

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

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**VIII: Week no. 8: Lecture no. 7, part B: on 31 October 2012**

**4. The National Debt and the Bank of England: 1693- 1757**

**a) 1693: the creation of a permanent, funded, national debt:**

- i) national debt: the responsibility of Parliament, not the personal liability of the monarch
- ii) funded debt: in that Parliament voted the taxes to pay the annual charges (interest) on the debt: chiefly in the form of excise (consumption) taxes and import duties
- iii) permanent: in that the government had no obligation ever to redeem (pay off) the national debt, which were issued in the form of perpetual but negotiable annuities - sold on the Stock Exchange
- iv) known as the 'English Financial Revolution': but with strong continental antecedents, immediately via the Dutch Republic, which inherited this institution from medieval Flanders

**b) annuities:** known on the continent as 'rentes' (rents)

- i) 13th century origins in towns of northern France and Flanders: to permit urban governments to evade the usury prohibition (against all forms of interest) by selling *rentes* or annuities: for fixed capital sums, in return for an annual stream of income
- ii) origins to be found in 12th-13th century agrarian contracts in Mediterranean zone: whereby urban merchants/financiers invested in a peasant's agricultural enterprise (farm), paying a lump sum of non-redeemable capital in return for a perpetual income stream, as a form of rent.
- iii) urban *rentes*: either for life annuities (extinguished on death of investor) or perpetual annuities, which could be sold to others, or passed on by inheritance.
- iv) Pope Innocent IV: in 1250: declared *rente* contracts to be free from taint of usury, so long as the buyer could never demand redemption/repayment and so long as annual payments came from 'fruits of the land' => government payments universally made in form of excise/consumption taxes on agricultural products: bread, meat, wine, beer, wool, textiles, soap, etc. (very regressive taxes)
- v) system of urban finances based on *rentes* spread to territorial and then national governments in western Europe by 16<sup>th</sup> century: France, Habsburg Netherlands, Habsburg Spain, German (Habsburg) principalities: but not England before the Glorious Revolution
- vi) *rentes* or annuities came to be traded on European stock exchanges from the 1530s: Antwerp (1532), Amsterdam (1608), and then London (from 1695)
- vii) English 'Financial Revolution' based on perpetual negotiable annuities: imported from the Dutch Republic after the Glorious Revolution (1688-89): by new Dutch-born king William III

**c) chief stages in the creation of the English permanent funded national debt:**

- i) 1693: the Million Pound Loan: not a loan but a lifetime annuity paying 14%
- ii) 1694: Bank of England loan, at 8% interest
- iii) 1698: Parliament's creation of the New East India Company, as a rival joint-stock trading company to Asia, for a loan of £2.000 million, again at 8%
- iv) 1709: Parliament allows the original East India Company to take over its rival, for another loan, of £1.200 million (interest rate unknown)
- v) From 1704 to 1710: series of 99 and 32 year annuities sold by the Exchequer

vi) 1711: formation of the South Sea Company

**d) The South Sea Company and the Bubble Crisis of 1720:**

i) **formation of the South Sea Company in 1711:** its nominal and actual purposes

(1) chartered joint stock company: with charter of incorporation, with limited liability

(2) ostensible purpose: to exercise a commercial monopoly on English trade with the South Pacific, a trade controlled by Spain, with its lucrative Mexico=>Philippines=>China links, based on silver and silks

(3) actual purpose: to take over all of the outstanding national debt, not held by the Bank of England and the East India Company: both in terms of short term loans and the 32-year and 99-year annuities

(4) 1711: South Sea Company bought up or took over £9.471 million in short term debts and debentures

ii) **method of conversion:** holders of short term gov't debt, earning interest at rates from 65.25% to 9.0%, were asked to convert those debts into South Sea Stock, paying a preferred interest of 5%

iv) **rationale for the conversion:**

(1) investors were converting a short term asset (or callable debentures) into a long-term, permanent asset

(2) South Sea Stock was negotiable: tradable on the London Stock Exchange, offering prospects of capital gains (from higher stock prices), as well as 5% dividends (so long as the stock was held).

