



UNIVERSITÄT  
LEIPZIG

# Development of Financial Markets and Institutions

## III. Early European and American Financial Development

Leipzig University | October 23, 2023

Dr. Kristoffer J. M. Hansen | Institute for Economic Policy

# III. EARLY EUROPEAN AND AMERICAN FINANCIAL DEVELOPMENT

1. The London Stock Exchange
2. Financial Institutions up to 1800
3. American Experiments in Paper Money
4. Financial Development and Industrialization
5. British Banking in the Booms
6. Literature

# 1. THE LONDON STOCK EXCHANGE



## FINANCIAL MARKETS

### **Definition: Markets in which financial assets are bought and sold**

- Debt and equity markets
- Primary and secondary markets
- Exchanges and over-the-counter markets

### **Eighteenth Century Status**

- All these markets were well-developed
- Key centres: Amsterdam and London
- Widespread trade outside centres as well
- The markets for bills of exchange continued to be very important

## FINANCIAL INSTITUTIONS

### **Definition: intermediaries between borrowers and lenders**

- Banks
- Banks of issue
- Funds
- Brokers (notaries, solicitors)

### **Eighteenth Century Status**

- Banks of issue were well-established, above all in Great Britain
  - Bank of England, country banks
  - Scottish banking
- Intermediation creates negotiable financial assets: bills of exchange and bank notes

## THE LONDON FINANCIAL MARKET

### 1720 Status

- The London financial markets continued to function after the bubble
- Amsterdam still the main financial centre
  - Dealing in foreign government bonds and VOC and other stock

### London Trade

- Stock brokers traded mainly in government securities
- Stock meant government bonds and stock in companies
- London brokers met informally in coffee houses
- Ship underwriters in Lloyds Coffee House a precursor – active there since 1686
- London stock brokers first formed a club in Jonathan's Coffee House in 1762

## THE LONDON STOCK EXCHANGE

### The Challenge

- There was no official enforcement of stock exchange rules, trades between brokers and so on
- In fact, government often hostile to the stock market

### The Solution (Stringham 2015, chap. 5)

- In the absence of official enforcement, private clubs were a way to enforce contracts
- Earlier coffee house clubs examples of this
- London Stock Exchange founded in 1801 as a private club
- Organized as a self-governing body

## THE LONDON STOCK EXCHANGE

### Constitution of the Exchange

- Distinction between owners (“the company”) and members of the exchange
- Owners in control, made the rulers, members traded
- Owners charged a fee from members
- New members had to be nominated by at least three old members and needed approval
- This guaranteed new members were reliable – would pay the fees and stick to the rules

### Function of the Exchange

- The company had an interest in expanding membership
  - Their income depended on fees
  - but also had an interest in securing high-quality members
- The Stock Exchange proved innovative: 1819 options, 1822 foreign securities





DIVIDEND DAY AT THE BANK, 1770. (See page 471.)

## 2. FINANCIAL INSTITUTIONS UP TO 1800

## FRENCH NOTARIES AND FINANCE

### Decline After 1720

- Notaries were the main intermediaries (Hoffman et al. 2019)
- Mostly dealt in private loans – not government debt
- Short to medium term loans seem to have dominated: up to five years duration

### Decentralized Networks

- Notaries worked in decentralized networks
- Very hard to estimate size – 20 percent of GDP in loans (Hoffman et al. 2019)
- Some notaries attempted to form a bank: crashed in the 1760s
- Notaries and solicitors were also important intermediaries in other countries

## **THE *CAISSE D'ESCOMPTE*S**

### **New Attempt at a Bank of Issue**

- The *Caisse d'Escomptes* 1776-1793 (Bindseil 2019, 266-271)
- Sponsored by the financier Isaac Panchaud and Turgot, the minister of finance
- The Caisse had the largest note circulation after the BoE

### **Business of the *Caisse***

- Not intended to finance government – but began discounting government paper 1778
- Half its assets were government debt by 1788
- The *Caisse* a bankers' bank: all the leading Parisian financiers invited to subscribe capital
- Ended by the Revolution

## ***BANQUE DE FRANCE***

### **Establishment 1800**

- Followed the model of the *Caisse* – many of the same financiers in the lead
- Reward to financiers for supporting Napoleon

