Money markets trade in debt—unsecured overnight loans, commercial bills, treasury bills, and repurchase agreements—of less than a year to maturity. To work efficiently, these basic building blocks in the development of capital markets need liquidity, multilateral trading, and a range of participants.

A liquid market allows participants to trade the quantity they want to quickly and easily over a range of maturities (overnight, seven days, thirty days, ninety days) with little or no effect on price. The total funds in a liquid system should be accessible to all participants in the market, subject only to commercially and prudentially determined exposure limits. There should be no segmentation due to regulation, poor communications, geographic distance, or lack of information. Trading should occur multilaterally rather than bilaterally; all bids and offers should come together in one place to create an informed market that results in uniform pricing and a fast response to new information. Furthermore, a range of participants should have access to the market—banks, brokers, large firms, pension funds, mutual funds, finance companies, and insurance companies. Such a range of participants contributes to both liquidity and the amount of information embedded in the market’s pricing of instruments.

Integration with other markets is a sign of a more advanced market. The short-term yield curve—derived from a range of short-term maturities—should be smooth and consistent. A liquid market in overnight to seven-day funds will have some combination of:

- Bilateral trading of instruments and consequently a fragmented market.
- Banks as primary participants, with possible some participation by nonbank financial institutions but none by firms.
- Segmentation (due to geography, regulation, perceived credit quality, lack of communications) so that some funds are not accessible to some market participants.
- An illiquid market in overnight to seven-day funds.
- No market in repurchase agreements.
- No primary market in treasury bills or commercial bills or both.
- A limited secondary market or no secondary market in treasury bills and commercial bills.
- Participation by institutions such as discount house but as end holders of securities rather than market-makers.
Benefits of an efficient money market

- **For banks**: An efficient money market improves liquidity management and so lowers costs. It allows banks to manage risks arising from interest rate fluctuations and to manage the maturity structure of their assets and liabilities. And it provides a stable source of funds in addition to deposits, allowing alternative funding structures and competition.

- **For savers**: An efficient money market encourages the development of nonbank intermediaries and thus increases competition for funds, leading to higher returns and new, more flexible savings instruments.

- **For borrowers**: A consistently liquid money market provides an effective source of long-term finance. This result is especially useful in countries where long-term debt is unavailable because of high inflation or because of some other form of uncertainty. In addition, direct access to the market for short-term capital allows larger borrowers to lower their cost of funds and manage their short-term funding or surprises more efficiently.

- **For other financial markets**: An efficient money market supports the development of both primary and secondary securities markets—participants can borrow in the money market to fund their security holdings. A liquid money market is necessary for the development of an efficient market in forward foreign exchange and for markets in derivative instruments.

- **For the government**: A liquid money market providing access to a wide range of buyers enables the government to achieve better pricing on its debt. An excessive government borrowing requirement, however, or a lack of coordination among fiscal, monetary, and exchange rate policies will disrupt the market.

- **For the central bank**: Monetary control through indirect methods (treasury bill auctions and open-market operations) is more effective if the money market is liquid. The market response to central bank policy actions will be both faster and less subject to distortion in a liquid market. The short-term yield curve that is a feature of liquid markets is a useful indicator for monetary policy.

directly affect the pricing of forward foreign exchange deals and long-term bonds. The yield curve should also respond quickly to changes in central bank policy that are signaled by changes in the discount rate or the level of reserve money.

Developing efficient money markets

Efficient money markets need the right incentives for participation and an adequate infrastructure for fast, safe, and easy transactions. For example, banks are likely to participate largely to manage liquidity and interest rate risk. Therefore, an essential task in developing the money market is to make sure that banks know that liquidity risk and interest rate risk must be actively managed, and that they should look to the market to manage these risks rather than to the central bank or the government.

Incentive structure

The following are important steps in creating the right incentive structure for market development:

- **Commercialize the banks**: Banks must be commercially oriented. If banks are not under pressure to earn a good return on equity, they are unlikely to manage risks prudently and thus unlikely to use markets fully. A liquid money market is less likely to develop in a market dominated by state-owned banks whose operations are heavily influenced by political concerns.

