

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

VI. Week no. 6: Lecture no. 6b: on 17 October 2012

The English 'Agricultural Revolution': Part II (conclusion)

c) The Economic Advantages of the New Husbandry, with Enclosures: 1660 - 1740

- i) greater income stability for farmers – with greater crop + livestock diversification
- ii) better, year-round feeding of livestock: stall-feeding from fodder crops
- iii) better livestock management + selective breeding
- iv) End of periodic famines – with better nutrition (unlike France)
- v) much increased agricultural productivity (per acre land, per unit manpower) allowing farmers to cope better with the price-cost squeeze of the Agrarian Recession (1660-1740)
- vi) but not all farmers were able to engage in the New Husbandry: especially the yeomanry
 - lacked sufficient capital
 - had not enclosed their lands or acquired enclosed farms from landlords

d) The Plight of the Small Yeomen Grain farmers during the agrarian recession, 1660 - 1740:

i) suffered from a severe and growing price-cost squeeze:

- (1) grain prices were falling, often steeply, as already shown
- (2) but real factor prices were either constant or generally rising

ii) deflation: almost always raises input or factor costs, because of factor-price stickiness:

- (1) thus wages (labour), rents (land), and interest (on borrowed capital) do not fall – often because they have fixed by long-term contracts
- (2) if commodity prices fall – output prices for farmers, and factor prices do not, then the real cost of inputs would be rising

iii) lack of access to capital for small yeomen farms:

- (1) capital needed to engage in Convertible Husbandry and Norfolk Four-Course rotations, which were demonstrated to be the effective solution for the price-cost squeezes during the agrarian recession,
- (2) But the New Husbandry, especially with so much more added livestock, was far more capital intensive than were traditional forms of agriculture

iv) logical yeomen response to the price-cost squeeze, with inadequate capitals: sell their farms

5) Changes in English Landholding: in response to the Agrarian Recession, 1660-1740s

a) resurgence of the great landowners (aristocratic) at the expense of the yeomen, free-holders

- i) From 1690 to 1790, the aristocracy (peerage) increased its share of lands held from 18% to 25% – many of the post-1660 aristocrats were gentry elevated to the nobility – purchase of peerage

- ii) gentry: continued their expansion in holdings: from 25% to 50%
- iii) Yeomen freeholders (substantial free peasants): suffered a decline in their share of land holdings from 27% to just 15%: era of most severe contraction of the English yeomanry

b) **importance of legal innovations for the aristocracy:** laws of entail and 'equity of redemption':

i) **entail settlements:** to ensure that aristocratic estates (tied to title of nobility) passed intact to the eldest son, without any sales or transfers of the 'patrimony':

- made the entailed estate are for more secure, risk free collateral for mortgages
- allowed aristocrats to borrow capital far more cheaply than those without entailed estates

ii) **equity of redemption:** permitted mortgage holders (lenders) to sell or transfer their mortgages to third parties,

- thus allowing them to regain their capital (since few mortgages were ever redeemed)
- and thus increasingly the willingness of lenders to provide mortgages
- chiefly true for entailed estates.

c) **ability of landholders to cope with Agrarian Recession and profit from the New Husbandry:** chiefly depended on access to cheap capital

6) **Resumption and Completion of the Enclosure Movements, 1760 - 1830:**

a) **chief factor:** rising prices, both nominal and real, 1760 - 1815

i) **Inflation:** the rise in nominal prices, chiefly monetary

- influxes of gold (Brazil) and silver (Mexico), peaking ca. 1800
- proliferation of note-issuing banks (next day) from 1760s
- era of the 'Paper Pound': 1797 - 1820: unrestricted issue of bank notes and gov't deficit financing of warfare

ii) **Rise in real prices of grain (in relation to livestock and industrial prices):**

- population growth: doubling from 6 to 12 million, so that England became a net importer from 1770s
- warfare and Napoleonic blockades: cut off or reduced European grain imports
- bad weather in the 1790s (i.e., poor harvests)

b) **Importance of the Price Changes:** nominal and real

i) **inflation:** reduced real interest rate and the real costs of borrowing capital, so important for Enclosures

ii) **steady sharp rise in real grain prices:**

- meant, in terms of Ricardo's theorem, rising economic rents on existing arable lands, all the more so as costs were reduced
- thus the landlord incentive: to enclose Open Field customary lands in order to capture the rising economic rents on those lands
- otherwise the customary tenants, with fixed rents (in nominal terms) would capture those rents

c) **Parliamentary enclosures:** the legal mechanism for landlords to enclose

i) **To exercise 'eminent domain':** the power of the government to expropriate land 'for the public good': required private Acts of Parliament, with government surveys and compensation