### **A Privileged Bank**

- Monopoly on note issue in Paris
- 1815 this monopoly privilege extended to all of France
- Bank reorganized 1806, governor and two deputies appointed by the emperor
- 1808 bank notes made legal tender
- No French banking system parallel to England and America before the 1840s

## ENGLISH FINANCIAL INSTITUTIONS

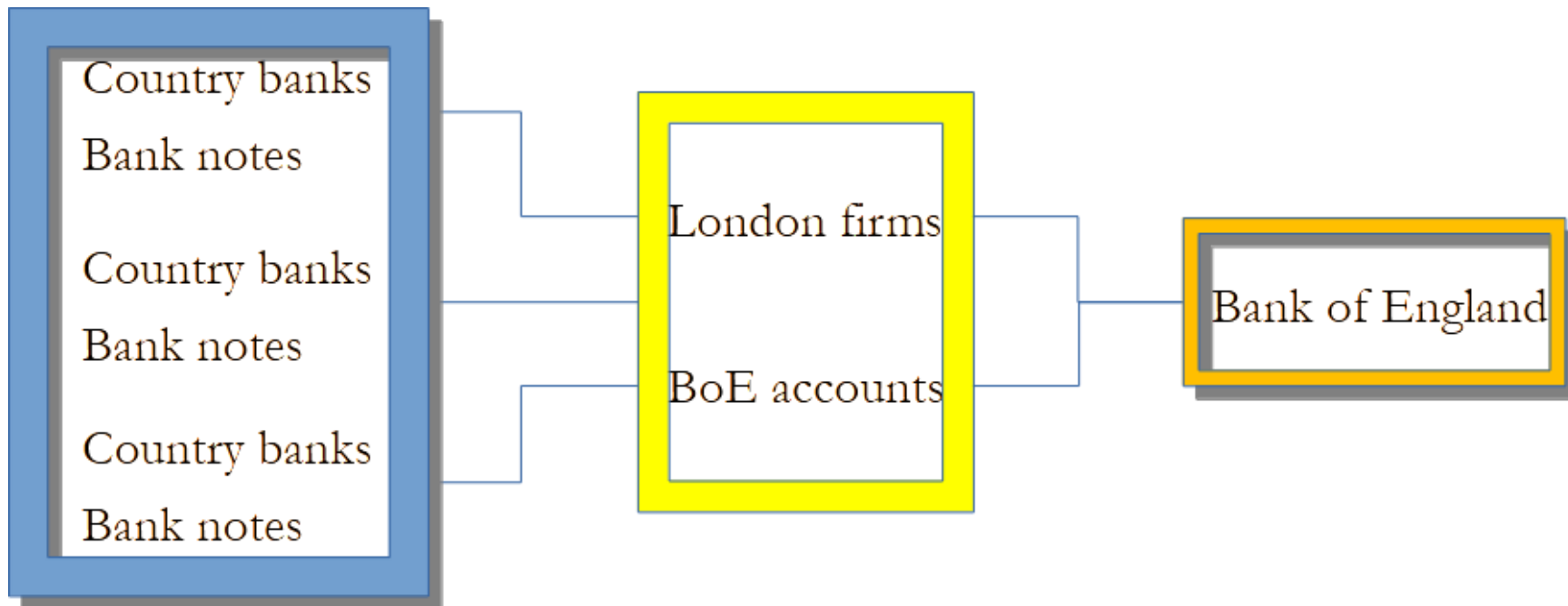
### Bank of England

- Established 1694, the main bank of issue
- Parliament 1708 prohibited banks with more than six partners from issuing notes
- BoE had virtual monopoly in London

### The Country Banks

- Country banks sprang up across England, especially from 1750 (Pressnell 1956)
- Country banks issued their own notes based on BoE notes
- They were all connected to the London money market
  - All had a correspondent bank in London, which in turn had an account with the BoE
- Discounting bills of exchange the key business for the banks

## ENGLISH BANKING IN THE EIGHTEENTH CENTURY



ONE  
Bank of England 1813  
N<sup>o</sup> 66954 to pay to M<sup>r</sup> Henry Mace N<sup>o</sup> 66954  
on Demand the Sum of One Pound  
1813 July 16 London 16 July 1813  
**One**  
For the Gov<sup>t</sup> and Com<sup>rs</sup>  
of the Bank of England  
Ent<sup>l</sup> W. M. G. G. G.