(3) South Sea Stock for this reason proved to be good collateral for borrowing (loans)

v) **The Onset of Crisis:** the National Debt project of 1719-20

(1) proposal: to convert a total of £31.58 million in national debt issues into South Sea Stock (for same reasons as given above)

■ £16.55 million: in short term debts + redeemable debentures

■ £15.03 million: in 32-year and 99-year annuities (see above)

(2) 'Boiler-Room' activities:

■ South Sea Company directors engaged in illegal activities to churn the market and drive up the value of shares: which in the speculative bubble rose from par at £100 to almost £1000 a share

■ object: to ensure that fewer shares were traded for any given nominal or face value of debt, since conversion was based on share values

(3) But also, in order to raise new capital for this project, including purchasing national debt from those who did not want to convert, South Sea Company sought to sell new share issues

(4) To limit competition for new-issue sales, South Sea Co. asked for (and paid for) new statute limiting competition, in the form of:

vi) **The Bubble Act of 1720 and its consequences:**

(1) Bubble Act (as later named): restricted trade in shares of joint-stock companies (on the LSE) to those companies having charters of incorporation (and were acting according to their charter)

(2) While all the great overseas trading companies had such charters of incorporation (with limited liability for investors), almost all of the new, and land-based companies did not

(3) South Sea Company sparked the crisis by having three companies prosecuted for violations of the Act

(6) Result: severe stock crash (see graphs and tables), with all stock prices tumbling, but those of South Sea Company fell the most: since value of stocks in unchartered companies (or those not acting by the charter) would become without any trading law, by the Bubble Act.

vii) **Leverage and Liquidity:** the nature of all such financial crises, pricking bubbles and causing crashes

(1) **Leverage:** using a small amount of cash to buy an asset, on credit

- buying on 10% margin, with the remaining 90% financed by the broker's call loan: the stock instead was held by the broker as collateral for the loan: i.e., using £10 in cash to buy a marketable asset worth £100 – and hoping to sell that for a higher price, and thus very large profit on £10 investment
- if stock price rose from £100 to £110, the investor would double his investment (the £10 down payment) by his sale of the stock
- so long as stock prices rose, the broker was happy to hold the stock as collateral
- once stock prices fell, the stock lost its collateral value ==> so that the broker called his loans, for immediate redemption or repayment

(2) **The Liquidity Crisis:**

- once brokers called their margin loans, and sold (dumped) the stock, investors were forced to liquidate all or most of their assets: i.e., good stocks, such as Bank of England, East India Co
- form of Gresham's Law (bad money drives out good): here bad stocks drive out good stocks, by forcing their rapid liquidation to raise cash to pay off loans

viii) **Consequences: the Bubble Restriction Era of 1720 - 1825:**

(1) The South Sea Company effectively ceased to exist, except as a holding company for the government debt it either held or managed

(2) Parliament henceforth used the Bubble Act to restrict, indeed prevent the formation of any new joint stock companies, for just over a century (to its Repeal in 1825)

- any joint stock company seeking a charter of incorporation had to pay for a private act of Parliament, with high administrative and legal costs
- had to put up the capital in escrow with the Bank of England before charter was granted

(3) Result of these very onerous restrictions: there were no joint-stock companies available to finance capital formation in the new industries of the Industrial Revolution, not before 1825

(4) Canal companies: were the major and important exceptions,

- if only because canal companies had to acquire authorization (for eminent domain, etc) by private and acts of Parliament, to which incorporation charters cost little to add
- canals also obviously served the public good and entire nation
- canals were so expensive that joint-stock companies were the only possible solution

(5) The Industrial Revolution had to finance alternative financial solutions: to be seen next day

e) **Pelham's Conversion of 1749 - 1757:** the completion of the Financial Revolution

i) **1749: Sir Henry Pelham, Chancellor of the Exchequer (Finance Minister):** announced proposal to convert all of the outstanding national debt into one consolidated stock issue, paying 3% annually

ii) **Structure of the National Debt in 1749:** in summary: total of £70.441 million

