Financial Institutions: An Introduction

Prof. Dr AP Faure

AP Faure

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Contents

1 Context and functions

1.1 Study outcomes

After studying this material, the student should be able to:

- Discuss the context of financial institutions.
- Elucidate the elements which make up the financial system.
- Discuss the categories of financial institutions.
- List the financial intermediaries.
- List the quasi-financial intermediaries.
- List the other financial entities.
- Expound on the functions of financial intermediaries.

1.2 Introduction

The context of financial institutions is axiomatic: The financial system. The functions are many and play a significant role in everyone's life and in the application of policy. The functions are elucidated under each intermediary / entity; here we detail the broad functions. This text is ordered as follows:

- Financial system.
- Categories of financial institutions.
- Financial intermediaries.
- Quasi-financial intermediaries.
- Ancillary financial entities.
- Functions of financial intermediaries.

1.3 Financial system

A full description of the financial system is provided in: http://bookboon.com/en/financial-system-an-introduction-ebook. Here we provide a synopsis. We present Figure 1 as a backdrop to this brief discussion. Perusal of the figure will reveal:

Ultimate borrowers issue financial securities, meaning that they borrow funds and issue evidences thereof (aka IOUs, instruments, obligations, etc.). There are only two: Debt and shares / equities. (A share actually represents part-ownership of a company, but for the sake of simplicity we regard it as a perpetual loan.) The ultimate lenders lend their excess funds, meaning that they purchase securities (evidences of debt and shares). The ultimate lenders and borrowers are comprised of the same four sectors of the economy, as indicated. Some of them are lenders and borrowers at the same time (for example, government), but generally they are one or the other.

Financial intermediaries interpose themselves between the ultimate lenders and borrowers by offering useful financial services. They have assets (buy securities) and liabilities (issue their own securities to fund their assets). The mainstream financial intermediaries are:

- Banks (central bank and private sector banks): They buy debt securities and issue securities known as certificates of deposit (CDs) which are marketable / negotiable (termed NCDs) or non-negotiable (NNCDs). They are overwhelmingly of a short-term nature. Note: The central bank's liabilities are not termed CDs, but they are CDs, and we call them CDs.
- Investment vehicles: They buy debt and shares and issue what may be called "participatory interests" (PIs). Other names used in the industry are *membership interests* and *units*.

Debt securities are divided into long-term (LT) securities and short-term (ST) securities, and they are either marketable debt (MD) or non-marketable debt (NMD), i.e. the financial system has LT-MD, LT-NMD, ST-MD and ST-NMD. Marketable debt is marketable because secondary markets exist.

Shares are issued by companies and are marketable (MS) or non-marketable (NMS).

Debt, shares and CDs are issued in *primary markets* and traded in *secondary markets*, such as a stock exchange, making them marketable.

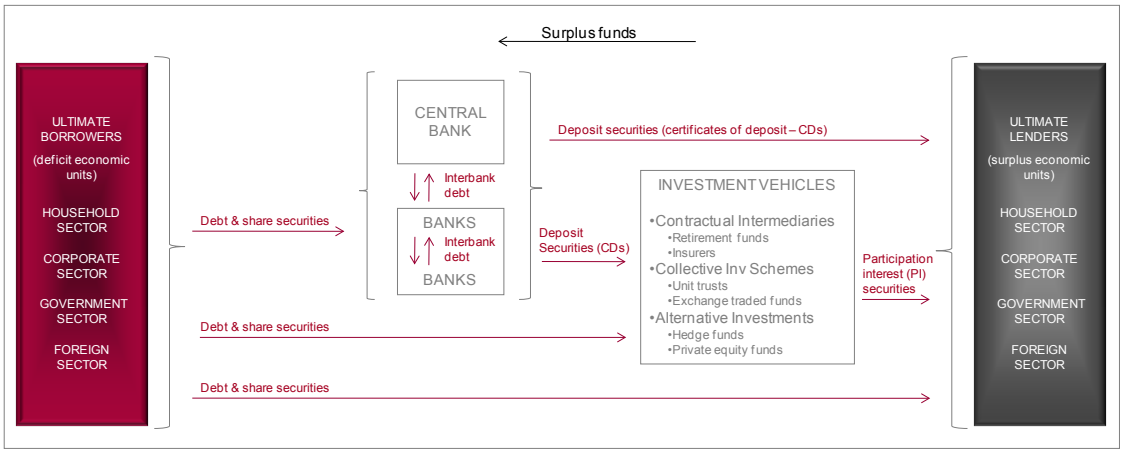

Figure 1.1: Simplified financial system

An example will render the above comprehensible: A bank makes a mortgage loan to you to buy a house, and funds it by issuing CDs to a company with surplus funds:

- You are an ultimate borrower (a member of the household sector) and you issue an LT-NMD (an IOU), meaning you owe the bank.
- The bank buys your LT-NMD and issues CDs to fund it.
- The company (ultimate lender, a member of the corporate sector) buys the CDs.

Another way of seeing the financial system: There are six elements:

First: *Ultimate lenders* (= surplus economic units) and *ultimate borrowers* (= deficit economic units). The ultimate lenders lend to borrowers either directly, or indirectly via financial intermediaries by buying the securities they issue.

Second: *Financial intermediaries* which intermediate the lending and borrowing process. They interpose themselves between the ultimate lenders and borrowers, and earn a margin for the benefits of intermediation (including lower risk for the lender). They buy the securities of the borrowers and issue their own to fund these (and thereby become intermediaries).

Third: *Financial instruments* (aka securities, obligations, assets), which are created / issued by the ultimate borrowers and financial intermediaries to satisfy the financial requirements of the various participants. These instruments may be marketable (e.g. Treasury bills) or non-marketable (e.g. retirement annuities). There are two categories:

- Ultimate financial securities (issued by ultimate borrowers):
  - Debt securities.
  - Share (aka stock, equity) securities.
- Indirect financial securities (issued by financial intermediaries):
  - Deposit securities, aka certificates of deposit (CDs, issued by banks).
  - Participation interests (PIs) (issued by investment vehicles).

Fourth: *Creation of money* (= bank deposits; bank notes are also deposits) by banks when they satisfy the demand for new bank credit. This is a unique feature of banks. Central banks have the tools to control money growth (interest rates), the objective of which is to tame inflation, and stimulate growth (the argument being that low and stable inflation is a propitious environment for economic growth).

Fifth: *Financial markets*, i.e. the institutional arrangements and conventions that exist for the issue (in the primary markets) and trading / broking / dealing (in the secondary markets) of the financial instruments. The financial markets are:

- Money market: All ST-MD, ST-NMD and CDs, in other words the entire short-term debt and deposit market, marketable and non-marketable. The definition of ST is arbitrary: Some say 1-day to 1-year, some say 1-day to 3-years.
- Bond market: All LT-MD, in other words the marketable part of the long-term debt (LTD) market.
- Share / stock / equity market: All MS.
- Foreign exchange market (the market for the exchange of currencies).

- Participation interests (PI) markets (there are a number, eg. units of securities unit trusts, membership interest in a retirement fund).
- Derivatives markets (forwards, futures, swaps, options, etc.).

Sixth: *Price discovery*, i.e. the determination in the financial markets of the *rates of interest* on debt and deposit instruments, and the *prices of* (*rates on* in some cases) share instruments.

1.4 Categories of financial institutions

There are many different financial institutions that exist to meet the diverse needs of lenders and borrowers. There are three broad categories of financial institutions:

- Financial intermediaries (mainstream).
- Quasi-financial intermediaries.
- Ancillary financial entities (the entities which do not intermediate in the borrowing / lending sense, but without which the financial system would not function well).

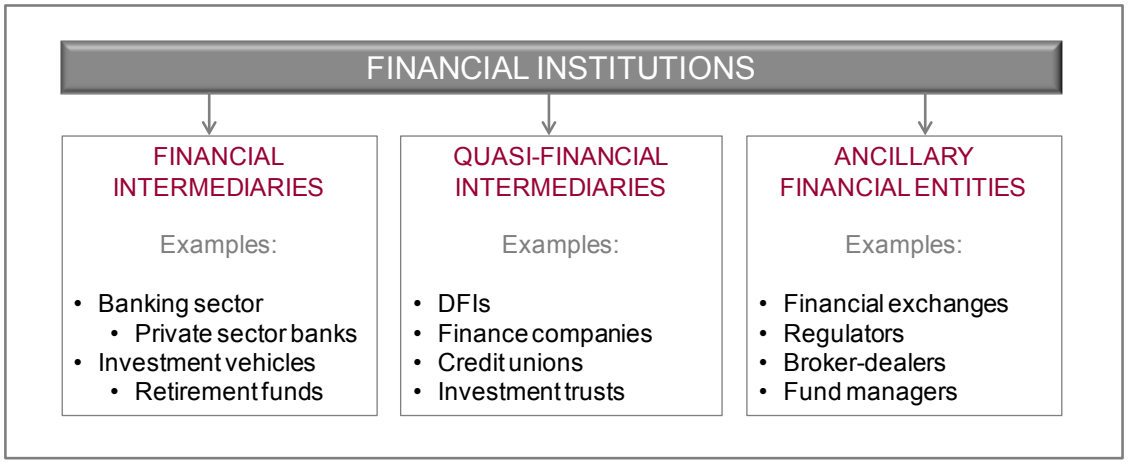

Figure 1.2: Categories of financial institutions

This is depicted, with some examples, in Figure 1.2. Financial *intermediaries* are the large institutions, which perform the well-known functions, and include banks, retirement funds, securities unit trusts (aka mutual funds), etc. They have large balance sheets comprised of financial assets and liabilities, and, in most cases, deal with the public.

The *quasi-financial intermediaries* border on being mainstream financial intermediaries. They have financial assets and liabilities, but do not borrow and / or lend to the same extent as the mainstream financial intermediaries, or are not ongoing lenders and borrowers, or they have static portfolios. They are also substantially smaller and tend to specialise in particular fields of finance. For example, a finance company of a motor vehicle manufacturer tends to borrow by issuing bonds (LT-MD), and makes loans to vehicle buyers, i.e. has assets in the form of instalment loans and leasing finance. Another example is a closed special purpose vehicle (SPV, aka a securitisation vehicle). An SPV holding a portfolio of mortgages financed by the issue of mortgage-backed securities is intermediating, but it is doing so on a once-off basis.

The *ancillary financial entities* do not hold portfolios of financial assets and liabilities (except to a small extent), but perform essential functions for the financial intermediaries (mainstream and quasi).

There is no hard-and-fast rule that determines this categorisation. It is a functional categorisation, representing our preference. You may have a different one. Next we provide the institutions which belong in the categories outlined.

1.5 Financial intermediaries

1.5.1 Introduction

As seen, the mainstream financial institutions are the financial *intermediaries*. There are two broad sub-categories:

- Deposit financial intermediaries: The banking sector.
- Non-deposit financial intermediaries: The investment vehicles.

1.5.2 Deposit financial intermediaries (banking sector)

The deposit financial intermediaries, aka the banking sector, are:

- Central bank.
- Commercial banks.
- Investment / merchant banks.
- Specialised and regional banks:
    - Mutual banking intermediaries:
        - Mutual banks.
        - Building societies.
        - Savings and loan associations.
        - Co-operative banks.
    - Savings banks.
    - Regional rural banks.
    - Islamic banks.

- Other banking institutions:
  - Discount houses.

We motivate this categorisation of the banking sector later in this text.

1.5.3 Non-deposit financial intermediaries

The group non-deposit financial intermediaries, aka the investment vehicles, are comprised of the following:

- Contractual intermediaries:
  - Long-term insurers.
  - Retirement funds.
- Collective Investment schemes:
  - Securities unit trusts (SUTs).
  - Exchange traded funds (ETFs).
- Alternative investments:
  - Hedge funds.
  - Private equity funds.

1.6 Quasi-financial intermediaries

There are a number of institutions which may be referred to as *quasi-financial intermediaries* ("quasi" from Latin = "as if"):

- Development finance institutions.
- Short-term insurers.
- Investment trust companies.
- Open-ended investment companies.
- Finance companies.
- Special purpose vehicles.
- Securities broker-dealers.
- Credit unions / savings and credit cooperatives.
- Friendly societies.
- Buying associations.
- Micro-finance institutions.

1.7 Ancillary financial entities

As said, there are also ancillary / allied participants / players / entities in the financial system, without which the system would not function efficiently. They are:

- *Financial exchanges*, which facilitate the transfer of and payment for securities.
- *Securities brokers and dealers*, i.e. the members of exchanges and/or financial intermediaries that facilitate the trade in financial instruments (which we refer to here collectively as *broker-dealers*).
- *Fund managers* (aka portfolio or asset or investment managers), i.e. the entities which manage funds on behalf of principals (owners of funds).
- *Regulators,* which regulate and supervise all players in the financial system.

1.8 Summary

All the financial institutions are shown in Box 1.

BOX 1: FINANCIAL INSTITUTIONS

MAINSTREAM FINANCIAL INTERMEDIARIES
- DEPOSIT INTERMEDIARIES
  - Central bank
  - Private sector banks
  - Other banking intermediaries
- NON-DEPOSIT INTERMEDIARIES
  - Contractual intermediaries (CIs)
    - Long-term insurers (LTIs)
    - Retirement funds (RFs)
  - Collective investment schemes (CISs)
    - Securities unit trusts (SUTs)
    - Exchange traded funds (ETFs)
  - Alternative investments (AIs)
    - Hedge funds (HFs)
    - Private equity funds (PEFs)

QUASI-FINANCIAL INTERMEDIARIES (QFIs)
- Development finance institutions (DFIs)
- Short-term insurers
- Investment trust companies
- Open-ended investment companies
- Finance companies
- Special purpose vehicles
- Securities broker-dealers (in a particular capacity)
- Credit unions / savings and credit cooperatives
- Friendly societies
- Buying associations
- Micro-finance institutions

ANCILLARY FINANCIAL ENTITIES
- Financial exchanges
- Broker-dealers
- Fund managers
- Financial regulators

These categories of financial institutions and their relationship with one another may be depicted as in Figure 1.3. We include the financial instruments outline earlier.

Each (or group of) financial institution is discussed below. However, before we delve into this discussion it is appropriate to first elucidate the essential functions of the financial institutions. It is not enough to pronounce that financial institutions facilitate the flow of funds between ultimate lenders and borrowers. They perform numerous functions that are part of the intermediation process, but these are not always obvious.

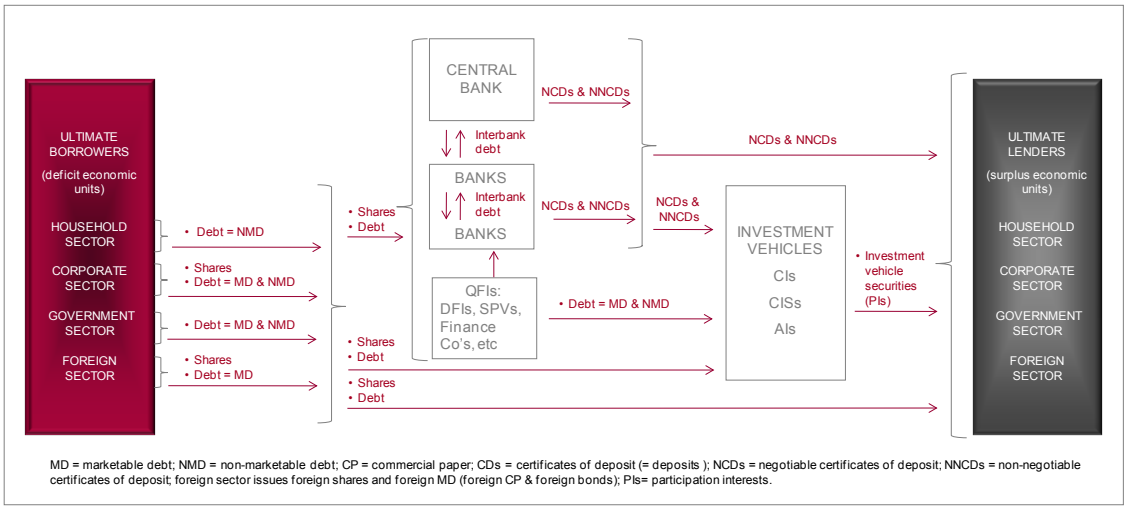

Figure 1.3: Relationship of financial institutions, and financial instruments

1.9 Functions of financial intermediaries

1.9.1 Introduction

Each financial intermediary and financial entity performs specific functions, which we will detail later. There are certain generic functions the financial intermediaries perform as a group, which we cover here (note: There are three which are specific to the banking system):

- Reconciliation of asymmetric lending / borrowing requirements.
- Innovation and new financial products.
- Facilitation of the flow of funds.
- Efficient allocation of funds.
- Assistance in interest rate and price discovery.
- Money creation.
- Enhanced liquidity.
- Market risk lessened for the ultimate lender.
- Improved diversification.
- Economies of scale.
- Personal risk alleviation.

1.9.2 Reconciliation of asymmetric lending / borrowing requirements

The overarching function of financial intermediaries is the transmutation, for the ultimate lenders, of largely unacceptable financial claims on borrowers into acceptable claims, for the lenders, on themselves. The asymmetric needs of borrowers and lenders apply to risk, maturity and denomination.

There are two methods of lenders' financing of borrowers: *Direct* and *indirect* (see Figure 1.4). An example of direct financing is a father (household sector) lending funds to his daughter (household sector) to purchase a vehicle. Another is a member of the household sector buying shares / equities (corporate sector) for his portfolio. Yet another is a company lending funds to another company. Thus, there is a measure of direct financing. However, the vast majority of financing occurs via financial intermediaries, i.e. indirect financing.

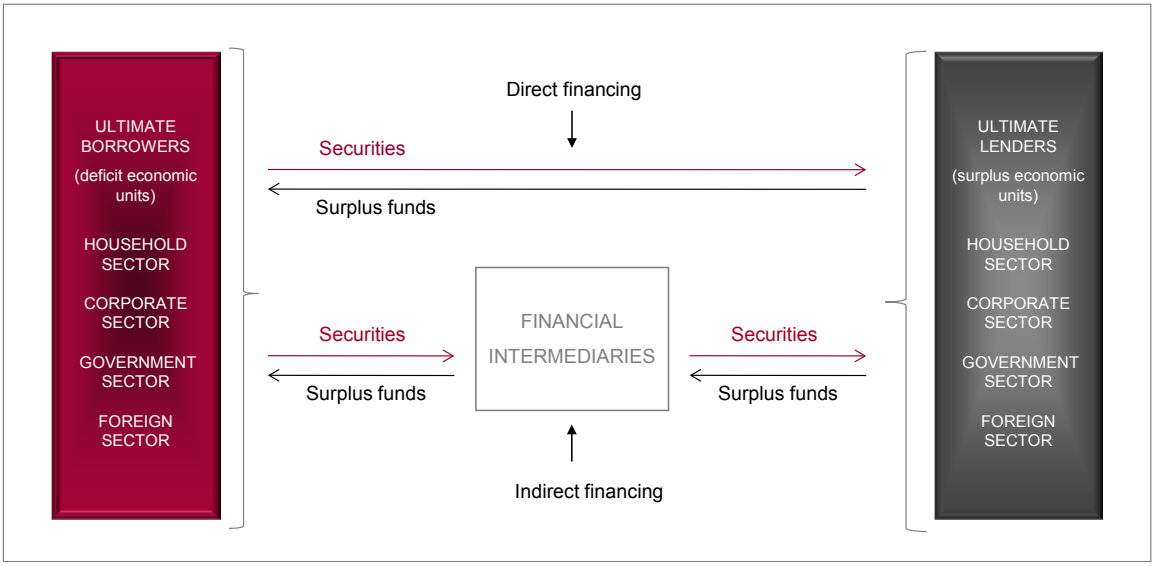

Figure 1.4: Direct and indirect financing

The reasons are clear:

- Borrowers in the main require funds in large amounts and lenders in the main have small amounts to lend.
- Borrowers tend to borrow for long periods (terms to maturity) in order, for example, to purchase a residence by the issue of a mortgage for 20 years. Lenders, on the other hand wish to keep their funds "short".
- Borrowers (other than government, which issues risk-free evidences of debt) issue securities / evidences of debt which carry credit risk, while lenders require risk-free, or close to risk-free, securities.

In the process of performing this transmutation function, in order to reconcile the asymmetric wants, a number of others are executed, which are discussed below.

1.9.3 Innovation and new financial products

In addition to the requirements being satisfied by the transmutation function, lenders' requirements for new financial products have evolved over time. New financial intermediaries and products have been created to fulfil the needs, the most recent being ETFs, hedge funds, and private equity funds.