Weymouth and Dorsetshire Bank.  
N<sup>o</sup> 327 N<sup>o</sup> 327  
Promise to pay the Bearer  
on Demand ONE POUND Value received  
the 30 day of Aug<sup>r</sup> 1825  
Sam<sup>l</sup> Henning Esq<sup>r</sup> Power W<sup>m</sup> W<sup>m</sup> Sery  
Ent<sup>l</sup> W. M. G. G. G. J. A. Power.  
© BNPS.CO.UK

ONE  
BANK N<sup>o</sup> 55814 N<sup>o</sup> 55814  
15 Feb 1802  
Promise to pay to M<sup>r</sup> A<sup>m</sup> Richards  
or Bearer on Demand the Sum of One Pound  
London the 15 day of Feb 1802  
For the Gov<sup>t</sup> and Com<sup>rs</sup>  
**One** of the BANK OF ENGLAND  
Ent<sup>l</sup> W. M. G. G. G.

ONE  
N<sup>o</sup> 662 Gloucester Old Bank  
N<sup>o</sup> 662  
Promise to pay the Bearer  
on Demand the Sum of One Pound  
Gloucester the 1 day of April 1814  
L<sup>o</sup> One For Charles Evans & James Jeff  
Ent<sup>l</sup> Geo Jeff Jas. Jeff

## SCOTTISH BANKING

### Free Banking in Scotland (White 1984)

- Scottish banking described as free until 1846
- Banks of issue supplied notes competitively
- No special privileges or government assistance or involvement

### Organization of Scottish Banking

- Three chartered banks:
  - Bank of Scotland (1696), Royal Bank of Scotland (1724), British Linen Company (1746)
- There were also numerous unchartered banks
- All bank notes redeemable in specie (in theory)
- Banks kept account with each other to stabilize outstanding note issue
  - Clear bank notes
  - Prevent over-issue by any one bank



## SCOTTISH BANKING

### Bank Notes Dominant in Scotland

- Success of free banking?
- Banking superior to other kinds of finance?
- But status of Scottish banking as free has been disputed (Rothbard 2008, appendix)

### Problems of Scottish Banking

- Specie redemption greatly discouraged: a merchant who insisted might find it very hard to acquire credit in the future
- Englishmen trying to redeem Scottish notes “chased across the border”
- Scottish banking not really independent of the Bank of England
  - Reserves
  - Scottish banks followed BoE when it suspended specie payment

No<sup>60</sup> 35450 Edinburgh 16 April. 1716

The GOVERNOUR & COMPANY of the BANK of SCOTLAND  
constituted by Act of Parliament Do hereby oblige  
themselves to pay to *David Spence* or the  
Bearer Twelve pounds Scots on demand

By Order of the Court  
of Directors  
Yes: *Talman*

*Wm. Drummond*



*A View of the Deluge of Scotch paper Currency for English Gold.*



### 3. AMERICAN EXPERIMENTS IN PAPER MONEY

## REVOLUTIONARY PAPER MONEY

### The Continental

- The Revolutionary Congress began issuing paper notes in 1775
- The supply radically expanded
  - Newly issued in 1775: \$6 million, 1776: \$19 million, 1777: \$13 million
  - 1778: \$64 million, 1779: \$135 million
- In total, \$235 million were issued over five years

### The Purpose: To Fund the War

- States were supposed to fund the notes out of taxes, but levied no taxes before 1780
- The individual states too issued notes: total of \$210 million
- Money supply 1775: \$12 million

# CONTINENTAL CURRENCY.

No. *4432* TWENTY DOLLARS.



THIS BILL entitles the Bearer to receive *TWENTY* Spanish milled DOLLARS, or the Value thereof in Gold or Silver, according to the Resolutions of the CONGRESS, held at Philadelphia, the 10th of May, 1775.

