

Official Green

Bank of England

Using archival data at the Bank of England to understand the evolution of central bank balance sheets

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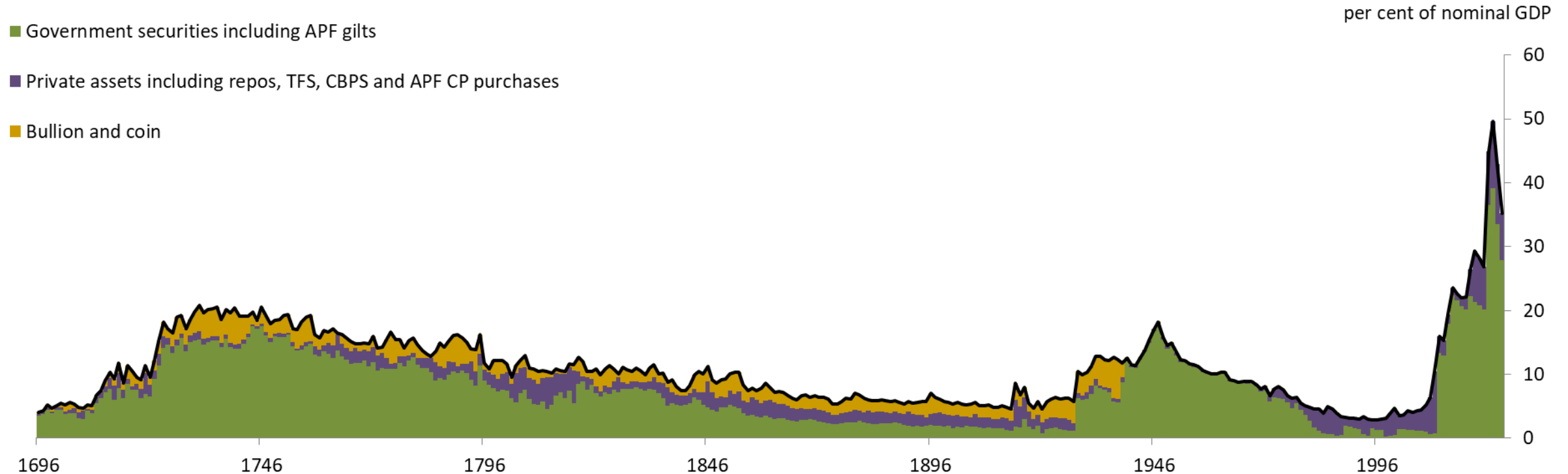
Bank of England

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Bank of England balance sheet data

The Bank of England Consolidated Balance Sheet 1696-2024



- Annual balance sheet back to 1696, weekly balance sheet data from 1844
- This is the basis of the data used in the cross-country BIS project (Bogdanova et al. (2024))

Part of that data reflects public disclosure of the Balance Sheet

- Various balance sheet statistics submitted to parliament in C19th following reports into various monetary and financial crises
 - Largely put together by William Smee, the chief accountant of the Bank for much of this period
 - All available in Hathitrust digital library (see note)
 - From 1844 the **Bank's Weekly Return**
 - But possible to hide a lot of operations in “Other securities” and “Other Deposits”
 - From 1946 the **Bank's Annual Report** (end February data)
 - But from 2014, Bank restricted Weekly Return to subset of assets/liabilities because of stigma attached to Emergency Liquidity Assistance (“Plenderleith Review”)
 - Full balance sheet only published *quarterly* with a 5 quarter lag
 - Not possible to construct monthly series for the whole balance sheet (but can for monetary liabilities ie notes and reserves)
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Secondary sources derived from the Bank's archives

- **Clapham's 1945 Bank History Volume 1**
 - Added series for Drawing Office Accounts (Private deposits at the Bank)
 - **Silberling/Gayer Rostow Schwartz (1953)**
 - High frequency (monthly) data on sub-components of the balance sheet obtained from the Bank archivists in the 1920s covering the 1790-1850 period
 - **Bank Return Exercise in the 1960s (1967 QB article)**
 - Prompted in part by Radcliffe Committee which called for more data on financial system
 - Went back to original ledgers to reconstruct the balance sheet from back to 1696, using Smee's original work as a guide
 - The record of that exercise still exists in the Bank archive and allows us to map the "data pipeline"
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Issues with aggregate balance sheet data