- **Control the quantity of excess reserve money**: The way the central bank manages excess reserves in the banking system—the quantity of reserve money over and above the amount required to meet reserve requirements—has a large influence on the way banks manage their own liquidity risk. To help the market develop, the central bank needs to manage excess reserves in a way that encourages banks to trade with each other to meet their liquidity needs. Sometimes, banks operate in ways that stifle market development. For example, if they have cheap and easy access to funds from the central bank, they have little incentive to trade in the market for funds or to allocate resources to managing liquidity. Furthermore, if excess reserves are consistently greater than required to meet bank operations, less trading will occur because most
participants will be on the same side of the market. The central bank’s skill in managing excess reserves is also important for market stability. If excess reserves fluctuate too much above or below the level desired by the market, excessive volatility in interest rates will result. Excessive interest rate volatility causes uncertainty, which reduces capital market activity.

- **Minimize statutory reserve requirements.** When reserve requirements and liquidity requirements are set at high levels, banks will have to hold the specified securities in excess of their commercial needs. The unavailability of these securities for trading restrains market liquidity. Therefore, securities holdings should be based largely on economic decisions rather than regulatory requirements.
- **Permit fluctuations in interest rates.** Financial markets should be sufficiently deregulated so that interest rates can fluctuate, shifting the yield curve.
- **Remove regulatory impediments.** Unequal tax treatment of different financial assets or of the costs of finance from different sources, or both, can distort the market and impede its development. Restrictions that limit competition in the provision of financial products and services, limit the methods available to firms for funding themselves, or directly limit the ability of banks and others to use the money market will impede development.

**Market infrastructure**

Developing market infrastructure is a necessary complement to creating incentives for participation. Adequate infrastructure allows the easy flow of information and clarifies each transaction’s risks and the division of the risks between parties. Without it, there will be uncertainty, and probably fraud and mismanagement. The key parts of infrastructure for an interbank, a primary bill, and a secondary bill market are:

- A *payments system* that permits money market transactions to take place for same-day value. The creation of a delivery-against-payment system reduces the opportunity for fraud. A large-value transfer system provides added certainty and security for capital market transactions that are typically much larger than the average funds transfer and require funds to be transferred on a specific date.
- **Adequate legal recourse** in the event of failure to meet an obligation. A weak legal system increases uncertainty, greatly reduces the potential number of market participants, and reduces the acceptability of anything less than first-class debt.
- **A multilateral market** in which all bids and offers can be viewed simultaneously, such as a centralized exchange market or an over-the-counter market. Initially, money brokers may be used to create an over-the-counter market. A screen-based dealing network is a more advanced system.
- A competent *treasury operation* within banks and major financial institutions to manage liquidity and interest rate risks. In addition to skilled staff, a treasury operation needs a management accounting system to collect and report flow and balance sheet data. Liquidity management is greatly improved by integrating branch networks into a single central treasury operation and rationalizing clearing accounts at the central bank so that each bank has one clearing account rather than an account for each branch.
- A common set of rules or market *trading conventions* to cover such issues as settlement date, method of title transfer, dispute resolution, and the obligations of both parties to a transaction. Such rules increase confidence and reduce transactions costs. A dealers association to discipline members can exist in tandem with central bank enforcement.
- Published *credit ratings* of financial institutions. Ratings help to promote trust and reduce segmentation by allowing a more informed assessment of exposure limits. They also permit more accurate pricing of debt issues.

Components of the infrastructure specific to creating primary and secondary bill markets (both treasury bills and short-term paper of commercial entities) are:

- **Issuance requirements,** including the provision of a minimum quantity and standard of information to purchasers of short-term debt. Issues of short-term debt may need the approval of a regulatory body.
The disclosure and legal framework provide the market with information and reduce uncertainty.

- For a secondary market, an *adequate supply of new bills* in the primary market. Bills are usually issued by the government as part of its overall debt management, by the central bank to manage short-term liquidity, and by private companies for trade finance and as part of their overall debt mix. These potential issuers of bills must have both the need and the legal ability to issue bills; companies must have, in addition, the necessary financial skills and acceptable credit. A secondary market, particularly a secondary market for treasury bills, develops more easily if the primary market issues are well planned. Standardizing the government issue, issuing enough of each kind of instrument to create tradability, and signaling the likely future issue schedule to the market all help.

- A system for the secure and speedy *transfer of title* to securities. Such a system could comprise a book entry system, a centralized registry, and a delivery-against-payment system for funds transfer. A sound and efficient transfer system reduces transactions costs and the chance of fraud.

3 Liquidity is, to some extent, a relative concept. A market can be considered liquid if local participants find that liquidity is adequate for their needs, even if offshore participants from larger markets cannot trade the quantity they want to as easily as they could in their home market.

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