

‘Midas, transmuting all, into paper’: The Bank Restriction of 1797

The Bank of England and the Banque de France
during the Revolutionary and Napoleonic Wars

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2nd October 2017

Outline of Arguments

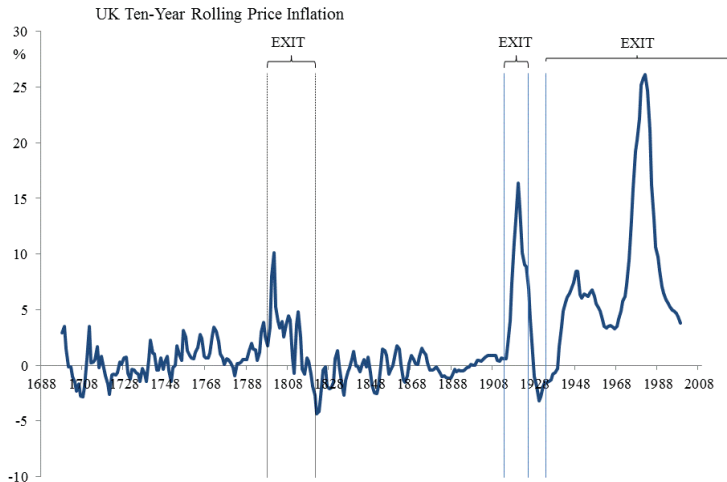
- The Bank of England provided
 - means of payment in London
 - settlement services to provincial Bank's
 - short-term finance to the government
 - profits for its owners
- Suspension of the gold standard enabled the Bank to continue these services under wartime conditions but with increased flexibility
- Suspension of the gold standard formed a 'contract' between the Bank, policy makers and the public
 - good reputation helped in its establishment and enforcement
 - it remained credible as a result of contingency plans
- Lack of reputation led into inflexible policies in Napoleonic France

Midas, transmuting all, into paper



- Bullionist controversy (Ricardo vs Thornton vs Attwood)
- 'Inflationary Finance' (Bordo and Schwartz) or 'Business as usual' (Chadha and Newby)

Inflation over the Long Run



Barro's model of price under a commodity standard

$$m_t^s = p_t^a + g_t^m - \lambda_t,$$

Money supply, m_t^s , price of gold, p_t^a , quantity of monetary gold, g_t^m , gold backing of money, λ_t at time t .

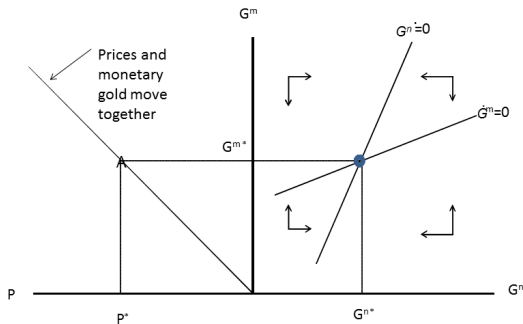
$$m_t^d = p_t + \phi y_t - k\pi_t^e.$$

Money demand, m_t^d , price level, p_t , income, y_t , sustained inflation expectations, π_t^e , with elasticities ϕ and k

$$p_t = p_t^a + g_t^m + k\pi_t^e - \phi y_t - \lambda_t.$$

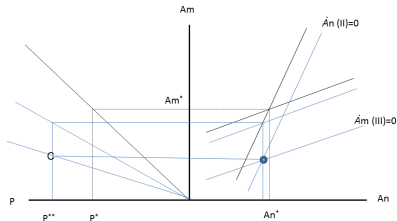
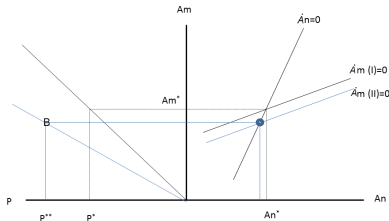
Equating money demand and supply we note that the price level is thus given by the value of monetary gold, $p_t^a + g_t^m$, and terms in inflation expectations, output and gold backing

Price Determination under Gold Standard



$$G_t^n | \dot{G}^n = 0 = F(G_t^n, y_t, \lambda_t, \pi_t^e) \quad G_t^m | \dot{G}^m = 0 = F(G_t^n, y_t, \lambda_t, \pi_t^e)$$

Traditional Inflation View



- Can be offset by encouraging **negative** inflationary expectations, or what we might call "credibility".