*Wm Jackson*  
*And. Smith*

*Twenty Dollars.*

## CONTINENTAL INFLATION

### Result: Depreciation and Inflation

- Prices rose rapidly in terms of Continentals, including price of specie
- December 1776, 1 Continental = \$1-1.25 in specie
- October 1777, the ratio was 3 : 1
- December 1778, it was 6.8 : 1; in December 1779, 42 : 1
- April 1781, the ratio was 168 : 1 – the Continental worthless

### Government Response

- plunder by the army and price controls in the several states
- All wartime paper withdrawn from circulation by end of 1783

## FIRST BANK OF THE UNITED STATES

### Bank of North America

- First note-issuing bank
- Chartered 1781 – received monopoly privileges in return for lending to government
- Bank notes not trusted outside Philadelphia – redeemed into specie
- Converted into private commercial bank 1783

### First Bank of the United States (BUS)

- Chartered 1791, 20 year charter
- Championed by Alexander Hamilton
- Reason: to overcome “shortage” of specie
- New paper money to be invested in public debt and cheap credit to manufactures



## FIRST BANK OF THE UNITED STATES

### Great Expansion of Commercial Banking

- 18 new banks in the first five years of BUS's existence
- 28 state banks chartered in 1800, total of 117 by 1811

### Defeat of BUS 1811

- But State banks continued to expand: total of 246 in 1815
- Specie reserves fell while bank notes and deposits expanded
- Credit expansion fuelled war of 1812 and speculation (Panic of 1819)

### Special Privileges for Banks

- Allowed to suspend specie payment in 1814
- This privilege repeatedly extended in 1819, 1837, 1839, 1857

## THE SECOND BANK OF THE UNITED STATES

### Second BUS Chartered in 1817

- Private corporation – 1/5 state owned
- Notes redeemable in specie
- Notes legal tender for taxes