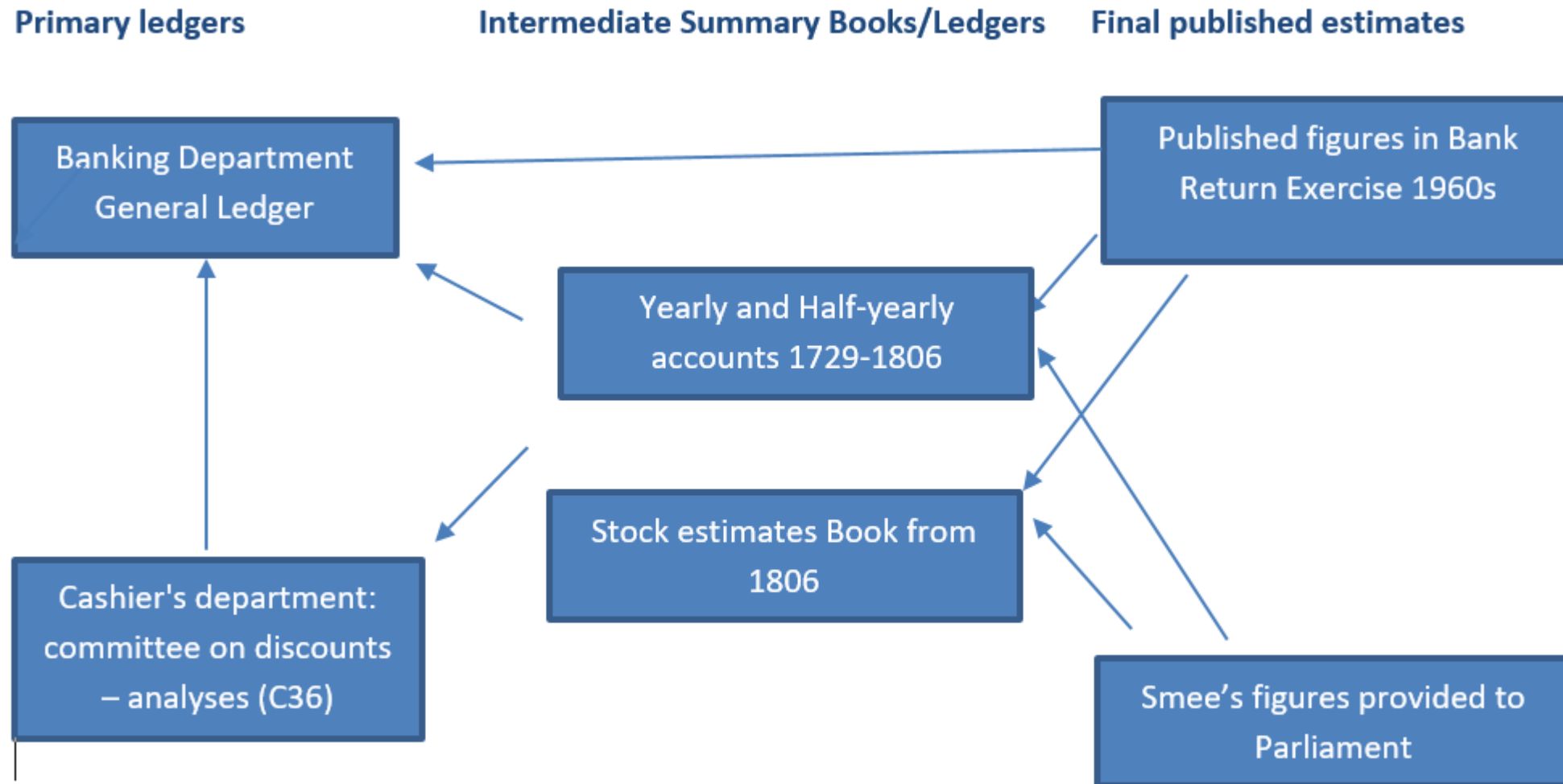
- **Sometimes monetary policy operations were carried out which were not visible or not reported on-balance sheet.**
 - Liquidity schemes (SLS, FLS) using collateral swaps during GFC
 - CRNA and EEA accounts used to manage Treasury notes and FX reserves
 - **Changes in the composition of the balance sheet can be as important as the size in understanding how central banks have used their balance sheets to promote monetary and financial stability.**
 - **Accounting and disclosure procedures have changed over time which may hamper direct comparisons of the balance sheet over time.**
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Idiosyncracies and other accounts to consider