The Bank's Balance Sheet

Assets	Liabilities
Public Loans	Notes
Private Loans	Deposits
Private Discounts	Equity
Bullion	

Note: the Bank was a private, profit making company

10

- Cannan (1925). 'The Bank was a private, profit making company'

The Bank Notes in circulation weekly, in thousands of £'s

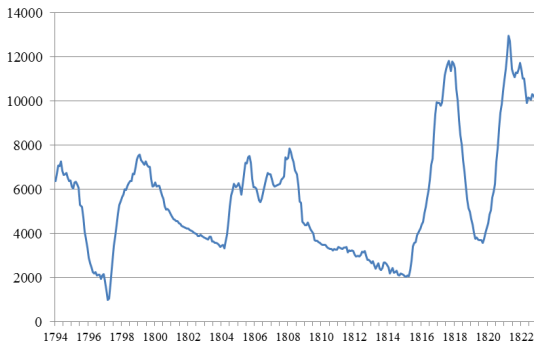


5

- Post-crisis note holding stabilised (Parliamentary Papers)

The Bank of England's Bullion Reserve

The Bank of England's bullion reserve
in thousands of £'s



6

- Management of scarce resource

Bank of England Option's 1797

- ① Let the currency exhaust the gold supply and declare bankruptcy
 - ② Protect the gold reserves with suspension of cash payments
- Note that low levels of bullion and low circulation of money caused different set of problems
 - 'It is the unanimous opinion of the Board, that it is indispensably necessary for the public service, that the directors of the Bank of England should forbear issuing any cash in payment until the sense of Parliament can be taken on that subject and the proper measures adopted thereupon for maintaining the means of circulation and supporting the public and commercial credit of the kingdom at this important conjuncture.'

'The Message from the King' 26 February 1797

The Crisis of 1797

- In 1790's the economy volatile: the Canal Mania, war, high government expenditure, bad harvests, sightings of French fleets and public/country banks hoarded gold
- Bank runs in the North-East on 18 February 1797
- Panic after landing of a handful of French soldiers at Fishguard on 22 February 1797

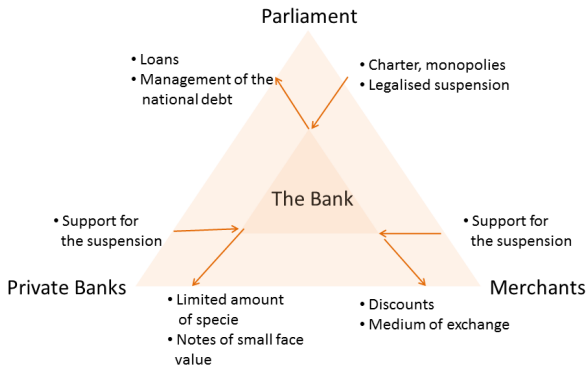
Result: the Bank's gold reserve and the circulating money stock fell rapidly

- Saturday 25 February: emergency Privy Council meeting called for Sunday
- Sunday 26 February: GIII+PC+Pitt met in Whitehall → Order of Privy Council
- GIII sent message to House on Monday AND Bank issued notes of suspension on Monday morning

(i) PC/H/C tied Bank's hands but also indemnified Bank; (ii) PC acted at Bank's suggestion and communicated to all simultaneously; and (iii) concordance across money markets, merchants etc.

