Josef Jílek/Roman Matoušek

Money in the Modern World

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Contents

Preface

The book tries to explain the framework of the money, liquidity and monetary policy in major countries (the USA, the Eurozone, Japan and the United Kingdom). Even if the book is based on the contemporary banking practice, it comes from careful examination of historical development of opinions on money, liquidity and monetary policy. The authors are of the view that the best way how to demonstrate the money and liquidity (and the financial system as a whole) is through financial statements (balance sheet and income statement) which are based on accounting. Thus any operation is clarified through double-entry record.

The first part of the book concentrates on money, namely on money aggregates, creation and extinction of money, decision-making of banks/clients about whether or not to grant/accept loans, issue of debt and equity securities by commercial banks and clients and flow of money as a result of cross-border investments.

The second part focuses on liquidity and reserve requirements. Further, two examples of the banking system (without and including central bank) are shown. These examples help to understand the effects of the currency and of the reserve requirements on the financial positions of economic sectors (commercial banks, enterprises, government, households and central bank). Consequently, the attention is devoted to the basics of financial statements, three structures of central bank's balance sheet, examples of the central bank's financial statements, administration of the international reserves and seigniorage.

The third part concentrates on the practice of monetary policy according to the monetary policy framework: monetary policy instruments, operating targets, intermediate targets and ultimate targets. Inflation targeting follows as many central banks decided to use explicit monetary policy targets in the 1990s. Monetary policy relies on a chain of economic relations allowing the central bank to influence inflation. Thus, transmission mechanism plays the central role in monetary policy. It works through credit, entrepreneurial, expenditure and foreign exchange channels. Subsequently, the topics are monetary policy rules, foreign exchange interventions and dollarization. The issue is closed with description of monetary policy in the major countries.

The last part outlines the payment systems. It is an extension of the first part and begins with interbank payment systems and forms of bank payments. Further, gross and net payment systems are explained. Finally, payment systems in the major countries are described.

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Part I: Money

1 Money as monetary aggregates

1.1 Definition of Money

What is money? What can be designated as "money"? Such questions are asked by many people including central bankers. The reason is that people are eager to know it and that the main objective of almost every central bank is to maintain the price stability. In order to achieve this target, people and central banks need to know the quantity of money in the economy. For general public money generally indicates anything acceptable as a legal tender in repaying debts and a store of value.

Any money represents for one entity claim (financial asset) and for the other entity payable (financial liability) at the same time. There are a lot of relationships between creditors and debtors in the economy but only some relationships are considered as money. Money mostly refers to some relationships where the debtors are banks and the creditors are non-bank entities. Relationships where both the debtors and the creditors are banks are not called "money" but "liquidity". However not all claims of non-bank entities, which are at the same time bank liabilities, are covered by the definition of money. **Therefore, money (monetary aggregates) is a subset of all relationships between creditors and debtors in the whole economy and more specifically a subset of all relationships between non-bank creditors and bank debtors.** Money as debt instruments represents a subset of financial instruments.[1]

Banks as debtors ensure high credibility of debtor-creditor relationship. Such money is sometimes referred to as "**bank money**", **"money stock"** or "**money supply**" but we mostly use the simple term "**money**". There are some exceptions to the above mentioned definition of money. For example some central banks include in broad monetary aggregates also some securities issued by some non-bank entities. For example aggregate M3 of the Eurozone covers also money market fund shares and units as well as debt securities with a maturity of up to two years).

1 According to International Financial Reporting Standards (IFRS), a financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

More specifically the term "money" covers (Figure 1.1):

- Currency (banknotes and coins) held by the public (households and enterprises) and government, i.e. currency in circulation; and

- Accounting money held by the public and government.

The accounting money represents book entries on current accounts (checking accounts, demand deposits or sight deposits), term accounts (time deposits, term deposits) and saving accounts. In other words, money represents some liabilities of central bank to the public and government (currency in circulation[2]) and some liabilities of commercial banks to the public (current accounts, term accounts and savings accounts). The definition of money does not comprise liabilities of commercial banks to other banks, i.e. the liquidity. Nowadays, the currency in circulation represents only a small portion of the total money stock. Thus talking about money, we mean primarily the money in the form of book entries.

Looking on **central bank liabilities** only the currency in circulation (i.e. banknotes and coins held by the public and government) contributes to the money stock (monetary aggregate M0). We have to point out that the currency in circulation consists only of the coins and banknotes outside of the central bank and commercial banks. Currency held by commercial banks in their vaults is usually excluded from the definition of money. Other liabilities of the central bank to its clients[3] (including government) do not contribute to the monetary aggregates. The same holds for liabilities of central bank to commercial banks (liquidity).

Money represents the purchasing power of economic agents (households, enterprises and government). It is supposed that purchasing power of money is strongly related to total expenses and total production of goods and services in the whole economy. **Estimations of future price changes** determine the longing of economic agents to hold money at the expense of other financial and real assets (i.e. it determines the velocity of money). If there is **strong inflation** or inflation expectation, agents seek to minimize holdings of almost all kinds of money, and the velocity of money accelerates. Consequently, agents replace money by holdings of other financial and real assets. If prices are expected to remain **stable**, agents generally hold more money and less other financial and real assets, and the velocity of money decelerates. In the case of **deflation** and deflation expectation, holdings of money are very lucrative, and holdings of other financial and real assets are minimized. The velocity of money decelerates.

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2 This exactly holds when central bank issues both banknotes and coins. However, in some countries coins are issued by the treasury department.

3 Clients are considered the non-bank entities in this book.