1 Context: the financial system

1.1 Learning objectives

After studying this text the learner should / should be able to:

- Describe the elements that make up the financial system.
- Know of the existence of the allied non-principal participants in the financial system.

1.2 Introduction

The debt market is an important element of the financial system; in fact there are three main sets of financial market instruments: debt, deposits (which is a form of debt) and shares (or equities). The money market and the bond market make up part of the debt market. The bond market is usually seen as the market for long-term marketable debt instruments (called bonds), and the money market as the market for short-term marketable debt instruments, such as commercial paper (CP) and treasury bills (TBs).

Thus, the bond market is the market in which governments and the prime members of the corporate sector are able to issue long-term bonds, and investors can invest in and trade in these bonds. This description is adequate.

This usual description of the money market, however, is not adequate because this market is much more than the market for short-term marketable debt instruments. The outstanding amount of short-term marketable debt instruments is small compared with the outstanding amount of short-term non-marketable debt instruments, such as short term bank loans, overdraft facilities[1] utilised and so on. These are also debt instruments (the assets of banks) issued by the ultimate borrowers (as are CP and TBs).

Interest rates (the price of debt) are determined in the entire market and not just in the marketable securities market. The "entire" market includes not only non-marketable debt but also the significant interbank market. It is in this market that interest rates have their genesis. There are two main interbank markets: one where the rates are set administratively (by the central bank), and the other where banks compete amongst one another for cash reserves (called Federal Funds in the US) in order *not to borrow* from the central bank (at the *repo* – also called *discount* – rate). The third "market" is represented by the cash reserve requirement; it is a one-way "market" like the first-mentioned.

This interbank activity ensures that the bank-to-bank interbank rate closely follows the Key Interest Rate (KIR) of the central bank – called the discount rate, base rate, bank rate, repo rate, etc. The central bank (by ensuring that the banks are always indebted to it) is thus able to ensure that the repo rate is at all times *made effective* – which means that the central bank essentially "pinpoints" the short end of the yield curve. This is significant in that the central bank has a major influence on bank deposit rates (the majority of which are short-term) and therefore (via the bank margin) on bank lending rates (and generally on asset prices – which plays a major role in consumer behaviour – the main driver of the economy).

The level of bank lending rates influences the demand for credit, and growth in the latter is the main driver of the growth rate in the money stock. This significant money creation role of the banks is played out in the money market.

Given the significance of the money market and money market interest rates, it is important to begin the series of modules on this market with a brief description of the financial system. This is the context of the money market

1.3 The financial system

1.3.1 Introduction

The financial system is essentially concerned with borrowing and lending; it may be depicted simply as in Figure 1.

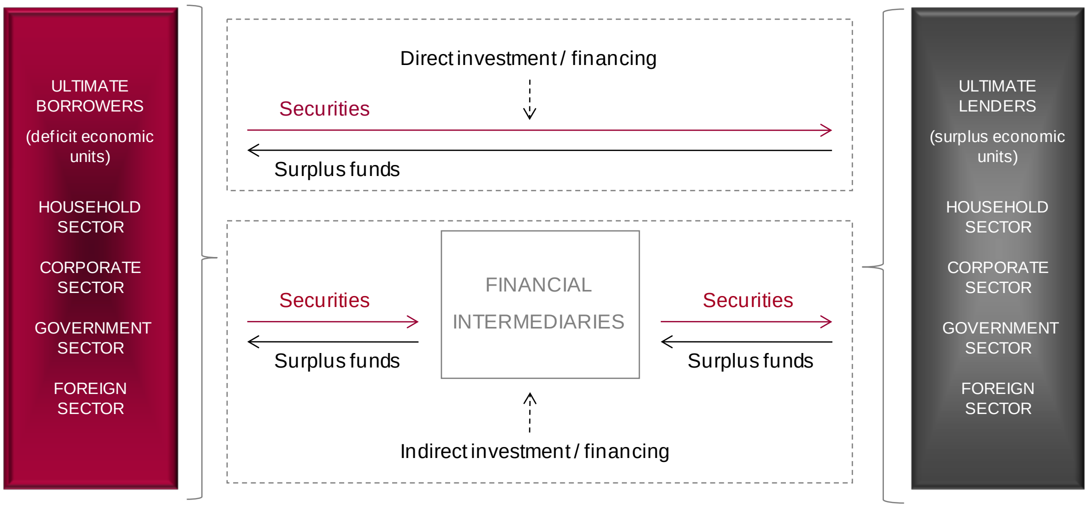


Figure 1: ultimate lenders & borrowers

The financial system has six elements (not all of which are visible in Figure 1):

