The Central Bank Balance Sheet



FEDERAL RESERVE statistical release



8. Consolidated Statement of Conditionserve Banks

Assets, liabilities, and capital

Gold certificate account

Special drawing rights certificate account

Assets

Coin

Millions of dollars

Millions of dollars Wednesday Assets, liabilities, and capital May 28, 2014 May 28, 2014 Liabilities 1,237,978 Federal Reserve notes, net of F.R. Bank holdings 11,037 278,205 Reverse repurchase agreements¹⁴ 5,200 2,742,018 Deposits 1,864 27,575 Term deposits held by depository institutions Other deposits held by depository institutions 2,677,298 U.S. Treasury, General Account 22,950 Foreign official 7,788 Other¹⁵ 6,406 Deferred availability cash items 951 Other liabilities and accrued dividends¹⁶ 7,162 otal liabilities 4,266,313 apital accounts Capital paid in 28,171 28,171 Surplus Other capital accounts 0 otal capital 56,342

ote: Components may not sum to totals because of rounding



Securities, unamortized premiums and discounts,		
repurchase agreements, and loans	4,254,380	
Securities held outright ¹	4,062,788	
U.S. Treasury securities	2,370,724	
Bills ²	0	
Notes and bonds, nominal ²	2,259,446	
Notes and bonds, inflation-indexed ²	96,068	
Inflation compensation ³	15,210	
Federal agency debt securities ²	44,082	Т
Mortgage-backed securities ⁴	1,647,982	
Unamortized premiums on securities held outright5	209,412	~
Unamortized discounts on securities held outright5	-17,958	Ci
Repurchase agreements ⁶	. 0	
Loans	137	
Net portfolio holdings of Maiden Lane LLC ⁷	1,656	
Net portfolio holdings of Maiden Lane II LLC ⁸	63	-
Net portfolio holdings of Maiden Lane III LLC9	22	10
Net portfolio holdings of TALF LLC ¹⁰	91	N
Items in process of collection	129	
Bank premises	2,271	
Central bank liquidity swaps ¹¹	174	
Foreign currency denominated assets ¹²	23,954	
Other assets ¹³	21,813	
	,	
Total assets	4,322,654	

Wednesday

Commercial Banks Balance Sheet (in %)

Assets (Uses of Funds)*		Liabilities (Sources of Funds)	
Reserves and Cash Items	1	Checkable deposits	10
		Nontransaction deposits	
		Small-denomination time deposits	
Securities		(< \$100,000) + savings deposits	48
U.S. government and agency	15	Large-denomination time deposits	11
State and local government and		Borrowings	23
other securities	7	Bank capital	8
Loans		-	
Commercial and industrial	18		
Real estate	35		
Consumer	6		
Interbank	11		
Other	2		
Other assets (for example,	5		
physical capital)			
Total	100	Total	100
*In order of decreasing liquidity.			
Source: Federal Reserve Bulletin.			

Non-Banks (Public) Balance Sheet

Assets (Uses of Funds)*	Liabilities (Sources of Funds)
MONEY CASH (Notes + Coins) DEPOSITS	LOANS
Other Assets	

(1) OPEN MARKET OPERATION

Note: Monetary Base (H) = CU + R

Purchase of securities (=gov. bonds) from commercial banks

Commercial	Banks	Central E	Bank
Assets	Liabilities	Assets	Liabilities
Securities – \$100 Reserves + \$100	Deposits Discount Loans	Securities + \$100 Discount Loans	Reserves + \$100 Currency
LUalis	Result: H 1 \$	100	

(2) DISCOUNT LOANS

Decrease of discount interest rate (on loans to commercial banks)

Commercial Banks		Central Bank		
Assets	Liabilities	Assets	Liabilities	
Securities	Deposits	Securities	Currency	
Reserves	Discount	Discount	Reserves	
+ \$100	loan + \$100	loan + \$100	+ \$100	
Loans	Result: H1	\$100		

Conclusion: Fed can control H

Next step: H determines Ms

(2) DISCOUNT LOANS Note: Monetary Base (H) = CU + R

Banking System		Central Bank		
Assets	Liabilities	Assets	Liabilities	
Reserves	Discount	Discount	Reserves	
+ \$100	loan + \$100	loan + \$100	+ \$100	

Result: H **\$100**

Conclusion: Fed has better ability to control H

Next step: H determines Ms (Money Creations)

First National Bank			
Assets		Liabilities	
Reserves	+ \$100	Deposits	
Securities	- \$100		
Loans			
	В	ank A	
Assets		Liabilities	
Reserves		Deposits	
Loans			
Bank B			
Assets		Liabilities	
Reserves		Deposits	
Loans			







Deposit Creation

Creation of Deposits (assuming 10% reserve requirement and a \$100 increase in reserves)

Bank	Increase in Deposits (\$)	Increase in Loans (\$)	Increase in Reserves (\$)
First National	0.00	100.00	0.00
Α	100.00	90.00	10.00
В	90.00	81.00	9.00
С	81.00	72.90	8.10
D	72.90	65.61	7.29
E	65.61	59.05	6.56
F	59.05	53.14	5.91
•	•	•	•
Total for all banks	1000.00	1000.00	100.00

Banking System As a Whole

Comme	rcial Banks	
Assets	Liabilities	
Securities – \$100	Deposits	+ \$1000
Reserves + \$100		
Loans + \$1000		

Critique of a Simple Model Deposit creation stops if

- 1. Proceeds from loan kept in cash
- 2. Bank holds excess reserves

Money Multiplier (H => Ms)

Equations:

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Monetary base (H) = Currency (Cu) + Reserves(R)
Money (Ms) = Currency (Cu) + Deposits (D)
Reserves (R)/ Deposits (D) = \theta
Currency (Cu) / Money (Ms) = c
Monetary base (H) = Currency (Cu) + Reserves(R)
                = c Ms + \theta D
                = c Ms + \theta (1-c) Ms
                              + \theta (1-c) ] Ms
                = [c
Money (Ms) = Monetary base (H) * Money Multiplier
            = H * 1/[c + \theta(1-c)]
        Ms
```

Money (M) = Monetary base (H) * Money Multiplier M = H * $1/[c + \theta(1-c)]$



Reserves = Required Reserves + Excess Reserves