|  |  |
| --- | --- |
| Assets | Liabilities |
| A1: Treasury securities | L1: CB monetary instruments held by banks and other domestic non-federal sectors  L2: CB monetary instruments held by the Treasury |

Figure 1 Simplified Balance Sheet of a Central Bank.

OLR

Penalty rate

Reserve rate

OLR\* = OLRT

R

R\*

Rd

Rs

Figure 2 Corridor Policy

Rd

Rs

R1\* R2\*

OLR

Penalty rate

OLR1\* = OLRT

Reserve rate

R

OLR2\*

Figure 3. Impact of a net injection of reserves induced by a fiscal deficit

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Steps | Central Bank | | Private Banks | |
|  | ∆Assets | ∆Liabilities | ∆Assets | ∆Liabilities |
| 1 (financing) | +A1 | +L2 |  |  |
| 2 (spending) |  | +L1  –L2 | +L1 | +M |
| 3 (draining) | –A1 | –L1 | +A1  –L1 |  |
| **Final** | **∆A1 = 0** | **∆L1 = 0**  **∆L2 = 0** | **+A1** | **+M** |

Case 1: The central bank can finance the Treasury’s deficit

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Steps | Central Bank | | Private Banks | |
|  | ∆Assets | ∆Liabilities | ∆Assets | ∆Liabilities |
| 1a (financing) |  | –L1  +L2 | –L1 | –M |
| 1b (injecting) | +A1 | +L1 | –A1  +L1 |  |
| **Final before spending** | **+A1** | **+L2**  **∆L1 = 0** | –**A1** | –**M** |
| 2 (spending) |  | +L1  –L2 | +L1 | +M |
| 3 (draining) | –A1 | –L1 | +A1  –L1 |  |
| **Final** | **∆A1 = 0** | **∆L1 = 0**  **∆L2 = 0** | **∆A1 = 0** | **∆M = 0** |

Case 2: The central bank is forbidden to finance the Treasury’s deficit and the Treasury can only sell securities to non-banks

|  |  |  |
| --- | --- | --- |
| Steps | Fed | |
|  | ∆Assets | ∆Liabilities |
| 1 (financing) | +A1 | +L2 |
| 2 (spending) |  | +L1  –L2 |
| 3 (taxing) |  | –L1  +L2 |
| 4 (redemption) | –A1 | –L2 |
| **Final** | **∆A1 = 0** | **∆L1 = 0**  **∆L2 = 0** |

Case 3: Special Certificates of Indebtedness and Monetary Policy

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) |  | (1) | (2) | (3) |  | (1) | (2) | (3) |
| **1923** | 30 | 1 | 156.5 | **1943** | 48 | 28 | 1,302 | **1963** | - | - | - |
| **1924** | 14 | 1 | 184 | **1944** | - | - | - | **1964** | - | - | - |
| **1925** | 15 | 1 | 182 | **1945** | 9 | 7 | 484 | **1965** | - | - | - |
| **1926** | 14 | 1 | 246 | **1946** | - | - | - | **1966** | 3 | 3 | 169 |
| **1927** | 46 | 1 | 251.5 | **1947** | - | - | - | **1967** | 7 | 3 | 153 |
| **1928** | 20 | 1 | 316 | **1948** | - | - | - | **1968** | 8 | 6 | 596 |
| **1929** | 17 | 1 | 314 | **1949** | 2 | 2 | 220 | **1969** | 21 | 12 | 1,102 |
| **1930** | 18 | 1 | 218 | **1950** | 2 | 1 | 180 | **1970** | - | - | - |
| **1931** | 18 | 1 | 219.5 | **1951** | 4 | 2 | 320 | **1971** | 9 | 7 | 610 |
| **1932** | 8 | 1 | 32 | **1952** | 30 | 9 | 811 | **1972** | 1 | 1 | 38 |
| **1933** | 4 | 1 | 9 | **1953** | 29 | 20 | 1,172 | **1973** | 10 | 6 | 485 |
| **1934** | - | - | - | **1954** | 15 | 13 | 424 | **1974** | 1 | 1 | 131 |
| **1935** | - | - | - | **1955** | - | - | - | **1975** | 16 | 7 | 1,042 |
| **1936** | - | - | - | **1956** | - | - | - | **1976** | - | - | - |
| **1937** | - | - | - | **1957** | - | - | - | **1977** | 4 | 4 | 2,500 |
| **1938** | - | - | - | **1958** | 2 | 2 | 207 | **1978** | - | - | - |
| **1939** | - | - | - | **1959** | - | - | - | **1979** | N/A | N/A | 2,600 |
| **1940** | - | - | - | **1960** | - | - | - | **1980** | - | - | - |
| **1941** | - | - | - | **1961** | - | - | - | **1981** | - | - | - |
| **1942** | 19 | 6 | 422 | **1962** | - | - | - | **1982** | - | - | - |

Table 1. Direct Borrowing from the Fed: Number of Days Used (1), Maximum Number of Days Used at any One Time (2), and Maximum Outstanding at any Time (Millions of Dollars) (3)

Sources: U.S. House (1962), U.S. Treasury (1978), Board of Governors of the Federal Reserve System (1979)