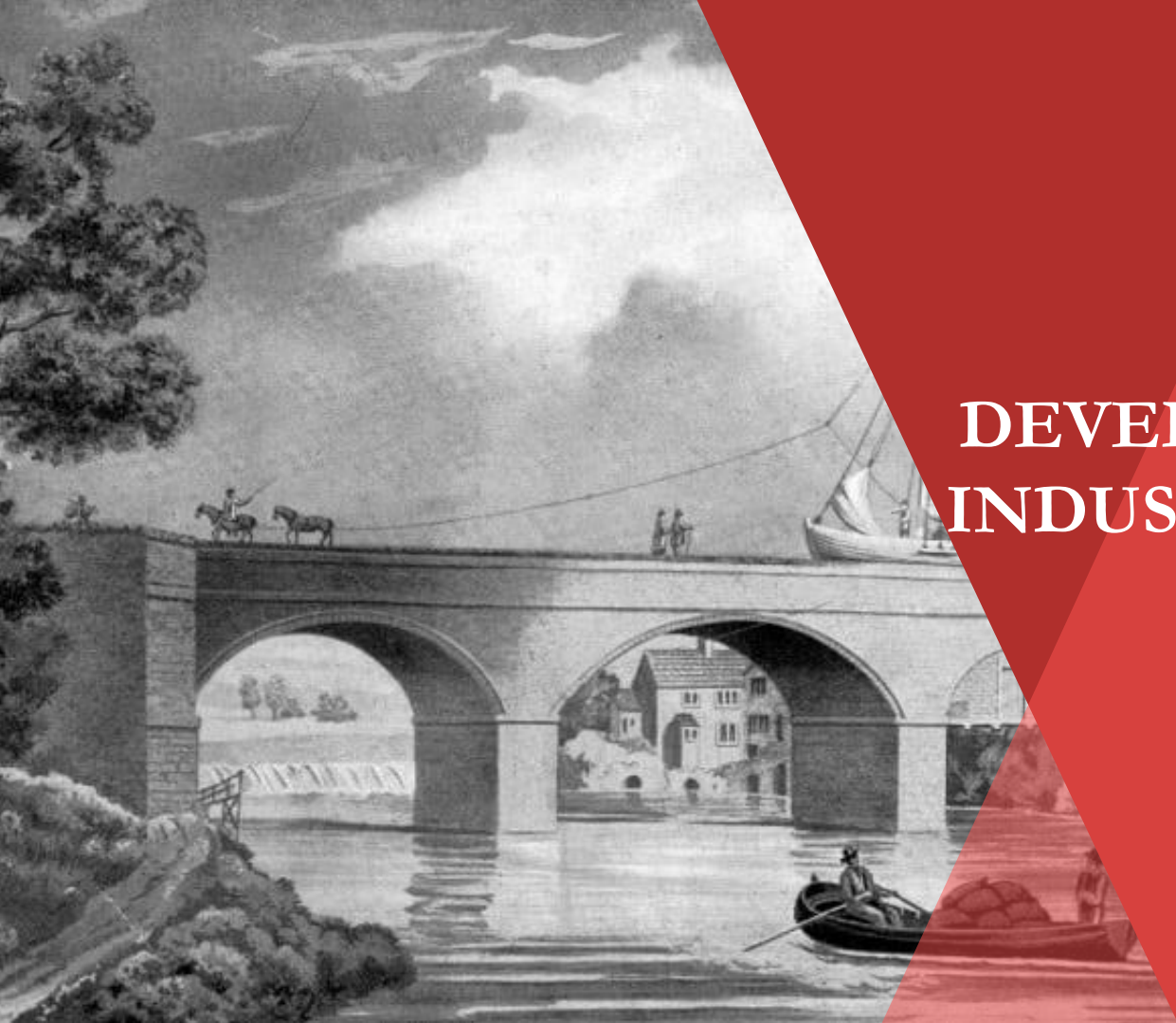
### Support for State Banks

- BUS promised to support in emergencies
- Promised to extend loans of \$6 million in January 1817 to banks

### Inflation and the Second BUS

- Greatly increased the money supply - contraction and Panic of 1819 followed
- Disestablished 1832 by Jackson, charter not renewed in 1836





## 4. FINANCIAL DEVELOPMENT AND INDUSTRIALIZATION

## CANAL MANIA

### First Modern Canal in England 1757

- The Sankey Canal in near Liverpool, to transport coal
- Authorized by Act of Parliament
- Ownership, management, construction all in private hands

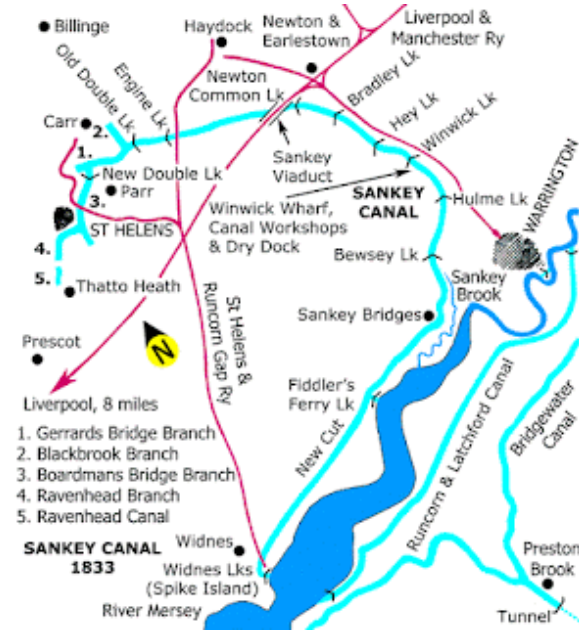
### Rapid Expansion of Canal Network 1760-1810

- Constructed by private joint stock companies
- Usually high returns and soaring share prices
- Landowners also interested: canals increased land prices