- **Issue Department – Banking Department split from 1844**
 - To consolidate or not consolidate ?
 - Need split to understand operations (eg note reserve in Banking Department)
- **Issuance of Treasury notes 1914-1928 – Currency Note Redemption Account (CNRA)**
 - Those notes brought back on to the Bank's balance sheet in 1928
- **Exchange Equalisation Account (EEA) for managing FX reserves on behalf of government after 1931**
- **Asset purchase facility (APF), subsidiary of Bank to carry out QE post 2009**
- **Collateral swaps and other off-balance sheet operations (SLS and FLS scheme in GFC)**
- **Lack of full disclosure post 2014**
 - Not possible to construct a monthly series of the full balance sheet post 2014

Going back to archival data can help uncover these issues

Pipeline from data to underlying ledgers



Advantages of going back to the ledgers

- More granular and high frequency data on assets and liabilities

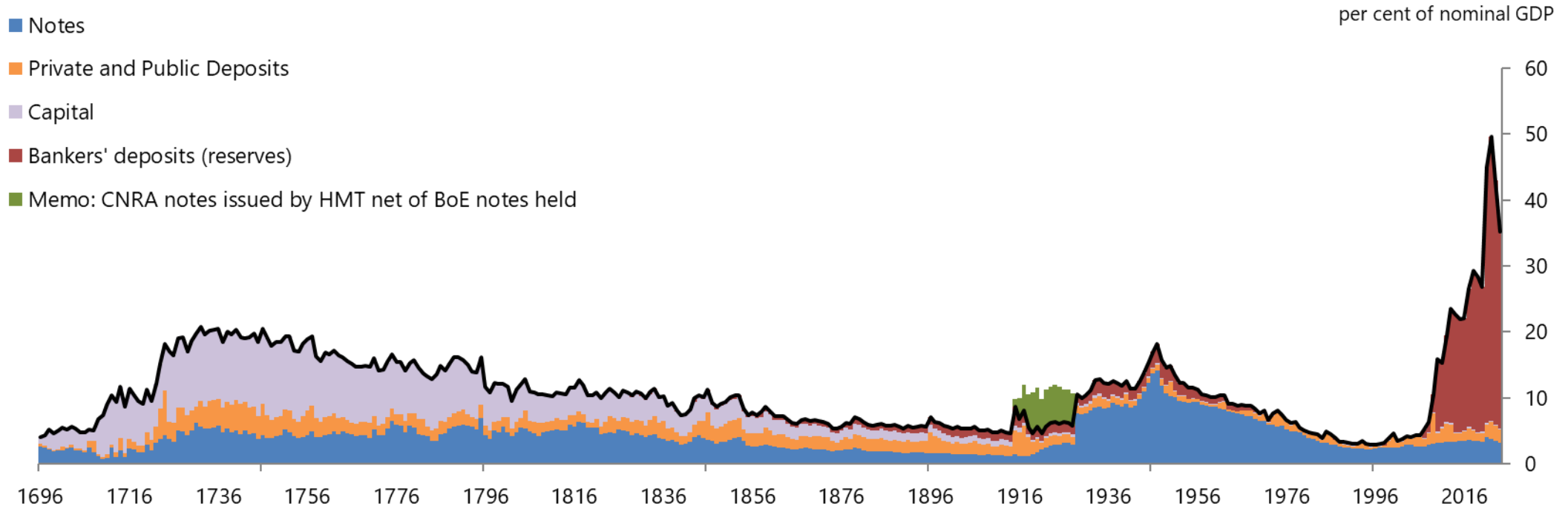
Government Securities	=		15 610	15 610	15 608	15 608	15 608	15 608
Deficiency Advances	+	3 000	3 000	3 000	3 000	3 000	3 000	2 750
Ways & Means "	+	1 800	1 800	1 800	1 800	1 800	1 800	1 550
Treasury Bills	-							
- 795 8 829 Discounts { London	-	913	5 634	5 212	4 904	4 681	4 412	4 373
Country	+	118	3 195	3 161	3 328	3 193	3 192	3 185
+ 1 806 16 188 Advances { London	+	1567	12 269	8 018	4 210	4 170	3 917	3 891
Country	+	239	3 919	3 913	3 309	3 512	3 501	3 560
Unproductive Securities	-	44	882	888	863	795	857	1 264
Other Securities	-	11	10 521	10 521	10 521	10 521	10 624	10 623
SECURITIES TOTAL	+	5 756	56 830	52 123	47 643	47 280	46 911	46 604