- ii) allowed landlords to override the remaining and often deeply entrenched property rights of both yeomen freeholders and many customary tenants with strong inheritance rights
- iii) charts & tables showing that Parliamentary enclosures were sensitive to both real interest rates and real grain prices
- iv) see the enclosure maps: online

7) **The Economic Consequences of the Enclosures and New Husbandry:**

a) **continued debate about productivity changes:** but recent research supports view of major increases:

i) **Michael Turner's research:**

- from 1650 to 1750: crop yields rose (on average) by 36% (one century)
- from 1750 to 1800: yields rose another 30% (half century)
- from 1800 to 1850: yields rose another 78% for this half-century; and thus the period demonstrating the greatest increase

ii) **B.A Holderness:**

- similarly indicating that the period experiencing the greatest productivity increase was 1800 - 1850:
- with a per annum increase of 0.79% in productivity
- labour productivity: rose by 0.89% per annum
- labour productivity: rose by 0.50% per annum

iii) **Robert Allen:** for the longer period 1700 to 1850 (with no subdivisions by time)

- four-fold growth in Total Factor Productivity: between 2.32 and 2.46
- land productivity: rose by 37%
- labour productivity: rose by only 16%
- capital productivity: rose by 93%, by far the most important factor input for agriculture

b) **Robert Allen's Two- Stage Theory of the Agricultural Revolution:** 1640 - 1850

i) **The two-stages:**

(1) The Yeomen's Revolution, 1640 - 1740: marked by increases in land productivity: i.e., yields per acre

(2) The Landlord's Revolution, 1740 - 1850" marked more by increases in labour productivity

- increasing scale of farms meant less labour per acre & more specialization
- Evidence produced by table on Ricardian rents: showing greater increases in productivity as scale rose, but only to a certain maximum

ii) **My problems with the Allen Theory of the 'Yeomen's Revolution':**

(1) Ignores the evidence on the severe contraction in yeomen land holdings: from 27% to 15%, from 1690 to 1790 (after having risen from the 15th century): severest drop recorded

(2) Ignores arguments contending that Convertible Husbandry, as chief agent for increasing land productivity, could be achieved only (or best achieved) with enclosures

(3) Ignores arguments that the New Husbandry required large amounts of capital largely unavailable to yeomen farmers, especially those operating within communal Open Fields

(4) Ignores his own evidence indicating that of all factors of production capital played by far the major role in productivity increases.

c) The evidence on enclosures:

i) **Turner's evidence for 1801 (see Table in lecture notes):** clear productivity advantage of enclosed farms over Open Field Farms, for all grains, and for all regions of England (though varying by grains & regions)

ii) **Allen's data and tables show the same:**

(1) read the lecture notes for Allen's explanations for his own data – and why he does not agree with Turner's tabulated data

(2) Allen tries to show that productivity increases took place as well on Open Fields – but does not define them (or consider whether or not they contained engrossed holdings)

iii) **Allen's table on Ricardian rents:**

(1) shows clear gains from increased economies of scale of farms: larger farms required less labour per acre

(2) labour used more efficiently, with greater specialization

(3) implicitly: increased scale a function of enclosures

d) Contributions of the Agricultural Revolution to the Industrial Revolution:

i) **population and the food supply:**

(1) despite all the productivity achievements of the Agricultural Revolution, the agricultural sector did not succeed in feeding all of England's growing population: which doubled from 1760 to 1820 (6 to 12 million) and tripled again by 1910 (36 million)

(2) From the 1770s, England, having been a net food exporter (for over a century) became a net food importer — by the 1890s, England was importing 83% of its required food grains

(3) That again indicates the crucial role of foreign trade to accommodate that demographic and economic growth: to export goods & services to import foodstuffs and raw materials more cheaply (2nd term)

ii) **releasing labour for urban industrialization:**

(1) increased agricultural productivity and enclosures released surplus and redundant labour from the agrarian sector to be employed more productively in urban industrialization: chief contribution

(2) statistical evidence that even with increased numbers employed in agriculture, the proportion so engaged, as a percent of the total population fell: from 76% in 1500 to 36% in 1800, to 22% in 1850, to 7% in 1900

(3) In France, 43% of the population was still engaged in agriculture in 1900 – because France failed to undergo the same agricultural transformations as did England (2nd term)

iii) **increased capital investments:** in agriculture and industry

(1) increased capital from landlords: by 107% from 1700 to 1850, vs. 70% from tenants

(2) role of agriculture (landlords) in supplying capital for urban industrialization: next topic