- First: *lenders* (surplus budget economic units) and *borrowers* (deficit budget economic units), i.e. the non-financial economic units that undertake the lending and borrowing process. They may also be called the *ultimate* lenders and borrowers (to differentiate them from the financial intermediaries which also lend and borrow).
- Second: *financial intermediaries* which intermediate the lending and borrowing process; they interpose themselves between the ultimate lenders and borrowers.
- Third: *financial instruments*, which are created to satisfy the financial requirements of the various participants; these instruments may be marketable (e.g. treasury bills) or non-marketable (e.g. utilised bank overdraft facility).
- Fourth: the *creation of money* when demanded; banks have the unique ability to create money.
- Fifth: *financial markets*, i.e. the institutional arrangements and conventions that exist for the issue and trading (dealing) of the financial instruments.
- Sixth: *price discovery*, i.e. the price of shares and the price of money / debt (the *rate of interest*) are "discovered" (made and determined) in the financial markets. Prices have an allocation of funds function.

We will touch upon each of these elements briefly.

1.3.2 Element 1: lenders and borrowers

As may be seen in Figure 1, the lenders and borrowers are categorised into the four "sectors" of the economy:

- *Household* sector (individuals).
- *Corporate* sector (companies – private and government owned.
- *Government* sector (all levels of government – local, provincial, central).
- *Foreign* sector (any foreign entity – corporate sector, financial intermediaries such as pension funds).

The members of these sectors may be lenders or borrowers or both at the same time; for example most governments are issuers of treasury bills (= borrowers) and at the same time hold large balances on accounts with banks before spending the funds borrowed (= lenders).

1.3.3 Element 2: financial intermediaries

Lending and borrowing takes place either *directly* between ultimate lenders and borrowers [e.g. when an individual buys a share (also called equity and stock) issued by a company], or *indirectly* via financial intermediaries. Financial intermediaries essentially solve the differences that exist between ultimate lenders and borrowers in terms of risk, return, term of loan, etc. For example, Johnny (a member of household sector) will prefer to place his money in a bank deposit for 30 days than lend it to his friend Peter (a member of household sector) because of the risk that Peter may default and Peter would like the loan for a year.

MAINSTREAM FINANCIAL INTERMEDIARIES

DEPOSIT INTERMEDIARIES

Central bank (CB)
Private sector banks

NON-DEPOSIT INTERMEDIARIES

Contractual intermediaries (CIs)

Insurers
Retirement funds (pension funds, provident funds, retirement annuities)

Collective investment schemes (CISs)

Securities unit trusts (SUTs)
Property unit trusts (PUTs)
Exchange traded funds (ETFs)

Alternative investments (AIs)

Hedge funds (HFs)
Private equity funds (PEFs)

QUASI-FINANCIAL INTERMEDIARIES (QFIs)

Development finance institutions (DFIs)
Special purpose vehicles (SPVs)
Finance companies
Investment trusts / companies
Micro lenders
Buying associations

BOX 1: Financial intermediaries

Financial intermediaries exist not only because of the divergence of requirements of lenders and borrowers, but for the specialised services they provide, such as insurance policies (insurance companies), retirement fund products (retirement funds), investment products (securities unit trusts – also known as mutual funds), overdraft and deposit facilities (banks), and so on.

The main financial intermediaries that exist in most countries and their relationships with one another is presented in Figure 2. A useful of classification of them is presented in Box 1.