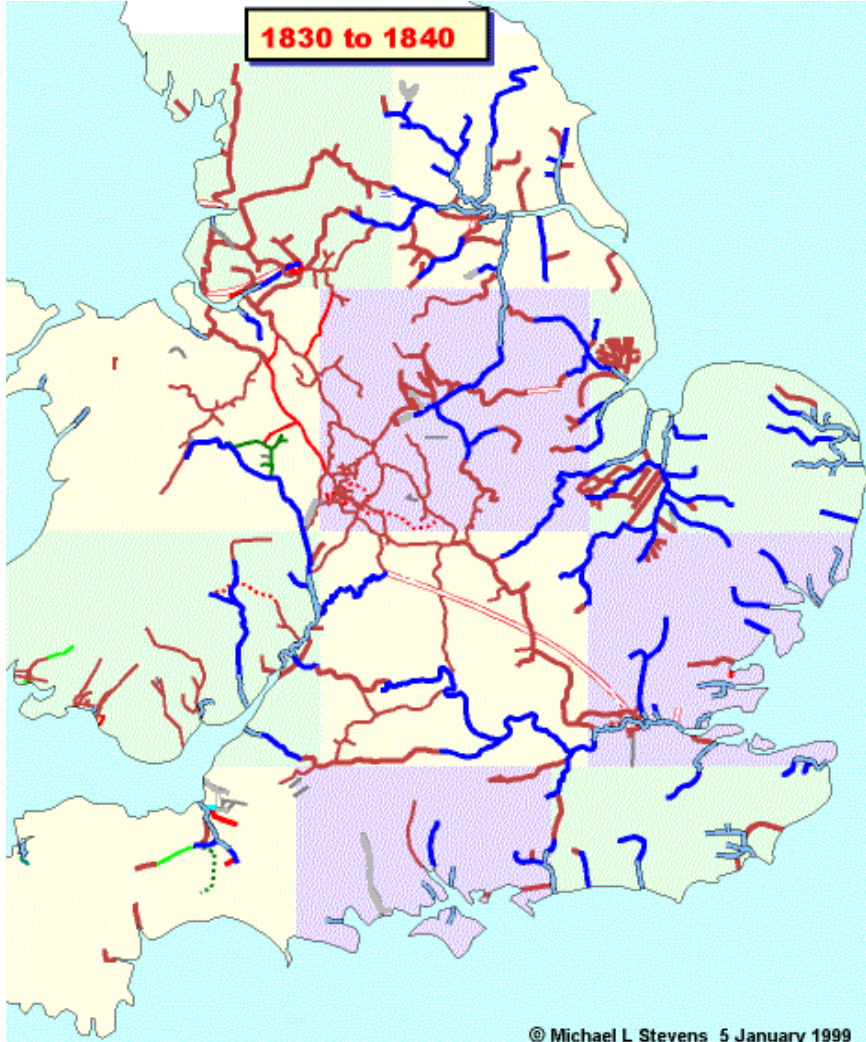
### Canal Mania

- In the 1790s: speculation and soaring prices – then collapse in 1793
- End of canal building by 1830s
- About 4,000 miles (7,600 kilometers) built
- Railroads became more efficient than new canals

## SANKEY CANAL 1833



1830 to 1840



## BRITISH RAILROAD BOOMS

### Private Finance Behind the Railways

- Despite huge capital outlays
- First railroads financed locally – hard to attract capital initially

### Innovative Financial Forms

- Limited liability – a limit to potential losses
- Preferred stock: dividend guaranteed, but no voting rights

### Two Booms: 1825 and 1840s

- 1825: opening of first steam powered railroad. Six more railroads authorized, market value of companies doubled. Economic crisis of 1825 prevented takeoff
- 1840s saw another boom. Peel's Act 1844 restricted credit, railway shares declined 85% to 1850



## TWO BOOMS: 1825 AND THE 1843-44

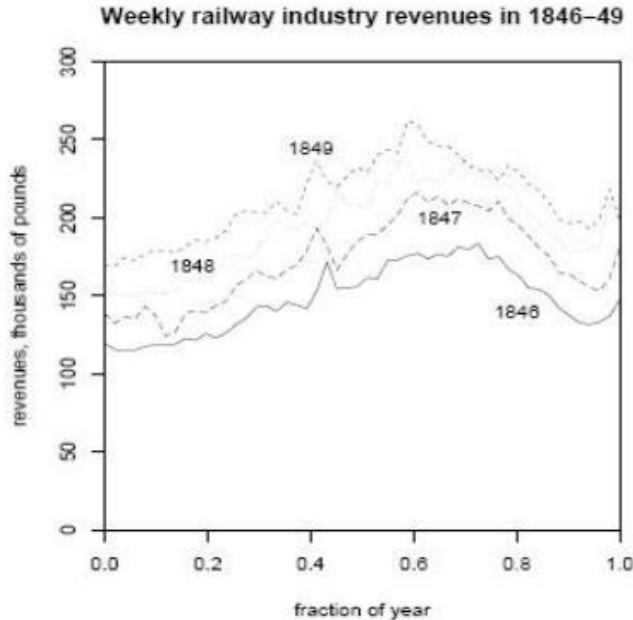
### 1825

- Opening of first steam powered railroad
- Six more railroads authorized, market value of companies doubled
- Economic crisis of 1825 prevented takeoff

