trade Resulted**:

i) **The Whigs, as the price of their support for Peel,** had demanded

(1) the abolition of all duties on textiles, and

(2) a reduction of other duties on manufactured goods to just 10%, too low to be really protective.

ii) **When that was achieved,** the perfidious Whigs combined with some vengeful pro-Corn Law Tories to repeal Robert Peel – vote him out of office on a motion of non-confidence;

iii) **and with Peel defeated,** the Whigs were called upon to form a government under Lord John Russell: note that he was an aristocrat, i.e., a peer in the House of Lords.

iv) **The Russell ‘Whig’ Administration**: completed the task of dismantling Protectionism, from 1846 to 1849.

(1) By 1849, almost all the remaining duties had been abolished, along with the old Navigation Laws (long a dead letter).

(2) Only silk retained a major duty, at 15%;

(3) and a few others had a 10% maximum.

(4) Nature of the goods that retained import duties:

1. These were chiefly luxury goods, for which the higher duties could be socially justified on revenue grounds.
2. But they were also useful for bargaining for freer trade with the French, who produced most of these imported commodities.
3. As will be noted, those import duties on French wines helped to protect the British beer industry

**6.** **The International Expansion of Free Trade**

a) **The Spread of Free Trade:**

i) **In the 1850s and 1860s,** British trade commissioners and diplomats spread the gospel of Free Trade, with evangelical fervour, and indeed with some considerable successes, leading to a generation of far freer international trade.

ii) **But note closely that the spread of Free Trade came entirely through a series of interlocking bilateral treaties,** i.e., between two countries at a time, and not by any general international negotiation of Free Trade.

b) **The Cobden-Chevalier Treaty of 1860, with France**: greatest triumph of the Free Trade movement.

i) **Britain negotiated mutual tariff reductions with France: freer trade, but not true free trade**

(1) abolishing or greatly lowering the duties on such French luxury goods as silks, wines, perfumes, jewellery, etc..

(2) in exchange for considerable French reductions on duties against British goods (but not complete free trade, by any means).

(3) the maximum French duties were 30%, or most were 20% or lower.

(4) British duties against French wines were lowered -- but never eliminated;

(5) as just noted, they did offer some protection to the British brewing and spirits industries.

ii) **That Cobden-Chevalier Treaty was then used by the British and the French to negotiate similar bilateral,** or reciprocal free or freer trade, treaties with neighbouring countries;

iii) **and so these treaties ushered in a brief era,** lasting about 20 years, of generally freer international trade.

c) **But continental Europe returned to Protectionism from the 1880s**: as noted earlier:

i) **from a combination of the following factors in mid 1870s and early 1880s:**

(1) in particular, as noted, that sharp fall in freight rates exposing European agriculture to cheap overseas grains.

(2) combined with severe commercial recessions or depressions (onset of the so-called ‘Great Depression’, 1873 - 1896), with increasing international competition

(3) These circumstances led to a political alliance between agrarian and industrial-commercial interests in many European countries (in Germany: the alliance of pork and iron).

(4) and thus to growing demands for tariff restoration and increased protection.

ii) **The U.S. also became much more protectionist**: the victory of the industrial north over the agrarian south in the Civil War resulted in sharply increased protectionist tariffs in Congress.

iii) **In Canada also:** consider the National Policy of John A. MacDonald from 1879.

d) **Only Great Britain remained totally faithful to Free Trade**:

i) **In the early 20th century (from 1903),** the so-called Imperial Conservatives,

(1) under Joseph Chamberlain (1836-1914: a former Liberal), fought strongly to restore tariffs, in response chiefly to growing German and American competition;

(2) but they failed to defeat the hegemony of Free Trade in the British Parliament..

ii) **Britain did remain tariff free until World War I,**

(1) Until, that is, the imposition of the McKenna duties on iron and steel in 1916 (for military protection);

(2) but there was in fact no real return to Protection in Britain until the economic crisis of 1931.

7. **The International Gold Standard:** the basic essentials and its importance for Free Trade

a) **The Gold Standard was obviously a necessary and vital component of true Free Trade:**

 i) **because it meant that a government could not seek to interfere with international trade and capital flows:** by arbitrarily adjusting or fixing exchange rates in favour of the domestic economy.

ii) **In other words, governments could contradict or nullify their apparent adherence to Free Trade by manipulating currency exchange rates:**

(1) i.e., a country could abolish all of its import tariffs, export bounties, import prohibitions, etc. , thereby apparently engaging in free trade

(2) But it could still engage in protectionism through altering the exchange rates.

(3) by devaluing the currency (akin to medieval debasements of the coinage), a country could effect two related objectives:

1. to promote exports by cheapening the cost of this country’s exports to foreign consumers: in that they would pay less for this country’s currency (say, Canadian dollars) in order to buy its good
2. to curb imports, because domestic consumers would now find it more expensive to import foreign goods, because they had to pay more in buying the foreign currencies.

iii) **As was the case in the truly Great Depression of the 1930s, many and indeed most governments used exchange rates as a highly effective protectionist device:**

(1) i.e., by devaluing the currency against foreign currencies in order to promote exports and to curb imports.

(2) All economists and economic historians agree now that nobody really gained from these currency manipulations, which overall reduced world trade and thus the ‘gains from trade’.

iv) **The Gold Standard simply meant that any devaluations were impossible by countries on the Gold Standard, which had to maintain fixed exchange rates based on gold:**

(1) that is, the value of a currency was permanently fixed in and equated to a specific gram weight of fine gold, and also that:

(2) the currency was freely convertible into gold, and gold into that currency at that fixed exchange rates.

(3) All Gold Standard currencies were thus freely convertible into each other at the fixed exchange rates determined by the gold values of each currency.

(4) Currency values (i.e., foreign exchange rates) could fluctuate only within the narrow bounds of the ‘gold shipping points’: i.e., the cost of exporting or shipping gold to make foreign payments, instead of using British pounds or foreign currency to do so.

c) **Problem: when did Great Britain shift from a historic silver standard to a gold standard?**

i) **Note that, from the time of the Norman Conquest (1066) England had for the following centuries maintained a silver standard:**

(1) i.e., its currency was defined and fixed in relation to silver

(2) The units of account were the penny and the pound sterling: which meant that one pound (£) always consisted of 240 silver pennies or pence:

1. 12 pence = one shilling
2. 20 shillings = one pound
3. ergo: 240d = one pound

(3) So 240 currently circulating silver pennies always equalled the value of the pound, as the unit of account, even though the silver content of the English penny was reduced over the many following centuries:

1. in 1272: the silver penny contained 1.3375 grams of pure silver
2. in 1816 (last coinage change): the silver penny contained only 0.4359 grams: a loss of 67.41%

(4) for most of this period, the value of gold coins, domestic and foreign, were reckoned in terms of the silver-based money of account

1. in 1489, Henry VII introduced the gold sovereign at the value of 20s or one pound
2. by 1560, its value had risen 50% to 30s, in terms of silver
3. In 1663, the government of Charles II introduced the new gold guinea at 20s 0d
4. But by 1696, its value had risen to 26s, and fell thereafter – for reasons noted below.

ii) **The factors leading to a shift to a gold standard involved the following events:**

(1) 1663: as just noted, the introduction of the gold *guinea* (so called, because the gold came from the Guinea coast of west Africa): to equal 20s or £1 sterling value (i.e., = 240d or currently circulating silver pennies).

(2) 1717: Parliament fixed the value or rate of the guinea at 21s 0d, thereby overvaluing gold (at a bimetallic ratio, with silver, of 15.2:1), so that little if any silver was minted thereafter.

(3) 1805: Matthew Boulton’s steam-powered coinage press (already used for private minting) was introduced into the Royal Mints to produce perfect copper token and coins and silver coins that could not be counterfeited.

(4) 1816: Liverpool’s Act, or the Coinage Act of 1816:

1. proclaimed the gold guinea coin (still worth 21s 0d sterling) to be the sole standard of value,
2. but made silver coins in effect fully convertible.[[7]](#footnote-7)

(5) The Bank Charter Act of 1844: stipulated that Bank of England notes, and ultimately all British bank notes, were to be fully back by gold, in the reserves of the Bank of England.

iii) **From the 1860s and 1870s,** more and more countries pegged their currencies in this fashion to fixed rates in terms of gold, with fully convertibility between gold and the currency,

iv)  **That virtually automatic conversion of gold-standard currencies meant**:

(1) the removal of very significant impediments to the international flow of goods and capital

(2) thus a significant reduction of transaction costs in international trade and banking.

(3) a guarantee to overseas investors: that they would receive investment incomes from abroad and the repatriation of capital in fixed gold values (i.e. avoiding costs from currency fluctuations).

v) **The rules of the international gold standard also meant that governments could not engage in deficit financing, which would undermine the fixed gold value of their currencies:**

(1) in essence the Gold Standard prevented governments from using any fiscal or monetary tools to regulate or influence their economies.