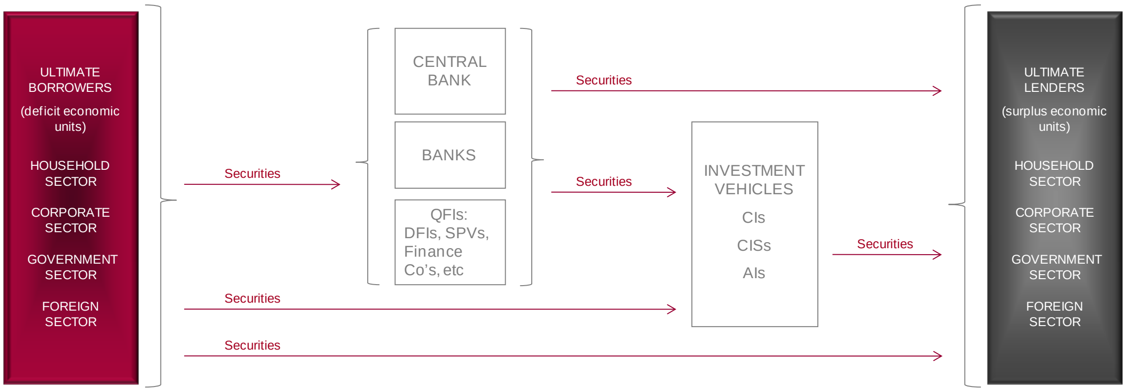
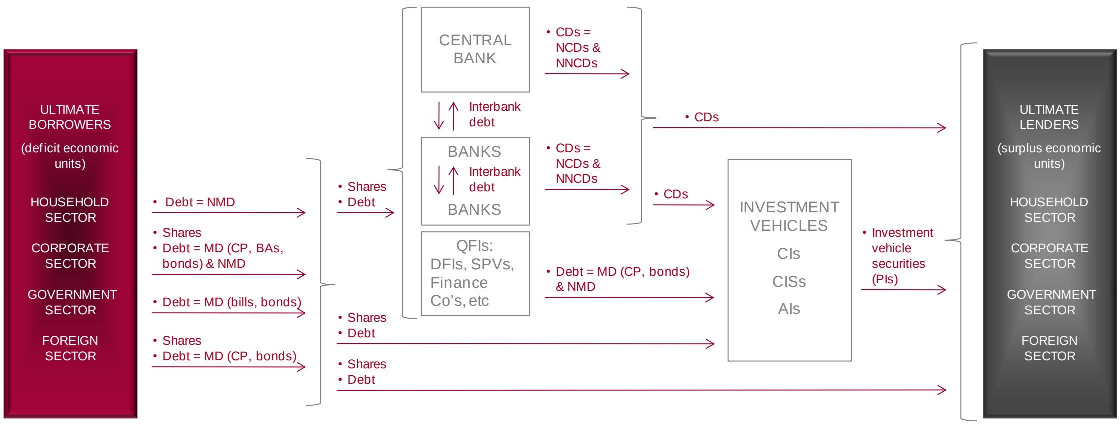


Figure 2: financial intermediaries

Note that the non-deposit intermediaries may also be seen as *investment vehicles*; most of their products are designed as investment vehicles for the household sector. Examples are endowment policies (insurers), units (securities unit trusts), participation interest(exchange traded fund).

1.3.4 Element 3: financial instruments



MD = marketable debt; NMD = non-marketable debt; CP = commercial paper; BAs= bankers' acceptances; CDs = certificates of deposit (= deposits); NCDs = negotiable certificates of deposit; NNCDs = non-negotiable certificates of deposit; foreign sector issues foreign shares and foreign MD (foreign CP & foreign bonds); PI = participation interest (units)

Figure 3: financial intermediaries & instruments / securities

Ultimate lenders exchange money for securities and ultimate borrowers exchange (issue new) securities for money. Financial intermediaries issue their own securities (e.g. deposits) in exchange for the securities of the ultimate borrowers (e.g. treasury bills). The banks have a special and unique role in this market for money in that they are able to create money (bank deposits) by making loans (buying securities); this will become clearer later

Securities are *evidences of debt or shares* that offer a return that is certain (fixed-interest debt) or uncertain (variable-rate debt and shares). The capital amount of shares and debt is either paid back (bonds and preference shares) or not (perpetual bonds and ordinary shares).