Suspension as a 'social' contract

Suspension as a 'social' contract



9

7 April 1797 Parliamentary Act

- Bank indemnity for All acts done in pursuance of the Minute of Council
- Unlawful for Bank to issue Cash payments except for clearly defined reasons and no suit could be brought to force the Bank to pay cash and no costs allowable
- Small amounts under 20 shillings payable by cash and any Orders of Council requiring payment of cash to the Military would be payable of up to £600,000
- Bank could pay up to $\frac{3}{4}$ of any cash sum given to it since 7th April i.e. it could pay some fraction of cash on new gold deposits;
- Bank could advance London, Westminster and Southwark bankers up to £100,000 of cash and to the Bank of Scotland and Royal Bank of Scotland up to £25,000 each;
- Notes were deemed to be cash - to meet bail and taxes;
- Could issue cash in proportion to any increase in Bank bullion holdings since 26th February 1797
- Act continue until 24th June 1797. In the event, Suspension continued throughout the course of the Napoleonic Wars and beyond.

Acts of Parliament and their Renewal

Act of Parliament and Date of Ascent	Continuation	
Act 37, Geo. III, c.45, 3rd May 1797	until 24th June 1797	OP.3.03 138
Act 37, Geo. III, c.91, 22nd June 1797	until one month after the commencement of the next session of Parliament	OP.3.03 138
Act 38, Geo. III, c.1, 30th November 1797	until one month after the conclusion of the present war by a definitive Treaty of Peace	OP.3.03 140
Act 42, Geo. III, c.40, 30th April 1802	until 1st March 1803	OP.3.03 146
Act 43, Geo. III, c.18, 28th February 1803	until six weeks after the commencement of the next session of Parliament	OP.3.03 138
Act 44, Geo. III, c.1, 15th December 1803	until six months after the ratification of a definitive Treaty of Peace	OP.3.03 138
Act 54, Geo. III, c.99, 18th July 1814	until 25th March 1815	OP.3.03 179
Act 55, Geo. III, c.28, 23rd March 1815	until 5th July 1815 but highly desirable to return as soon as possible	OP.3.03 182
Act 56, Geo. III, c.40, 21st May 1816	until 5th July 1818	OP.3.03 186
Act 58, Geo. III, c.37, 28th May 1818	until 5th July 1819, unforeseen circumstances rendered expedient continuation	OP.3.03 190
Act 59, Geo. III, c.49; 2nd July 1819	until 1st May 1823, but to allow for gradual resumption and exportation of gold and silver	OP.3.03 193
Act 1 and 2, Geo. IV, c.26, 7th May 1821	until 1st May 1823 but to allow for gradual resumption and exportation of gold and silver	OP.3.03 199

Avoiding a 'Note' Run

	one period	two period
Notes	$\kappa^{\frac{1}{2}} - \varphi$	κ
Deposits	R^D	$(R^D)^2$

- Notes are used as working capital and payoff κ after two periods or at discount if cashed in early
- Deposits pay-off $R^D \left(= \frac{P^G}{P} \right)$
- If present value of notes is greater than cashing in notes then $\kappa^{\frac{1}{2}} - \varphi < \frac{\kappa}{R^D}$

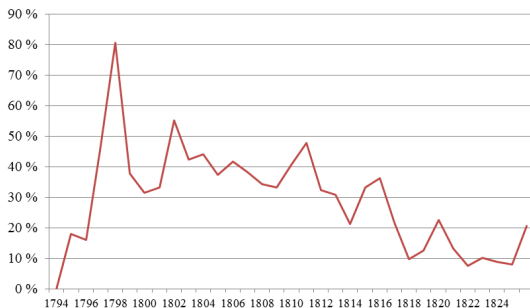
Definition

A note run can be avoided as long as $R^D < \frac{\kappa}{\kappa^{\frac{1}{2}} - \varphi}$