1.9.4 Facilitation of the flow of funds

The reconciliation of the needs of borrowers with those of lender brings about facilitation of the flow of funds from surplus economic units to deficit economic units. Without sound financial intermediaries, much of the savings of the ultimate lenders will not be available to the ultimate borrowers. There are numerous examples in developing countries where individuals keep their savings in the form of notes and coins as opposed to deposits with unsound banks.

This function may also be described as a *wealth storage and growth function*, i.e. surplus economic units have an outlet for their funds and are thus able to store and grow their wealth in riskless (government) securities, low-risk (certain non-government) securities, or risky financial securities (such as shares). It is a well-documented fact that there is a positive relationship between return and risk, and that risk can be mitigated by diversification (see below).

The other side of the coin is that the borrowers (in a wide sense including issuers of shares) are able to fund infrastructure, business projects, etc., which contribute to economic growth.

1.9.5 Efficient allocation of funds

Financial intermediaries have the expertise to ensure that the flow of funds is allocated in the most efficient manner. Intermediaries, particularly the banks, are aware of the existence of *asymmetric information* and its two by-products, the problems of *adverse selection* and *moral hazard*.[1] *Asymmetric information* means that the borrower has more information than the bank does about its / his / her business.

The presence of *asymmetric information* leads to *adverse selection* and *moral hazard* problems. *Adverse selection* means that high risk borrowers are more likely to apply for loans than good risk borrowers. *Moral hazard* means that once a loan is granted the borrower may be inclined to take risks with the funds, and this information is denied the lending intermediary. These are two of the many real-life risks faced by intermediaries. The intermediaries are keenly aware of the risks and are information gatherers (on borrowers) as a result. This ensures that available funds are allocated to borrowers that will utilise the funds prudently, which, in turn, leads to a higher level of economic activity than would otherwise be the case.

1.9.6 Assistance in interest rate and price discovery

Closely allied with efficient allocation of funds is interest rate (on debt instruments) and price (on ordinary share / equity instruments) discovery. Making up a large part of the system, the financial intermediaries (as well as other financial entities such as broker-dealers and fund managers), and as the "professionals" in the financial system, they are actively involved in interest rate and price discovery, i.e. the pricing of financial securities. This links with assistance in monetary policy (discussed below).

1.9.7 Money creation

Also closely allied with the efficient allocation of funds is money creation. This function may also be termed the credit function. Not only are existing funds allocated efficiently, but new money is also allocated efficiently by the banking sector. Money (broadly defined as M3) is comprised of notes and coins (N&C) and bank deposits (BD) held by the domestic non-bank private sector (NBPS). N&C makes up approximately 3% of the money stock and BD therefore 97%. As N&C are also bank deposits (of the central bank) we refer here to bank deposits as M3.

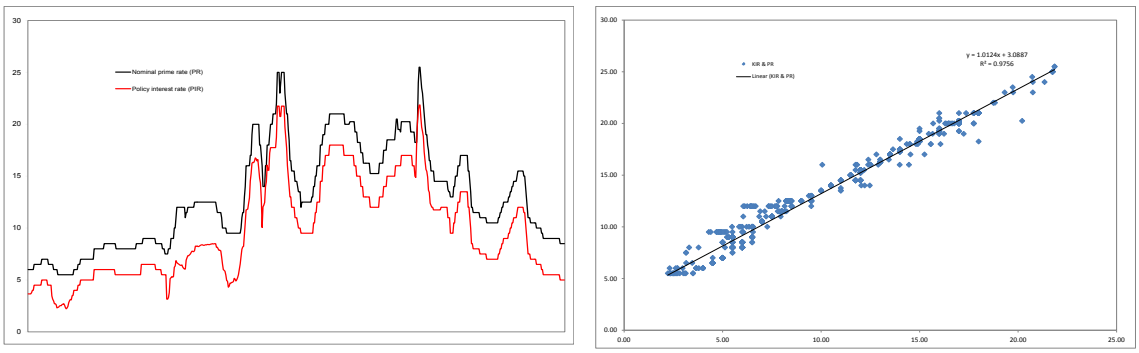

Figure 1.5: PIR and PR: Time series & scatter (period is monthly for over 50 years)

Because the general public accepts BD as the means of payments (since the 17th century), i.e. a large part of the liabilities of banks *is money*, banks have the unique ability to create BD (money) literally by extending credit. When a bank extends new credit it creates new BD. This happens with the concurrence of the central bank, who supplies the required reserves (which are based on deposits) on demand.

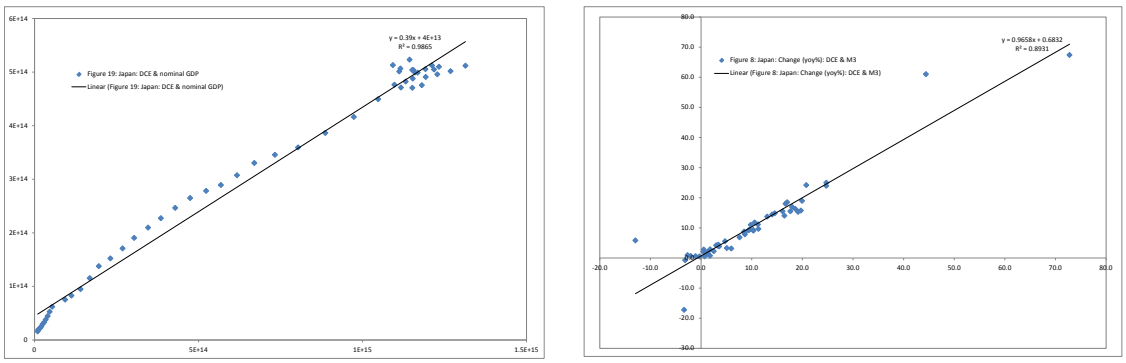

Figure 1.6: Japan: Bank credit extension and nominal GDP (left: Raw World Bank data from 1960; right: Yoy% changes from 1961)

Monetary policy is focussed on controlling the banks' lending rate, known as prime rate (PR), which is a benchmark rate for bank loans. It does so by ensuring that the banks are indebted to the central bank at all times (in normal circumstances) and charges them the policy interest rate (PIR, aka discount rate, repo rate, bank rate, base rate, etc.) on the borrowed reserves (BR). Figure 1.5 shows the relationship between PIR and PR for a period of over 50 years for a particular country[2]. The $R^2 = 0.98$. The reason for this style of monetary policy is that the demand for credit (and its outcome when satisfied: Money creation) is largely influenced by the PR in real terms. There is a close relationship between credit extension and GDP growth in nominal terms, as shown in Figure 1.6 (raw World Bank annual data for Japan: $R^2 = 0.98$; yoy% change $R^2 = 0.89$).

The banks may thus also be seen as the intermediaries that ease the constraint of income on expenditure, thereby enabling the consumer to spend in anticipation of income and the entrepreneur to acquire physical capital for expansion. This unique ability of banks is of crucial significance in economic growth. However, we must not lose sight of the driving force: The *demand* for credit, and this is a function of many factors, such as the political environment, business conditions, confidence, as so on.

1.9.8 Enhanced liquidity

Enhanced liquidity is created for lenders to financial intermediaries. If an individual purchases the securities of the ultimate lenders (such as making a loan to a company), *liquidity* (the "ease" of getting the funds back) is low or almost zero. Intermediaries are in the business of purchasing less (or non-) marketable primary securities, and offering liquid investments to the ultimate lenders. A good example is the banking sector that buys non-marketable securities such as mortgages, utilised overdraft facilities, leases, instalment credit contracts, etc., and finances these by offering short-term liabilities (for the banks; assets for the lenders) such as current accounts, call deposit accounts, savings accounts, and so on.

Similarly, collective investment schemes (CISs), such as securities unit trusts (SUTs, aka mutual funds) aggregate small amounts of funds for on lending in larger packages in the form of the purchase of marketable and non-marketable securities. The securities purchased and held by the SUTs are not as marketable as the units / PIs issued by the SUTs (from the point of view of the lender). Also, individuals may borrow against certain products of financial intermediaries, such as the life policies of long-term insurers.

1.9.9 Market risk lessened for the ultimate lender

Flowing from the above is that financial intermediaries take on market risk (i.e. the risk of market prices changing) and offer products (their liabilities) that have little or zero market risk. An example is long-term insurers which have portfolios comprised mainly of shares and bonds (about 70% in many cases; the other investments being property and money market investments). These assets involve substantial market risk at times, but they offer (some) products that have zero price risk, such as guaranteed annuities.

Another example is banks, which have a diverse portfolio of bonds and other fixed-interest investments, and offer products that have zero market risk, such as savings deposits. Clearly there is credit risk.

1.9.10 Improved diversification

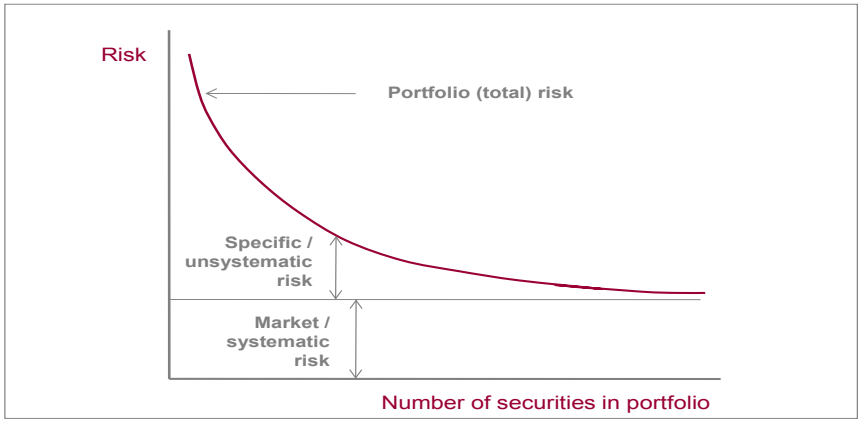

Figure 1.7: Diversification and risk

Allied to the lessening of market risk is diversification. Ultimate lenders of the household sector, for example, can only achieve limited diversification in the absence of financial intermediaries. For example, an individual may make equal-sized loans to three other individuals. The individual has credit risk (apart from other risks). If one party defaults the lender loses 33.3% of his funds. Compare this risk with lending to financial intermediaries: They aggregate small amounts for investment in the securities issued by the ultimate borrowers (mainly non-marketable loans). The number of individual securities (NMD and MD) held by banks is many hundreds of thousands and millions in some cases. Risk is thus lessened by diversification.

The central doctrine of portfolio theory and practice is that risk, defined as variability of return, is reduced as the number of securities in a portfolio is increased, provided that the returns are not perfectly positively correlated. It may be said that part of the investment risk (unsystematic risk) is "diversified away"[3]. This concept may be illustrated as in Figure 1.7.

1.9.11 Economies of scale

Because of the sheer scale of financial intermediaries compared with individual participants, a number of economies are achieved. Two main economies are realised: *Transactions costs* and *information (aka research) costs.*

The largest benefit of financial intermediation is the reduction in *transactions costs*; in fact some intermediaries have been formed specifically because of transactions costs (e.g. the SUT industry). The obvious example is the (transaction) cost involved in purchasing a small number of shares in a company via a broker-dealer is similar to the cost of purchasing many more shares. Another example is payment-system costs. The banking system, through the use of sophisticated technology, provides an efficient payments service (clearing of cheque, credit card, debit card, EFT, etc., payments) that is relatively inexpensive. Individual participants in the financial system cannot achieve this reduction in transactions costs.

Another benefit is in terms of *information / research costs*. Assuming an individual ignores transaction costs and holds a diversified portfolio of shares. S/he now has the task of monitoring the performance of each company, which involves economic analysis, industry analysis, ratio analysis, etc. This is not possible. Financial intermediaries (and other financial entities, specifically fund managers) do have the resources to carry out research, which benefits the holders of its products (liabilities). A good example is the retirement fund. The member has a "share" (PI: Liability of the fund) in the portfolio of the fund, and the fund has the resources to research individual investments on behalf of the many members (or outsources it to fund managers).

1.9.12 Personal risk alleviation

Certain financial intermediaries (life insurers, aka assurers and life companies) are in the business of offering protection against adverse occurrences such as untimely death, health problems, and loss of income. In addition, the financial system allows for self-insurance, i.e. the storage and building of wealth in order to protect against adverse life, health and income occurrences.

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2 Deposit intermediaries: banking system

2.1 Study outcomes

After studying this material, the student should be able to:

- Explain the functions of central banks.
- Describe the roles of the commercial banks.
- Explain the essence of the investment / merchant banks.
- List and elucidate the functions of the specialised and regional banks.
- Describe the financial market roles of discount houses.

2.2 Introduction

A reminder of the banks' position in the financial system is offered in Figure 2.1.

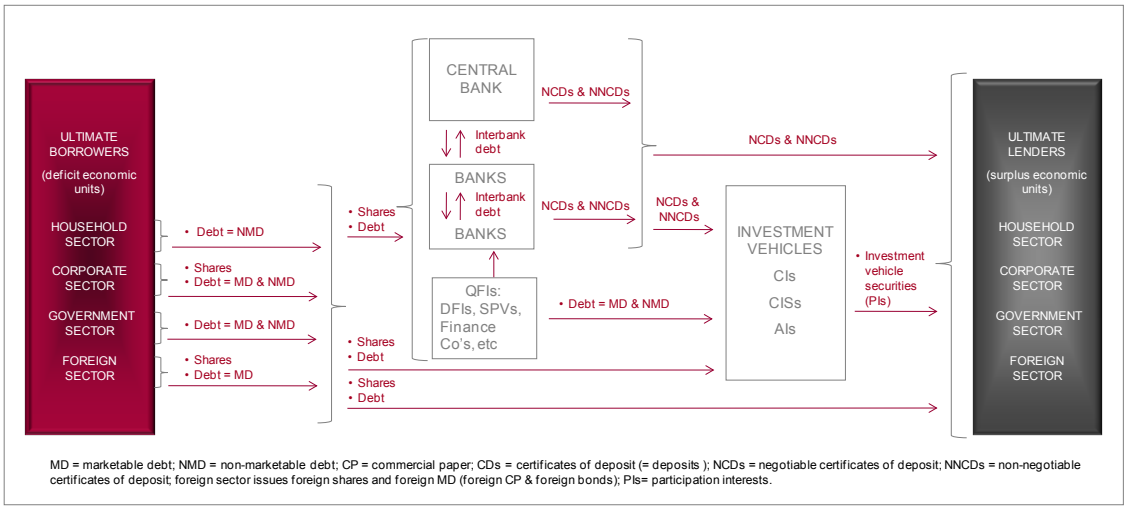

Figure 2.1: Financial system

There are numerous names for banks, which can be somewhat confusing: Central bank, commercial bank, high-street bank, investment bank, merchant bank, co-operative bank, land bank, dedicated bank, narrow bank, discount "house", savings bank, mutual bank, mutual savings bank, savings and loan bank, retail bank, custodian bank, mortgage bank, building society, thrift bank, private bank, private sector bank, Post Office bank, rural bank, and so on. How does one make sense of this? In our opinion:

- There is no confusion about a central bank.
- There is no confusion about a commercial bank.
- There is confusion about investment / merchant banks and their banking and non-banking activities, and this requires discussion.
- There is no confusion about state-owned banks, which generally are involved in development and therefore belong to the category Development Finance Institutions (DFIs), a subset of quasi-financial intermediaries (QFIs).
- There is confusion about the other names mentioned, in respect of specialisation, dedicated business, ownership (mutual or otherwise), relationship to the central bank (reserve requirement applicability), regulation, whether they are fully fledged banks, and so on.
- There is confusion about the uniqueness of discount "houses".

There are no hard and fast rules as to categorisation. Our preferred banking sector categorisation is:

- Central bank.
- Commercial banks.
- Investment / merchant banks.
- Specialised and regional banks:
    - Mutual banking intermediaries:
        - Mutual banks.
        - Building societies.
        - Savings and loan associations.
        - Co-operative banks.
    - Savings banks.
    - Regional rural banks.
    - Islamic banks.
- Other banking institutions:
    - Discount houses.

This categorisation represents our organisation of the text below. The rest of the banking terminology will become clear as we progress.

2.3 Central bank

2.3.1 Introduction

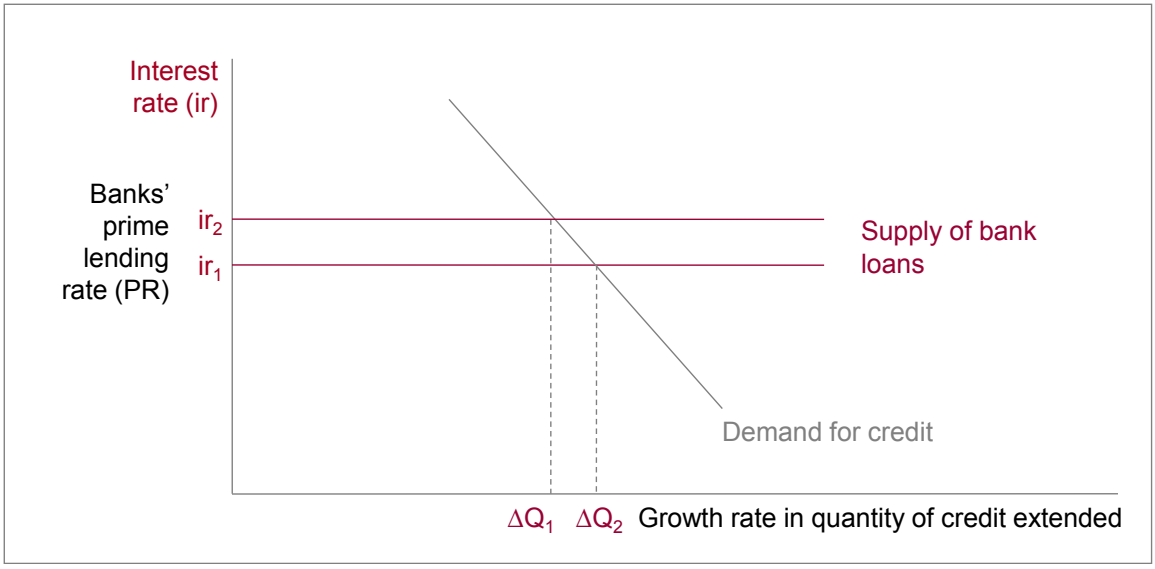

Figure 2.1: Supply of and demand for bank credit

To state that the central bank plays a significant role in the financial system and the real economy is a striking understatement. Because the public generally regards bank deposits (BD) as the *means of payments* / *medium of exchange* [notes and coins (N&C) are also deposits], BD is *money*. It follows that because BD is money, banks are able to create BD simply by making loans to clients [individuals, government and companies = creating or buying marketable debt (MD) and non-marketable debt (NMD)]. This arrangement, while liberating (in terms of there not being a shortage), when compared with the days when money was made of precious metals (and therefore in short supply), is associated with a few problems:

- The supply of bank loans (which creates money, i.e. BD) is limited only by the demand for loans and the creditworthiness / project viability of the borrower (individuals, companies, government).
- Banks are in competition with one another for this business, and tend to be lax in terms of borrower creditworthiness / project viability, making them inherently unstable. They therefore require robust regulation and supervision.
- Because the supply of loans is (theoretically) unlimited (see Figure 2.1), interest rates (in the absence of a central bank) will be driven down by bank competition; therefore inflation and its adverse consequences, is a major risk.

Therefore, the intervention of a "controlling" entity is required. This entity is the central bank. Unsurprisingly, central banks had their genesis in unstable times. The central bank is required, in the main:

- To manage short-term interest rates, particularly the lending rates of banks, and thereby influence the demand for loans / money creation, called monetary policy. The objective is a low and stable inflation milieu, i.e. the propitious environment for high and sustainable economic growth.
- To regulate and supervise the potentially unstable banking (and financial) system.
- To manage the monetary banking system, including the payments system and interbank settlement.

These are the core functions of the central bank, and they are aimed also at contributing to the objective of *financial stability*. Financial stability is the prime focus of regulators, and is not the sole responsibility of the central bank; other agencies also play a role, including Treasury and the financial conduct regulators of the non-bank financial intermediaries (discussed later).

There are a number of central banking functions which are closely allied to the core functions, as may be seen in our preferred listing of all of the functions of a central bank in Table 2.1.