- £19.6 million in debt held directly by the Three Sisters: Bank of England (£11.7), East India Company, and the South Sea Company == 27.8% of the total national debt
- £49.2 million in government 'stock': debt managed by the Bank of England (£25.6 million) and the South Sea Company (£23.6 million: from its conversions of 1711 and 1719) = 69.9%
- £1.6 million managed directly by the Exchequer = 2.3%

iii) **May 1750:**

- £50.751 million in 4% debts converted into 3.5% Consolidated Stock: 87.95% of total debts of £57.703 million
- major holdout: the South Sea Company holders of annuities, but the shareholders finally relented (on the threat of gov't redemption of their stock at par)

iv) **Christmas 1757:**

- all of the national debt (including South Sea Company 4% annuities) converted from 3.5% to 3.0% Consols
- key issue of persuasion for conversion: government promise not to redeem Consols for 30 years
- in fact, they were not redeemed until 1888 – in fact converted entirely into a new issue paying 2.75%, reduced by that year's statute to 2.5% in 2003, which rate still prevails today

v) **Consols:** Consolidated Stock of the Nation: perpetual annuities or 'government stock' traded on the London Stock Exchange

vi) **summary and future changes in the rate:**

- 1757: conversion of 3.5% and 4.0% stock into 3.0% Consols
- 1888: Goschen's Conversion of the National Debt into 2.75% Consols
- 1903: an agreed upon conversion into 2.5% Consols
- 1923: first year in which government was allowed to redeem 2.5% Consols
- 2010: the same 2.5% coupon or rate is still maintained: and currently (24 October 2013), Consols have traded on the London Stock Exchange at £66.09 = yield of 3.78%

vii) **Role of Consols in later 18<sup>th</sup> & 19<sup>th</sup> centuries:**

- major stock traded on the LSE, until the Repeal of the Bubble Act in 1825, and coming of the railways (financed as joint-stock companies)
- as perpetual annuities, with a guaranteed annual coupon: the most attractive long-term investment (the longer the term, the lower the interest rate), especially for investors predicting a continuing fall in interest rates.
- provided the safest of all possible savings and investments, with their stock-exchange values determined only market changes in the real rate of interest (determining yield and thus price)
- very important form of collateral for loans, as noted earlier
- provided chief mechanism for low cost public borrowing (with new issues of Consols: e.g. the New 3% Annuities of 1855)

5. **Importance of the Bank of England in the 18<sup>th</sup> and early 19<sup>th</sup> centuries:**

a) **positive contributions of the Bank of England:**

i) **management of national debt ==> reducing the national interest rate:** in creating a low cost, permanent funded, national debt, most of it during wartime,

- (1) thereby in reducing the interest rate on government borrowing from 14% in 1694 to 3% from 1757
- (2) that also greatly reduced the 'crowding out effect', hence lowering the general rate of interest, and providing relatively more and cheaper capital for private enterprise and industrialization.

ii) **completion of the English Financial Revolution: 1694 - 1757**

(1) although this Financial Revolution had begun in the early 13<sup>th</sup> century, in towns of northern France and Flanders, and though it was imported, almost fully developed, from the Dutch Republic into England, after the 1688-89 Glorious Revolution, the English improved and perfected this form of public finance over all other European countries

(2) English public debt, with the establishment of Consols, was almost fully based on perpetual, fully negotiable risk-free annuities (traded on international exchanges), other countries maintained a mix of life-

and perpetual annuities; and most also had a higher component of loans or bonds  
 (3) perpetual annuities, being inheritable and inherently transferable, were far more negotiable than were life annuities, which were supposed to be tied to the life of one person, and extinguished on his/her death  
 (4) the cost (in annual payments) on perpetual annuities was usually only 50% of that on life-annuities

iii) **providing stable legal-tender paper bank notes**

iv) **acting as a ‘lender of last resort’: from 1797**

v) **providing the gov’t with credit:** discounting Exchequer Bills

vi) **lowering the transaction costs of gov’t:** in handling all gov’t financial services

b) **negative features of the Bank of England (before 1826)**

i) **monopoly of joint-stock banking:** meant that all other English banks (before 1826) were restricted to being 6-member partnerships or family firms

ii) **reluctance to assistance non-client banks before 1797**

iii) **high denomination bank notes before 1797**

iv) **refusal to establish branches outside London:** before 1833 : hindered B of E note circulation