	Debt (& deposits)		Shares		
			Non-marketable	Marketable	
	Non-marketable debt and deposits	Marketable debt and deposits	Non-listed ordinary shares*	Listed ordinary shares	Listed preference shares
ULTIMATE BORROWERS					
Household sector	OD & mortgage loans from banks	-	-	-	-
Corporate sector	OD & mortgage loans from banks	Corp bonds, CP, BAs, PNs	YES	YES	YES
Government sector	OD loans from banks	Govt bonds, TBs	-	-	-
Foreign sector	-	Foreign bonds	-	YES (inward listing)	YES (inward listing)
FINANCIAL INTERMEDIARIES					
Central bank	NNCDs	NCDs**, notes & coins	-	-	-
Private sector banks	NNCDs	NCDs	-	-	-
Quasi-financial intermediaries	OD loans from banks	Corp bonds, CP	-	-	-
Investment vehicles	Participation interests (PIs)	-	-	-	-
OD = overdraft); CP = commercial paper; BAs = bankers' acceptances; PNs = promissory notes; Corp = corporate; NNCDs = non-negotiable certificates of deposit; NCDs = negotiable certificates of deposit. * Non-listed preference shares do exist but are rare. ** Central bank (CB) securities, which are akin to NCDs.					

Table 1: financial instruments / securities

The instruments of the financial system are as shown in Figure 3 and summarised in Table 1.

The household sector issues:

- Debt securities [non-marketable debt only (NMD, e.g. utilised overdraft facility from a bank = a loan = debt)].

The corporate sector issues:

- Share securities [ordinary shares (aka "common" shares), and preference shares (aka preferred shares)]. They are either marketable shares (MS = listed) or non-marketable shares (NMS = unlisted).
- Debt securities [NMD, e.g. loan from bank, and marketable debt (MD e.g. bonds; commercial paper – CP; bankers' acceptances – BAs; promissory notes – PNs)].

The government issues:

- MD securities [treasury bills (TBs or T-bills) and bonds (also called T-bonds)].

The foreign sector (foreign corporate entities) issues MD only (into the local markets):

- Foreign share securities.
- Foreign debt securities.

The deposit financial intermediaries (central bank and private sector banks) issue:

- Deposit securities:
  - Non-negotiable certificates of deposit (NNCDs, e.g. fixed deposits, savings deposits, call deposits).
  - Negotiable certificates of deposit (NCDs). In the case of the central bank these are notes and coins and central bank securities[2].

The investment vehicles issue:

- Investment securities, for example:
  - Endowment policies (life insurers).
  - Annuities (life insurers).
  - Membership interests (retirement funds).
  - Units [securities unit trusts (also called mutual funds)].
  - Participation interests (exchange traded funds).

For the sake of simplicity we refer to them all as participation interests (PIs).

The quasi-financial intermediaries issue:

- Debt securities [NMD (e.g. loan from bank) and MD (e.g. bonds, commercial paper – CP)]. An example is a development finance institution (DFI) such as a development bank and a finance company.

1.3.5 Element 4: creation of money

As we will see in some detail later, the commercial banks have the unique ability to create money "out of thin air". Money is defined as anything that serves as a medium of exchange[3]; the "items" that are used as a medium of exchange are bank notes and coins (usually issued by the central bank) and bank deposits. As is well known, in most countries notes and coins make up a small proportion of money; individuals and institutions make the vast majority of their payments in bank deposit transfers.

When banks make new bank loans (= buy new NMD and MD securities), they create deposits (= money). The referee in this game is the central bank which controls the growth rate in money creation (= new bank deposits resulting from new bank loans) by influencing the interest rate on banks loans (= bank assets) via the interest rate (repo or discount rate) it charges for its loans to the banks (= bank liabilities), which it "forces" the banks to take. In most countries this is the style of monetary policy followed.

We will return to this significant matter, which amounts to there being a virtually unlimited supply of bank credit [which leads to deposit (= money) creation]. The "limit" exists in the form of the price of money to the public – the bank lending rate.

1.3.6 Element 5: financial markets

In the discussion above, it will have been noticed that financial instruments are either marketable of non-marketable. Examples are non-negotiable certificates of deposit (NNCDs) (= an ordinary deposit receipt) and negotiable certificates of deposit (NCDs) issued by the private sector banks (the latter are also called just CD in some countries).

There are two market types or forms (see Figure 4):

- Primary market.
- Secondary market.