TABLE 2.1: FUNCTIONS OF CENTRAL BANKS
Formulation and implementation of monetary policy (aimed at achieving and maintaining low and stable inflation)
Formulation of monetary policy framework
Influence on the level of market interest rates [via its policy interest rate (PIR), supported by bank liquidity management]
Open market operations (the main tool of bank liquidity management)
Changes in the reserve requirement (a tool of bank liquidity management – used in exceptional circumstances)
Banker and advisor to government
Banker to government
Advisor to government
Public debt issues and management (in some countries)
Administration of exchange controls (in some countries)
Management of the money and banking system
Lender of last resort (note: Not a monetary policy function; used in exceptional circumstances to assist systemically important banks)
Currency management (notes and coins)
Banker to private sector banks
Supervision of payments system
Settlement of interbank claims
Bank (and other major intermediary) regulation and supervision
Management of gold and foreign exchange reserves
Development of the debt market
Provision of research relevant to the above functions and an economic-statistics service
Provision of internal corporate support services and systems

We will not discuss each of these functions in detail (for a full discussion see http://bookboon.com/en/central-banking-monetary-policy-an-introduction-ebook). Instead, we provide an analysis of the typical balance sheet of the central bank. From it the core and related functions of a central bank can be gauged. We also add a short section on the role of the central bank in money creation (which we take further in the discussion on commercial banks). The following are the sections:

- Balance sheet: Liabilities.
- Balance sheet: Assets.
- Money creation.
- Functions not reflected in the balance sheet.

2.3.2 Balance sheet: liabilities

2.3.2.1 Introduction

All balance sheets are comprised of: Equity + liabilities = assets. We ignore equity and present a simplified[4], but typical, balance sheet of a central bank in Balance Sheet 2.1 (CB = central bank; BR = borrowed reserves; PIR = policy interest rate). Balance Sheet 2.2 presents the typical simplified balance sheet of the consolidated banks in the country (i.e. interbank claims are netted out) to indicate the central bank's close relationship with the banks. The currency of the fictitious country, Local Country (LC), is the "corona" (C), and its currency code is LCC.

BALANCE SHEET 2.1: CENTRAL BANK (LCC BILLION)			
Assets		Liabilities	
E. Foreign assets	1 000	A. Notes and coins	1 000
F. Credit to government	1 100	B. Deposits	
G. Loans to banks (BR) @ PIR	400	1. Government	900
		2. Bank reserves (total reserves - TR)	500
		a. Required reserves (RR) (500)	
		b. Excess reserves (ER) (0)	
		C. Foreign loans	50
		D. Central bank securities	50
Total	2 500	Total	2 500

BALANCE SHEET 2.2: BANKS (LCC BILLION)			
Assets		Liabilities	
C. Notes and coins	100		
D. Reserves with CB (TR)	500	A. Deposits of NBPS	5 000
a. Required reserves (RR) (500)			
b. Excess reserves (ER) (0)		B. Loans from CB (BR)	400
E. Credit to government	1 000		
F. Credit to NBPS	3 800		
Total	5 400	Total	5 400

2.3.2.2 Notes and coins

Most countries have a bank note manufacturing company and a mint (coin manufacturing company), and usually they are subsidiaries of the central bank. The amount against this item, LCC 1 000 billion, is the total of all notes and coins (N&C) issued by the central bank; they are held by the banks and the non-bank private sector (NBPS). In the vast majority of countries the central bank is the sole issuer of N&C. The fact that N&C are central bank liabilities has a history stretc.hing bank to 17th century London when the goldsmiths (which morphed into banks) took deposits of precious metals and issued receipts (which became bank notes) for them.

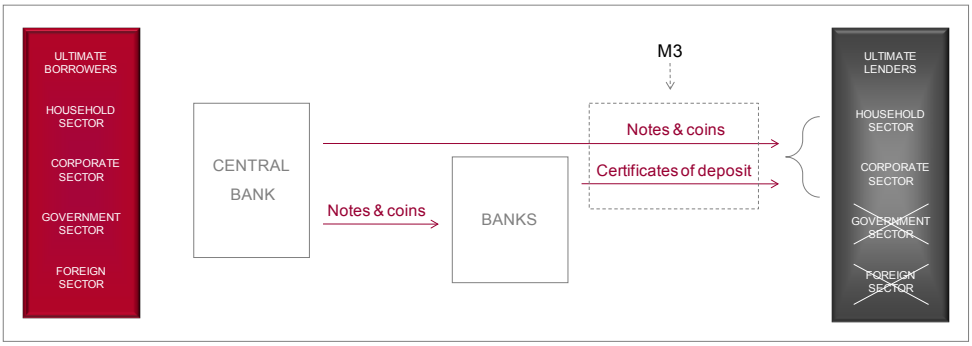

Figure 2.2: What is money?

The stock of money in a country (we use the broad measure M3 here) is defined as the stock of whatever the public generally regard as the *means of payments / medium of exchange*. This is N&C and bank deposits (BD) held by the NBPS. In terms of Balance Sheets 2.1–2.2 (LCC billion):

M3 = N&C + BD (held by the NBPS)
= N&C [= 1 000 (the total in issue) – 100 (held by banks)] + BD
= 900 + 5 000
= LCC 5 900.

The principle is illustrated in Figure 2.2.

2.3.2.3 Deposits: government

Being the banker to government is one of the enduring functions of the central bank and reflects the need for a custodian of the funds of central government. In some countries, the central government also has accounts with the large private sector banks, usually called Tax and Loan Accounts (TLAs). The main motivation for this is to avoid the disruptive effect on money market liquidity of large shifts of tax payments to, and expenditures of, government at certain times.

In some countries where TLAs exist, the shifting of government deposits between the banks and the central bank is used as a powerful tool (part of open market operations or OMO) to influence bank liquidity – for monetary policy proposes.

2.3.2.4 Deposits: banks

Banks have two accounts with the central bank: A reserve account (in which RR are held) and a settlement account over which interbank settlement takes place. In some countries the banks only have one account for these purposes. We assume the latter is the case and call it reserve account.

What are reserves? Most countries have a *reserve requirement*, i.e. banks are obliged to hold *required reserves* (RR; in this text RR also denotes reserve requirement) equal to the total of deposits[5] times the RR ratio (r):

$$RR = BD \times r.$$

Balance Sheets 2.1-2.2 show that the banks are holding deposits of LCC 5 000 billion. If we assume that r = 10%, the banks are obliged to hold RR of:

$$RR = LCC\ 5\ 000 \times 0.1$$
$$= LCC\ 500.$$

The balance sheets also show that the banks comply exactly with the RR: The amount in the reserve account of the banks (collectively) (TR) = LCC 500. This makes economic sense because the central bank does not pay interest on bank balances with itself. So banks keep this balance to a minimum. However, banks are in the business of credit provision and this creates deposits (see later); therefore, their RR increase continually. Thus, as bank deposits increase, their RR *increase* is given by (Δ = change):

$$\Delta RR = \Delta BD \times r$$

For example, if BD increases from LCC 5 000 to LCC 6 000, the banks collectively are obliged to increase their RR balance by LCC 100:

$$\begin{aligned}\Delta RR &= \Delta BD \times r \\ &= LCC\ 1\ 000 \times 0.1 \\ &= LCC\ 100.\end{aligned}$$

How do they do this? *They cannot do so on their own*. This is *at the heart of monetary policy* in most countries. *Banks cannot create central bank money (CBM)*; only the CB can manipulate its own balance sheet.

In Balance Sheets 2.1–2.2 we know that TR = RR. Do banks hold excess reserves (ER), given by TR-RR = ER? The answer is no – because they earn no interest on any part of TR. However, there are exceptional circumstances when they do [such as during the quantitative easing (QE) phases in some countries].

As said, interbank settlement / clearing takes place over the banks' reserve accounts at the central bank. How does this work? Bank clients move deposits around the system every day. At the end of the day (banks close off their books every day in late afternoon), the amounts are settled via the reserve accounts. For example, if Bank A loses Mr X's deposit of LCC 100 million to Bank B (because it offered Mr X a better rate), their balance sheets change as indicated in Balance Sheets 2.3–2.5.

BALANCE SHEET 2.3: CENTRAL BANK (LCC MILLION)			
Assets		Liabilities	
		Reserve accounts: Bank A Bank B	 -100 +100
Total	0	Total	0

BALANCE SHEET 2.4: BANK A (LCC MILLION)			
Assets		Liabilities	
Reserves with CB	-100	Deposits (Mr X)	-100
Total	-100	Total	-100

BALANCE SHEET 2.5: BANK B (LCC MILLION)			
Assets		Liabilities	
Reserves with CB	+100	Deposits (Mr X)	+100
Total	+100	Total	+100

Assuming banks have no ER or borrowed reserves (BR), at the final interbank market (IBM) settlement at the end of the day: Bank A will borrow LCC 100 million from Bank B at the interbank rate, and Bank B will instruct the CB to make the transfer, as indicated in Balance Sheets 2.6–2.8.

BALANCE SHEET 2.6: CENTRAL BANK (LCC MILLION)			
Assets		Liabilities	
		Reserve accounts: Bank A (before final IBM) Bank A (after final IBM) Bank B (before final IBM) Bank B (after final IBM)	 -100 +100 +100 -100
Total	0	Total	0

BALANCE SHEET 2.7: BANK A (LCC MILLION)			
Assets		Liabilities	
Reserves at CB Reserves at CB	-100 +100	Deposits (Mr X) Loan from Bank B	-100 +100
Total	0	Total	0

BALANCE SHEET 2.8: BANK B (LCC MILLION)			
Assets		Liabilities	
Reserves at CB Reserves at CB Loan to Bank A	+100 -100 +100	Deposits (Mr X)	+100
Total	+100	Total	+100

As we will see later, when banks transact amongst one another, bank reserves do not change (except when money is created = BD+). However, when the central bank does a transaction, reserves do change, and BR is affected.

2.3.2.5 Foreign loans

In exceptional circumstances, central banks do undertake foreign loans – usually when they experience balance of payments problems.

2.3.2.6 Central bank securities

Central bank securities are called by many names in different countries, for example *debentures* in South Africa, *certificates* in Botswana, *bills* in Malawi. They are short-term securities and are issued solely for monetary policy purposes. An issue drains bank liquidity (reduces ER or increases BR).

2.3.3 Assets

2.3.3.1 Foreign assets

BALANCE SHEET 2.9: CENTRAL BANK (LCC BILLION)			
Assets		Liabilities	
E. Foreign assets	1 000	A. Notes and coins	1 000
F. Credit to government	1 100	B. Deposits	
G. Loans to banks (BR) @ PIR	400	1. Government	900
		2. Bank reserves (total reserves - TR)	500
		a. Required reserves (RR) (500)	
		b. Excess reserves (ER) (0)	
		C. Foreign loans	50
		D. Central bank securities	50
Total	2 500	Total	2 500

As seen in Balance Sheet 2.1 (repeated in Balance Sheet 2.9 for the sake of convenience), the central bank usually has three asset items. Foreign assets (item E) are usually comprised of gold bullion holdings and foreign investments, e.g. USD bank deposits, GBP Treasury bills, EUR country (say, German) bonds. These are the foreign exchange (forex) reserves of countries and this item E reflects the role of custodian of the forex reserves of the country. Some countries place these investments in a separate fund and call it *sovereign fund*.

Many central banks make use of forex swaps to influence bank liquidity. These are similar to repurchase agreements (repos). The sale of forex to the banks reduces bank liquidity.

2.3.3.2 Credit to government

Item F, *credit to government*, in most countriesis comprised of Treasury bills and government bonds, which are marketable debt instruments (MD). Any loan, marketable or non-marketable, represernts credit extended. They are used in OMO transactions, i.e. in bank liquidity management.

2.3.3.3 Loans to banks

Item F, *loans to banks*, is at the heart of monetary policy. In normal times, most central banks compel the banks to borrow reserves from them (BR) at their policy interest rate (PIR) at all times. PIR has many names, such as discount rate, repo rate, bank rate, base rate, etc. In our example the amount borrowed at PIR is LCC 400 billion, meaning, essentially, that the banks are complying with the RR largely as a result of their BR (which has been engineered by the central bank through OMO = buying and selling securities and foreign exchange, shifting government funds between the banks' TLAs and government's account at the central bank, etc.).

BALANCE SHEET 2.10: BANKS (LCC BILLION)			
Assets		Liabilities	
C. Notes and coins	100		
D. Reserves with CB (TR)	500		
Required reserves (RR) (500)			
Excess reserves (ER) (0)			
		A. Deposits of NBPS	5 000
E. Credit to government	1 000		
F. Credit to NBPS	3 800	B. Loans from CB (BR)	400
Total	5 400	Total	5 400

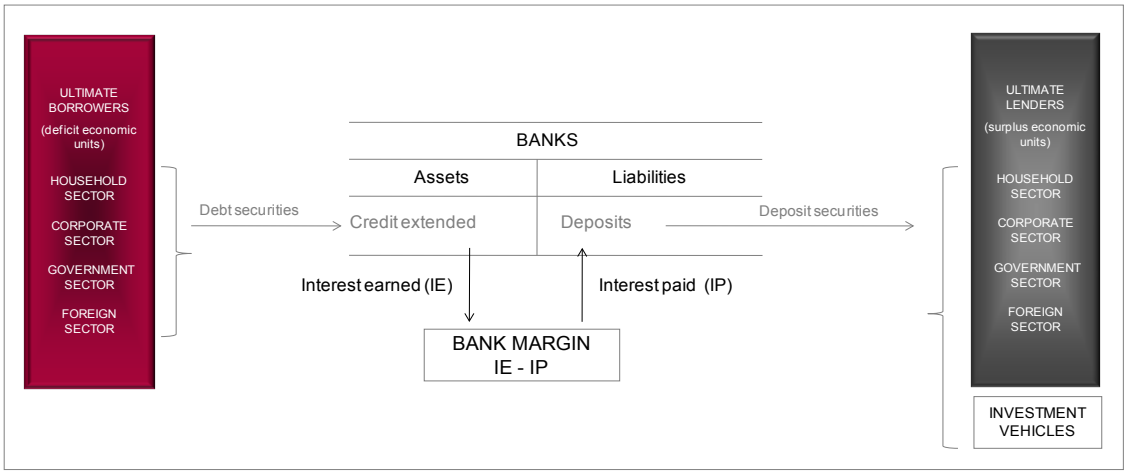

Figure 2.3: Bank margin (simplified)

Monetary policy becomes clear when one views the banks' collective balance sheet (repeated here in Balance Sheet 2.10) and Figure 2.3. A summary follows:

- The central bank compels the banks to borrow from it (= BR) at the PIR.
- Although the BR makes up a small proportion of liabilities, the PIR exerts a powerful influence on bank deposit rates. Because the banks compete aggressively amongst one another for deposits (also in order to repay the central bank), their wholesale deposit rates rise to just below the PIR. The wholesale rates affect the retail rates.
- Banks are profit-maximising entities. They endeavour to earn a steady margin between what they pay for deposits and earn on assets.
- Therefore, when the cost of deposits changes, so do the rates they charge for credit (their largest asset). The benchmark rate for loans is prime rate (PR), and all credit rates are linked to PR.
- The level of PR (especially in real terms) has a major impact on the demand for credit.
- The demand for credit, when satisfied by the banks, has money creation as an outcome.
- New credit / money creation, underlying which is $\Delta C + \Delta I = \Delta GDE$ = change in *domestic demand*, at too high a level in relation to the economy's ability to *supply* the goods and services demanded, leads to inflation.
- A high level of inflation affects economic decision making toward non-productive enterprise and therefore, adversely, GDE and GDP [GDE + NE = GDP] growth. NE (net exports) is the trade account balance (TAB), which represents *net foreign demand*.

The above was presented to introduce the reader to the functions of the central bank. As seen, the main function is monetary policy. But there are many others. Before we get to them, we need to cement that reality that money creation is a surprisingly simple affair.

2.3.4 Money creation

Bank assets and liabilities are not static. They increase mainly as a result of bank credit extension / money creation. This will be discussed in detail later; here we present a simple example. A reminder: M3 = N&C + BD held by the NBPS. Of M3, BD is the largest (+/- 97%). BD increases when banks extend new credit.

BALANCE SHEET 2.11: COMPANY A (LCC MILLION)			
Assets		Equity and liabilities	
Goods Bank deposits (Bank A)	-100 +100		
Total	0	Total	0

BALANCE SHEET 2.12: COMPANY B (LCC MILLION)			
Assets		Equity and liabilities	
Goods	+100	Bank credit (overdraft utilised)	+100
Total	+100	Total	+100

BALANCE SHEET 2.13: BANK A (LCC MILLION)			
Assets		Equity and liabilities	
Loan to Company B TR at CB (ER: 0) (RR: +10)	+100 +10	Deposit of Company A Loans from CB (BR)	+100 +10
Total	+110	Total	+110

Company A is a producer of goods required by Company B. Company B requires finance of LCC 100 million in order to purchase the goods, and approaches Bank A for a loan. After a credit check, the bank grants Company B an overdraft facility.

Company B draws a cheque for LCC 100 million on its overdraft facility (or does an EFT), presents the cheque to Company A and takes delivery of the goods. Company A is delighted with the sale and deposits the cheque with Bank A. The cheque is put through the interbank clearing system, and the balance sheets of the respective parties end up as shown in Balance Sheets 2.11–2.13. As seen, this transaction has implications for RR and therefore BR: BD = +100; BR = +10; RR = +10.

It will be evident that the deposit of Company A = ΔM3 (= ΔBD held by the NBPS), and that its balance sheet source was the increase in the credit granted to Company B. The *real source* is the *demand for credit* and motivation underlying the demand, which is the purchase of goods or services. Thus, Δbank credit ≈ Δ(C + I) = ΔGDE; ΔGDP + ΔNE = ΔGDP. This is where the real and monetary economies meet. Recall the Japanese correlations: R^2 of DCE and GDP = 0.98; R^2 of ΔDCE and ΔGDP = 0.89.

Questions immediately arise: Can banks really do this in the real world? Surely there must be a brake on the system? The answer is yes, the banks do this every day; in fact the system is designed to allow this to happen. The *brake on the system*, i.e. the mechanism that prevents the increase in bank credit and money creation escalating out of hand, as we have seen, is *monetary policy*, and it operates via changes in PR, assuming the PIR is made effective by the banks borrowing from the central bank (i.e. having BR condition). This is discussed more fully in: http://bookboon.com/en/money-creation-an-introduction-ebook, and http://bookboon.com/en/money-creation-advanced-readings-ebook.

2.3.5 Functions not reflected in the balance sheet

2.3.5.1 Introduction

TABLE 2.2: FUNCTIONS OF CENTRAL BANKS
Formulation and implementation of monetary policy (aimed at achieving and maintaining low and stable inflation)
Formulation of monetary policy framework
Influence on the level of market interest rates [via its policy interest rate (PIR), supported by bank liquidity management]
Open market operations (the main tool of bank liquidity management)
Changes in the reserve requirement (a tool of bank liquidity management – used in exceptional circumstances)
Banker and advisor to government
Banker to government
Advisor to government
Public debt issues and management (in some countries)
Administration of exchange controls (in some countries)
Management of the money and banking system
Lender of last resort (note: Not a monetary policy function; used in exceptional circumstances to assist systemically important banks)
Currency management (notes and coins)
Banker to private sector banks
Supervision of payments system
Settlement of interbank claims
Bank regulation and supervision
Management of gold and foreign exchange reserves
Development of the debt market
Provision of research relevant to the above functions and an economic-statistics service
Provision of internal corporate support services and systems

We repeat Table 2.1 as Table 2.2 and highlight the functions not reflected in the central bank's balance sheet. We discuss the non-obvious ones briefly.

2.3.5.1 Advisor to government

The central bank acts as adviser, agent and representative of the government in various ways. This includes the providing of advice on monetary and financial matters, aspects of public debt management (see next section), exchange control (later section), etc. The Bank also handles various aspects of the country's dealings and relations with institutions such as the International Monetary Fund and the International Bank for Reconstruction and Development on behalf of government.

2.3.5.2 Public debt issues and management

The central bank acts as an agent of the Treasury in the placing of government debt (i.e. government securities – Treasury bills and government bonds) in the market. It conducts weekly tenders for Treasury bills and bonds (this differs from country to country). There is close co-operation with Treasury in decisions about the timing, size, type of security, and the maturity structure of issues.

2.3.5.3 Administration of exchange controls

The central bank is also tasked to manage, on behalf of the Minister of Finance, the day-to-day administration of exchange controls (where they exist).

2.3.5.4 Supervision of the payments system

Stability of the payments system is an element of financial stability, and the central bank accepts responsibility for it. In most countries there are three payments systems:

- Real time gross settlement (RTGS) system, for large payments.
- Automated clearing bureau (ACB) system, for net settlement of retail payments (cheques and ETFs).
- The payments system for the exchange of automatic teller machine (ATM) transactions between banks.