## 5. The “Country Banks”: private commercial deposit banking outside London

a) **rise of the country banks** in England:

i) 1716: first such bank established was in Bristol (major commercial port); only 20 on eve of the Industrial Revolution, in 1760s

ii) by 1780 - 100 banks; by 1825: over 600 banks

iii) many were created by participants in the Industrial Revolution: canal companies, grain companies, industrial entrepreneurs, etc.

b) **functions: same as those of the London Goldsmith banks:** to provide the lubricant (bank notes) and fuel (working capital financing) for the Industrial Revolution

i) deposit and transfer banking (cheques)

ii) lending on fractional reserve system (1/3 reserves)

iii) discounting promissory notes: most important function: as seen in last lecture

iv) issuing banknotes: important because Bank of England notes did not circulate outside of London (no branches in which to cash B of E notes)

c) **Role of the London banks:** acted to transfer savings surpluses (received on loan) from rural agricultural banks by relending them to country banks in industrial areas where those funds were needed for lending

d) **Faults and Weaknesses of the English Country Banks**

i) **Bank of England monopoly on joint-stock banking:** restricted them to being 6-member partnerships

- ii) **result:** most were small, undercapitalized banks (while London banks had had a century to grow by profit-reinvestment and amalgamation: only 25% of capitalization of London banks)
- iii) **frequent bankruptcies, bank failures, and ‘runs on the bank’ became common:** Gresham Law of finance: ‘bad banks drive out good banks’ by causing panics
- iv) **had no access to a Lender of Last Resort (i.e., Bank of England) before 1797 (see above).**

## 6. Banking in Scotland to 1825:

### a) Scotland’s Advantages

- i) no restrictions on bank sizes: no limitations on number of partners
- ii) Joint-Stock banking had no restrictions: Scotland had three large chartered joint-stock banks in 18<sup>th</sup> century and two more in early 19<sup>th</sup> century: all with limited liability

### b) development of the branch banking system:

- i) so that the highly competitive joint stock-company banks created branches in all the major towns and cities of Scotland (as did some large partnership banks)
- ii) if one branch encountered difficulties in discounting or bad loans, it received an infusion of funds to shore up reserves from the head office
- iii) Only one bank failure during the Industrial Revolution: Ayr Bank (1772), which had no branches

c) **England in 1825:** Commercial Crisis and bank failures of 1824-25 forced Parliament to remove restrictions on English banking and permit adoption of the Scottish model: to be seen in a later lecture

## 7. Financing the Industrial Revolution:

a) **joint-stock companies:** were largely unavailable for financing capital formation: except for the canal companies (whose formation required private acts of Parliament)

b) **commercial banks:** largely restricted to financing working capital, chiefly by discounting commercial paper, but also by lending (fractional-reserve system)

c) **mortgage and insurance companies:** played a major role in financing fixed capital formation

### d) The Private Business Firm: Self-financing the Industrial Revolution

- i) family members and partners pooled capital
- ii) borrowing: from mortgages and personal loans
- iii) profit reinvestment: i.e., profits not consumed by reinvested: see the Weber-Tawney thesis

### e) Low levels of capital formation during the Industrial Revolution:

- i) does this reflect institutional impediments to capital investment?
- ii) or the relatively low-cost capital needs of early industrialization: especially in textiles?
- iii) Phyllis Deane: from 1760-80: only 5% -6% of NNI invested in Net Domestic Capital Formation, rising to 8% by 1830, and surpassing 10% only from the 1830s, with railroads
- iv) Finestone: higher estimates, but include housing stock and gross capital formation: not really comparable