(2) roughly the same is true for the European Currency Union (ECU), which achieved reality, with 11 participating countries, on 1 January 1999, i.e., with the official introduction of the Euro: with the symbol € (though the actual coins and banknotes were not issued until 1 January 2002.)

(3) The current economic problems involving Greece, Ireland, Italy, Portugal, and Spain now threaten the viability of the Euro.

(4) Note that previously, before adopting the euro, these countries would have devalued their currencies to try to remedy these severe economic problems.

vi) **We will see some important lessons from all this as we investigate continental and international economic development from the 1850s.**

**8.** **The Economic Consequences of Free Trade, with the Gold Standard**

a) **These are obviously highly debatable**: but you may judge from the statistical table on the screen (and handout):

i) **It does show that a very dramatic expansion in British foreign trade, followed the adoption of Free Trade:** i.e., from 1840s to 1880s (i.e., until the continent returned to Protectionism).

ii) **As the late Rondo Cameron has succinctly observed**:[[8]](#footnote-8)

(1) the volume of world trade per capita grew about 25-fold in the 19th century (to 1914);

(2) the period from the early 1840s to the 1870s marked the most rapid expansion, ‘when total trade increased at more than 6 percent annually -- five times as fast as the population growth and three times as fast as the increase in production.’

iii) **Clearly Free Trade did not hurt, and it probably helped**:

(1) in lowering the costs of imports, it may have liberated more income to be spent abroad,

(2) in turn giving foreigners more purchasing power to buy British goods.

b) **But the significance of Free Trade has still been disputed by some economic historians**: who point to other factors at work, in particular the forces for continental and American industrialization.

i) **They argue further that most of British export increases occurred with regions not affected by the Free Trade movement:** especially in Latin American, Africa, and Asia.

ii) **Consequences for agriculture**:

(1) Free Trade, but only in combination with the international transportation revolutions, and only from the 1870s, finally did vindicate the worst fears of the pro-Corn Law Tories:

(2) i.e., by a rapid increase in grain imports and a sharp fall in grain prices, which, as we shall see in the next lecture (in early January), led to a very radical contraction in the agricultural sector.

iii) **Consequences for British industry, and other sectors of the economy**: will be seen in subsequent topics;

iv) **but let me now assure you that Free Trade and the Gold Standard together were vitally important in determining the structure of the British economy from the 1850s until 1914,** forcing Britain to obey the Law of Comparative Advantage.

**9**. **Capital Exports: as a Reflection of British Foreign Trade**

a) **The Table on British foreign trade shows two other important features**:

i) **Britain in the 19th century always had a deficit on the merchandise or commodity account:** (1) i.e., Britain was always able to import much more value in goods than she exported,

(2) because she was able to pay for those extra imports from the earnings on shipping, banking, insurance, and investment income: all those classified under the heading of ‘Invisibles.’

ii) **Britain, on the other hand, always had a sizeable and usually growing balance on her current account (up to the 1930s):** because her invisibles earnings more than made up for the deficit on her commodity or merchandise account (export-imports).

iii) **That surplus balance on Britain's current account each year represents her net foreign investment abroad:** both in accumulated short-term credits or loans and in long-term capital investments.

iv) **Note:** that some of the short-term credits extended to foreigners was used to finance British exports to such countries.

v) **The figures for all the columns except the last one represent decennial averages:** i.e., annual average per decade.

vi) **The last column** shows the total accumulated value of foreign investment per decade.

b) **Capital Exports**:

i) **by the early 19th century, Great Britain had decisively displaced the Netherlands as the world's leading capital exporter:** for basically the same reasons that the British displaced the Dutch in world trade and banking.

ii) **Two special features of overseas investment ca. 1815:**

(1) **Britain's wartime role**: as the leader of a European coalition against Napoleon had necessarily led to capital exports in that the British were financing various foreign governments, especially military operations.

(2) **Role of the London Stock Exchange**:

1. which, in the 18th and early century, had dealt chiefly in government debt (consols, and shares of large corporations holding government debt); i.e. before the repeal of the Bubble Act, in 1825.
2. With the collapse of the Amsterdam bourse (Beurs), with the French invasions of 1793, the London stock exchange naturally took over the role of trading in foreign government debt as well.

c) **The Character of British capital exports, 1815 - 1840s**:

i) **almost entirely in the form of foreign government bonds or more often *rentes* (annuities):**

(1) of French, Austrian, various Italian, and Latin American governments;

(2) and also bonds of American state governments.

(3) Chiefly for financing public works and canals

ii) **By the late 1830s, a large amount of that foreign borrowing proved to be worthless,** as various foreign and American state governments defaulted on their bonds.

iii) **The greatest shock to British investors came in the mid 1830s,** from two events only tangentially related:

(1) the American banking crisis of 1836, when President Andrew Jackson sought to curb the growth of the so-named ‘National Bank’, and had Congress enact measures to limit or prevent interstate banking.

(2) Nine state governments were forced to repudiate their debts,

1. when tax and toll revenues from investments in roads, canals, and other public works fell considerably, in real terms; and thus
2. such revenues proved insufficient to pay interest on their bond issues, let alone redeem the principals.

(3) Neither the American nor the British governments would intervene to have these debts honoured or to reimburse the lenders.

(4) Needless to say, British overseas lending soon dried up.

(5) The result was a severe banking and credit crisis in Britain, followed by the most severe depression in the 19th century, from 1837-42.

d) **Character of British Capital Exports from the 1840s**:

i) **The 1840s marked a world-wide investment boom in railroads,** which helped to restore British willingness to invest abroad.

ii) **Indeed, railway construction led to a far larger capital export boom,** as the statistics on British investments indicate.

iii) **That changed the basic character of British foreign investments:** from one dominated by government bonds to one dominated by industrial investments, at first especially railroad shares and bonds.

iv) **That overseas investment developed quite naturally as British investors,** buying shares in British railroads on the London Stock Exchange, were encouraged to buy foreign railroad shares as well.

v) **More than that, British railway engineering firms took the major role in building the initial railways in Belgium and France,** especially, and also Germany.

(1) The British engineer Thomas Brassey (1805-1870) is the most famous for this mid-century continental construction.[[9]](#footnote-9)

(2) With such British-engineered railway construction abroad, it was only natural that British firms building such railways would seek the necessary capital within Britain itself.

e) **Growth in Overseas Capital Investments and World Economic Development:**

By the 1870s, as the table also indicates, the British had invested over a billion pounds abroad, of which about £400 million was invested in the British Empire.

i) **that overseas investment was obviously very important for the world-wide spread of industrialization,**

(1) because such funds were made readily available when so many countries lacked the capital or the financial institutions to invest

(2) especially for the now large scale required for modern industrialization: above all, for railways and metallurgical industries.

ii) **From the 1870s, also, Britain became what is called a ‘mature creditor nation’:**

(1) with an influx of dividends and interest or other investment income that alone outweighed the balance on the current account:

(2) that growing influx of foreign investment income was paying for a significant share of imported commodities -- thus reducing the incentive to expand export-oriented manufacturing industries.

g) **The significance of the post-1870 overseas investments is explored more fully in two essay topics:**

1. **on The Gold Standard and Capital Exports, 1870 - 1914; and**
2. **on ‘The New Imperialism’ of 1870 - 1914:**

**10.** **Free Trade and Imperialism: an Ideological Contradiction**

a) **The Classical School and the Moral Dimension of Economics**

i) **An important question:** does Economics Have a Moral Dimension?

(1) Note that the founder of the Classical School of Economics, Adam Smith (1723-1790), was a Professor of Moral Philosophy at the University of Glasgow (1752-76).

(2) The Classical School of Economics, in the 19th century, did hold the strong view that Economics had a strongly moral foundation.

(3) Their core opposition – and the essential theme of Adam Smith’s *The Wealth of Nations* (1776)–

1. was its trenchant opposition to Mercantilism
2. a term that Smith had borrowed from the French Physiocrats
3. and thus opposition to the Colonialism fostered and protected by Mercantilism

ii) **In particular, they believed that the combination of Laissez-Faire and Free Trade would mean:**

(1) the complete abolition of Mercantilism and thus of overseas colonialism (but not de facto colonial domination over Ireland).

(2) that Free Trade combined with the Gold Standard would mean such complete economic interdependence throughout the world that war would become unthinkable.

(3) Obviously therefore Classical Economics was utterly opposed to Imperialism – in principle, since obviously Imperialism = colonialism, an integral part of traditional Mercantilism.

b) **The Historical Situation, was, however, the exact opposite in the mid-19th century**

i) **for this era, from the 1840s, marks a very significant expansion of British Imperialism,** followed by that of other European countries, and finally the U.S.: first, and most especially, in Asia, Africa, and Latin America.

ii) **In Latin America, the destruction of the Spanish Empire,** with the Napoleonic Wars, allowed Britain to displace Spain as the dominant power in Latin America: through trade and capital investments, though not with outright military and political controls.

iii) **How did British economists, philosophers,** **and politicians,** etc. cope with this blatant contradiction in economic and political philosophies?

iv) **That subject is dealt with:** in the first term A List topics: ‘The Imperialism of Free Trade’

c) **Imperialism, let me ardently assert, is inherently and always evil, one of the very worst of all human evils, for two reasons**:[[10]](#footnote-10)

i) **Imperialism necessarily means the subjugation of one people by another, foreign nation:** or by the ruling a authorities (or ruling class) of the imperialist nation.