The three systems, and others that may exist, collectively, can be called the National Payment System (NPS). The systems all make use of the settlement facility at the central bank, and because of this, the system is secure. When payments are made by banks they are made from their existing reserves. If these payments leave individual banks short of RR at the end of the business day, they are required to find the funds in the interbank market, or from the central bank in the form of loans against collateral (or a repo system).

2.3.5.5 Bank regulation and supervision

A significant function of a central bank is to regulate and supervise the banking system with a view to achieving a sound, efficient banking system in the interests of depositors and the economy as a whole. It is another pillar of the goal of financial stability.

Given the real possibility of financial instability contagion, central banks are *ad idem* in respect of a standard system of bank regulation and supervision, and have worked together under the auspices of the Bank for International Settlements (BIS) in the form of a "Basel Committee on Banking Supervision" for the establishment of a Concordat or Accord on bank capital and liquidity requirements (or subscribe to it). This has been the case since 1975 and the latest version of the agreement is the Basle III Accord.

2.3.5.6 Development of the debt market

Excluding derivatives (which do not represent borrowing and lending, but hedging and speculation), there are two financial markets: Share market and debt market. The debt market is comprised of the:

- *Short-term debt market* (STDM), made up of ST marketable debt (ST-MD) and ST non-marketable debt (ST-NMD). This entire market is referred to as the *money market* (definitions do differ in this respect; we prefer this definition because price discovery takes place in the entire STDM).
- *Long-term debt market* (LTDM), made up LT marketable debt (LT-MD) and LT non-marketable debt (LT-NMD). The bond market is the LT-MD market, and it is differentiated because price discovery primarily takes place in this market, and the LT-NMD takes its cue from it.

Central banks have an interest in all financial markets because this is where borrowing and lending take place (we regard shares as evidences of LT and perpetual borrowing) and where money is created. However, the central bank has a special interest in the debt market, because this is the market in which it operates (OMO), and the stability of which is an integral part of financial stability. Central banks actively assist in developing the debt market. This, and the other above, is covered more fully in: http://bookboon.com/en/central-banking-monetary-policy-an-introduction-ebook.

2.4 Commercial banks

2.4.1 Introduction

A reminder of where we are in this text:

- Central bank.
- **Commercial banks.**
- Investment / merchant banks.
- Specialised and regional banks:
    - Mutual banking intermediaries:
        - Mutual banks.
        - Building societies.
        - Savings and loan associations.
        - Co-operative banks.
    - Savings banks.
    - Regional rural banks.
    - Islamic banks.
- Other banking institutions:
    - Discount houses.

The term "commercial" in "commercial banks" denotes "commerce"; it is a misnomer. This is the generic term for a "bricks and mortar" bank with multiple branches; offers cheque accounts; has tellers; has vaults for bank notes, coins and safe-deposit boxes; takes deposits of various sizes and terms from, and makes loans of various varieties to, the general public and companies; provides internet banking; has ATMs; and so on. It is also called a high street bank.

Generally, commercial banks are multifunction banks. However, there are many, which are subject to the same regulation and supervision requirements as the multifunction commercial banks, but tend to specialise in particular areas of banking, such as micro-finance banking limited products banking, private banking (i.e. banking for high net-worth individuals), and so on.

Many commercial banks offer the above services in specialised divisions, and many of the larger banks also offer an investment banking service. This section covers the typical commercial bank under the following sections:

- Balance sheet: Equity.
- Balance sheet: Liabilities.
- Balance sheet: Assets.
- Money creation and bank liquidity management by the central bank.

- Bank liability and asset portfolio management.
- Off-balance sheet activities.
- Bank holding companies.

These sections are representative of the essence of banking, as illustrated in Figure 2.4.

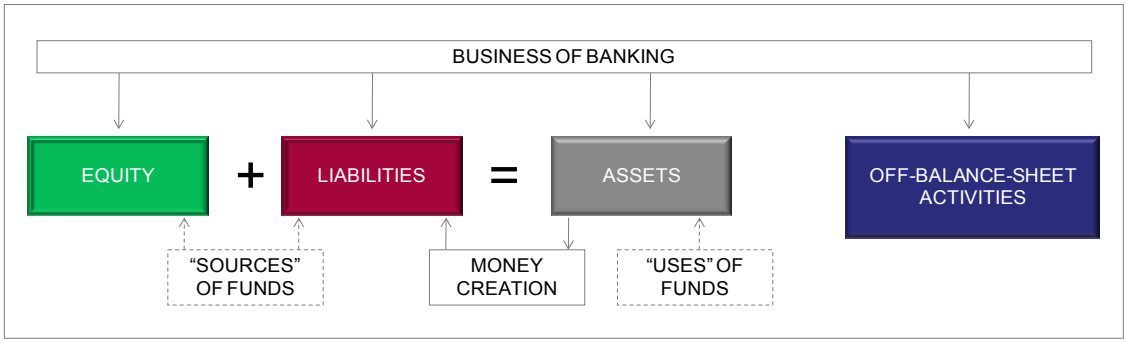

Figure 2.4: Essence of banking

2.4.2 Balance sheet: equity

The share capital and unimpaired reserves (the total of which is equity) required to be held by a bank is the principal prudential requirement of banking legislation, and it is ultimately applied to protect the bank's deposit clients, as well as the banking system, from failure (systemic failure). The capital and reserves the banks are required to hold is dictated by the Basel III Accord (a voluntary regulatory standard globally agreed to under the auspices of the BIS), is risk-based, and amounts approximately to 8–10% of total equity + liabilities (= total assets). The other prudential requirements include:

- Liquidity (including in some countries a reserve) requirement.
- Corporate governance requirements.
- Auditing and related financial reporting and disclosure requirements.
- Large exposure requirements.
- Credit rating requirement.
- Affiliation restrictions.

Banks are the most closely regulated and supervised of any financial institutions. This is so because banks are inherently unstable, which arises from their unique bank credit creation (the outcome of which is deposit money creation) function. In turn this arises from the fact that the general public regard (since the 17th century) the liabilities of banks as the means of payments / medium of exchange.

2.4.3 Balance sheet: liabilities

2.4.3.1 Introduction

A simplified consolidated balance sheet of the banks is presented in Balance Sheet 2.14. In a consolidation the interbank claims between banks (not including the central bank) are netted out. For an individual bank the balance sheet will appear as in Balance Sheet 2.15. The only difference is interbank loans "loans from / to banks". The items pertaining to the central bank appear separately.

BALANCE SHEET 214: BANKS (LCC BILLION)			
Assets		Equity	500
		Liabilities	5 450
D. Foreign exchange	200		
E. Notes and coins	100	A. Deposits of NBPS	5 000
F. Reserves with CB (TR)	500		
Required reserves (RR) (500)		B. Loans from CB (BR)	400
Excess reserves (ER) (0)			
G. Credit to government	1 550	C. Repurchase agreements	50
H. Credit to NBPS	3 800		
Total	5 950	Total equity & liabilities	5 950

BALANCE SHEET 2.15: BANK A (LCC BILLION)			
Assets		Equity	50
		Liabilities	1 170
D. Foreign exchange	50		
E. Notes and coins	20	A. Deposits of NBPS	1 100
F. Interbank loans			
1. Reserves with CB (TR)	50	B. Interbank loans	
a. Required reserves (RR) (50)		1. Loans from CB (BR)	50
b. Excess reserves (ER) (0)		2. Loans from banks	0
2. Loans to banks	30		
G. Credit to government	170	C. Repurchase agreements	20
H. Credit to NBPS	900		
Total	1 220	Total equity & liabilities	1 220

While we label the balance sheet as simplified, it is close to reality. Individuals are confronted daily with confusing banking terminology. Table 2.3 presents a few examples and what they actually are in the balance sheet.

TABLE 2.3: BANKING TERMINOLOGY AND ITS FIT	
Savings deposit	Deposits of NBPS
Fixed deposit	Deposits of NBPS
Call deposit	Deposits of NBPS
Notice deposit	Deposits of NBPS
Overdraft	Credit to NBPS
Mortgage	Credit to NBPS
Lease	Credit to NBPS
Hire purchase	Credit to NBPS
Instalment credit sale	Credit to NBPS
An individual's credit card debit	Credit to NBPS
Overdraft to local authority	Credit to government
Loan to provincial authority	Credit to government
Government bond	Credit to government
Treasury bill	Credit to government
A government credit card debit	Credit to government

As may be seen in Balance Sheet 2.15, the liabilities (i.e. the "sources of funds", apart from equity) of banks are:

- Deposits.
- Interbank loans:
  - Loans from the central bank.
  - Loans from other banks.
- Repurchase agreements (repos).

We cover these liability items below.

2.4.3.2 Deposits

Deposits (aka certificates of deposit – CDs) are the primary source of the funding for a bank; there are only two categories:

- Non-negotiable certificates of deposit (NNCDs): These exist in the form of certificates or a credit balance on a bank statement.
- Negotiable certificates of deposit (NCDs): These exist in the form of a certificate or an electronic confirmation – in a dematerialised market.

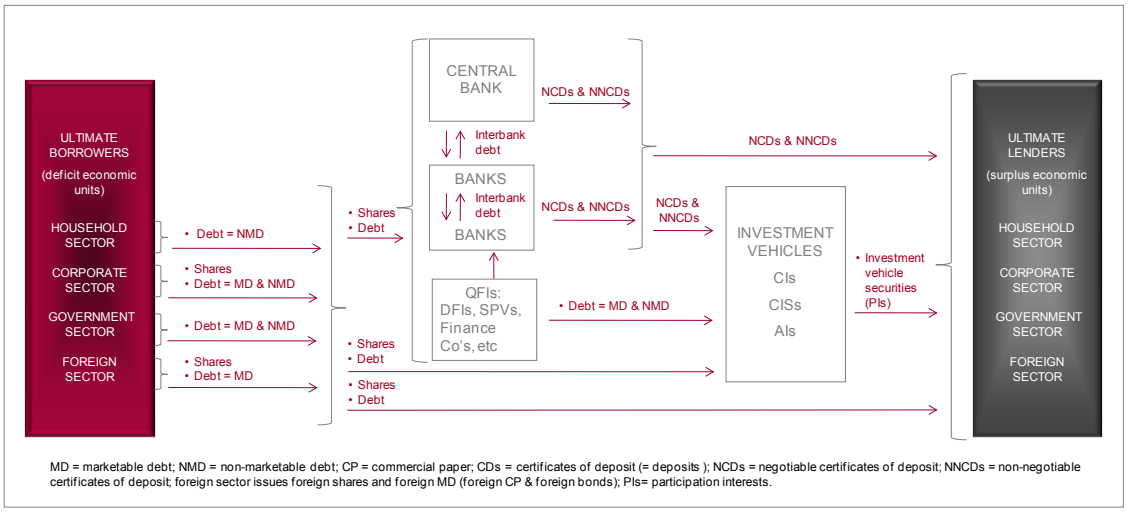

Figure 2.5: Financial system

The proportions of the two categories vary from country to country, but the former is the higher one, as there are restrictions on the extent to which banks may issue NCDs. The NNCD category includes many types: Call money accounts, cash managed accounts, transmission accounts, cheque accounts, savings accounts, fixed deposit accounts, notice of withdrawal accounts (NOW accounts in the US), and so on.

The term of deposits ranges from a day to a number of years, although the overwhelming maturity term is less than a year.

As may be seen in Figure 2.5, deposits are forthcoming from the four sectors of the economy: Household, corporate, government and foreign sectors, as well as from all the other financial intermediaries. Deposits are denominated in LCC, and banks also offer foreign currency-denominated accounts to certain depositors.

2.4.3.3 Interbank loans

Loans are short-term in nature and there are two categories: Loans from the central bank and interbank market (IBM) loans. Loans from the central bank (BR) are related to monetary policy and are provided at the central bank's PIR. IBM loans are loans from banks to banks and are provided at the interbank rate. From the above discussion it will be evident that there are three subsets to the IBM:

- The bank-to-bank interbank market (b2b IBM), which is the only one where a price (IBM rate) is discovered (which is closely related to the PIR).
- The bank-to-central bank IBM (b2cb IBM), which represents RR flows.
- The central bank-to-bank IBM (cb2b IBM), which represents BR flows.

These latter two subsets of the IBM are "administrative" markets, in which rates (where applicable) are administratively determined.

2.4.3.4 Repurchase agreements

Repos appear on both sides of the balance sheet: As indicated on the liability side in Balance Sheet 2.15, and under credit to government (item G) or credit to the NBPS (item H). A repo is a legal agreement in terms of which a security, or a parcel of securities, is sold for a portion of the life of the securities. For example, a bank may wish to take a short-term position (for 30 days) in 5-year government bonds (because it expects bond rates to fall in the 30-day period).

At the same time the bank may have a wholesale deposit client needing an investment for 30 days at a rate that is higher than the deposit rate for 30 days. The bank buys the bonds outright (with the purpose of selling them outright after 30 days) and then sells them to the client under repo, i.e. under an agreement to repurchase the same securities 30 days after the deal is struck.

It will be clear that the purchase of the bond is an addition to assets, and the sale of the bond to a depositor is an addition to liabilities. For this reason banks are required, and for purposes of the prudential requirements, to show the security sold under repo as an asset items (G or H) and the funds advanced to the bank (received under a repo) as a liability.

Figure 2.6 is presented as a summary of the sources of funding of banks.

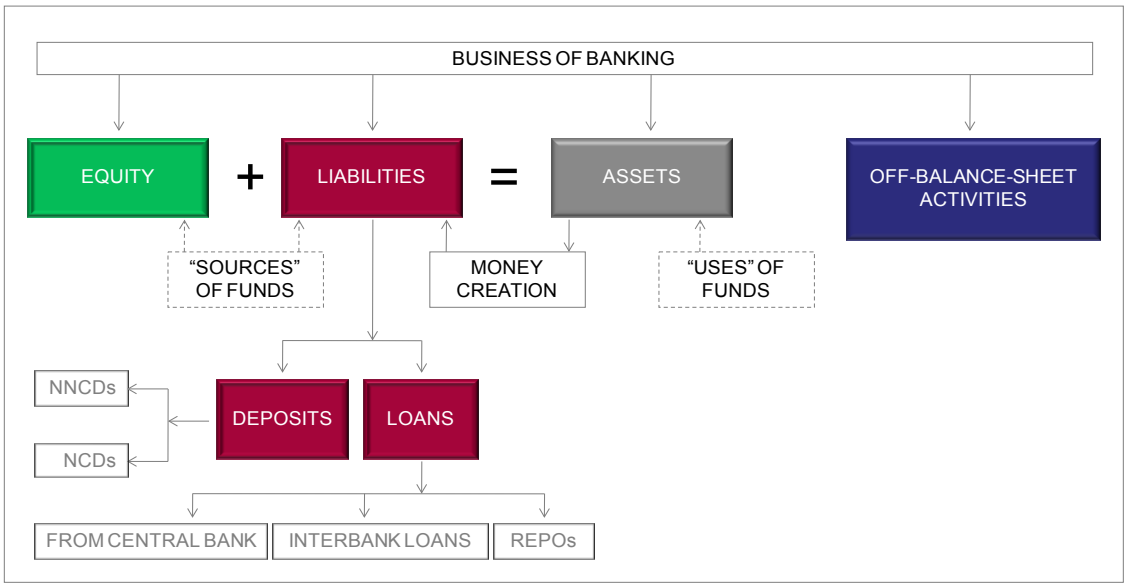

Figure 2.6: The business of banking: Liabilities

2.4.4 Balance sheet: assets

2.4.4.1 Introduction

We repeat Balance Sheet 2.15 here as Balance Sheet 2.16. The assets of banks are categorised into four groups, with a few sub-groups as follows (we ignore "other assets"[6], and the banks' small holdings of shares – held opportunistically):

- Foreign exchange.
- Notes and coins.
- Interbank loans:
  - Reserves:
    - Required reserves (RR).
    - Excess reserves (ER).
  - Loans to other banks.
- Credit / loans (marketable and non-marketable):
  - To government.
  - To the NBPS.

BALANCE SHEET 2.16: BANK A (LCC BILLION)			
Assets		Equity	50
		Liabilities	1 170
D. Foreign exchange	50		
E. Notes and coins	20	A. Deposits of NBPS	1 100
F. Interbank loans			
1. Reserves with CB (TR)	50	B. Interbank loans	
a. Required reserves (RR) (50)		1. Loans from CB (BR)	50
b. Excess reserves (ER) (0)		2. Loans from banks	0
2. Loans to banks	30		
G. Credit to government	170	C. Repurchase agreements	20
H. Credit to NBPS	900		
Total	1 220	Total equity & liabilities	1 220

2.4.4.2 Foreign exchange

Banks are market makers in foreign exchange (forex), meaning that they quote simultaneous bid and offer exchange rates for their clients – which are the large importers, exporters, investors into and out of the country, and so on. They also have retail operations in the form of forex bureaux and / or sell / buy forex in branches. For this reason they hold portfolios of the main foreign currencies. Banks also speculate in foreign currencies, within limits usually imposed by the central bank.

2.4.4.3 Notes and coins

The banks hold a portfolio of notes and coins (N&C), which are liabilities of the central bank (in most cases). These are held in tellers' drawers and ATMs (notes only). N&C are non-interest-bearing assets, and the amounts held are therefore kept to a minimum. There is a seasonal pattern to the demand for N&C by the public, dictated by salary / wage payment dates, and the banks buy N&C from and sell N&C back to the central bank (CB) according to the pattern.

When banks "buy" N&C from the CB (i.e. when the public demand / need more N&C), new N&C are issued (= increase in the CB's N&C liability), and they pay for them by the CB debiting their CB accounts (= a loss of bank reserves at the CB). Conversely, when banks "sell" N&C back to the CB [i.e. when the public have spent them and the stores (etc.) deposit them at their banks], the CB's N&C liability is reduced, and they are paid for by the CB crediting their CB accounts (= a gain of bank reserves at the CB).

2.4.4.4 Interbank loans

We mentioned the 3 subsets of the IBM earlier:

- The bank-to-bank interbank market (b2b IBM).
- The bank-to-central bank IBM (b2cb IBM).
- The central bank-to-bank IBM (cb2b IBM).

We covered the cb2b IBM earlier: Borrowed reserves (BR) provided at the PIR = an asset for the central bank = a liability for a bank.

Item F1 in Balance Sheet 2.16 represents the b2cb IBM. As discussed before, the banks are obliged to have two central bank accounts in some countries (current / settlement account and reserve account) and just one in others (called settlement or reserve account). The amounts held on this account/s are (1) the statutory required reserves (RR) of the banks, which are determined as a proportion of bank deposits, and (2) excess reserves (which may be held from time to time). Usually, interest is not paid on this account/s, meaning that the banks keep the minimum required reserves in these accounts. Settlement of interbank claims takes place over the banks' reserve / settlement accounts.

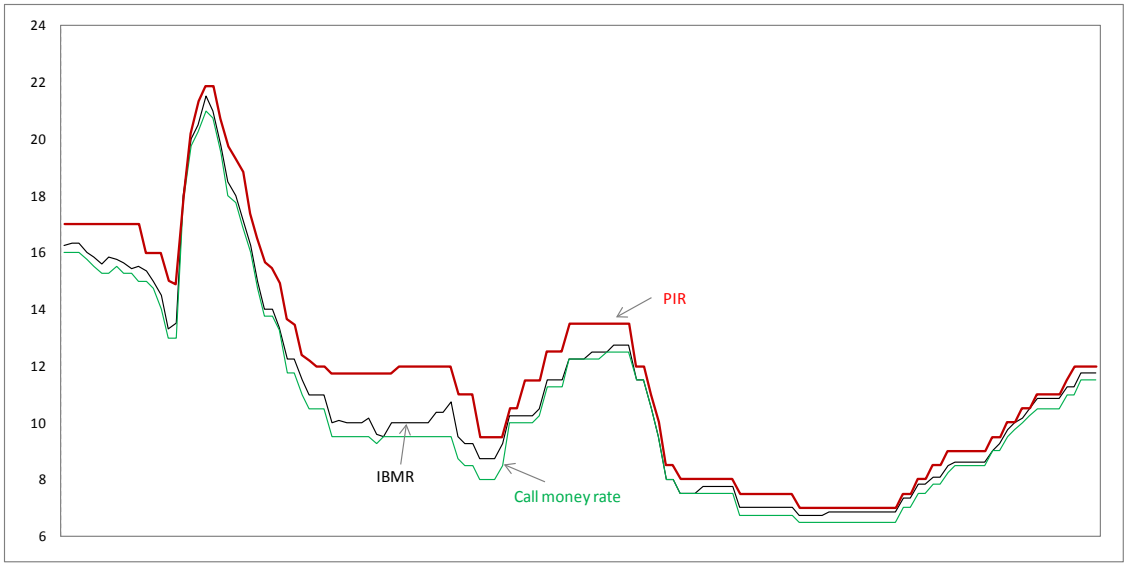

Figure 2.7: PIR, IBM rate and call money rate

Item F2 (loans to other banks), together with item B2 (loans from other banks), represents the b2b IBM. This is a true market in which the IBM rate is discovered, which is closely related to the PIR, as shown in Figure 2.7[7]. Also closely related is the wholesale call money rate. These rates represent the first part of the causation path of monetary policy. The expanded causation path is:

> PIR → IBM rate → wholesale call money rate → other deposit rates → [via the "sticky" bank margin] → PR → demand for credit → when satisfied by banking sector = bank credit extension and simultaneous deposit money creation.