Achieved by suspension or expected depreciation in gold prices

Ratio of the Bank's unfunded debt to total unfunded debt

Ratio of the Bank's unfunded debt holdings to total unfunded debt

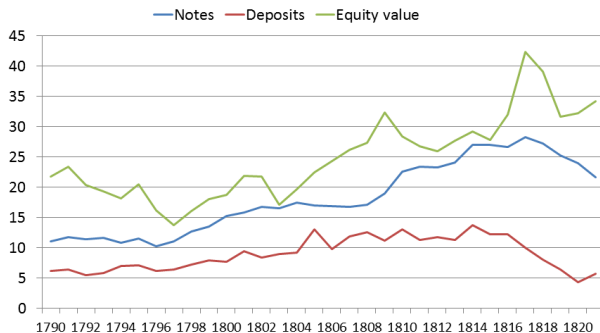


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- Bank reduced its share of unfunded debt

Value of the Bank's Liabilities

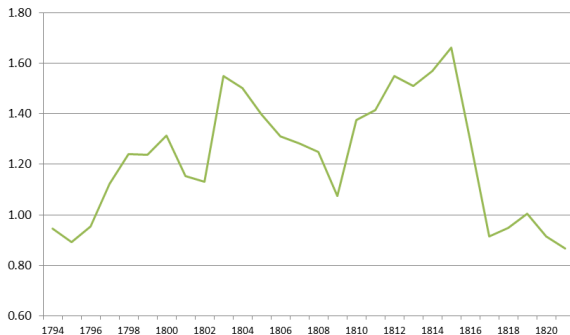
Value of the Bank's liabilities in millions of £'s



14

The Bank's Leverage Ratio

Asset/Equity Ratio



15

- Increased with war-time demands - Peace of Amiens (1801) and post-Trafalgar settlement

Suspension Limits Maturity Transformation Risk

$$V_t = A(t, t + \tau_A) - L(t, t + \tau_L)$$

$$V_t = V[r(t)] = Ae^{-\tau_A r(t)} - Le^{-\tau_L r(t)},$$

$$\Delta = -\frac{1}{V} \frac{\delta V}{\delta r} = \frac{\tau_A Ae^{-\tau_A r(t)} - \tau_L Le^{-\tau_L r(t)}}{V_t},$$

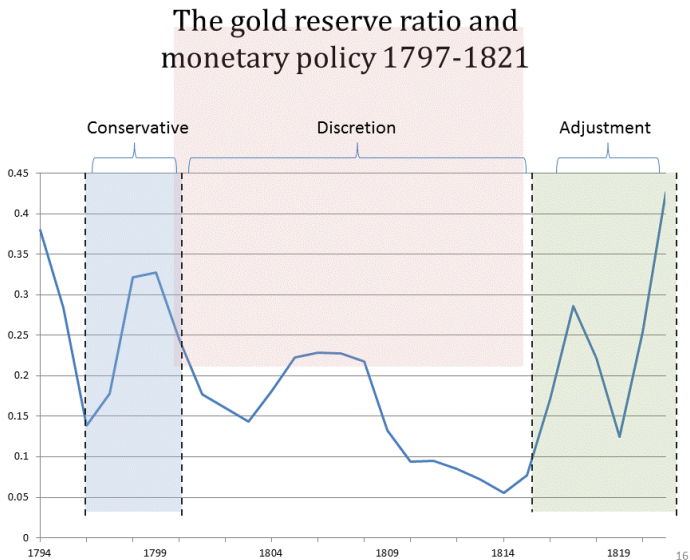
$$\Delta = \lambda \tau_A + (1 - \lambda) \tau_L,$$

- Where leverage, $\lambda = \frac{Ae^{-\tau_A r(t)}}{V_t} > 1$ and $\tau_A > \tau_L$