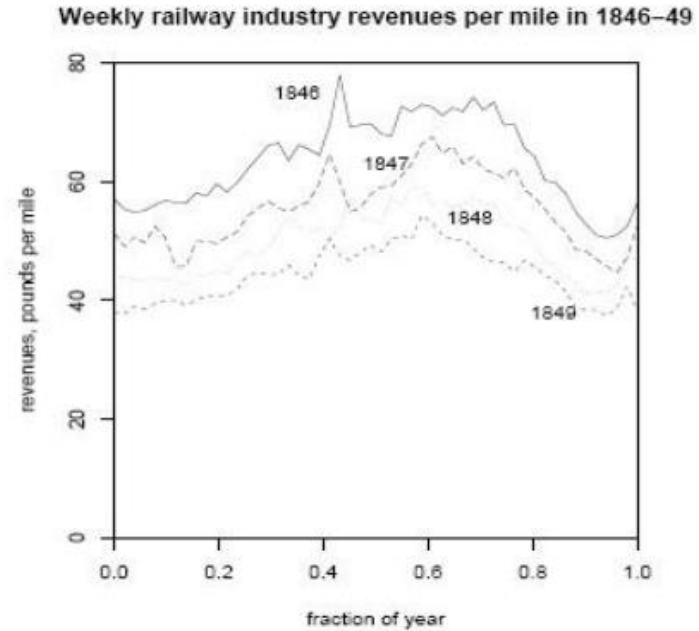
### Boom of 1840s

- 1840s saw another boom
- Great expansion of railroads
- Peel's Act 1844 restricted credit
- Railway shares declined 85% to 1850
- Revenue per mile much lower after the boom - overinvestment

## RAILROAD REVENUES 1846-49



Source: Odlyzko 2011, p. 14.



Source: Odlyzko 2011, p. 14.

## POSSIBLE EXPLANATIONS

### Naïve Investors?

- Can simple naïvity or lack of experience explain booms?
- But most capital supplied by experienced investors
- Experience from canal-building carried over to railways

### False Expectations?

- Obviously, everyone erred – had false expectations
- Otherwise, there would be no boom and bust
- But why did everyone err at the same time?

### Credit Expansion A Promising Candidate

- Banks issuing notes can increase the amount of capital apparently available



## 5. BRITISH BANKING IN THE BOOMS

## **THE IMPORTANCE OF BRITISH BANKING**

### **British Banking a Model for other Countries**

- Peel's Act 1844
- The development of banking in GB therefore important

### **Three Important Episodes**

- Bank Restriction, 1797-1819
- Country Banking, 1825
- Peel's Bank Act, 1844

### **The Era of Classic Business Cycles**

- Links between the banking system and malinvestment and crisis
- Great debates on these issues at the time

## **BANK RESTRICTION**

### **Expansion of the Money Supply in the 1790s**

- Both by the BoE and country banks
- Money printing financed the war with France from 1793

### **Consequences**

- Price inflation, gold outflow, balance-of-payment deficit
- Panic in 1797: run on the Bank of England
- Parliament suspended redemption – renewed until 1821 every year
- Money creation fueled speculation, inflation
- Financed ongoing war effort



POLITICAL-RAVISHMENT, or The Old Lady of Threadneedle-Street in danger. 1848. Printed by W. Heath, 11, St. Paul's Church-Yard.

## **BANK RESTRICTION**

### **End of Restriction**

- Discussed from 1810 on
- Return to par value of the pound agreed 1816 for 1819
- Finally redemption resumed, pound sterling on gold again 1821

### **Results**

- Contraction of paper issue
- General deflation of prices – about 10 percent
- Business depression ensued
- Short-term unemployment



## COUNTRY BANKING

### Great Expansion of Country Banking

- During era of bank restriction
- Provided half the circulating medium (Presnell 1956, 160)
- Crisis of 1825 blamed on the country banks – but BoE also expanded its issue greatly

### Credit Expansion: Bank Notes and Deposits

- New money created by banks lent to businesses
- Made capital appear abundant, lowered interest rates
- But unsustainable boom: the capital did not exist