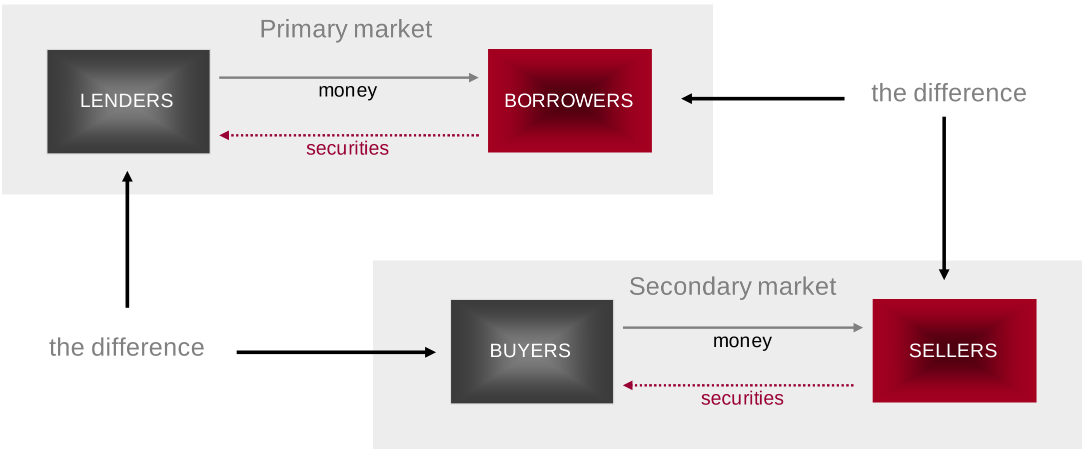


Figure 4: primary & secondary markets

All securities are issued in their primary markets and the marketable ones are traded in the secondary markets. In the primary market the *issuer* receives the money paid by the *lender / buyer*. In the secondary market the *seller* receives the money paid by the *buyer*.

The financial markets can be depicted as in Figure 5.

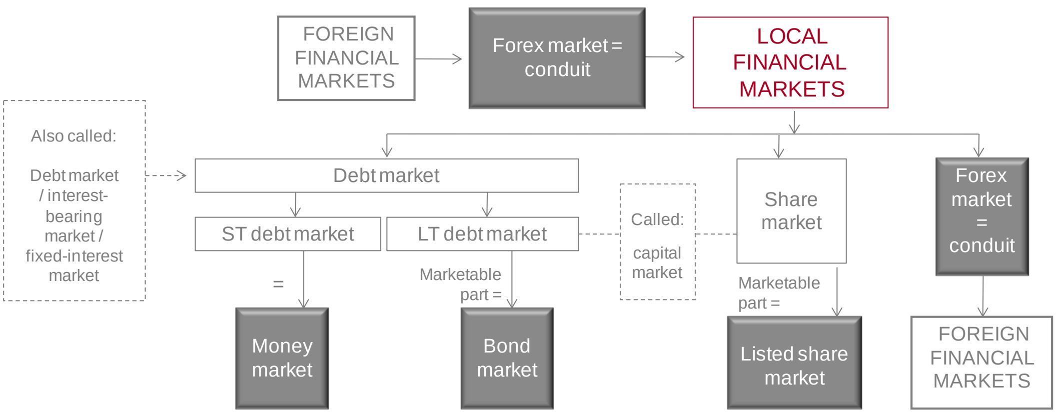


Figure 5: financial markets

The debt market is made up of the:

- Short-term debt market (= the money market according to our definition); it includes all short-term debt, i.e. marketable debt (ST MD) and non-marketable debt (ST NMD), and bank deposits because deposits are a form of debt (the majority of deposits is short-term). We call deposits *certificates of deposit* (CDs), and they are marketable / negotiable (NCDs) or non-marketable / negotiable (NNCDs).
- Long-term debt market, i.e. long-term marketable debt (LT MD) and non-marketable debt (LT NMD); the bond market is the marketable part of the long-term debt market (= LT MD).

The debt market is also known as *the interest-bearing market* and the *fixed-interest marke*t. The terms *interest-bearing* and *fixed-interest* differentiate the debt market from the share market because the returns on shares are dividends and dividends are not fixed – they depend on the performance of companies. The term *fixed-interest*, strictly speaking, is a misnomer because interest can be fixed or floating (= reset frequently).