The PIR is the genesis rate of the interest rate structure, and it is "activated" in the IBM, by the creation of a BR condition. The ultimate objective is to set the PR_N and, through the PR_N and the derived real PR (PR_R), the demand for credit. As we saw earlier, the satisfied demand for bank credit is closely related to ΔGDP_N [households, companies, and government use credit for consumption or investment purposes: $\Delta(C + I) = \Delta GDE_N$; $\Delta GDE_N + NE = \Delta GDP_N$].

2.4.4.5 Credit / loans

Bank credit is also called *loans* and *advances*. This portion of the banks' balance sheets makes up the vast majority of their assets (close to 70% in many cases). As we have seen, the following are the categories:

- Credit to government (CG).
- Credit to NBPS (CNBPS).

Included in both are non-marketable debt (NMD) and marketable debt (MD). Examples in the case of credit to government are: NMD: Loans to local authorities; MD: Central government bonds, Treasury bills. The vast majority of bank loans to the NBPS are NMD. Examples are:

- Instalment sale credit (old name: Hire-purchase credit).
- Suspensive sales agreements.
- Leasing finance.
- Credit card debtors.
- Mortgage loans.
- Overdraft loans

Of these NMD, the last two are in the majority (about 50%). Examples of MD of the NBPS are commercial paper and corporate bonds. MD of the NBPS makes up a small proportion of assets.

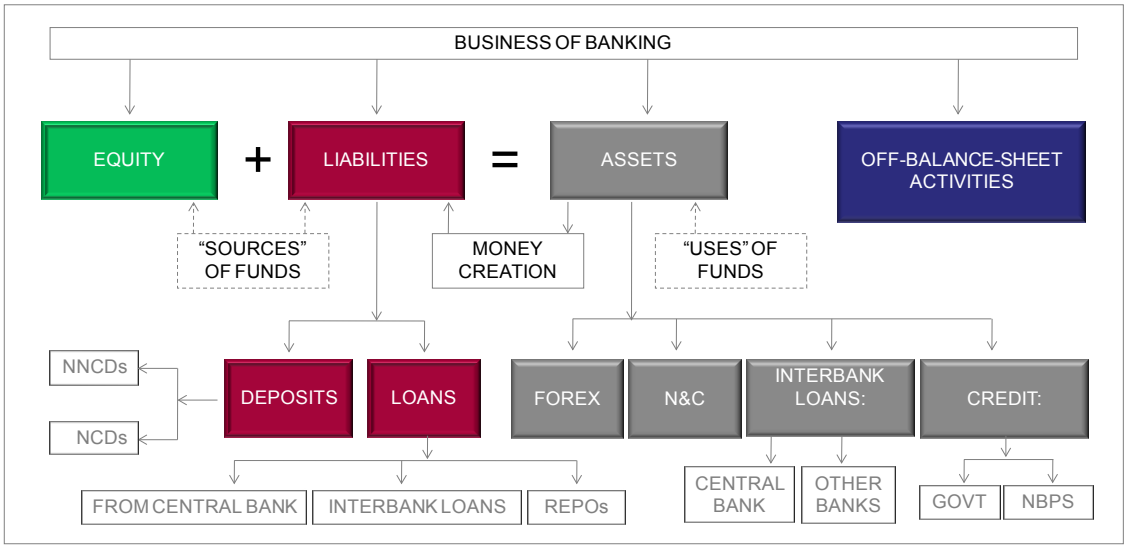

Figure 2.8: The business of banking: Equity, liabilities and assets

Figure 2.8 is presented as a summary of the assets ("uses" of funds) of banks as well as the liabilities and equity ("sources of funds"). This brings us again to one of the unique features of banks: The ability to create new deposits (= money) by extending new credit. However, here we focus on bank liquidity management by the central bank.

2.4.5 Money creation and bank liquidity management by the central bank

We covered deposit money creation, being the outcome of new bank credit extension, under the discussion on the central bank above. We also discussed the causation path of monetary policy. What we did not cover is how the central bank makes the PIR "effective". In our credit / deposit money creation example Company A (who banks with Bank A) sold goods to Company B which had utilised an overdraft facility from Bank A for this purpose. The outcomes are shown in Balance Sheets 2.17–2.19.

BALANCE SHEET 2.17: COMPANY A (LCC MILLION)			
Assets		Equity and liabilities	
Goods Bank deposits	-100 +100		
Total	0	Total	0

BALANCE SHEET 2.18: COMPANY B (LCC MILLION)			
Assets		Equity and liabilities	
Goods	+100	Bank credit (overdraft utilised)	+100
Total	+100	Total	+100

BALANCE SHEET 2.19: BANK A (LCC MILLION)			
Assets		Equity and liabilities	
Loan to Company B	+100	Deposit of Company A	+100
Total	+100	Total	+100

In the interests of simplicity we only touched upon the effect of the deposit increase of RR and BR (we assume a RR *r* of 10%). Here we take the issue further (in Balance Sheets 2.20–2.21). The central bank accommodates the banks automatically at the PIR.

BALANCE SHEET 2.20: BANK A (LCC MILLION)			
Assets		Equity and liabilities	
Loan to Company B Reserves with CB (TR) Required reserves (RR = +10) Excess reserves (ER = 0)	+100 +10	Deposit of Company A Loans from CB (BR) @ PIR	+100 +10
Total	+110	Total	+110

BALANCE SHEET 2.21: CENTRAL BANK (LCC MILLION)			
Assets		Equity and liabilities	
Loans to Bank A (BR) @ PIR	+10	Bank reserves (TR) (RR = +10) (ER = 0)	+10
Total	+10	Total	+10

The effect of deposit money creation on the RR is only one of the factors which influence bank liquidity. Bank liquidity can be defined as the *net excess reserves* (NER) of the banks with the central bank. In Balance Sheet 2.22, this is

$$\begin{aligned} \text{NER} &= \text{ER} - \text{BR} \\ &= \text{Item B2b} - \text{item G} \\ &= 0 - 400 \\ &= -400. \end{aligned}$$

The NER concept captures both ER (as exists under a QE policy) and BR (the norm in most countries under normal circumstances).

BALANCE SHEET 2.22: CENTRAL BANK (LCC BILLION)			
Assets		Liabilities	
E. Foreign assets	1 000	A. Notes and coins	1 000
F. Credit to government	1 100	B. Deposits	
G. Loans to banks (BR) @ PIR	400	1. Government	900
		2. Bank reserves (total reserves - TR)	500
		a. Required reserves (RR = 500)	
		b. Excess reserves (ER = 0)	
		C. Foreign loans	50
		D. Central bank securities	50
Total	2 500	Total	2 500

It will be clear, and make economic sense (because all interbank clearing takes place via the banks' accounts with the central banks), that:

$$NER = (B2b - G) = E + F - (A + B1 + B2a + C + D).$$

If we group the related items we have:

$$NER = (B2b - G) = (E - C) + (F - B1) - A - B2a - D.$$

Using the numbers in Balance Sheet 2.22:

$$NER = (0 - 400) = -400 = (1000 - 50) + (1100 - 900) - 1000 - 500 - 50.$$
$$= -400.$$

From one date to another we have an analysis:

$$\Delta NER = \Delta(B2b - G) = \Delta(E - C) + \Delta(F - B1) - \Delta A - \Delta B2a - \Delta D.$$

In words:

ΔNER	= Δ(E – C)	= ΔNFA (net foreign assets)
	+ Δ(F – B1)	+ ΔNCG (net credit to government)
	- ΔA	- ΔN&C (notes and coins)
	- ΔB2a	- ΔRR (required reserves)
	- ΔD	- ΔCBS (central bank securities).

Interpretation:

- An increase in a net asset item (NFA and NCG) will increase NER, whereas a decrease will decrease NER.
- On the other hand, an increase in a stand-alone liability item (N&C, RR and CBS) will decrease NER, whereas a decrease will increase NER.

As ER is usually = 0, these may be interpreted as changes in BR:

- An increase in a net asset item (NFA and NCG) will decrease BR, whereas a decrease will increase BR.
- On the other hand, an increase in a stand-alone liability item (N&C, RR and CBS) will increase BR, whereas a decrease will decrease BR.

Many central banks do this analysis (called a *money market analysis* or a *liquidity analysis*). What is its significance? It shows that a central bank has many tools with which to influence bank liquidity. Central banks use one or more of these tools daily to manipulate bank liquidity, in order to ensure that the bank are in a BR condition – in order to make the PIR effective. This is discussed in more detail in: http://bookboon.com/en/money-creation-advanced-readings-ebook.

2.4.6 Bank liability and asset portfolio management

Asset and liability portfolio management is the very essence of banking management, and every bank has an active asset and liability committee (ALCO) that meets frequently. In a nutshell, banks endeavour to balance liabilities and assets in such a way that the maximum profit is generated, given an acceptable risk profile.

The optimal balance sheet structure sought by banks is to have assets that generate the highest floating (i.e. frequent change) interest rate possible, and no credit risk, and liabilities that carry the lowest floating rate possible. Floating rates on both sides of the balance sheet eliminates market risk. If interest rates were perfectly predictable, and banks were certain of getting deposits and buying assets when they need them, the ideal portfolio construct will depend on the interest rate view of the bank:

- In a falling rate environment (ideally with a positively sloped yield curve): Assets should be fixed-interest (i.e. do not change over the life of the asset) and have the longest term possible, and liabilities should be as short as possible and carry floating rates.
- Conversely, in a rising interest rate environment, assets should floating-rate and have a short-term maturity, and liabilities should be fixed-interest and have a long maturity.

If the interest rate view of the bank is the opposite of what transpires, then the bank will be insolvent within weeks or a few months. Interest rate movements are not perfectly predictable (only trends are, in low inflation countries), and therefore term and interest rate mismatches are especially risky.

In reality, bank portfolios are managed to somewhere in between the two extremes outlined above. This situation is dictated by many factors, including the banks' interest rate views, competition for business, clients require deposits and credit accommodation that differ from the bank's ideal portfolio construct, asymmetric information (leading to adverse selection and moral hazard) is present, volatility of interest rate movements at the time, and bank regulation / supervision which is focussed on risk.

Banks face many risks. The principal risks are (see http://bookboon.com/en/banking-an-introduction-ebook for a further discussion):

- Market risk.
- Interest rate risk.
- Liquidity risk.
- Credit risk.
- Currency risk.
- Counterparty risk.
- Operational risk.

Banks are in the business of lending funds. Thus, they have a disposition to grow their asset "books" to the extent dictated by the capital requirement, and to generate profits that can be added to capital resources (retained funds) in order to grow the book even further. In the past history of banking, locally and internationally, a number of banks have "gone for growth at all costs", and in many cases the cost has been failure. For this reason the focus of the regulatory authorities is on risk management.

2.4.7 Off-balance sheet activities

The off-balance sheet activities of banks may be split into two categories:

- Off-balance-sheet activities that carry risk:
  - Indemnities.
  - Guarantees.
  - Irrevocable letters of credit.
  - Underwriting of new issues of debt and shares [often this function is performed in a subsidiary (see next section)].
  - Effective net open position in foreign currencies.
  - Securities broker-dealing [often this function is performed in a subsidiary (see next section)].
  - Commodities trading [often this function is performed in a subsidiary (see next section)].

- Off-balance-sheet activities and services that carry no or little risk:
  - Corporate finance (e.g. mergers, acquisitions, company listings).
  - Debt origination (companies and government).
  - Economic advice to corporate and individual clients.
  - Advice on importing and exporting.
  - General investment advising.
  - Trust and estate services.

This is not an exhaustive list. It also indicates that some of the functions of investment banks (e.g. acquisitions, mergers, listings, underwriting, etc.) are undertaken by commercial banks. This is the case in real-life banking, but only in some cases. There has been a trend recently (since the banking crisis of 2008 onwards for many years) to split the multifunction commercial banks into "pure" retail banks and "pure" investment banks.

2.4.8 Bank holding companies

In conclusion, it needs to be mentioned that many banks are subsidiaries of bank holding companies. The creation of a holding company is required when banks venture into businesses which require separate capitalisation, and / or arms-length management. Examples are stockbroking, investment management, legal services.

2.5 Investment / merchant banks

The designation "investment bank" is American and "merchant bank" is English. Their histories are dissimilar, but presently they are regarded as performing similar functions. In the US investment banking was clearly differentiated from commercial banking by the Glass-Steagall Act (aka the Banking Act) of 1933. The milieu was the Great Depression and the failure of close on 5 000[8] US banks, *inter alia* a consequence of many commercial banks having established affiliates which were engaged in debt and share origination and the underwriting of many of these. The Act was an emergency response to the failure of so many banks: Its main thrust was that investment banks were prohibited from taking deposits.[9]

The investment banks' functions widened over the ensuing decades to include (in the process they played a major role in the development of the financial markets in the US and elsewhere in the world):

- Debt and share (aka stock and equity) origination: Assisting the corporate sector to raise capital in these forms (marketable money and bond market instruments, and ordinary and preference shares).
- Underwriting of new debt and share issues: The guaranteeing of a specified rate / price for the issuer (by being prepared to take up all or unsold new issues).
- Flowing from the underwriting function, market making in debt and share issues: The quoting of simultaneous bid and offer rates / prices to buyers and sellers.

- Securities (debt and share) broking and dealing: Buying and selling securities as a broker (not taking a position) and a dealer (dealing from or into its portfolio).
- Prime brokerage: A package of services (including scrip lending, securities clearing, technology requirements, etc.) for investors such as hedge funds.
- Fund management (retirement funds, insurers, mutual funds, etc.).
- Wealth management (high net-worth individuals).
- Mergers and acquisitions.
- Advisory services (valuation, restructuring of companies, etc.).

The Glass-Steagall Act was amended in 1999 by the Gramm-Leach-Bilely Act: It repealed the Glass-Steagall Act's restrictions on bank and securities-firm (i.e. investment bank) affiliations, and amended the Bank Holding Company Act to permit affiliations among financial services companies, including banks, securities firms and insurance companies.[10]

Reaction by the investment banks was rapid. For example, (1) investment bank Goldman Sachs formed Goldman Sachs (commercial) Bank; (2) investment bank JP Morgan offered commercial banking services when it merged with (commercial) Chase Manhattan Bank in 2000; (commercial) Bank of America bought investment bank Merrill Lynch in 2009.

Merchant banks arose in the UK in the early 19th century with the establishment of Barings Bank. Originally they were called "accepting banks", as the main borrowing instrument then was the trade-related bank acceptance. The merchant banks "accepted" trade bills (contracts between buyers and sellers), which meant they added their name to the bills (stamped "accepted by Barings Bank …"), thereby guaranteeing their repayment. The acceptance stamp rendered them "bankers' acceptances".

This function amounts to debt origination and the underwriting of the debt, similar to the original functions of the US investment banks. Over the following decades the merchant banks expanded into other areas similar to the US investment banking functions as described above. There was a major difference though: The merchant banks took deposits, and were regulated as were commercial banks (whereas investment banks, which essentially were "securities houses", were not).

Over the past few decades many large banking-financial services groups have been formed (and some have diversified) to embrace all of the functions associated with commercial and investment banking. They have come to dominate the financial services sector. This has, *inter alia*, resulted in some of the riskier investment banking operations resorting under commercial banking operations, putting retail deposits at risk. However, there are also some large groups which have remained focussed on commercial banking and some have focussed on investment banking.

During the sub-prime / banking crisis of 2007 onwards, a number of banks worldwide were declared bankrupt, including the US investment banking colossi Bear Sterns and Lehman Brothers. Many commercial banks in the UK and elsewhere in Europe were rescued by governments, which amounted to partial nationalisation. During and after this crisis period many countries have taken steps to again differentiate investment and commercial banking. In the US the "Volker Rule" (part of the Dodd-Frank Act), adopted in 2014, precludes commercial (i.e. deposit-taking) banks from engaging in certain risky activities, such as proprietary trading.

In Europe there are moves afoot to separate banks' commercial and investment banking activities: These activities of banks will be formally separated and separately capitalised (as they were in the past). This will ensure that retail depositors will not be exposed to the higher risks associated with investment banking.

2.6 Specialised and regional banks: mutual banking intermediaries

2.6.1 Introduction

A reminder of where we are in this text:

- Central bank.
- Commercial banks.
- Investment / merchant) banks.
- **Specialised and regional banks:**
  - **Mutual banking intermediaries:**
    - **Mutual banks.**
    - **Building societies.**
    - **Savings and loan associations.**
    - **Co-operative banks.**
  - Savings banks.
  - Regional rural banks.
  - Islamic banks.
- Other banking institutions:
  - Discount houses.

The "specialised and regional banks" are distinguished from the mainstream banks in that they are smaller banking intermediaries and are member-owned. *Friendly societies* and *credit unions* are also small and member-owned, but they are dissimilar in terms of form and regulation. We thus place and discuss them under *quasi-financial intermediaries*.

2.6.2 Mutual banks

2.6.2.1 Introduction

Mutual banks, aka mutual savings banks, are similar to mainstream banks in certain respects and are differentiated in others. Their differences are that they:

- are smaller;
- have fewer and uncomplicated products;
- in most cases are regionalised in small towns or cities;
- are owned by the depositors and borrowers, which are called members (mutual means "common or shared"[11]);
- in many cases the members are of a specific grouping; examples are *Police Bank* in Sydney, Australia, and *Victoria Teachers' Mutual Bank*, in Victoria, Australia.

They are comparable in that they have a similar balance sheet structure, but have fewer items, reflecting their conservative nature. We discuss them according to:

- Regulation and capital requirement.
- Liabilities and assets.
- Governance.
- Variations on the theme.
- Concluding remarks.

2.6.2.2 Regulation and capital requirement

Mutual banks are regulated as vigorously as are commercial banks, i.e. according to the Basel III Accord. In most cases they are corporate entities, but without a share capital. Rather (reflecting their credit union or building society history and the formalisation, by the regulators, of informal bank-like institutions), they have reserves and / or retained earnings (or share-type deposits in some cases) which are recognised by the regulators as a substitute for share capital. An example is presented in Balance Sheet 2.23: The (simplified) balance sheet of a mutual bank[12]: Note the "members' equity" being comprised of reserves and retained earnings (highlighted).

BALANCE SHEET 2.23: TEACHERS' MUTUAL BANK (AUD MILLIONS)		
Members' equity		
General reserve for credit losses	14	
Retained earnings	327	
Total members' equity		341
Liabilities		
Wholesale sector deposits	185	
Retail deposits	3 520	
Other liabilities	42	
Total liabilities		3 747
Total equity & liabilities		4 088
Assets		
Cash on hand and deposits at call	46	
Receivables from financial institutions (interbank deposits)	634	
Loans and advances to members	3 351	
Other assets	57	
Total assets		4 088

Members' equity is owned by the members but is not paid out to them. The annual profits of the bank are translated into (1) additions to reserves, meaning that members benefit (lower risk) from a well-capitalised bank, and (2) competitive rates: Lower bank fees, higher deposit rates and lower mortgage / lending rates. As put by Australian mutual bank, Heritage Bank: "At Heritage we put customer benefits such as better rates and service ahead of massive profits."[13] Another, Teachers Mutual Bank, advises: "When you join…you'll own a share in one of Australia's largest mutual banks. This means, you're not just a customer, you're a shareholder who benefits from our profits with competitive rates, low fees and amazing products and services."[14]

As said, mutual banks are subject to the same regulation requirements as the commercial banks; thus, they also have a capital requirement based on risk-weighted assets However, the minimum volume of capital required is substantially lower than in the case of commercial banks. It is a reflection of countries' encouragement of the creation of banking facilities for small savers and borrowers, and of banking competition (when the mutual banks grow up).