(1) rarely, if ever, does a subjugated people meekly submit to such foreign rule.

(2) their resistance inevitably led to brutal force by the occupying power – or threats of such force — to crush resistance and ensure submission.[[11]](#footnote-11)

(3) How therefore can any civilized society justify such imperialist actions, with the subjugation of other, foreign peoples?

(4) For Europeans, Christianity in the early Middle Ages had successfully preached that Christians were not morally entitled to enslave other Christians (though clearly slavery had been accepted in the Old Testament, in ancient Judaism:

1. while slavery did disappear finally in the Christian West, Christian Europeans had no compunctions about enslaving pagans or other non-Christians: especially in the Slavic East
2. indeed the rise of Venice’s commercial power from the 7th or 8th centuries was based on the export of pagan Slavs (hence the origin of the word ‘slave’) to the Islamic world, which certainly tolerated and widely practised slavery.
3. of course in medieval western Europe slaves were replaced by serfs: non-free but also non-slaves, with major differences (explained in my ECO 301Y course)
4. But in essence, in contrast to say the Roman Empire, the view developed in western Europe that enslaving non-Christians and aliens in general was somehow acceptable, if one believed that those enslaved were ‘inferior’

ii) **Imperialism, therefore (in my view), promotes and expands racism (and xenophobia in general)**:

(1) **for this obvious reason:** to provide a justification for imperialist conquest and suppression, on the grounds that those being subjugated are somehow ‘inferior’ and thus require such rule.

(2) **Consider the common European/North American racist slogan of the 19th and earlier 20th centuries:**

1. ‘the white man’s burden’, as though imperial rule was somehow a God-given duty of Europeans (and Americans) – just as some Americans evidently believe that it is their God-given duty to export ‘Democracy’.
2. as far as I am concerned, this is really the underlying principle supposedly justifying North American and western European (i.e., NATO): in the recent invasion and near conquest of Iraq (in which Canada refused to participate, and the current intervention in Afghanistan, supposedly coming to an end in the near future.

(3) Need I stress the horribly and depraved evils of racism, and the violence and deaths – not just mass murders, but genocides – for which racism has been responsible?

iii) **To highlight the significance and point of this question, let me ask this question:** In what fundamental respect do human beings, on this plant, differ from all other animals?

(1) you will probably and immediately suggest that we differ by our capacity for rational thought – really, is racism rational? – by our ability to communicate in many forms, including the most important , written form.

(2) the only animals to exercise the rational functions of memory in communications

(3) perhaps we are also the only ones to clothe ourselves in artificial and manufactured fashions

(4) But the real answer to this question is this: we, unlike all other animals on this planet, exist in the form of *one single unique species.*

1. The name of the species, our own now unique species, is *homo sapiens*: see the note about our origins (which are now agreed to be African: NE Africa).[[12]](#footnote-12)
2. that is, if there are no other human species, there are also no races:

(5) what is the geographic origins of our unique human species? Answer: Equatorial East Africa (i.e, the region of modern day Kenya and Uganda), according to almost all palaeontologists and anthropologists, from hominid origins possibly about 400,000 years ago.

(6) but, according to a majority of anthropologists, our modern forms of human beings (*homo sapiens*) date from about 150,000 years ago.

(7) The Neanderthals: this was indeed an even older and closely related Hominid species, that entered Europe and the Middle East possibly between 200,000 and 400,000 years ago (estimates vary widely).[[13]](#footnote-13)

1. But Neanderthals became extinct shortly after the more advanced Cro Magnon peoples entered these regions, about 25,000 - 30,000 years ago:
2. but how their extinction occurred is still not clear.

(8) The current theory is that our own ancestors (homo sapiens) emigrated from NE Africa during an earlier ice age, about 70,000 to 50,000 years ago, when food supplies were scarce, on both land and sea (having retreated with conversion into polar ice caps).

1. They followed a route through Arabia along the southern coasts of Asia, one branch reaching Australian (ancestors of their aboriginals),
2. while another branch veered north through India and Central Asia, with two more branches: one going westward into Europe (about 30,000 years ago) and another going westward, finally (about 10,000 - 20,000 years ago), entering North American crossing the Bering straits – then a land mass – into North America.[[14]](#footnote-14)

iv) **Are difference in skin pigmentation an indication, however, of supposed ‘racial differences’: the answer is clearly NO**

(1) we could simply argue that such differences are literally only ‘skin deep’, and thus irrelevant. For why indeed should difference in skin pigmentation make any difference?

(2) But there is a purely scientific reason for the emergence of such differences that reinforce, not contradict, the concept of one single origin of our unique species (I do not mean the biblical ‘Adam and Eve’, of course: even if its implication is that we are all one species).

(3) If scientists (paleontologists, anthropologists, biologists, etc) are correct in their belief that the geographic origin of our single species is, to repeat, the region of modern day equatorial, sub-Saharan East Africa, then we must also assume that the hominoids who evolved to become the true ancestors of modern humans necessarily had dark brown skins (the word ‘black’ is misleading), for no other hominoids could have survived the death-dealing ultra-violet races of the intense sunlight in these regions.

(4) The biological determinant of that pigmentation is the chemical *melanin:*[[15]](#footnote-15)

1. It is produced in *melanocytes*, which are cells in the deepest layer of the epidermis, and these distribute granules of that dark pigment to the other skin cells.
2. Synthesis is stimulated by sunlight, and also by a hormone from the anterior pituitary gland.
3. Its purpose: to protect human beings from intense tropical sunlight: for pigmentation determines the quantity and quality of reflected visible light.
4. In particular, to protect humans from *malignant melanoma*, a generally fatal form of skin cancer, ‘arising from the melanocyte cells of the skin.’[[16]](#footnote-16)
5. Without that protection, early humans would not have survived in equatorial east Africa (lacking of course, protective clothing, housing, let alone skin lotions).
6. The trade-off: sufficient quantities of melanin in the skin to reduce or virtually eliminate the risk of death from melanoma also inhibits the absorption of sunlight, or rather of ultra-violet rays, sufficient to synthesize Vitamin D. [[17]](#footnote-17)

v) **the important conclusion: every human being alive today and whoever has lived on this plant is and has been a descendent of dark-skinned humans from equatorial East Africa.**

(1) **How Human Migrations from East Africa to the continents of Asia and Europe involved genetic mutations that led to differences in skin pigmentation:** my Darwinian ‘solar’ theory.

1. ie., this is based on the differential effects of solar ultra-violet rays: as a trade-off between the life-giving and death-dealing effects of the sun’s rays
2. As our human ancestors, over a hundred thousand years ago (or more), migrated from East Africa vis the Mediterranean basin into more temperate zones in North Africa, Mediterranean and then northern Europe, and into various parts of Asia,
3. those who experienced genetic mutations leading to lighter skin pigmentation gained a very major survival advantage
4. in terms of biological trade-offs: because those with lighter skins were better able to absorb ultra-violet rays to produce Vitamin D.[[18]](#footnote-18)

(2) **The importance of Vitamin D, according to recent scientific research:** it provides much better protection against a wide variety of other cancers

1. That includes cancers of the breast, rectum, ovary, prostate, stomach, bladder, esophagus, kidney, lung, pancreas and uterus, as well as Hodgkin’s lymphoma and multiple myeloma.
2. Consequently, in the story of human evolution, those with lighter-skins in especially temperate zones, and thus better able to have ultra-violet rays synthesize Vitamin D gained an enormous survival advantage, to repeat, over those with darker skin pigmentations in such temperate zones, who could not so well synthesize Vitamin D.
3. by the Darwinian ‘laws’ of **genetic mutation, ‘natural selection’, and survival of the fittest,** those having these Vitamin-D advantages would better survive and better propagate than those with darker skins in the more northern, temperate zones.
4. **To be clear on this vital point:** beneficial genetic mutations, those that produced significant survival advantages, would predominate amongst those humans – in such specific regions in which the effects of ultra-violet rays were paramount – simply through ‘natural selection’ and survival of the fittest, passing on these biological advantages to their offspring, who would multiply and predominate at the expense of those lacking these genetic changes.
5. But, on the other hand, those humans who migrated into the tropical zones of southern Asia and the Pacific Ocean, with intense solar radiations, as intense as those in equatorial Africa, would have been better able to survive with sufficient melanin to protect themselves against fatal melanomas, as previously argued.
6. Obviously in many regions, further biological trade-offs occurred: those with sufficient melanin (dark pigmentation) to offer some protection against melanomas, but with sufficiently paler skins to allow penetration of ultra violet rays for synthesis of vitamin D
7. hence the very wide variety of skin pigmentations, which, of course is also the result on inter-breeding amongst migrating humans, across the world.
8. note: those who live in far northern or far souther regions of the world normally do not receive enough sunlight and thus sufficient ultraviolet rays to permit the synthesis or production of a sufficiently adequate amount of vitamin D:
9. and thus they (like me) should take daily supplements of artificial vitamin D
10. at the same time, they also run a risk of falling victim to melanomas: as for example, the late premier of Quebec, Robert Bourassa.