Generally, the foreign exchange market is called a financial market. But, strictly it is not a financial market, because lending and borrowing does not take place in this market. Rather, it is a *conduit* for foreign importers, commercial entities, etc into local financial markets and for local investors, commercial entities, etc into foreign financial markets.

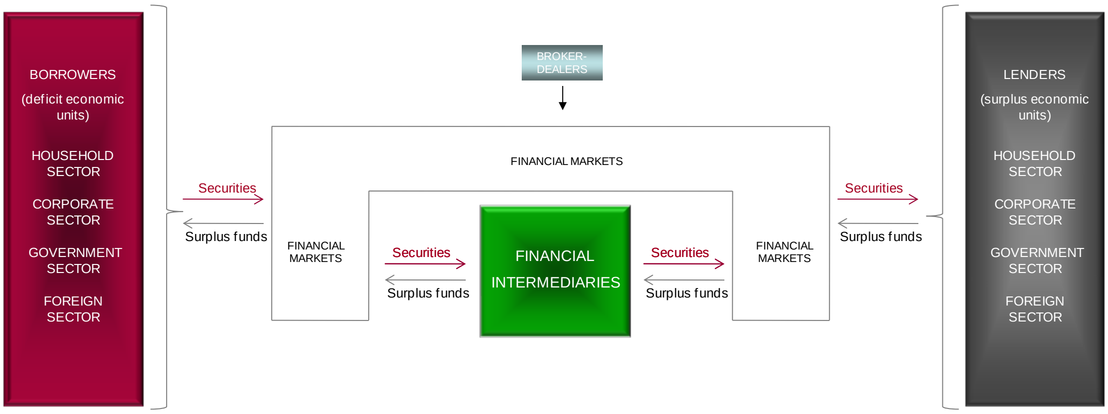


Figure 6: financial markets

In addition to these *cash* or *spot* markets [= where settlement of deals take place on, or a few days after, transaction date (T+0)] we have the so-called derivative markets (= where settlement of deals take place on days beyond spot settlement dates). The derivatives market is comprised of instruments (forwards, futures, swaps, options and "others" such as weather derivatives) that are *derived* and get their value from the spot financial markets.

Secondary markets are either over-the-counter (OTC), also called "informal markets" (such as the foreign exchange and the money markets) because there is no exchange involved (there are exceptions), or exchange-driven (or formal) markets, such as the share (or stock) exchange. The place of the financial markets in the financial system may be depicted as in Figure 6.

The financial markets do not intermediate the financial lending and borrowing process as do financial intermediaries such as banks; they merely facilitate the primary and secondary markets.

1.3.7 Element 6: interest rates and the prices of equities

Secondary markets are important for a number of reasons, the most important of which is *price discovery*, i.e. the establishment of interest rates for various terms and the prices of equities. Interest rates, as we will see, have an important role to play in the pricing of all assets.

As we have seen, the central bank plays a significant role in the establishment of interest rates in the financial system. We will return to these issues later.

1.4 Allied participants in the financial system

From the above discussion it will be evident that there are a number of allied participants on the financial system. By this we mean participants other than the *principals* (those who have financial liabilities or assets or both). As we now know, the principals are:

- Lenders.
- Borrowers.
- Financial intermediaries.

The allied participants, who play a major role in terms of facilitating the lending and borrowing process (the primary market) and the secondary markets are the financial exchanges and their members. Also we need to mention the fund managers, who are actively involved in sophisticated financial market research and therefore play a major role price discovery, and the regulators of the financial markets. Thus the allied non-principal participants in the financial markets are:

- Financial exchanges.
- Broker-dealers.
- Fund managers.
- Regulators.

1.5 Summary

This introductory section sketches the environment of the money market, i.e. the financial system. There are 6 elements to the financial system:

- Lenders and borrowers.
- Financial intermediaries.
- Financial instruments.
- Money creation.
- Financial markets.
- Price of money and shares.

In addition, there are a number of participants that play an important allied by non-principal role in the financial system:

- Financial exchanges.
- Broker-dealers.
- Fund managers.
- Regulators.

The money market is a fundamental part of the financial system and the foundation of all other financial markets, including the derivative instrument markets, through interest rates which are established in this market.

1.6 Bibliography

Faure, AP, 2007. **The money market**. Cape Town: Quoin Institute (Pty) Limited.