2.6.2.3 Liabilities and assets

The deposit accounts are suited to the requirements of members, and include current accounts, savings accounts, term deposit accounts, etc. Apart from their liquid reserves, assets are mainly comprised of loans to members: Mortgage loans, personal loans, other asset-back loans (such as car loans), credit card loans, etc.

2.6.2.4 Governance

Mutual banks have a board of directors who are elected by members. The board appoints the executive management team. In most cases mutual banks have a members' committee, also elected by the members, which acts as a link between the members and the board.

2.6.2.5 Variations on the theme

There are many variations on the theme. Examples, in respect of capital / equity:

- (1) Permanent interest bearing shares (non-redeemable; rate = central bank PIR + 1.5%; deemed dividends), and (2) reserves. Shares held by institutions and the public = owners.[15]
- (1) Issued shares and share premium, and (2) reserves. Issued shares: Class A held by holding company, having 51% of the vote; Class B, C, D shares held by the public, having 49% of the vote.[16]
- (1) Preference shares (non-voting, redeemable by the bank), and (2) reserves. Owners = depositors and borrowers.[17]
- (1) Member redeemed preference share capital account (redeemed from profits over time), and (2) reserves.[18] Owners = depositors and borrowers.[19]

In terms of focus and regionalism, there are variations, such as:

- There are mutual banks which focus on lending in specific markets, such as the micro-credit market.
- Representation in most cities and large towns.

2.6.2.6 Concluding remarks

Mutual banks are conservatively managed, particularly on the asset side of the balance sheet (where the risk lies). For example, they generally have a strict maximum loan-to-value ratio policy for mortgages advances (80–90%), and loans are asset-backed. They are client-friendly, given that the banks' clients are personally known to the banks' employees. This holds a major advantage in terms of credit risk brought on by asymmetric information, and its affiliates, adverse selection and moral hazard.

As said, generally, mutual banks are regulated under the banking statute as applies to commercial banks, i.e. they are obliged to meet the same prudential requirements. In some cases a separate statute applies, but the prudential requirements are similar.

2.6.3 Building societies

Building societies exist in a number of countries, including the UK, Australia, New Zealand, Ireland, Zimbabwe, Jamaica, etc. They are similar to the mutual banks. In fact, some mutual banks are building societies which converted to mutual banks under recommendation by the regulatory authorities. One example is GBS (Grahamstown Building Society) Mutual Bank in South Africa.

BALANCE SHEET 2.24: NEWCASTLE BUILDING SOCIETY (GBP MILLIONS)		
Liabilities		
Due to members (deposits)	3 236	
Due to other customers	123	
Deposits from banks (interbank)	11	
Derivative financial instruments	13	
Other liabilities	28	
Subordinated liabilities	59	
Subscribed capital	30	
Reserves	170	
Total liabilities		3 670
Assets		
Cash and balances with the Bank of England	297	
Loans and advances to banks (interbank)	113	
Debt securities (liquid assets)	477	
Loans and advances to customers	2 687	
Investment in subsidiary undertakings	23	
Other assets	73	
Total assets		3 670

We present the balance sheet of a typical building society[20] in Balance Sheet 2.24. Note the "liabilities due to members" and "loans and advances to customers". These reflect the functions of building societies. The former is deposits and the latter is mortgage loans in the main. "Members" are the owners, indicating the mutual nature of the society.

Note also the highlighted liability items. Although they are labelled liabilities, they are the capital of the society held for prudential purposes. "Subscribed capital" is made up of various fixed-interest permanent interest bearing shares. An example is "12.625% permanent interest bearing shares"; it and the other "shares" are issued for an indeterminate period and are only repayable in the event of the winding up of the Society.[21] In some countries building societies are regulated as commercial banks according to the Basel III Accord, while in others a separate statute applies.

In a nutshell, building societies are uncomplicated intermediaries: They take deposits from the public and they make mortgage loans (these clients are deemed members). Generally they do not offer current accounts; rather they have saving and fixed deposit accounts. Many of them also offer personal and life insurance products.

2.6.4 Savings and loan associations

Savings and loan associations, aka "S&Ls" and "thrifts", are unique to the US, but are similar to the building societies and mutual banks in other countries, in that they are specialised in the acceptance of savings deposits (some do have cheque accounts) and providing mortgage finance for residential properties. Some do make consumer and commercial loans, but the extent thereof is limited by statute. Some also offer credit card facilities, internet banking and insurance products.

S&Ls are generally regional and are either mutually owned by their deposit and borrower clients (and these are often called "mutual savings banks"), or are limited liability companies, in which case the shareholders are the owners. One mutual S&L describes its function: "As a mutual savings institution, we do not have stockholders. That means we can focus on the long term well being of our customers and our community. We have been an independent community financial institution since 1892, providing outstanding value to customers by maintaining fee levels that are typically lower than stockholder-owned banking institutions. Our committment [sic] is to you, the customer, not to a stockholder seeking to profit from your banking transactions. This is [our] promise to you."[22]

S&Ls are either state or federally chartered, and are regulated by the Office of Thrift Supervision (a division of the Treasury Department). S&L holding companies are regulated by the Federal Reserve Board.

There are similar intermediaries in other countries, such as:

- Village savings and loan associations (Uganda, Malawi, Mozambique, Niger, Rwanda, Bangladesh, etc.).[23]
- Group savings and loan associations (Kenya).

2.6.5 Co-operative banks

A fine definition of a co-operative bank is found in a particular country's[24] Co-operative Banks Act (40 of 2007): It states that a co-operative bank is a bank whose members (i.e. the owners):

- are of similar occupation or profession or who are employed by a common employer or who are employed within the same business district; or
- have common membership in an association or organisation, including a business, religious, social, co-operative, labour or educational group; or
- reside within the same defined community or geographical area.[25]

The Act identifies four types of co-operative bank, and prescribes their activities:

- Primary savings co-operative bank (PSCB):
  - Liabilities: Savings accounts, transfer money for depositors.
  - Assets: Bank account with mainstream bank, prescribed investments (risk-free liquid assets).
- Primary savings and loan co-operative bank (PSLCB):
  - As in the case of a PSCB.
  - Plus loans to members up to a prescribed maximum.
  - Plus conduct any additional banking services and invest money deposited with it in any investments prescribed by the Minister.

- Secondary co-operative bank (SCB):
  - As in the case of a PSLCB.
  - Plus trading of financial instruments and foreign exchange on behalf of members.
- Tertiary co-operative bank (TCB):
  - As in the case of a PSLCB and a SCB.
  - Plus conduct any additional banking services and invest money deposited with it in any investment prescribed by the Minister.

Thus, there are number of variations of the co-operative bank. Internationally they vary even more, from small to very large. What they do have in common is that they are owned by their customers. In this respect co-operative banks are similar to mutual banks, building societies and S&Ls. However, in relation to these intermediaries:

- They tend to be larger intermediaries.
- In some cases, they offer more products (including current accounts, credit cards, internet banking, healthcare, legal services, insurance, etc.).
- They are not focussed predominantly on the residential housing market on the asset side of their balance sheets; they provide commercial credit extension as well.
- They are not all regionally focussed; many are represented country-wide.

We present the balance sheet of a New Zealand co-operative bank in Balance Sheet 2.25. It will be seen that the bank does not have shares in issue (retained earnings only), and its main activity is to take deposits and to make loans to customers.[26]

BALANCE SHEET 2.25: THE CO-OPERATIVE BANK (NZD MILLIONS)[26]		
Net assets		
Retained earnings		134
Liabilities		
Deposits	1 301	
Secured borrowings	61	
Other liabilities	24	
Total liabilities		1 386
Total net assets + liabilities		1 520
Assets		
Cash and cash equivalents	4	
Financial securities	221	
Loans and advances	1 283	
Other assets	12	
Total assets		1 520

As regards ownership by and service to customers, according to the (New Zealand) The Co-operative Bank, "The Co-operative Bank is the only bank in New Zealand to share its profits with its customers. We're truly different from other banks – because we're owned by our customers and we were built on the idea of giving back. In fact, we've been giving back to New Zealanders since 1928. Because we're a co-operative our main purpose is to create prosperity for our customers, not to create profit for anyone else."

In a similar vein, the largest co-operative bank in the world[27] states: "A co-operative is a group of people acting together to meet the common needs and aspirations of its members, sharing ownership and making decisions democratically. Co-operatives are not about making big profits for shareholders, but creating value for customers – this is what gives co-operatives a unique character, and influences our values and principles." Generally, thus, co-operative banks exist "…to promote and advance the social and economic welfare of all…[citizens]…by enhancing access to banking services under sustainable conditions."[28]

As regards the regulatory environment: In many cases a specific statute applies to these banks, and the statute exists, inter alia, to "…to establish an appropriate regulatory framework and regulatory institutions for co-operative banks that protect members of co-operative banks."[29] The regulator and supervisor in most cases is the central bank. The Act referred to above prescribes the regulatory requirements of co-operative banks, and includes:

- Minimum capital.
- Minimum asset quality.
- Minimum liquidity.
- Minimum surplus reserves.
- Maximum extent of large exposures.

Not all countries have the same regulatory environment in respect of co-operative banks. However, generally, they are subject to robust regulation. In India, for example, they are regulated in terms of state Co-operative Society Acts, the Banking Regulation Act, and the Reserve Bank of India Act.

Not all banks with "co-operative" in their names are co-operative banks. For example, Co-operative Bank of Kenya Limited has capital in the form of share issues, is listed on the share exchange, and is therefore owned by multiple non-client shareholders. It is a commercial bank. There are many such examples.

2.7 Specialised and regional banks: savings banks

Savings banks have a retail banking focus and are usually represented in cities as well as small rural towns. A good example is the ubiquitous Post Office Savings Bank (often called Postbank), found in most countries, which is a division of the Post Office. It offers savings accounts for small savers and loans for small borrowers (micro-credit) and is decentralised: It operates from both cities and small towns.

There are many variations on the theme. Many are not state-owned and some have extended their services to the corporate sector, and offer many of the services associated with the commercial banks: Current accounts, fixed deposits, overdrafts, mortgage loans, asset finance, credit cards, ATMs, internet banking, etc. However, they remain focussed on the retail sector and, in the case of corporate sector loans, on the SME sector.

As regards regulation, savings banks are regulated robustly according to state or national statute. In the US, for example, they are regulated as S&Ls. In other countries they are regulated and supervised by the central bank or Treasury in terms of:

- Minimum capital.
- Minimum asset quality.
- Minimum liquidity.
- Minimum surplus reserves.
- Maximum extent of large exposures.

2.8 Specialised and regional banks: regional rural banks

Many countries have regional rural banks (RRBs), but perhaps the best known are the Indian RRBs. According to the Regional Rural Banks Act of 1976, the Act provides: …for the incorporation, regulation and winding up of Regional Rural Banks with a view to developing the rural economy by providing, for the purpose of development of agriculture, trade, commerce, industry and other productive activities in the rural areas, credit and other facilities, particularly to the small and marginal farmers, agricultural labourers, artisans and small entrepreneurs, and for matters connected therewith and incidental thereto."

The RRBs are owned by central government, the relevant state and a "sponsor bank", and regulated in terms of the Act referred to and regulations issued in terms of the Act. They are supervised by central government and the central bank.

2.9 Specialised and regional banks: Islamic banks

Islamic banks are commercial banks, but with a difference: They operate according to the Islamic *Shariah* principle of not paying or charging interest, known as *La Riba* (no usury). They use deposits and own capital to make "investments" in property and business undertakings (exclusive of sinful businesses – alcohol-related, pork, gambling, gossip media, etc.) and share in the rent / profits according to parties' "equity" share. According to the Institute of Islamic Banking and Insurance[30]:

> "While Islam employs various practices that do not involve charging or paying interest, the Islamic financial system promotes the concept of participation in a transaction backed by real assets, utilising the funds at risk on a profit-and- loss-sharing basis. Such participatory modes used by Islamic banks are known as Musharakah and Mudarabah. This by no means implies that investments with financial institutions are necessarily speculative. This can be excluded by careful investment policy, diversification of risk and prudent management by Islamic financial institutions. The concept of profit-and-loss sharing in an enterprise, as a basis of financial transactions is a progressive one as it distinguishes good performance from the bad and the mediocre. This concept therefore encourages better resource management."

Islamic banks are licensed under the banking statute, which, in one case[31], places the "Powers of Supervision and Control" under the jurisdiction of the central bank.

2.10 Other banking institutions: discount houses

2.10.1 Introduction

A reminder of where we are in this text:

- Central bank.
- Commercial banks.
- Investment / merchant) banks.
- Specialised and regional banks:
  - Mutual banking intermediaries:
    - Mutual banks.
    - Building societies.
    - Savings and loan associations.
    - Co-operative banks.
  - Savings banks.
  - Regional rural banks.
  - Islamic banks.
- **Other banking institutions:**
  - **Discount houses.**

The discount houses are termed "institutions" because they are not full banks, and have limited and specialised functions. Discount houses played a major role in the development of the financial markets where they existed, and can therefore be regarded as a type of private sector "development" institution. These unique institutions are discussed under the following sections:

- Historical backdrop.
- Essence of a discount house.
- Statutory environment.

2.10.2 Historical backdrop

Discount houses emerged in the United Kingdom from the bill brokers in the nineteenth century. The bill brokers were in the business of broking bills of exchange (i.e. the trade bill from which the bank acceptance later evolved), which was the primary instrument utilised in merchandise trade at that time. Bills of exchange are short-term, self-liquidating, instruments that traded easily in London because of this attribute and because they were drawn by merchants of good standing.

It developed over time that bill brokers became the main source of this instrument. However, they were not always in a position to supply investors with bills as demand arose. This led to the brokers borrowing funds on a short-term basis from the banks in order to finance a portfolio of bills. These bills were pledged with the banks as collateral for the funds borrowed. The banks were happy to provide loans to the brokers because the drawers of the bills were of good standing. This enabled the brokers (now called discount houses) to supply bills when demand arose and to *make a market* (called jobbing or dealing then and now called market making) in these instruments, i.e. to quote firm buying and selling prices on them.

Bankers' acceptances evolved from the discount houses and banks endorsing the bills of exchange, so making them liable in the case of default. The Treasury bill was the second financial instrument. It first saw the light in England in March 1877. The discount houses were at that time well placed to hold and job in this instrument. (Treasury bills made their appearance in South Africa in the Colony of the Cape of Good Hope in the financial year July 1881/June 1882, and in the US in 1929.) The third financial instrument was the negotiable certificate of deposit (NCD); it first appeared in the US in 1961, in South Africa in 1964 and the UK in 1968.

The prime function of the discount houses was to job (market making) in this paper. South Africa was the second country to introduce discount houses (in 1957; it had 4), and Rhodesia, now Zimbabwe, was the third (1959). Other African countries also established discount houses, and this took place in the period 1990-2000. The countries outside South Africa and Zimbabwe that had discount houses are Malawi, Ghana, Nigeria, Zambia, Rwanda, and Singapore (a discount-type institution). Few exist today, as they have largely fulfilled their function: To assist in the development of financial markets, something that banks are reluctant to do because sophisticated markets do not accord well with profit maximisation. This is why certain countries encouraged the establishment of discount houses.

It is ironic that the success of discount houses brings about their demise. In most countries where this came about the houses transmuted into banks (after encroaching for many years on the banks' territory in order to survive – much to the annoyance of the established banks).

2.10.3 Essence of a discount house

Discount houses typically are encouraged to enter fledgling financial systems where the banks are enjoying wide margins. This situation is usually of concern to governments and to central banks for a number of reasons:

- Limited competitive banking environment.
- There is no (or a limited) secondary market in securities.
- Limited participation by the non-bank private sector in the securities markets. Often this is a result of the banks being disinclined to "educate" the non-bank private sector because their involvement amounts to bank disintermediation.
- These shortcomings inhibit the implementation of monetary policy – bank / discount / repo rate cannot be effectively applied and open market operations are difficult to implement.
- Funding by government is not easy and this is reflected in rates that are higher than otherwise would be the case.
- Capital for the productive sector is limited and expensive.
- Foreign investment is not forthcoming.

As noted, discount houses over time bring about an environment in which the above deficiencies are substantially diminished. Margins were substantially reduced and money (and bond) markets developed. As regards monetary policy implementation, some central banks went as far granting the discount houses the sole right to central bank accommodation. The banks, which were reluctant to appear at the discount window "cap-in-hand", pleading for accommodation, initially welcomed this development, because it created a call money market and encouraged the development of the interbank market.

The banks were happy to lend money to the discount houses because this money was immediately available, i.e. call money, and the securities held by the houses were pledged as collateral for the money. Thus, if the system was short of funds (which of course was only known at the time of the final interbank clearing), the banks simply withdrew the required amount of funds from the discount houses, and the discount houses received the required amount of accommodation from the central bank.

In the case of a shortage, and the houses needing accommodation from the central bank, they called their securities pledged to the banks that withdrew call money from them, and discounted them at the discount window or pledged them as collateral for overnight loans. The word *or* is used here because the method of accommodating the houses varied from time to time between discounting (when the securities in question leave the balance sheet) and overnight lending against collateral security (in which case the houses incur a liability).

The central bank actively supported the discount houses for many years, and used them as a source of information on the financial markets at regular monthly meetings. They also required of the houses to submit their statements of assets and liabilities on a daily basis.

However, over time, as the money market developed, the banks became increasingly aggressive, and insisted on access to the discount window. They also became increasingly reluctant to place call money with the discount houses, and lobbied (with Treasury and the central bank) to curb their activities, which came about over time.

With the above as background, we present the essence of a discount house:

- A discount house is registered as a *banking institution* (banks and discount houses together are regarded as *banking institutions*).
- The Registrar of Banks and the central bank, which requires of them to submit a statement of assets and liabilities on a daily basis, regulate the discount houses under the banking legislation.
- Their liabilities are limited to call money and the sources differ from country to country. In some countries there are no restrictions and in some the sources are restricted to banks and certain government departments.
- The assets of the houses are pledged as collateral for the call money received.

- The assets of the discount houses are categorised in terms of term to maturity and limits are placed on these categories and sub-categories. For example, there would be no limit on liquid assets, and a 10% limit on securities of longer than 3 years. Within the 90% category there may also be a limit on the holding of commercial paper such as bankers' acceptances (commercial paper).
- The discount houses earn a margin between the rate paid for call money from banks and the rates earned on securities held in portfolio.
- The discount houses actively trade their portfolios and act as market makers in these securities, i.e. quote firm buying rates for securities offered and securities in portfolio which are in demand. In this way they make trading profits.
- The discount houses are instrumental in assisting the creation of instruments other than treasury bills [examples are bankers' acceptances, commercial paper (companies and public enterprises), repurchase agreements (repos), and promissory notes].
- The discount houses actively engage the non-bank private sector in securities' holding and trading. This is an essential element in widening and deepening the financial markets.
- In a number of countries the money placed by banks with discount houses ranks as statutory cash reserves.
- In all countries the call money deposits of banks with discount houses ranks as a liquid asset (where a liquid asset requirement exists).

2.10.4 Statutory environment

Discount houses are usually regulated and supervised in terms of the relevant countries' banking statutes. The following may be noted in this regard:

- The liabilities of a discount house usually consist of secured deposits comprising call money and a limited amount of unsecured borrowings (usually not more than 10%). The other sources of funds are capital and reserves.
- A discount house is usually allowed to accept placements only from banks and, in its fledgling years, from government. It may, however, do repurchase agreements with the non-bank sector.
- To avoid over-exposure, a discount house is required to maintain a reasonable level of borrowings in relation to its capital and reserves. For this purpose, the regulatory authorities set the borrowing ratio, defined as call money plus borrowings (from the central bank) over capital and reserves. In the case of South Africa the ratio was set at 50: (call money + borrowings) / (capital and reserves) < or = to 50.
- The short-term nature of the liabilities of the discount house requires that its assets be of a liquid nature. The asset composition of a discount house differs from country to country and is usually around 80% short term paper (up to 180 days or one year in some cases) and 20% long term paper such as bonds and other non-liquid assets. This requirement essentially is a liquid asset requirement.
- Discount houses do not have a cash reserve requirement, the motivation being that *they do not create credit*. They merely hold and trade in credit instruments already issued.[32]

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3 Non-deposit intermediaries: investment vehicles

3.1 Study outcomes

After studying this material, the student should be able to:

- List and explain the roles of the contractual intermediaries.
- List and describe the roles of the collective investment schemes.
- List and elucidate the roles of the alternative investment intermediaries.

3.2 Introduction

Reminders of the investment vehicles' categorisation and position in the financial system are offered in Figures 3.1 and 3.2. They are fully-fledged financial intermediaries but are differentiated from the *deposit-taking* banking sector intermediaries.