- Reveals hidden/off-balance sheet operations not visible in the disclosed breakdown of assets and liabilities, "Red ink" entries e.g. "borrowing from the market"

TOTAL ASSETS	+	6 515	77 762	73 410	69 077	69 013	68 597	68 566
Total Bullion	+	1 163	31 090	31 373	31 512	31 360	31 413	31 649
LONDON SILVER—Available	+	9	271	264	248	268	267	263
Reserve & Cl. of Deposits and Post Bills	-	2-8	34-9	38-3	41-8	42-5	42-7	42-3
Banks borrowing			970	970	970	970	970	970

Case Study: BoE balance sheet in WW1

The Bank of England Consolidated Balance Sheet 1696-2024 - Liabilities



- Treasury issued emergency notes in 1914
- Notes were managed in a separate Currency Notes Redemption Account (CNRA)
- Amalgamated with Bank of England note issue in 1928, causing spike in the reported data

Case Study: “Borrowing from the market” in WW1

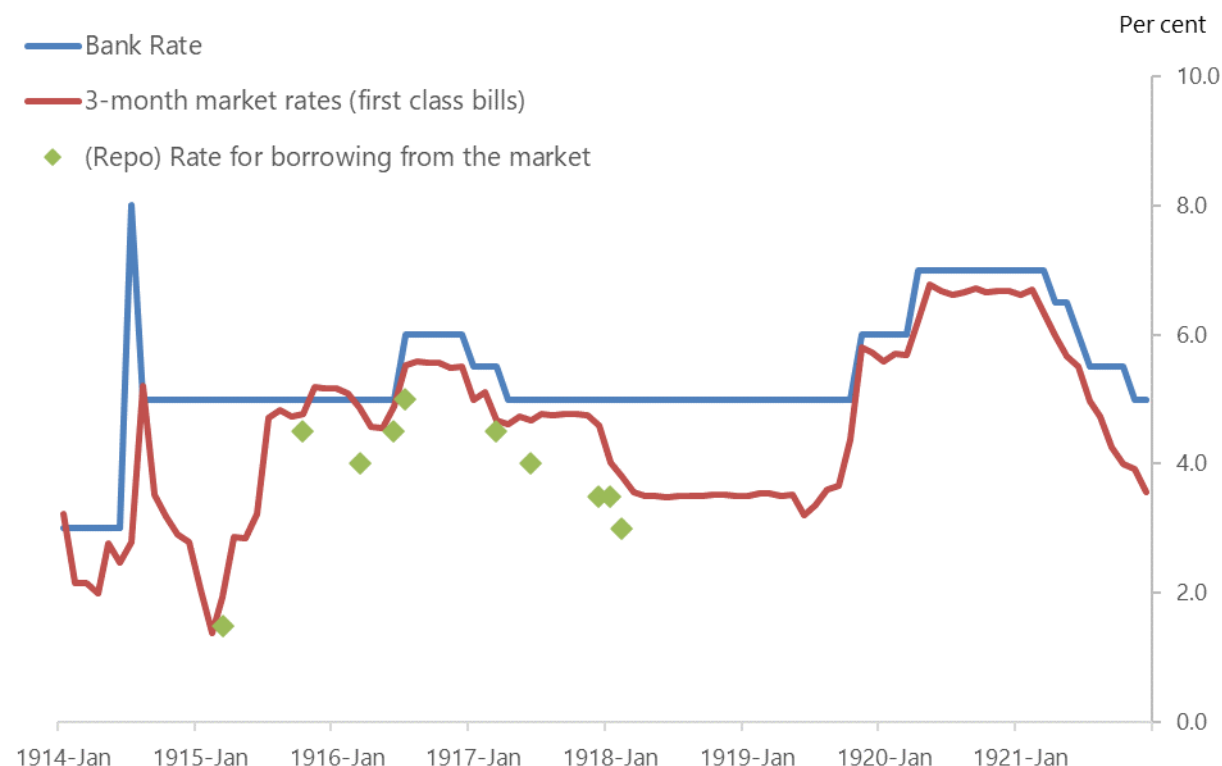
Treatment at the time: Repo of securities to banks recorded as fall in holdings of the securities used as collateral