Definition

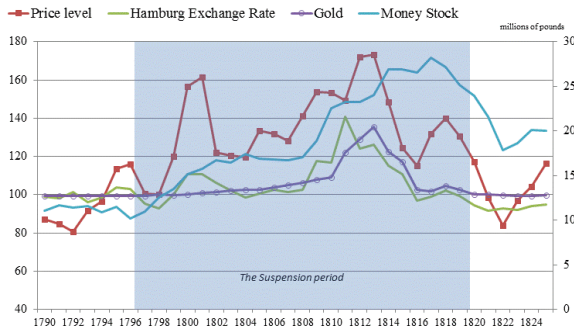
Suspension of cash payments till the end of the war matches Liabilities with Assets because Liabilities are war-denominated so $\tau_L \implies \tau_A$

The Gold-Reserve Ratio 1797-1821



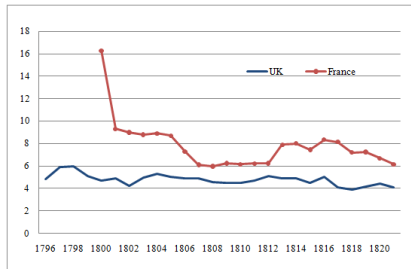
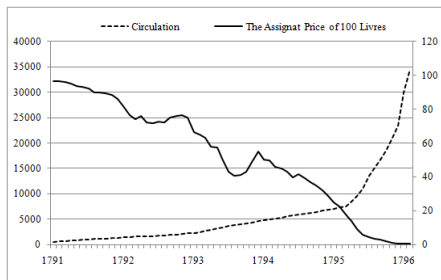
Nominal Variables during the Suspension

Nominal variables under the suspension



Sources: Gayer, Rostow and Schwartz (1957) and Officer, L.H. (2006)
'The Price of Gold, 1257-2005' MeasuringWorth.com.

Over the Channel

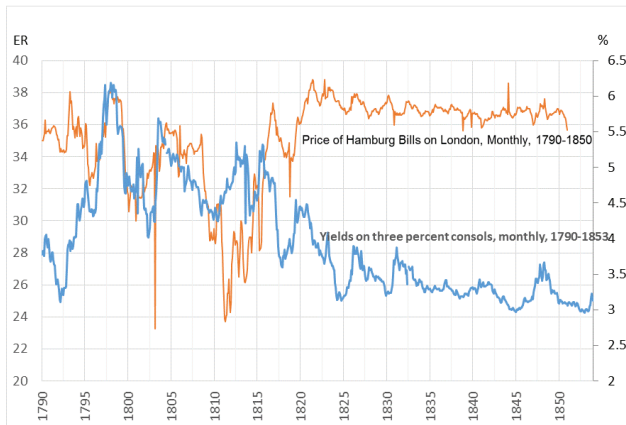


- Poor reputation following collapse of Assignats and durably higher long term rates

Assignats and the Hard Franc

- Government finance ruined during the revolution: arbitrary tax policy, assignats and defaults
- Napoleon's 'new start' to increase credibility: eliminated budget deficits
- Established Banque de France together with Parisian bankers and merchants in 1800
- Bimetallic standard and the Bank charter in 1803
- Partial suspension in 1806 followed by tighter state control and adoption of the 'Palmer's Rule'
- Dependency on extraction of foreign resources and war expenditures covered by unpopular direct taxes
- Strict controls on discounting and on sales of government paper and inability to issue paper money in crisis (attempted in 1813)
- Monetary system based on circulation of specie and Banque de France's notes not substitutes for specie and highly sensitive to gold supply shocks
- Napoleon's financial system rigid and depended on military success

Gayer, Rostow and Schwartz Dataset



Concluding Remarks

- Suspension of convertibility of Bank of England notes helped ensure its survival
- Decision of body politic involving Parliament and support from merchants
- Notes continued to circulate and some form of credibility about eventual resumption was established
- France remained on Silver standard raised less money from capital markets and faced higher interest rates - could not issue notes that were not convertible
- BoE found that liabilities would not be held if convertibility maintained
- Freedom to optimise Bank balance sheet with constraint of cash payments removed