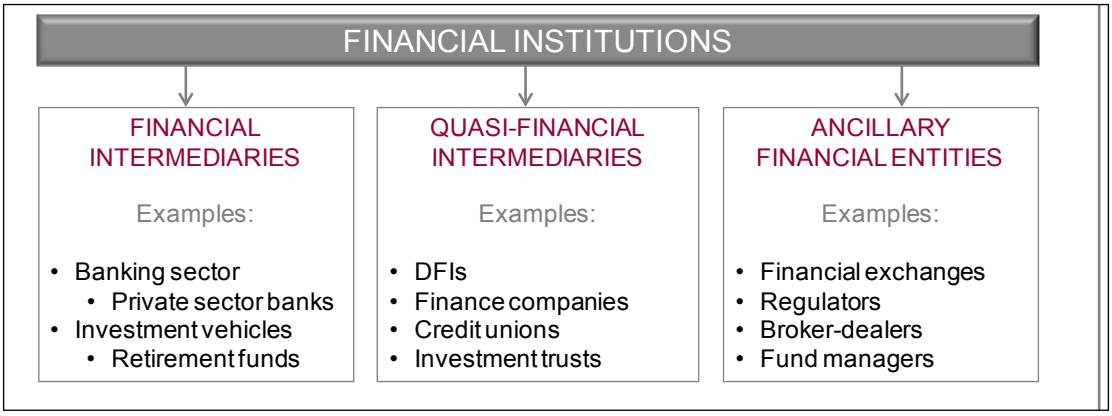

Figure 3.1: Categories of financial institutions

The investment vehicles are:

- Contractual intermediaries:
  - Long-term insurers.
  - Retirement funds.
- Collective Investment schemes:
  - Securities unit trusts (SUTs) (aka mutual funds).
  - Exchange traded funds (ETFs).
- Alternative investments:
  - Hedge funds.
  - Private equity funds.

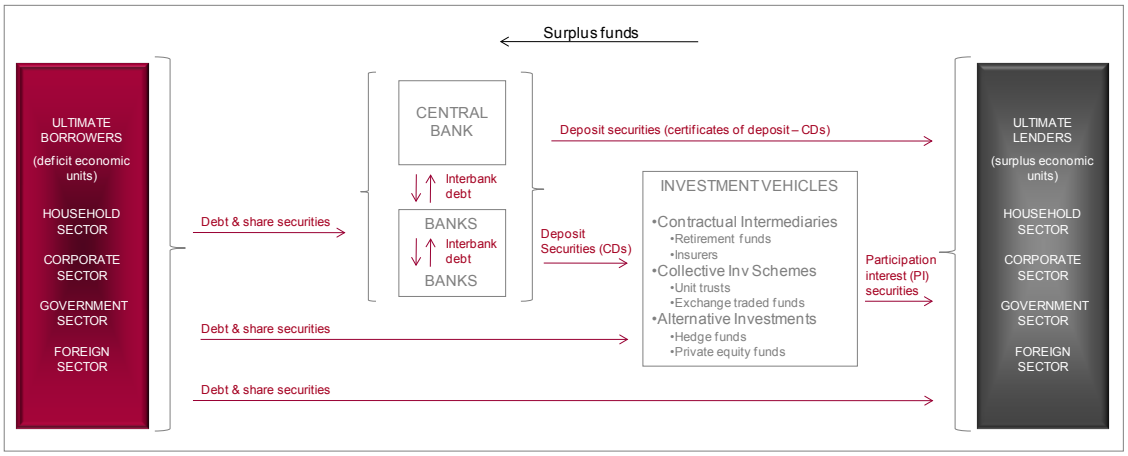

Figure 3.2: Financial system

Investment vehicles invest in the securities of the ultimate borrowers and other intermediaries (predominantly bank deposits) and some invest in the other asset classes. A list of all asset classes:

- Financial assets:
  - Money market (short-term debt and deposit securities).
  - Bond market (marketable arm of long-term debt market: bonds).
  - Equity market.
- Real assets:
  - Fixed property.
  - Commodities (gold coins, cattle, grain, etc.).
  - Other (art, rare stamps and books, antique furniture, etc.).[33]

The investment vehicles issue what may be called participation interests (PIs). It is a generic term for the liability contracts issued, and covers units (in a unit trust), membership interests (in a retirement fund), and so on.

3.3 Contractual intermediaries: long-term insurers

3.3.1 Introduction

Contractual denotes a relationship between investor and investment vehicle involving the ongoing and regular payment of investment amounts. This is so in most cases, such as monthly payments to retirement funds, premium payments to insurers, and so on, but it is not exclusively so. Lump sum payments are also made in some cases (e.g. annuities).

There are two types of insurance companies, long-term insurers and short-term insurers. The reinsurers fall into either or both camps. The *short-term insurers* are known also as *non-life insurers* and *property-casualty insurers* in some countries. Their function is to *provide protection* against almost any event that may result in *injury or loss or damage to property* (such as fire, theft, destructive weather, negligence and accidents), but the events insured against are *not certain* and, consequently, the premium provided by the insured party does not represent an investment. For this reason it is argued that short-term insurers are not financial intermediaries, and certainly not investment vehicles.

Long-term insurers are also called *assurers, long-term assurers*, *life assurers, life insurance companies* and *life companies*. We discuss them under the following sections:

- Essence of life business.
- Balance sheet.
- Categories of policies.
- Regulation.

3.3.2 Essence of life business

Life insurance companies may be described as companies that undertake contracts with clients that enable them to hedge against the loss of earnings that follow events such as death, old age, disability, illness. Thus, life insurance is *protection against adverse events that are income-related*. It will be evident that untimely death, illness and disability are not certain, but that death and old age (retirement) are inevitable.

These companies receive regular payments (premiums) in exchange for the risk protection they provide individuals, and make their profit from earnings from investments and by setting premiums at a level that more than covers benefit claims against them and operating expenses. *Estimated benefit claims* is at the heart of the business of insurance, and this is based on the *law of large numbers* (aka the *insurance principle*). This "law" holds that, while a *risk* is not predictable in the case of a single person or a small group of people, it is *predictable for a large group of people with similar characteristics*. Thus, it is not possible to predict when a particular individual will depart for Heaven, but it is possible to actuarially estimate the number of people that will depart in a year from the total number of policyholders. Seen from a different angle, life cover essentially *pools* the risks of the individual policyholders and *"diversifies away"* the individual specific (aka unsystematic) risk. Life companies thus transfer uncertainties (risk) from the individual to the group.

Prior to outlining the types of life insurance policies that life companies offer, it is important to mention that there is some overlapping of business between short-term and long-term insurers and between insurers and banks. For example, some life companies may offer accident (i.e. short term) insurance, while short term insurers may offer life insurance-related policies.

3.3.3 Balance sheet

BALANCE SHEET 3.1: LIFE INSURERS (% DISTRIBUTION)		
Capital, reserves & unappropriated profits		
Share capital	0.3	
Insurance fund surplus	2.6	
Other reserves	10.8	
Unappropriated profits	1.5	
Total capital, reserves & unappropriated profits		15.2
Liabilities		
Liabilities under unmatured policies: Pension business	43.5	
Liabilities under unmatured policies: Other business	35.4	
Claims not yet paid out	1.0	
Creditors	0.9	
Other liabilities	4.0	
Total liabilities		84.8
Total capital, reserves & unappropriated profits + liabilities		100.0
Assets		
Cash and deposits at banks	1.0	
Fixed interest securities: (govt, local govt, corporate, etc)	16.3	
Ordinary shares	54.2	
Loans	9.3	
Fixed property	2.7	
Other assets	16.5	
Total assets		100.0

The balance sheet of the average life company is presented in Balance Sheet 3.1[34]. The following may be gauged from it:

- Long-term insurers intermediate between the:
  - Ultimate lenders: Household sector (there is a small corporate sector involvement) in the form of policies, on the one hand, and the
  - Ultimate borrowers: Government sector (government fixed interest securities), corporate sector (shares and corporate bonds), and household (mortgage bonds, loans against policies, etc., but the amounts are small), on the other hand.
- The vast majority of liabilities (93%) (= 79% of liabilities + capital, reserves & unappropriated profits) is forthcoming from unmatured polices. This is a clear reflection of the main function of long-term insurers, which is covered in the following section.
- The vast majority of investments are in the financial asset classes (72%):
  - Financial assets
    - Money market 1.0%
    - Bond market 16.3%
    - Equity market 54.2%
  - Real assets
    - Fixed property 2.7%
    - Commodities (gold coins, etc.) 1.0% (< than)
    - Other (art, rare stamps, furniture) 0.0%
- There is a small element of "banking", as seen under "loans" (9%).
- The asset portfolio is a reflection of the long-term nature of the liabilities.

3.3.4 Categories of policies

3.3.4.1 Introduction

Long-term insurers are in the business of issuing life insurance (aka assurance) policies. Policies represent obligations for payments to the policy-holders (presently and in the future), and these payments emanate from the cash flows generated from the assets held to "cover" them.

Most countries have an insurance business sector and an insurance statute covering the sector. Each insurance statute defines the business of insurance, and none are the same in this respect. One country's[35] *Long-term Insurance Act* defines the *classes of life business,* and the insurers are obliged to register under one or more of these classes:

- Assistance.
- Disability.
- Health.
- Sinking fund.
- Fund
- Life.

The products of these classes of long-term insurance business are *policies*, for example, assistance policies, life policies, and so on. We discuss each below; note that the latter two represent the vast majority of the business of long-term insurers.

3.3.4.2 Assistance policies

An assistance policy is a type of life policy which, in exchange for a premium, pays out an amount at a specific future time and / or an annuity in the future. The maximum of the policy benefit plus the premium for the annuity is prescribed by the statute. Examples of assistance policies are:

- *Education Plan*[36] and *EduFocus Plan*[37] taken out by parents for the future university education of a newborn child;
- the US *Study Abroad Insurance Plan.*

3.3.4.3 Disability policies

A disability policy is a "…contract in terms of which a person, in return for a premium, undertakes to provide policy benefits upon a disability event." A disability event "…means the event of the functional ability of the mind or body of a person or an unborn becoming impaired."[38]

3.3.4.4 Health policies

A health policy is a "…contract in terms of which a person, in return for a premium, undertakes to provide policy benefits upon a health event…" A health event "…means an event relating to the health of the mind or body of a person or an unborn…"[39] Health policies may not be held by medical schemes.

3.3.4.5 Sinking fund policies

A sinking fund policy "…means a contract, other than a life policy, in terms of which a person, in return for a premium, undertakes to provide one or more sums of money, on a fixed or determinable future date, as policy benefits…"[40]

3.3.4.6 Fund policies

A fund policy is a contract between the insurer and a fund (defined as a pension fund, a medical scheme, a permanent fund, etc.) which, in return for a premium, provides "…policy benefits for the purpose of funding in whole or in part the liability of a fund to provide benefits to its members in terms of its rules…"[41]

This policy type is useful for smaller pension funds (aka defined benefit funds), and other funds (as mentioned), the trustees of which are not able to manage the funds. The cash flows of the funds are pooled by the insurer, and units (or participation interests) are issued according to contribution to the pool.

As may be seen in Balance Sheet 3.1, fund policies are a major part of the business of long-term insurers.

3.3.4.7 Life policies

Balance Sheet 3.1 shows that life policies represent the other major part of the business of long-term insurers. A life policy is a "…contract in terms of which a person, in return for a premium, undertakes to:

a) provide policy benefits upon…a life event; or
b) pay an annuity for a period…"[42]

A life event is defined as "…the event of the life of a person or an unborn:

a) having begun;
b) continuing;
c) having continued for a period; or
d) having ended."[43]

Note that the first quote indicates that there are two categories of life policies:

- Policies which pay a lump sum after a specified term (i.e. on maturity of the policy) or upon death. These are called *endowment policies* in most countries.
- *Annuity policies*.

We illustrate our progress thus far in Figure 3.3.

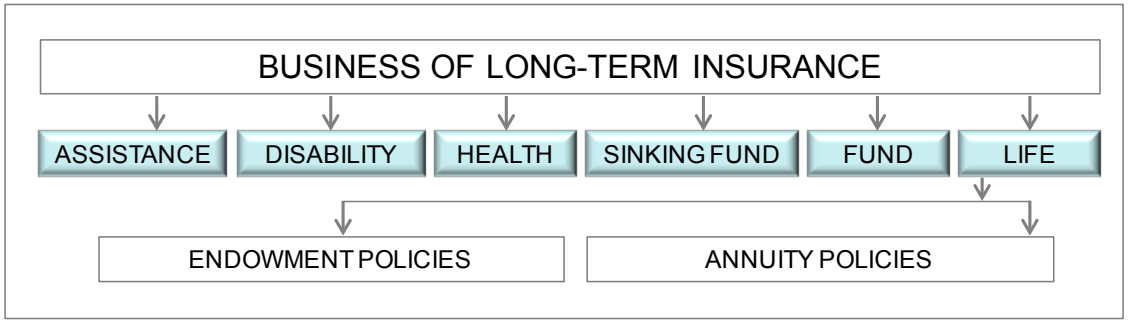

Figure 3.3: Main categories of life company business

There are three types of endowment policies:

- Pure risk policies (aka *term life* and *risk life assurance* policies).
- Pure endowment policies (aka *ordinary life*, *whole life*, *cash value life*, and *permanent life* policies).
- Combination policies (of the above) (aka as *universal life* policies).

Pure risk policies provide protection on the life of the insured for a specified period, and there is no cash value accretion. In the event of death a specified amount is paid to the beneficiary (usually the spouse). There are a number of types of pure risk policies:

- Renewable term.
- Convertible term.
- Level or decreasing term.
- Adjustable premium.[44]

Pure endowment policies cover the entire life of the insured as well as generate a savings element. The savings element is paid out if the policy is terminated. There are two subcategories of *pure endowment* policies:

- Guaranteed return policies (aka *traditional whole life* policies).
- Profit-participation policies.

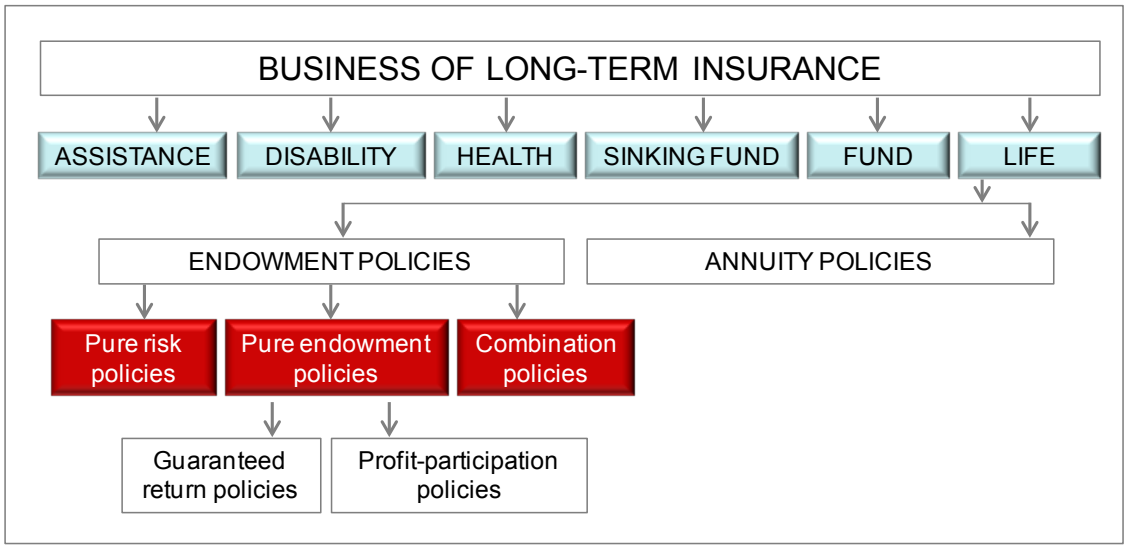

Figure 3.4: Main categories of life company business, and endowment policies

The endowment policy types are shown in Figure 3.4. There are a number of variations on basic insurance policies:

- Credit life insurance.
- Modified life plan.
- The family policy.
- Joint life and survivor insurance.
- Joint life insurance.
- Juvenile insurance.
- Senior life plans.
- Pre-need insurance.[45]

Having dealt briefly with endowment policies, we now move on to the second leg of life policies: *Life annuity policies*. There are three main types:

- Retirement annuity policies.
- Living annuity policies.
- Conventional annuity policies.

The issuer of an annuity policy (i.e. a life company) undertakes to make, in exchange for the payment of a series of regular payments or an up-front lump sum, a series of future payments to the policyholder after a specified date.

Retirement annuity policies are polices which, in exchange for a regular fixed or variable premium, pay out a sum of money on a date commensurate (in the opinion of the Registrar) with retirement age (60 or 60+) equal to a prescribed percentage of the value (for example, 20%), with the balance being compulsorily placed in an annuity (living or conventional). All living annuities are *compulsory annuities*, while conventional annuities are split into *compulsory annuities* and *voluntary annuities*, as indicated in Figure 3.5. The retirement annuity investment period is long and the policy value is investment-linked.

Most governments encourage investment in retirement annuities by granting a tax deferral. This means that the premiums (there is a prescribed maximum) are deducted from income before income tax is levied, but income tax is payable on the annuity payments after retirement.

Living annuity policies are usually funded by compulsory prescribed amounts from matured retirement funds (pension funds, preservation funds, retirement annuity policies; provident funds are different) (the non-cash withdrawal segment). A living annuity should be seen as investment "fund" or "account" with a life company from which a regular income is drawn. In most countries the income amount range (for example, 2.5%–17.5% of the value) is prescribed by the Registrar – such that the annuitee does not deplete all his / her funds during retirement.

The funds are invested in "the market" by the life company and the annuitee enjoys the benefits of successful investment, but carries the risk that this may not be the case.[46] The residual value of the annuity after death becomes part of the estate of the annuitee, which contrasts it from conventional annuities. Some countries do not impose the compulsory-purchase annuity.

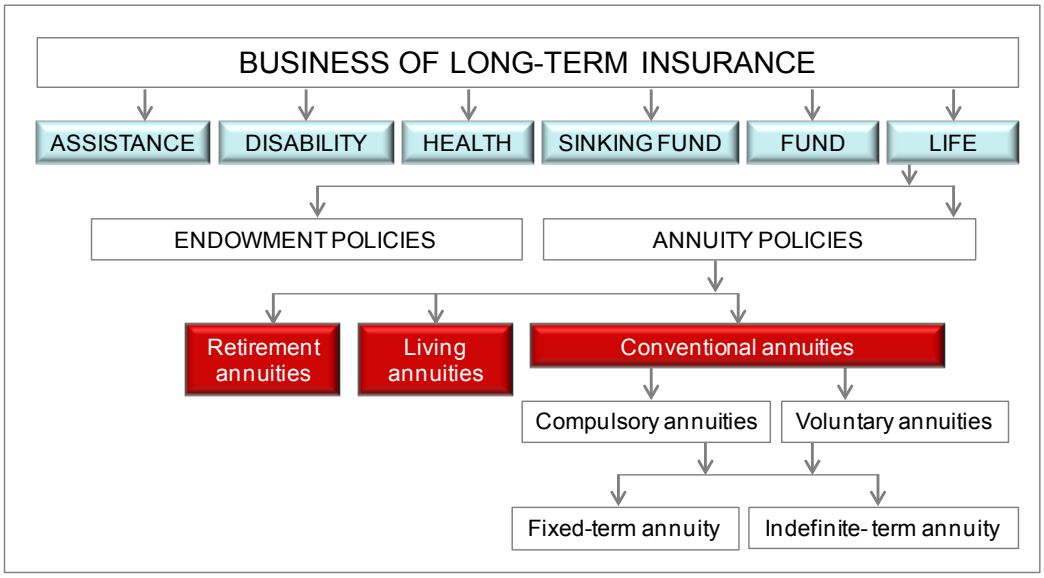

Figure 3.5: Main categories of life company business, and annuity policies

As indicated earlier, *conventional annuity policies* are of two types (see Figure 3.5):

- Compulsory annuities.
- Voluntary annuities.

These annuities come in various forms, but usually the following broad types are issued:

- *Fixed-term annuities*: Annuities for a fixed period (for example 10 years).
- *Indefinite-term annuities* (aka annuities for life).

These two annuity types in turn split into two categories[47]:

- *Guaranteed annuities* (various types):
  - Level income annuities.
  - Fixed escalation annuities.
  - Inflation-linked annuities.
  - Enhanced annuities.
  - Joint and survivorship annuities (which is an add-on to one of the above).
- *With-profit annuities*: Payments are based on investment performance of the life company (similar to a living annuity).