(3) **Thus a purely biological non-racial explanation for the beneficial differences in skin pigmentation across the world, though the history of mankind:**

1. In sum, the differential effects of solar rays across the world, combined with the basic principles of Darwinian evolution (genetic mutation + natural selection and ‘survival of the fittest”) fully explains this human evolution.
2. and it is perfectly consistent with and indeed reinforces the concept of one single human species
3. and (if I am correct) this Darwinian ‘solar’ theory completely negates any possible concepts of so-called ‘white supremacy’ (which, in any event, are absurdly stupid, even without my Darwinian ‘solar’ theories).

d) **The ‘New Imperialism’ or ‘Era of Capitalist Imperialism’, 1870 - 1914** (and beyond):

i) **The latter or subsequent phase of European Imperialism is often called ‘New Imperialism, or what the Marxists call the era of Capitalist Imperialism**

(1) as opposed to earlier forms of national, ethnic, or religious imperialism -- and also distinct from the so-called ‘Imperialism of Free Trade’ era, from the 1840s to the 1870s, just discussed

(2) This year, this is B-List essay topic, for the second term.

ii) **Lenin in 1916 wrote a very famous pamphlet on foreign investments (especially investments into Russia) entitled** *Imperialism as the highest stage of Capitalism*: and in essence he and other Marxists argued the four following propositions:

(1) that the historical tendency of all profit (economic rent + interest + profit) is to decline -- a view, in fact, that had been shared by virtually all Classical Economists;

(2) that competition amongst capitalists will ensure that profits will always fall in every country in the long run;

(3) that the more aggressive and powerful capitalist firms and indeed the nations that they govern will seek to avoid or postpone this inevitable tendency towards falling profits by exploiting new areas of the world and doing so by exporting capital;

(4) that the very act of exporting capital, especially to underdeveloped nations, is ipso facto imperialism,

1. with or without actual military and governmental control of those regions;
2. for the power of capital investments will itself secure the necessary forms of rule and control.

iii) **This is not, however, a scheduled A-list essay topic for this year:**

(1) but available and recommended, as an B-List essay topic, to be found in the Master List of Topics, as no. 20: The ‘New Imperialism’ of 1870-1914 (the Era of ‘Capitalist Imperialism’): Foreign Trade, Capital Exports, and the Overseas Colonial Empires of Britain, France, and Germany up to World War I.

(2) The previous time that this course was offered (2008-09), it was an A-list-topic essay topic.

e) **Imperialism in the 20th century:**

i) **Canada, in 1938, when and where I was born (Vancouver, B.C),** was a profoundly bigoted and racist country, where all those who were not WASPs [White Anglo-Saxon Protestants, of which I was one] suffered some degree of discrimination:

(1) even if those of African origin were not lynched, as in the southern U.S., and even if Jews (and many others) were not murdered, as subsequently in Nazi Germany

(2) But Canada, and most Canadians then, were profoundly anti-Semitic and especially ant-Asian – and if not so much anti-‘black’, as in the U.S., only because there were so very few Canadians (some, admittedly) of African origin, many descendants of runaway slaves from the pre-Civil War U.S.

(3) As I have noted in a footnote above, the worst example was the expropriation and incarceration of native-born Canadians – and, also in the US., of native-born Americans, for the sole reason of their Japanese ancestry.

(4) The common defence for this utterly abominable act was that this was wartime – WWII, and that we were at war with Japan

1. that argument may have been valid for any Japanese nationals, Japanese citizens, living temporarily in Canada, but **not for native born Canadians**
2. while the US did the same, along the West Coast (proving later to be far better in apologies and compensation), they could not do so in Hawaii, in which over 25% of the population was of Japanese ancestry; had they done so, the economy would have collapsed!
3. and yet again **no** acts of espionage or sabotage were committed by any of them
4. and many valiant Japanese Americans served courageously and well in World War II (but in fighting the Germans, not the Japanese)

(5) The question naturally arises: why did we not incarcerate Canadians and Americans of German and Italian origins – especially when before WWII, many Americans of German origin had created the once immensely powerful and pro-Nazi German-American Bund?

ii) **By no co-incidence the 1930s was also the very period when the British, French, Dutch, Italian, American – and Soviet – Empires were at their height:**

1. and when Nazi Germany dreamed of regaining its lost empire, chiefly in African colonies, was about to begin its attempt at European and perhaps world conquest, the ultimate in Imperialism:
2. it was the apogee of the European Imperialism that had begun in the early 19th century
3. and there is no doubt in my mind about the link between this Imperialism and the profound racism of this era.
4. Note that from the 1890s to 1945, Japan was also a major Imperialist power – and not surprisingly we find the same type of racism amongst many Japanese citizens

f) **Joseph Schumpeter on Imperialism:**

i ) **I invite you to read Joseph Schumpeter on Imperialism:** from his classic book, *Imperialism and Social Classes: Two Essays* (New York: Meridian Books, 1951).

(1) He provides deeply profound historical analyses of imperialism, for which there is one common element: the creation and perpetuation of state-run military machines.

(2) He begins with ancient Egypt, from the expulsion of the Hyksos rulers: 15th Dynasty, from c.1650 BCE [the Bedouin Shepherd Kings, from the region of later Palestine], and I quote the following passage:

The [Egyptian] crown thus carried out a social revolution: it became the ruling power, together with the new military and hierarchical aristocracy, and, to an increasing degree, foreign mercenaries as well. This new social and political organization was essentially a war machine. It was motivated by warlike instincts and interests. Only in war could it find an outlet and maintain its domestic position. Without continual passages at arms it would necessarily have collapsed. Its external orientation was war, and war alone. Thus war became the normal condition, alone conducive to the well-being of the body social that now existed. To take the field was a matter of course, the reasons for doing so were of subordinate importance. *Created by wars that required it, the machine now created the wars it required*. A will for broad conquest without tangible limits, for the capture of positions that were manifestly untenable – this was typical imperialism.

(3) This is an essay very well worth reading, in particular the following section on ‘Imperialism and Capitalism’, pp. 64 - 98. I quote now a crucial passage on p. 65:

Imperialism thus is atavistic in character.[[19]](#footnote-19) It falls into that large group of surviving features from earlier ages that play such an important part in every concrete social situation. In other words, it is an element that stems from living conditions, not of the present, but of the past – or, put in terms of the economic interpretation of history, from past rather than present relations of production. It is an atavism in the social structure, in individual, psychological habits of emotional reaction. Since the vital needs that created it have passed away for good, it too must gradually disappear, even though every warlike involvement, no matter how non-imperialist in character, tends to revive it. It tends to disappear as a structural element because the structure that brought it to the fore goes into a decline, giving way, in the course of social development, to other structures that have no room for it and eliminate the power factors that supported it...... If our theory is correct, cases of imperialism should decline in intensity the later they occur in the history of a people and of a culture,

ii) **So: has imperialism declined, and in this fashion?** What would you call the continued intervention of North American and European forces in Asia, especially in the Islamic regions of Asia?

iii) **See my web document:** Schumpeter on Economics and the Values of Economic History

<http://www.economics.utoronto.ca./munro5/schumpeter1.pdf>

iv) **Final Question:** if we were able to wave a magic wand, and somehow abolish racism in the world, we would find that there remained an equally vile and dangerous evil, and a closely related one: **tribalism?**

 **British Foreign Trade Components, 1801-10 to 1901-10**

**Decennial Means of British Exports, Imports, ‘Invisible’ Earnings, Balances on Current Account, and Accumulated Balances of Overseas Investments, in Millions of Pounds Sterling, in Current Prices**

**Decade Export Exports - Imports = Balance + Serv- +**  **Divid- = Balance Accumulated**

 **Index on Comm- ices ends & on the Balance**

 **odity Interest Current of Overseas**

 **1801-10 Account Account Investments\***

 **= 100 in £ in £ in £ in £ in £ in £ in £ sterling**

**1801-10** 100.0 41.05 50.95 -9.90

**1811-20** 101.3 41.60 49.80 -8.20

**1821-30** 89.2 36.60 47.05 -10.45 12.40 4.40 6.35 104.50

**1831-40** 110.0 45.15 63.70 -18.55 16.35 6.70 4.50 149.50

**1841-50** 140.0 57.45 79.35 -21.90 18.70 8.50 5.30 197.00

**1851-60** 259.6 106.55 137.20 -30.65 33.60 14.10 17.05 314.50

**1861-70** 404.6 166.10 223.60 -57.50 62.50 26.30 31.30 591.00

**1871-80** 537.0 220.45 313.85 -93.40 89.90 53.15 49.65 1127.00

**1881-90** 570.8 234.30 331.95 -97.65 97.80 74.50 74.65 1716.00

**1891-00** 584.0 239.75 385.20 -145.45 94.55 97.10 46.20 2296.00

**1901-10** 845.9 347.25 505.55 -158.30 123.55 132.15 97.40 3006.50

**Explanation of the Table:** Subtract imports from exports to obtain the balance on the commodity account, which was always negative (i.e., the British imported a greater value of goods than they exported). To that negative balance on the commodity account, add the ‘invisibles’ consisting of ‘services’ (i.e., shipping, banking, insurance revenues, etc.) and those dividends and interest payments received on foreign (overseas) investments, in order to obtain the final balance on Current Account, which was always positive. Gold movements and other items on Capital Account are not shown here.