BoE Balance Sheet		Commercial banks' balance sheets	
Assets	Liabilities	Assets	Liabilities
Govt or Private Securities ↓	Bankers' balances ↓	Bankers' balances ↓	Advances ↑

Modern Treatment: Repo of securities to banks leads to switch in liabilities

BoE Balance Sheet		Commercial banks' balance sheets	
Assets	Liabilities	Assets	Liabilities
	Bankers' balances ↓	Bankers' balances ↓	Secured loan (Reverse Repo) ↑
	Secured deposit (Repo) ↑		

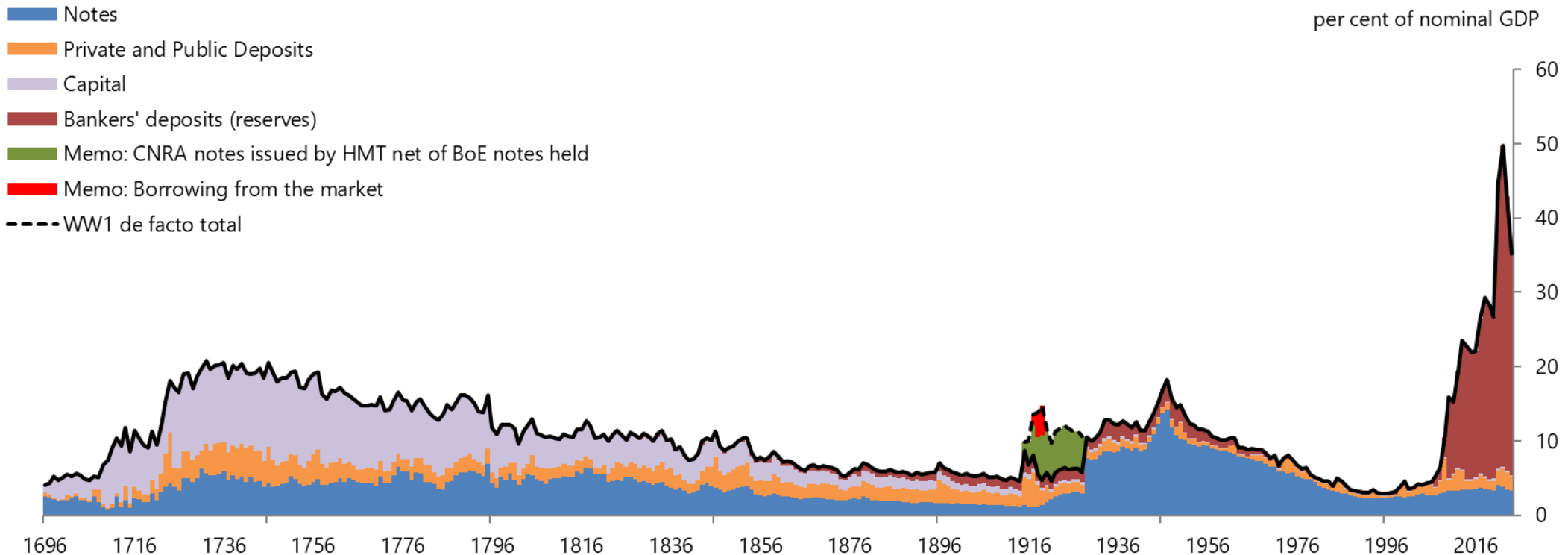
Bank Rate, Market Rates and Rate on Bank borrowings 1914-1921



- Bank also lent money to the government which created additional liquidity and put downward pressure on market rates
- The Bank (re)-introduced a repo facility to absorb liquidity, borrowing from the banks secured on govt/private securities
- Provided a floor to market rates. But accounting treatment differed from modern methods

Case Study: Borrowing from the market in WW1

The Bank of England Consolidated Balance Sheet 1696-2024 - Liabilities



- Combining currency notes and “borrowing from the market” shows different “de facto” movement in the balance sheet in WW1 when using modern accounting methods