### Crash of 1825

- Many bankruptcies, country banks declined after 1825, outcompeted by BoE

## THE GREAT BANKING DEBATE (SMITH 1990, CHAP. 7)

- Great debate over banking issues in the 1830s-40s

### Currency School

- Desired an inflexible, stable money supply – currency principle
- New banknotes could only be issued against deposit of gold in the BoE

### Banking School

- The amount of banknotes in circulation cannot exceed the needs of trade
- Banking automatically adjusts the money supply to demand – banking principle
- Real Bills Doctrine: when bankers lend to business against short-term bills representing real goods, the money supply simply reflects real economic activity
- A flexible money supply good, so long as it is “endogenous” to the commercial system

## PEEL'S BANK ACT OF 1844

### Bank Reform 1844

- BoE received monopoly on note issue
- Private bank notes gradually withdrawn
- Apart from £14 million of existing notes, BoE could henceforth only issue notes against deposited gold – the currency principle

### Apparent Victory of the Currency School

- But Peel's Act deficient – it failed to regulate bank deposits
- British banks continued to expand credit in the form of deposits
- Boom-bust cycle continued in GB
- BoE requirement to redeem in specie regularly suspended in crises

## SIR ROBERT PEEL

- Author of the Bank Act
- (And other important reforms in the period)



## **BANK OF ENGLAND AS CENTRAL BANK**

- “A monarchy in any trade is a sign of some anomalous advantage, and of some intervention from without” - Bagehot

### **The Bank of England as Lender of Last Resort**

- In a crisis, it stepped in to save banks
- First time in 1857 and 1866 (including suspension of Peel’s Act)
- Theorized by Walter Bagehot in *Lombard Street* 1873 as the role of the central bank

### **Central Bank Orthodoxy**

- In crisis, the BoE should lend freely at a high, above market rate, against good collateral
- Quickly became central bank orthodoxy (Fetter 1965)
- But not without opposition: e.g., Thomson Hankey, former Governor of the Bank



· RUN ON THE SEAMEN'S SAVINGS' BANK DURING THE PANIC.

## THOMSON HANKEY ON BANKING, 1873

Ready money is a most valuable thing, and cannot from its very essence bear interest; every one is therefore constantly endeavouring to make it profitable and at the same time to retain its use as ready money, which is simply impossible. Turn it into whatever shape you please, it can never be made into more real capital than is due to its own intrinsic value, and it is the constant attempt to perform this miracle which leads to all sorts of confusion with respect to credit.

(...)

The Bank of England has been long expected to assist in performing this miracle; and it is the attempt to force the Bank to do so which has led to the greater number of the difficulties which have occurred on every occasion of monetary panics during the last twenty years.



## 6. LITERATURE



## LITERATURE

Bagehot, W. 1873. *Lombard Street: A Description of the Money Market*. London: Henry S. King & Co.

Bindseil, U. 2019. *Central Banking before 1800: A Rehabilitation*. Oxford: Oxford University Press.

Hoffman, P. T., G. Postel-Vinay and J.-L. Rosenthal. 2019. *Dark Matter Credit: the Development of Peer-to-Peer Lending and Banking in France*. Princeton: Princeton University Press.

Pressnell, L. S. 1956. *Country Banking in the Industrial Revolution*. Oxford: The Clarendon Press.

## LITERATURE

Rothbard, M. N. 2008. *The Mystery of Banking*. Second edition. Auburn: Ludwig von Mises Institute. First edition 1983.

Smith, V. C. 1990. *The Rationale of Central Banking and the Free Banking Alternative*. Indianapolis: Liberty Fund. First edition 1936.

Stringham, E. P. 2015. *Private Governance. Creating Order in Economic and Social Life*. Oxford: Oxford University Press.

White, L. 1984. *Free Banking in Britain: Theory, Experience, and Debate, 1800-1845*. Cambridge: Cambridge University Press.



UNIVERSITÄT  
LEIPZIG

**VIELEN DANK!**

**Dr. Kristoffer J. M. Hansen**

Institute for Economic Policy

Grimmaische Straße 12, 04109 Leipzig, Room 240

T +49 341 97-33566

Mousten\_hansen@wifa.uni-leipzig.de

<https://www.wifa.uni-leipzig.de/institut-fuer-wirtschaftspolitik>