**The Equation:** Exports - Imports = Balance on the Commodity Account + Services + Dividends & Interest = Balance on the Current Account.

\* The accumulated net balance of overseas investments (foreign credits) includes the retained or re-invested interest and dividends on accumulated foreign investments. Gold movements and other items on the capital account are not given.

**Source:** Calculated from Peter Mathias, *First Industrial Nation* (London, 1983), Table VII, p. 305.

 **BRITISH CAPITAL EXPORTS:**

**I. 1792 - 1815: British government finances the anti-French Alliance during the Napoleonic Wars** **assisted by private investments**

- becomes a net creditor nation and displaces the Dutch as the world’s leading capital exporter.

**II. 1815 - 1836:**  **British Private Investments in financing Foreign Government Bonds/Debentures in Europe and the United States**: **financing public works and transportation**

- 1836: banking crisis in the United States forces 9 American state governments to default on their debts and bonds, producing a financial/credit crisis in Great Britain, leading to a major commercial-industrial depression, 1836 to 1842.

**III. 1842 - 1873: British Foreign Investments in European, North American, and Asian/African/Latin American Railways and other Transport**

- British exported physical railway capital in railway iron, locomotives, rolling stock, etc; British investments funds used to purchase British equipment and pay British engineers

**IV. 1873 - 1914: Era of ‘New Imperialism’ or ‘Capitalist Imperialism’:**

**-** ushered in by international financial crisis of 1873 and the onset of the ‘Great Depression’ → Return to Protectionism

- Marxist View: that capital exports were essential ingredient of imperialism and necessary to sustain international capitalism

- British Capital Exports: in widely diversified assets in both colonial and non-colonial areas of the world

- Britain as world’s leading capital exporter and as a ‘mature creditor nation: receiving annually inflow of dividends and interest matching outflow of capital investments.

Subject: EH.R: De Long's Review of *Against the Tide*

 Date: Mon, 06 Jan 1997 11:29:05 -0500

 From: joshua.rosenbloom@yale.edu (Joshua Rosenbloom)

================= EH.RES POSTING =================

Douglas Irwin, *Against the Tide: An Intellectual History of Free Trade*.

Princeton, NJ: Princeton University Press, 1996. 274 pp. Bibliography

and index. $29.95 (cloth). ISBN 0691011389

Reviewed for EH.Net by Brad De Long, Department of Economics,

University of California- Berkeley <delong@econ.Berkeley.EDU>

Douglas Irwin has written the history of ‘free trade’ – as an idea and as an economic policy – for our generation. His dominant organizing principle is that the move toward freer trade in economic policy has been ‘against the tide’- that there have been lots of reasons over the ages why free trade should not have triumphed as economic policy, and that its triumph to date is somewhat miraculous: akin to a river running uphill.

**Mercantilism and Free Trade**

Free trade as an idea was born in the shadow of mercantilism in early modern Britain. It is not the case that before Adam Smith's *Wealth of Nations* thinkers rejected the idea of trade: the notion that countries, like individuals, stand to gain from specialization (producing what they make best and most efficiently) and exchange is powerful, fundamental, and obviously true. But before Adam Smith thinkers overwhelmingly believed that imposing delicately-calculated restrictions on international commerce could boost an economy's resources and achieve important non-economic goals as well. For example, even Adam Smith wrote that ‘defence is more important than opulence.’

It is hard from our current perspective to make much sense of the mercantilist writers. They were aggressively pro-export--sharply critical of restrictions that limited export. Irwin sees their doctrines as having four components:

1. A moral argument that foreign-produced luxuries were not worth consuming, and that the state should (for the good of those who would buy French fripperies if unrestrained) restrict imports of foreign-produced luxuries.
2. An unemployment-equilibrium argument that allowing imports to increase would throw people out of work.
3. A belief that manufacturing should be promoted to enhance economic development--perhaps with some recognition that this argument required that the benefits to society from expanding

 manufacturing be greater than the profits to the manufacturer.

1. Non-economic goals: ‘defense more important than opulence.’

Against mercantilism, Adam Smith established a strong presumption in favor of the economic benefits of free trade. David Ricardo nailed the case down with his exposition of ‘comparative advantage.’ Ever since trying to construct a coherent intellectual case for trade protection has been like trying to roll Sisyphus's stone up the hill.

This is not to say that people have not tried. The case for free trade is not absolute. It is limited by:

1. Worries about the distributional effects of trade – in which case free trade can boost real national product but erode social welfare if it shifts the distribution of income and wealth in an unfavorable direction.
2. Worries about the effect of free trade on the terms-of-trade--in which case finely-tuned protectionist measures that erode the total surplus from trade can nevertheless garner a

 larger surplus for the home country (under the assumption that foreign governments do not retaliate).

1. Worries about the effect of free trade on high-externality industries--in which case policies that restrict trade might boost external benefits by more than enough to offset the lost gains

 from trade.

But as Irwin eloquently argues, all these limitations of the case for free trade are fragile. In many cases trade protection is a poor second-best policy, to be avoided because there are other more direct

and less costly alternative policies that will produce higher economic welfare. In other cases, close scrutiny reveals that the reasons for rejecting free trade ‘have foundered under the weight of the manifold qualifications that narrow the range of circumstances under which the argument is valid.... [For example] the strategic use of trade policy to shift rents between countries... hinges critically upon numerous assumptions about competitive behavior and market structure.’

Irwin thus concludes--I believe correctly--that arguments for protection are fragile and frail compared with the presumption that free trade is a good thing. To do better than free trade requires an enormous amount of knowledge and policy-making skill on the part of the government, skill that can only make things a little bit better if protectionist policies are properly applied--but could make things a lot worse if misapplied.

**The Rent-Seeking Society**

However strong the intellectual case for free trade, the victory of free trade as an economic policy is still quite surprising. We can run through – Irwin runs through – the standard rent-seeking society arguments:

1. Beneficiaries from protection know who they are.
2. Each beneficiary from protection gains a lot more than each consumer loses.
3. Beneficiaries from protection can organize easily.
4. The logic of politics is not the logic of market exchange – but the logic of power exercised, and identifiable favors done for those who can someday return them.

For all these reasons, governments seeking to assemble coalitions of politically powerful elites should be powerfully attracted by individual protectionist proposals. There is a principle that the set of economists is dense in the space of possible policies: for every small number epsilon, for every policy theta, there is someone who can wear a tie, speak with authority on television, and make semi-coherent arguments that some policy that is within epsilon of theta is in fact optimal. When the stakes are large the returns to being a tame politician or a tame intellectual for protectionist interests are large too, and the labor market works well enough that demand calls forth supply--and we have Pat Choate claiming with an apparently straight face that five million American manufacturing jobs are ‘at risk’ if the United States lowers its tariffs on Mexican imports from an average level of 3% to zero.

And it was here that I found myself wishing that Douglas Irwin had written a slightly different book. For I do not believe that the production and reproduction of intellectual arguments proceeds independently of the rest of social life, and I think the links between the strength of protectionist ideas and the potential benefits to those with the wherewithal to fund the creation and distribution of protectionist ideas are very strong and very interesting. But Irwin remains at the level of the intellect. He does not descend to the sociology of ideology at all – and I think that what is a very good book is less than the Platonic Ideal of a history of free trade because of its limited scope.

In addition, there is powerful feedback from the political economy back to the case for free trade. The very strength of the political-economic pressures toward protection generated in a rent-seeking society serves to powerfully reinforce the case for free trade. Douglas Irwin quotes Paul Krugman that the most powerful case for free trade today ‘'is not the old argument that free trade is optimal because markets are efficient' but rather 'it is a sadder-but-wiser argument for free trade as a rule-of-thumb in a world whose politics are as imperfect as its markets.... to abandon the free-trade principle in pursuit of the gains from sophisticated intervention could therefore open the door to adverse political consequences that would outweigh the potential gains.'’

**The Future**

Irwin concludes his book with a resounding triumphalist sentence: ‘Yet if the historical experiences described here continue, free trade will remain one of the most durable and robust propositions that economic analysis has to offer for the conduct of economic policy.’

 I find myself much more pessimistic – not that I think that free trade does not deserve to flourish, but that I doubt that it will flourish. There are two reasons to be sceptical of the future of free trade:

1. The first reason is that the East Asian economies that have grown so impressively in the past two generations have not been committed to free trade. There are arguments that they have been committed to free trade in what matters most for production (if not for consumer welfare): ‘a free-trade regime for exports and for imports for exporting industries’ is the phrase often used. There are arguments that they have been lucky not to have been badly hurt by their deviations from free trade. There are arguments that they have managed to find a set of trade restrictions that actually does promote high-externality activities and rapid growth. Which is true is unclear. What is clear is that for the next generation opponents of free trade will say: ‘Japan, Korea, Taiwan, etc. did not adopt free trade – and look how fast they grew.’ And at the level of economic policymaking and public ideology, this statement has the potential to erode a lot of support for free trade.
2. The second reason is that arguments for protection today hinge much more on the duties that first world consumers owe third world workers than on the links between protection and first world prosperity. Does the restriction of imports that violate fair labor standards give employers in developing countries the right incentives to improve working conditions and boost social welfare? Or does it just destroy jobs in developing countries--making the life chances of the poor even worse? It is not clear. But consumers in the first world do have moral obligations toward workers in developing countries, and the economic theory of free trade sheds little light on what policies are best in light of these moral obligations.

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**ON FREE TRADE AND COMPARATIVE ADVANTAGE:** William Watson (McGill): in *The National Post,* 30 March 2000

*A difficult idea, in 400 words or less'*

Comparative advantage
is a hopeful principle,
but it's no crowd pleaser

**BY WILLIAM WATSON**

John Robson, my friend and former **colleague** at the *Ottawa Citizen, is* a brave man. During the almost two years he and I spent together on the *Citizen's* editorial board, I saw him wade into many a heated exchange, fearlessly de-fending the most unpopular beliefs.

But on Saturday in the *Post's* Review section, he outdid himself. He presented, and the editor tolerated, an exposition of comparative advantage based on a simple arithmetic example (which, like all arithmetic examples expressed in words, required concentration to follow: I had to concentrate, and I teach the stuff for a living).

John Robson's goal was to make a point both about free trade ("Free trade makes everyone richer," as his piece was called) and about social scientists, most of whom reject "the one single thing any of the social sciences has ever proved be yond rational dispute, mathematically," **which *is* that "voluntary exchange** makes both parties better off." In this characterization of comparative advantage he echoes Paul Samuelson, the second recipient of the Nobel Prize in Economics. A mathematician once challenged Prof. Samuelson to name one proposition in the social sciences that was both true and non-trivial. After several years, he finally answered, "comparative advantage."

"That it is logically true," wrote Prof. Samuelson, "need not be argued before a mathematician; that it is not trivial is attested by the thousands of important and intelligent men who have never been able to grasp the doctrine for themselves or to believe it after it was explained to them."

In his impatience with social scientists who reject comparative advantage, Rob-

son will be disappointed to learn that he is echoing Paul Krugman, who recently wrote a paper called "Ricardo's Difficult Idea”, which offers several explanations for the widespread lack of appreciation for comparative advantage. (David Ricardo was the 19th-century Englishman who discovered comparative advantage.Prof. Krugman's paper can be read at http: **//**[**web.mit.edu/krugman/www/ri**cardo.htm](http://web.mit.edu/krugman/www/ri-cardo.htm).] Robson will be disappointed by Prof. Krugman's concern because, for an American, Prof. Krugman leans left - as does Prof. Samuelson.)

Robson attributes social scientists' rejection of comparative advantage to their generally bolshie nature. Prof. Krugman talks about their aversion to modelling, their penchant for iconoclasm, the many background assumptions that have to be accepted, and a number of other possibilities.

I actually think it's simpler than all that. The problem is that to show how the doctrine works, you have to do Algebra - albeit simple algebra. That immedi-

ately stops people listening. Which is **unfortunate,** because the doctrine of comparative advantage is deeply paradoxical, and therefore deeply interesting. Countries should trade with each other, it says, even when one can do everything - everything - more efficiently than the other. People, too. Here,in *400* words, is how I usually try to ex-plain it (though this usually takes the first two lectures of the trade policy course I teach in my day job).

Suppose Japanese are super-productive, as we once thought they were, and Canadians aren't (Or is that too realistic for you?) Each Japanese can make 100 cars in a year or 50 tons of wheat. Canadians, poor wretches, can only make one car or one ton of wheat.

You'd think Japan would end up making everything, as in the 1980s we sometimes feared they would. In fact, comparative advantage says the Japanese can profit by trading with Canada.

How much will cars cost in Canada? In a year, Canadians can make either one car or one ton of wheat. If labour con-

tent determines prices, a ton of wheat will cost one car. In Japan, however, cars are twice as plentiful as wheat. So a ton of wheat should cost two cars, not one. Where should the Japanese buy their wheat? Where it's cheaper, in Canada. If they take two cars to Canada and trade, they get two tons of wheat. If they insist on producing their own wheat, then every two cars they forgo gets them just one ton of wheat.

Where should the Canadians buy their cars? In Japan, where a ton of wheat gets you two cars, rather than at homes ●' where it buys only one car. See the paradox? The Japanese have an "absolute advantage" in both goods: For a given amount ` of labour they can produce more of both than we can. Which means they will be richer than we are. But they can still-profit by trading with their productivity inferiors. Fated to be rich, they will be even richer if they trade with us. As for us, our low labour **productivity** means we will be much poorer than the Japanese, but we will be less poor if we trade with them for our cars rather than struggle against comparative advantage to produce them ourselves.

This is a very hopeful doctrine. Even complete nincompoops can improve their lot by trading - even if **nincompoops**  wi11 always be worse off than polymaths. The key is to specialize in what you do least badly. What makes it all work is that the rate at which the two countries can transform cars into wheat(and vice-versa) differs. If it doesn't - if the average Japanese can produce *100* cars **and** *100* **bushels** of **wheat** in a **year - then** cars **and wheat** will cost the same in **both countries and** there's no advantage to trade.

The model - that was a simple economic model - can be (and has been) made a lot more complicated and/or realistic. But that's its kernel.

All credit to John Robson for putting itin the newspapers. I hope circulation doesn't plummet as a result

*William Watson, editor of IRPP's Poli-*
***cy Options, teaches economics at****McGill* ***University.***

Note: this Word Perfect file, on Watson’s editorial on ‘Free Trade and Comparative’ Advantage’, was converted, and not perfectly, from a pdf file, which in turn had been created from scanning the National Post editorial. It is also available online, from my web page, at this URL:

[http://www.economics.utoronto.ca/munro5/FreeTrade.pdf](http://www.chass.utoronto.ca/~munro5/FreeTrade.pdf)

 **VITAMIN D**

By JANE E. BRODY

Published: February 19, 2008

**The New York Times**

The so-called sunshine vitamin is poised to become the nutrient of the decade, if a host of recent findings are to be believed. Vitamin D, an essential nutrient found in a limited number of foods, has long been renowned for its role in creating strong bones, which is why it is added to milk.

Skip to next paragraph

Stuart Bradford

Now a growing legion of medical researchers have raised strong doubts about the adequacy of currently recommended levels of intake, from birth through the sunset years. The researchers maintain, based on a plethora of studies, that vitamin D levels considered adequate to prevent bone malformations like rickets in children are not optimal to counter a host of serious ailments that are now linked to low vitamin D levels.

To be sure, not all medical experts are convinced of the need for or the desirability of raising the amount of vitamin D people should receive, either through sunlight, foods, supplements or all three. The federal committee that establishes daily recommended levels of nutrients has resisted all efforts to increase vitamin D intake significantly, partly because the members are not convinced of assertions for its health-promoting potential and partly because of time-worn fears of toxicity.

This column will present the facts as currently known, but be forewarned. In the end, you will have to decide for yourself how much of this vital nutrient to consume each and every day and how to obtain it.

Where to Obtain It

Through most of human history, sunlight was the primary source of vitamin D, which is formed in skin exposed to ultraviolet B radiation (the UV light that causes sunburns). Thus, to determine how much vitamin D is needed from food and supplements, take into account factors like skin color, where you live, time of year, time spent out of doors, use of sun screens and coverups and age.

Sun avoiders and dark-skinned people absorb less UV radiation. People in the northern two-thirds of the country make little or no vitamin D in winter, and older people make less vitamin D in their skin and are less able to convert it into the hormone that the body uses. In addition, babies fed just breast milk consume little vitamin D unless given a supplement.

In addition to fortified drinks like milk, soy milk and some juices, the limited number of vitamin D food sources include oily fish like salmon, mackerel, bluefish, catfish, sardines and tuna, as well as cod liver oil and fish oils. The amount of vitamin D in breakfast cereals is minimal at best. As for supplements, vitamin D is found in prenatal vitamins, multivitamins, calcium-vitamin D combinations and plain vitamin D. Check the label, and select brands that contain vitamin D3, or cholecalciferol. D2, or ergocalciferol, is 25 percent less effective.

Vitamin D content is listed on labels in international units (I.U.). An eight-ounce glass of milk or fortified orange juice is supposed to contain 100 I.U. Most brands of multivitamins provide 400 a day. Half a cup of canned red salmon has about 940, and three ounces of cooked catfish about 570.

Myriad Links to Health

Let’s start with the least controversial role of vitamin D — strong bones. Last year, a 15-member team of nutrition experts noted in The American Journal of Clinical Nutrition that “randomized trials using the currently recommended intakes of 400 I.U. vitamin D a day have shown no appreciable reduction in fracture risk.”

“In contrast,” the experts continued, “trials using 700 to 800 I.U. found less fracture incidence, with and without supplemental calcium. This change may result from both improved bone health and reduction in falls due to greater muscle strength.”

A Swiss study of women in their 80s found greater leg strength and half as many falls among those who took 800 I.U. of vitamin D a day for three months along with 1,200 milligrams of calcium, compared with women who took just calcium. Greater strength and better balance have been found in older people with high blood levels of vitamin D.

In animal studies, vitamin D has strikingly reduced tumor growth, and a large number of observational studies in people have linked low vitamin D levels to an increased risk of cancer, including cancers of the breast, rectum, ovary, prostate, stomach, bladder, esophagus, kidney, lung, pancreas and uterus, as well as Hodgkin’s lymphoma and multiple myeloma.

Researchers at Creighton University in Omaha conducted a double-blind, randomized, placebo-controlled trial (the most reliable form of clinical research) among 1,179 community-living, healthy postmenopausal women. They reported last year in The American Journal of Clinical Nutrition that over the course of four years, those taking calcium and 1,100 I.U. of vitamin D3 each day developed about 80 percent fewer cancers than those who took just calcium or a placebo.

Vitamin D seems to dampen an overactive immune system. The incidence of autoimmune diseases like Type 1 diabetes and multiple sclerosis has been linked to low levels of vitamin D. A study published on Dec. 20, 2006, in The Journal of the American Medical Association examined the risk of developing multiple sclerosis among more than seven million military recruits followed for up to 12 years. Among whites, but not blacks or Hispanics, the risk of developing M.S. increased with ever lower levels of vitamin D in their blood serum before age 20.

A study published in Neurology in 2004 found a 40 percent lower risk of M.S. in women who took at least 400 I.U. of vitamin D a day.

Likewise, a study of a national sample of non-Hispanic whites found a 75 percent lower risk of diabetes among those with the highest blood levels of vitamin D.

Vitamin D is a fat-soluble vitamin that when consumed or made in the skin can be stored in body fat. In summer, as little as five minutes of sun a day on unprotected hands and face can replete the body’s supply. Any excess can be stored for later use. But for most people during the rest of the year, the body needs dietary help.

Furthermore, the general increase in obesity has introduced a worrisome factor, the tendency for body fat to hold on to vitamin D, thus reducing its overall availability.

As for a maximum safe dose, researchers like Bruce W. Hollis, a pediatric nutritionist at the Medical University of South Carolina in Charleston, maintain that the current top level of 2,000 I.U. is based on shaky evidence indeed — a study of six patients in India. Dr. Hollis has been giving pregnant women 4,000 I.U. a day, and nursing women 6,000, with no adverse effects. Other experts, however, are concerned that high vitamin D levels (above 800 I.U.) with calcium can raise the risk of kidney stones in susceptible people.

1. As a modern aphorism, I can cite the apocryphal statement of Charles Wilson, who was Chairman of General Motors in the late 1950s, and who supposedly said : ‘What's good for General Motors is good for the country’. What he actually said was: ‘What is good for the country is good for General Motors, and vice versa,’ the latter added somewhat softly. [↑](#footnote-ref-1)
2. See the EH.Net Review (6 Jan 1997), by Brad De Long, of this monograph: Douglas Irwin, *Against the Tide: An Intellectual History of Free Trade* (Princeton, 1996), provided here as an appendix to this lecture. See also, Prof. William Watson (McGill) on Free Trade and Comparative Advantage (‘A Difficult Idea, in 400 Words or Less’, in *The National Post*, 30 March 2000, on my Home Page (Aids in Studying History): <http://www.economics.utoronto.ca/munro5/FreeTrade.pdf> [↑](#footnote-ref-2)
3. See the earlier lecture on English foreign trade and Mercantilism [↑](#footnote-ref-3)
4. North Americans call maize ‘corn’, because when Europeans first arrived they found that the principal crop cultivated by the aboriginal peoples was maize: hence the term corn. In the Netherlands and Germany, the words *koren. korn*  mean rye: the principal grain consumed in these regions. [↑](#footnote-ref-4)
5. The winners of general elections in the UK from 1818 to the end of World War II were as follows: August 1818 - Tories; April 1820 - Tories; July 1826 - Tories; July 1830 - Whigs; April 1831 - Whigs; December 1832 - Whigs; January 1835 - Whigs; July 1837 - Whigs; June 1841 - Tories/Conservatives; July 1847 - Whigs; July 1852 - Conservatives; March 1857 - Whigs/Liberals; April 1859 - Liberals; July 1865 - Liberals; Nov. 1868 - Liberals; February 1874 - Conservatives; April 1880 - Liberals; Nov. 1885 - Conservatives; July 1886 - Conservatives; July 1892 - Liberals; July 1895 - Conservatives; October 1900 - Conservatives; January 1906 - Liberals; Jan. 1910 - Liberals; Dec. 1910 - Liberals; 1918 - Coalition government; 1922 - Conservatives; 1923 - Labour; 1924 - Conservatives; 1929 - Labour; 1931 - Conservatives; 1935 - Conservatives; Jul 1945 - 1951- Labour. The Conservatives under Churchill won the 1951 election. [↑](#footnote-ref-5)
6. To be historically accurate, I must note a much earlier and very surprising experimentation with an English income tax: as far back as the reign of Henry VIII (1509-1547). From 1513 to his death in 1547, Henry VIII and his Parliament instituted several form of incomes taxes, which were all the remarkable for being graduated or progressive. But this form of taxation was discontinued in the later reign of his daughter Elizabeth (1558-1603), because of growing resistance from the wealthiest classes, who naturally bore the greatest burden; and they also bore the burden to the other principal form of taxation: the land tax. Thus there no further incidences of an income tax in England until the temporary measure of 1799-1816, during the Napoleonic Wars. See Roger Schofield, *Taxation Under the Early Tudors, 1485 - 1547* (Oxford and New York: Oxford University Press, 2004). [↑](#footnote-ref-6)
7. The Act also allowed for ‘free minting of silver’ at mint price of 62s per pound [↑](#footnote-ref-7)
8. Rondo Cameron, *A Concise Economic History of the World*: *From Paleolithic Times to the Present* (Oxford and New York, 1989), pp. 273-82. [↑](#footnote-ref-8)
9. Answers.com: Thomas Brassey (7 November 1805 – 8 December 1870) was an English civil engineering contractor and manufacturer of building materials who was responsible for building much of the world's railways in the 19th century. By 1847, he had built about one-third of the railways in Britain, and by time of his death in 1870 he had built one in every twenty miles of railway in the world. This included three-quarters of the lines in France, major lines in many other European countries and in Canada, Australia, South America and India. He also built the structures associated with those railways, including docks, bridges, viaducts, stations, tunnels and drainage works. As well as railway engineering, Brassey was active in the development of steamships, mines, locomotive factories, marine telegraphy, and water supply and sewage systems. He built part of the London sewerage system, still in operation today, and was a major shareholder in Brunel's The Great Eastern, the only ship large enough at the time to lay the first transatlantic telegraph cable across the North Atlantic, in 1864. [↑](#footnote-ref-9)
10. If you wish to know my political views, in judging this lecture for political bias, I can tell you that I am card-carrying member of the federal Liberal Party; and many years ago, I was actually a member of the Progressive Conservative Party (very different, however, from the current Conservative Party). As for the question of Marx and Marxism, you should read my web document on: *A Layman's Guide to the Basic Principles of Marxian Economics,* in which you will find my disclaimer that I am not a Marxist.<[http://www.chass.utoronto.ca/~munro5/MARXECON.pdf*>.*](file:///C%3A%5CUsers%5CJohn%20Munro%5CDocuments%5CMS-WordDocs%5C303Lectures%5C%3Chttp%3A%5Cwww.chass.utoronto.ca%5C~munro5%5CMARXECON.pdf%3E)You should read this web document if you are interested in the Marxist interpretation of Imperialism. My own discovery of and hatred for racism (and imperialism) can be dated to my teenage years, when I discovered: (1) the Holocaust, or the Nazi genocidal annihilation of over six million – perhaps eight million – Jews during World War II; and (2) an abominable act of our own Canadian government, also during World War II. It had arrested, confiscated the properties of, and incarcerated – in what were virtually concentration camps – tens of thousands of fellow, native born Canadians, for one reason only: their Japanese ancestry. Absolutely none was guilty of any acts of sabotage, espionage, etc., nor in the US, where similar incarcerations took place. Yet this was the false excuse given in both countries for the incarceration of our fellow citizens. To me this was a unjustifiable act, even in wartime: it was pure racism, and it is still a most shameful and indelible stain on my being Canadian, despite later — many decades later – partial apologies and partial compensation. In the US, a far, far greater and genuine threat had been posed by the pro-Nazi German American Bund; and yet none of these German Americans was sent to concentration camps (though the Bund was dissolved just after Pearl Harbour, in December 1941). [↑](#footnote-ref-10)
11. This obviously has considerable relevance for American and European forces in Iraq today, and in Afghanistan (where Canadian forces, absent from Iraq) are also waging war against the local inhabitants, who surely must see all of them (us) as European imperialists. [↑](#footnote-ref-11)
12. Compare these two encyclopedic entries:

(1) Answers.com: *Homo sapiens:* The species to which all living humans belong. The Latin meaning, ‘wise man’ reflects the greater endowment of the brain power compared to his predecessors. The species is defined in terms of anatomy, and the first member of the species is recognized from about 150 000 years ago. Compared to other members of the family Hominidae (all members of the human lineage since the divergence from the common ancestors with chimpanzees about 5 million years ago) and the genus Homo (larger brained hominids that appeared about 2 million years ago), the species is characterized by a higher and more vertical forehead, a round and gracile cranium, small face and teeth, a prominent chin, and a more slender and elongated post-cranial skeleton. Early forms of Homo sapiens co-existed in some parts of the world with other hominid species such as Homo neanderthalensis until about 26 000 years ago. Although members of Homo sapiens may vary around the world, the species cannot be clearly divided into sub-species or races, and all living humans can inter-breed with each other and produce fertile offspring — hence their designation as a single species.

(2) *Britannica Concise Encylopedia: on Homo Sapiens:* Species to which all modern human beings belong. The oldest known fossil remains date to c. 120,000 years ago — or much earlier (c. 400,000 years ago) if evidence of certain archaic varieties is included. Homo sapiens is distinguished from earlier hominin species by characteristics and habits such as bipedal stance and gait, brain capacity averaging about 1,350 cc, high forehead, small teeth and jaw, defined chin, construction and use of tools, and ability to use symbols. Most scholars believe that modern humans developed in Africa c. 150,000 years ago and spread to the Middle East c. 100,000 years ago and to other parts of Eurasia c. 40,000 – 50,000 years ago (this is known as the "single-origin" model). Others contend that modern humans developed from various regional populations of archaic H. sapiens or even other species of Homo in Eurasia beginning c. 250,000 years ago (the "multiregional" model). In the first model the genetic differences that exist between the peoples of the world would not be very old; in the second model they would be significantly older. In any case, by c. 11,000 BC modern H. sapiens had peopled virtually the entire globe. See also Cro-Magnon; culture; human evolution; Neanderthal. [↑](#footnote-ref-12)
13. Answers.com: two sources:

(1: Britannica): Neanderthal: Species of the human genus (Homo) that inhabited much of Europe and the Mediterranean lands c. 200,000 – 28,000 years ago. The name derives from the discovery in 1856 of remains in a cave above Germany's Neander Valley. Some scholars designate the species as Homo neanderthalensis and do not consider Neanderthals direct ancestors of modern humans (Homo sapiens). Others regard them as a late archaic form of H. sapiens that was absorbed into modern human populations in some areas while simply dying out in others. Neanderthals were short, stout, and powerful. Cranial capacity equaled or surpassed that of modern humans, though their braincases were long, low, and wide. Their limbs were heavy, but they seem to have walked fully erect and had hands as capable as those of modern humans. They were cave dwellers who used fire, wielded stone tools and wooden spears to hunt animals, buried their dead, and cared for their sick or injured. They may have used language and may have practiced a primitive form of religion.

(2: McGraw-Hill Science and Technology Encyclopedia): A group of late archaic humans from Europe, the Near East, and central Asia that immediately preceded the first modern humans in those regions. The Neanderthals are included by some within the species Homo sapiens, recognizing their close affinities to modern humans; others place them in their own species, Homo neanderthalensis, emphasizing the differences between them and modern humans. The first recognized Neanderthal remains were found in the Neander Valley near Düsseldorf, Germany, in 1856. Since then the remains of several hundred Neanderthals have been discovered. Since the Neanderthals were the first humans to bury their dead, a number of largely complete skeletons are preserved, providing detailed knowledge of their biology. See also Early modern humans. In the early twentieth century, when Neanderthals were the only archaic humans known, they were reconstructed as semihuman, dull-witted, and brutish. Hence their popular image was that of the archtypical cavemen. They are now recognized as relatively recent members of the human lineage; they lived between about 125,000 and 36,000 years ago (and as late as 30,000 years ago in certain isolated regions), as compared with earlier members of the genus Homo who extend back more than 2 million years. The Neanderthals share many features with modern humans both anatomically and behaviorally. Yet, a number of important contrasts between them and more recent humans are recognized. Physically, the Neanderthals were about the same height as most modern humans, on the average 5 ft 5 in. (166 cm), but they were much more heavily built. They had heavy necks, broad and muscular shoulders, and extremely muscular arms, hands, and legs. Estimates of their strength show them to have been about as strong as very athletic modern humans. Their leg bones show a marked thickening of their shafts, which is indicative of both marked strength and endurance—a necessary part of their survival. The Neanderthals are known for their long, low braincases and their projecting faces with large brows and prominent noses. Their brains were larger than those of modern humans. The large brain size was due in part, as with early modern humans, to their large body masses. The length and lowness of their braincases was due to relatively slow brain growth during infancy. There is no evidence that they were less intelligent than modern humans, only that their behavioral system was less elaborate. The position of the Neanderthals in modern human ancestry remains controversial. Whatever the extent to which Neanderthals can be claimed to be ancestors of modern humans, they represent the most recent phase of premodern humans, one in which people were less efficient than modern humans at hunting and gathering, and compensated for their cultural limitations with biological attributes such as tremendous strength, large front teeth, and thermal adaptations. Yet they exhibited the beginnings of many of the attributes of modern humans. They were very successful for about 100,000 years, but they were eventually replaced by humans who were better able to exploit their environments. [↑](#footnote-ref-13)
14. See Spencer Wells, *The Journey of Man: A Genetic Odyssey* (Princeton: Princeton University Press, 2002); and Steve Olson, *Mapping Human History: Genes, Race, and Our Common Origins* (Boston and New York: Mariner Books, 2003). [↑](#footnote-ref-14)
15. World of the Body, in Answers.com: *Melanin* a brown pigment in the skin and elsewhere. It is made in melanocytes, which are cells in the deepest layer of the epidermis, and these distribute granules of pigment to the other skin cells. Synthesis is stimulated by sunlight, and also by a hormone from the anterior pituitary gland. This is the pigment in simple moles and freckles, and in the areolar of the nipples; melanocytes are the cells which become cancerous in a malignant melanoma. Other sites are in hair, behind the retina of the eye, and in part of the adrenal gland. [↑](#footnote-ref-15)
16. There are three basic forms of skin cancers, activated by solar rays: basal cell, squamous cell, and melanomas. The first is rarely fatal; the third is too often fatal. [↑](#footnote-ref-16)
17. Answers.com: Vitamin D3 is calciol or cholecalciferol; formed in the skin by the action of ultraviolet light on 7-dehydrocholesterol, and hence not strictly a vitamin. However, in northern latitudes sunlight exposure may not be adequate to meet requirements, and a dietary source may become essential. Vitamin D2 (ercalciol or ergocalciferol) is a synthetic vitamer produced by irradiation of ergosterol. The name vitamin D1 was given originally to an impure mixture and is not used now. [↑](#footnote-ref-17)
18. Answers.com: A critical determinant of vitamin D3 production in the skin is the presence and concentration of melanin. Melanin functions as a light filter in the skin, and therefore the concentration of melanin in the skin is related to the ability of UVB light to penetrate the epidermal strata and reach the 7-dehydrocholesterol-containing stratum basale and stratum spinosum. Under normal circumstances, ample quantities of 7-dehydrocholesterol (about 25-50 mg/cm2 of skin) are available in the stratum spinosum and stratum basale of human skin to meet the body's vitamin D requirements,[4] and melanin content does not alter the amount of vitamin D that can be produced.[9] Thus, individuals with higher skin melanin content will simply require more time in sunlight to produce the same amount of vitamin D as individuals with lower melanin content. [↑](#footnote-ref-18)
19. Answers.com: Atavisim, atavistic: 1. The reappearance of a characteristic in an organism after several generations of absence, usually caused by the chance recombination of genes.

 2. An individual or a part that exhibits atavism. Also called throwback.

 3. The return of a trait or recurrence of previous behavior after a period of absence. [↑](#footnote-ref-19)