3.3.4 Regulation

The regulation and supervision of life companies is complex and we do not have the space to detail the requirements here. As said above, each country has a statute (for example a Long-term Insurance Act) governing the activities of life companies. The regulatory requirements usually cover:

- Licensing.
- Capital requirement.
- Reporting and disclosure.
- Risk management standards.
- Solvency standards
- Liability valuation.
- Asset valuation.
- Liquidity.
- Asset diversification: Maximum percentages in asset classes.
- Governance (board, board committees, auditors, actuarial services, etc.).

3.4 Contractual intermediaries: retirement funds

3.4.1 Introduction

We cover retirement funds under the following sections:

- What is a retirement fund?
- Balance sheet.
- Regulation.

3.4.2 What is a retirement fund?

A retirement fund, according to one country's Pension Fund Act is "…any association of persons established with the object of providing annuities or lump payments for members or former members of such association upon their reaching retirement dates, or for the dependants of such members or former members upon the death of such members."[48] Thus, a retirement fund is:

- a pool of funds contributed, on a contractual basis, by members of the fund and / or the employers of the members;
- invested in the assets classes (subject to the statute governing it);
- for the purpose of:
  - paying a pension (annuity) to the member for life, and to his / her dependents after his / her death; or
  - payment of a lump sum to the member (according to his / her participation share) upon retirement.

In most countries the payments to retirement funds (which are subject to a ceiling) are deductible from income before tax is levied, but the annuity flow after retirement is taxed.

There are three types of retirement funds:

- Defined benefit funds, aka pension funds [(1) above; also see below].
- Defined contribution funds, aka provident funds [(2) above; also see below].
- Preservation funds (see below).

A *defined benefit fund* (DBF) is one where the rules of the fund provide for a specified benefit at retirement, i.e. the benefit is certain. The benefit is based on a formula that takes into account factors such as salary during employment and years of service.

A *defined contribution fund* (DCF), on the other hand, is one where the rules of the fund do not commit the fund to a particular benefit. During the employee's period of service the company contributes a specific amount to the fund. The employee may also contribute a specific amount under the rules. Thus, the benefit (i.e. value of fund) upon retirement is not known, and it is a function of the contributions made and the performance of the securities invested in during the period of employment. All gains and losses are for the account of the employee, rendering the defined contribution fund *more risky* than the defined benefit fund.

A *preservation fund* (PF), aka a *parked fund*, is a fund that accepts lump sums paid out by DBFs and DCFs to members who leave employment prior to retirement age. It is a legal requirement that such funds are placed in a PF, and the funds remain there until retirement age is reached, at which time an annuity is bought.

It is important to distinguish between *insured* and *non-insured* retirement funds. The *non-insured retirement funds* are in the majority by a large margin. They are managed either in-house or by independent portfolio managers.

The *insured retirement funds*, on the other hand, are the smaller funds, and long-term insurance companies administer them. Their assets are part of a pool of assets, and the insurer guarantees the benefits. The formal name for the insured funds is *funds administered in terms of policies of insurance*.

3.4.3 Balance sheet

It may be useful to present a generic balance sheet of retirement funds according to distribution of assets and liabilities (see Balance Sheet 3.2[49]).

BALANCE SHEET 3.2: RETIREMENT FUNDS (% DISTRIBUTION)		
Liabilities		
Accumulated funds	73.2	
Reserves, provisions & other liabilities	26.8	
Total liabilities		100.0
Assets		
Cash and deposits at banks	7.7	
Fixed interest securities (govt, local govt, corporate, etc)	29.4	
Ordinary shares	55.6	
Loans (mortgage bonds, loans to SOEs, etc)	0.5	
Fixed property	3.8	
Other assets	3.0	
Total assets		100.0

The following can be gauged from the balance sheet:

- Retirement funds intermediate principally between the:
  - Ultimate lenders: Household sector (accumulated funds and reserves, which ultimately belong to the members), on the one hand, and the
  - Ultimate borrowers: Government sector (government fixed interest securities), corporate sector (shares, corporate bonds, loans to SOE companies), and household (mortgage bonds, but the amounts are small), on the other hand.
- The vast majority of investments are in the financial asset classes (92.7%):
  - Financial assets
    - Money market 7.7%
    - Bond market 29.4%
    - Equity market 55.6%
  - Real assets
    - Fixed property 3.8%
    - Commodities (gold coins, etc.) <0.5%
    - Other (art, rare stamps, furniture) 0.0%
- The asset portfolio is a reflection of the long-term nature of the liabilities.

3.4.4 Regulation

Retirement funds are regulated under a specific statute, usually called a Pension Funds Act, or Retirement Funds Act, or National Retirement Benefits Scheme Act, etc. The statute usually states that it provides for: "…registration, incorporation, regulation and dissolution of pension funds and for matters incidental thereto."[50]

In most countries the following are usually covered by the statute or regulations under the statute (the emphasis is on risk management):

- Governance: Appointment of auditors, actuaries, trustees (who have a fiduciary responsibility to members), trustee committees (such as a risk management committee).
- Risk management standards.
- Solvency standards.
- Reporting and disclosure.
- Liability valuation.
- Asset valuation.
- Liquidity requirements.
- Asset diversification: Maximum percentages in asset classes.

As far as managing the investments are concerned, the trustees either do so in-house or contract a fund manager, or fund managers (called "split fund management").

3.5 Collective investment schemes: securities unit trusts

3.5.1 Introduction

We cover securities unit trusts under the following sections:

- What is a securities unit trust?
- Benefits for the investor.
- Structure of a securities unit trust.
- Types and classification of securities unit trusts.
- Regulation.
- Variations on the theme.

3.5.2 What is a securities unit trust?

A securities unit trust (SUT), aka *unit trust fund* and *mutual fund*, is a portfolio of securities (asset side of the balance sheet), funded by the creation and issue of units (called "PIs" earlier) to individuals and, to an extent, other institutional investors (liability side of the balance sheet). As the value of the securities changes, so does the value of the units. Put the other way, a SUT is a financial intermediary that pools the financial resources of investors and utilises these resources for the purchase of a portfolio of securities. The portfolio may be diversified (for example, *general equity*) or specialised (for example, *money market*).

A SUT is an *open-end fund,* meaning that it (1) continually offers new units to the public, and that (2) the management company is obliged to repurchase existing units – at the current net asset value (NAV) of the fund. Investors may purchase units as and when they desire or may contribute as a self-imposed contractual saving. Most individual investors opt for the regular monthly amount by debit order.

3.5.3 Benefits for the investor

The individual amounts taken in as liabilities are usually small, thus enabling investors to participate in the various financial markets at a price that is lower than had the investors entered the markets individually. The managers of the SUTs are thus able to secure *economies of scale* on behalf of investors and to offer them the opportunity to participate in a diverse portfolio, consequently enabling them to *diversify risk* more easily.

Few small investors have the time, inclination or expertise to become authorities on the financial markets. By investing in SUTs they are essentially securing the services of professional portfolio managers at a relatively small cost. The costs saved or reduced include: A research team, brokerage (which is higher per unit for small deals), collection of dividends and/or interest, custody and insurance of scrip (in the case of non-dematerialised markets), etc.

3.5.4 Structure of a securities unit trust

The structure of a "general equity" SUT is illustrated as in Figure 3.6. A SUT is comprised of three operational entities:

- Fund.
- Unit trust management company.
- Trustees.

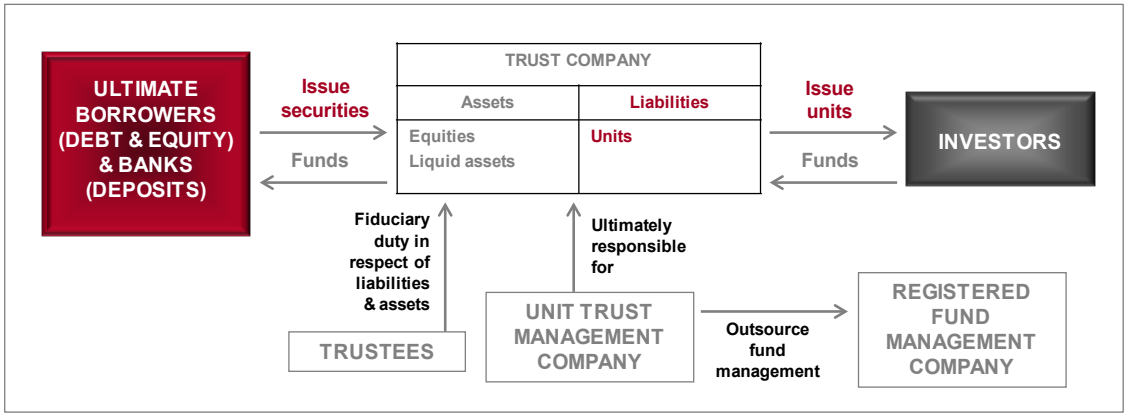

Figure 3.6: Structure of a SUT

In most countries, the *fund* is constituted as a trust, underpinned by a trust deed. The fund has a *pool of assets* and a *number of units*, which are *identical* in terms of having the same charge over the assets of the fund. As a trust, the *fund cannot become insolvent*. It may only be liquidated in order to repay the unit holders. As said, the fund is *open-ended*, i.e. the liabilities and assets of the trust can expand or contract, depending on demand for new units or the sale of existing units back to the trust.

The *unit trust management company* is a limited liability company with a minimum share capital and functions prescribed by statute. It has four main functions:

- Management of the liabilities and assets of the trust.
- Establishment of the buying and selling prices of the units daily, based on the net asset value (NAV) of the asset portfolio; NAV = market value of fund / number of units in issue.
- Creation of new units when demand arises.
- Cancellation of units when investors sell units back to the company.

The management company levies: (1) an initial fee (a maximum prescribed by law); (2) a compulsory charge to cover brokerage and other costs; (3) a fund management fee of between 1% and 2%, which is deducted before any distribution is made. Unit trust charges are not regulated and would therefore differ between funds.

Most unit trust management companies outsource the management of funds to registered portfolio management companies. These companies are registered and regulated in terms of a statute.

The *trustees* of the trust are appointed in terms of the trust deed, and their function is a *fiduciary* one, i.e. they are appointed to oversee the proper management of the assets and liabilities of the company on behalf of the unit holders.

As regards income distributions, in most countries investors have the option to receive distributions per stipulated period (usually half-yearly or quarterly) or to have them reinvested in new units.

3.5.5 Types and classification of securities unit trusts

There are many varieties of securities unit trusts in developed financial markets, presenting the investor with a vast array of asset types and risk profiles. Prior to presenting the classification of trusts, and in order to avoid confusion, it is necessary to cover the so-called *packaged products* of the industry. Many unit trust investors have a need to diversify their risk in terms of unit trusts, other investments and portfolio managers. The packaged products are:

- *Fund of funds* (FoFs): A *unit trust* that invests in a range of other unit trusts. There are two types: (1) *internal FoFs* (the unit trust invests in other unit trusts managed by its own parent unit trust management company), and (2) *external FoFs* (the unit trust invests in other unit trusts managed by other unit trust management companies).
- *Multi-manager funds:* A *unit trust* that aims to create diversity for investors by having the portfolio managed by the most proficient portfolio managers in specific specialist sectors within the asset classes equities and fixed-interest securities.
- *Linked investments:* A tailor-made investment for a client that is packaged by a *Linked Investment Service Provider* (LISP). As such, *it is not a unit trust*. Essentially, the LISP provides the administration facilities to pool various retail investments and allocate a share in the pool to the clients (similar to a nominee company). The investments are made up of various products including normal unit trusts, funds of funds unit trusts, multi-manager unit trusts and wrap funds.[51]
- *Wrap fund:* A portfolio of various instruments, such as money market instruments and various separate unit trusts. As such, *it is not a unit trust*. The composition of the portfolio is chosen to meet a specific risk profile, and the wrap portfolios usually offered by a manager reflect this: (1) high growth, (2) growth and, (3) balanced. This means that individuals have to make a choice. Investors in these funds own a portion of the portfolio, but do not own units.[52]

SUTs can be categorised in a number of ways. Most countries categorise the various funds according to sector. The first level of categorisation is, for example[53]:

- *Domestic funds:* >85% of assets invested in the local markets.
- *Worldwide funds:* A mix of local and foreign investments.
- *Foreign funds:* >85% of assets in offshore markets.

The first tier categories are sub-categorised into the second tier of classification, for example *equity funds*, *asset allocation funds*, *fixed interest funds*, and *index funds* (where applicable). These sub-categories, in turn, are home to a wide diversity of funds. Examples are presented below (where not obvious an explanation is offered):

- **Equity funds:**
  - General funds (typically invested in this sector to the extent of more than 75% and the funds aim to achieve good growth over the longer term by investing in a number of sectors).
  - Growth funds.
  - Specialist funds (invest predominantly in specific sectors, such as the consumer sector or the financial sector).
  - Value funds.
  - Large cap funds ("cap" = capitalisation, i.e. large capital base).

- Mining and resources sector funds.
- Gold sector funds.
- Industrial sector funds.
- Financial sector funds.
- Consumer sector funds.
- Other sector funds.

- **Asset allocation funds:**
  - Prudential funds (those that comply with the requirements of the retirement fund statute in terms of investment requirements; thus, the smaller retirement funds are permitted to hold the units of prudential funds).
  - Flexible funds (the funds that actively manage the allocation of funds between asset classes, in terms of changing economic conditions).

- **Fixed interest funds:**
  - Bond funds.
  - Income funds (mainly invested in the longer end of the money market).
  - Money market funds (invest only in the short end of the market).
  - Hybrid income funds (invest in both the bond and money markets).

- **Index funds** (unit trusts which track an index); examples:
  - Equity index (various).
  - Bond index (various).
  - Property index (various).

3.5.6 Regulation

A SUT is a collective investment scheme (CIS). All countries which have CISs have a statute governing them. One country's[54] Collective Investment Schemes Control Act was introduced in order: "To regulate and control the establishment and administration of collective investment schemes…and to provide for incidental matters." The canons of the CIS Act are:

- Appointment of the Registrar of Collective Investment Schemes (as the regulator of the industry).
- Appointment of a CIS Advisory Committee upon which members of the industry serve to advise on relevant matters. It provides evidence of the emphasis placed on self-regulation.
- Management companies, which must be companies registered under the Companies Act, manage unit trusts, and they must register with the Registrar. Each management company must hold a certain minimum of capital and reserves and it is required to hold a specified number of the units of a portfolio.

- The trust deed and the trustees are to be approved by the Registrar. The trustees hold the assets on behalf of the unit trust investors. They are required to maintain a minimum amount of capital and reserves.
- A manager is obliged to appoint an approved independent auditor.
- The assets of the unit trust are circumscribed (and depend on the classification of the trust), and they may not hold more than 5% of assets in any one asset, or more than 5% of any one company's share capital.
- Each unit trust is obliged to hold at least 5% of assets in liquid assets.
- The Registrar has powers of inspection and action after inspection.
- Management companies are obliged to report to the Registrar on a regular basis.

3.5.7 Variations on the theme

As outlined above, a SUT is an *open-end fund*. In many countries *closed-end funds* exist: An investment company which issues a predetermined number of shares, which are usually listed on the local exchange. An example is a property unit trust (PUT). Some countries have *unit investment trusts* (UITs); they are similar to SUTs but have a termination date.[55]

3.6 Collective investment schemes: exchange traded funds

3.6.1 Introduction

We cover exchange traded funds under the following sections:

- What is an exchange traded fund?
- Benefits for the small investor.
- Structure of an exchange traded fund.
- Regulation.
- Examples of exchange traded funds.
- Variations on the theme.

3.6.2 What is an exchange traded fund?

An exchange traded fund (ETF), aka *tracker fund*, is a "fund" set up by some financial market participant (for example a bank or the local financial exchange itself) to track a particular index (for example the all share index). It may be called a *passive investment instrument* (in that one earns a return that mirrors whatever index is chosen without having to trade any of the underlying securities). In essence ETFs have the following characteristics:

- They are open-ended funds similar to SUTs (i.e. there is no limit to the size of the fund).
- The liabilities of the fund are "securities" which are like units of a unit trust; but they are actually "participation interests" (PIs) in the fund.
- They track a specific index, i.e. the specific assets held (shares, commodities, bonds, etc.) and their proportions mirror the index.
- The securities are listed on an exchange and trade as shares do.
- The price of the securities hugs the value of the underlying index.
- Dividends or interest accruing on the investments are paid out to the investors, usually quarterly.

3.6.3 Benefits for the small investor

Investing in ETFs, aka *index investing*, has become a popular form of investing internationally for a number of reasons, including:

- Tracking an index by direct investment in its constituents is not feasible, particularly for the small investor – because all the constituents, and their proportions, need to be held (and the administration aspects need to be managed). An investment of LCC 1 000 per month will not purchase the constituents of the index.
- Thus, the smaller investor is able to get access to the exposure required (i.e. a chosen index, such as the all share index).

- Few fund managers are able to outperform the various segments of the equity market as represented by the equity indices[56].
- The cost of investing in an index fund is substantially lower than the alternative.
- Unlike SUTs (usually sold / issued once per day), ETFs can be traded intraday (this is an important consideration for speculators).
- The investor acquires a diversified portfolio, which reduces risk.

3.6.4 Structure of an exchange traded fund

The structure of an ETF differs from country to country. In some they are ordinary companies (for example Switzerland) while in others they are discretionary trusts (for example South Africa), subjected to the requirements of the statute relevant to ETFs (in many countries called Collective Investment Schemes Act – CIS Act).

Like SUTs, ETFs are "long-only" funds, meaning that they may only invest the funds of the investors and not engage in "shorting" the market (selling securities not owned, and borrowing them in order to deliver) and leverage (borrowing), and, in some countries, using derivative instruments.

The uncomplicated structure of the ETF may be illustrated as in Figure 3.7. It purchases debt, equity and / or deposit securities (or commodities) with the funds acquired from investors through the issue of PIs or shares. It is managed by an ETF management company (which may outsource management to a registered fund manager), and is overseen by a trustee or custodian approved by the regulator. The assets held (which in some countries may include derivatives) mirror the index tracked.

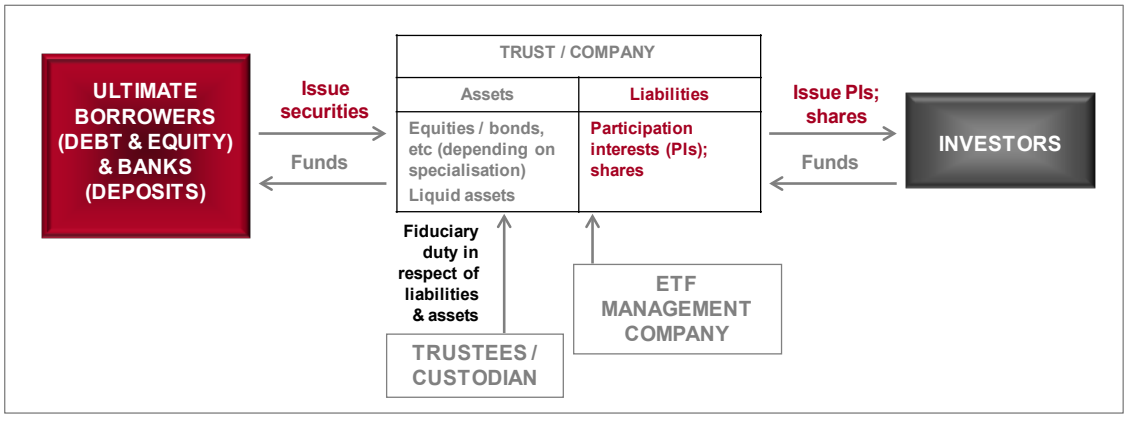

Figure 3.7: Structure of a (debt, equity or deposit) exchange traded fund

ETFs are subject to a "tracking error", i.e. a deviation from the index tracked. This is usually a result of variation of the investments from the proportions in the index.

3.6.5 Regulation

As noted above, the legal basis for the ETF business is the requirements of the statute relevant to ETFs: In many countries called Collective Investment Schemes Act (CIS Act). The Swiss CIS Act, for example, states that the "…Act aims to protect investors and to ensure transparency and the proper functioning of the market for collective investment schemes."

The Swiss CIS Act stipulates that ETFs are required to:

- Produce a prospectus for investors.
- Produce a semi-annual report.
- Provide investors with the right to terminate their investment at any time;
- Issue and redeem units in cash.
- Comply with the risk diversification provisions (i.e. limitations on exposure to one issuer of debt and equity).

Other stipulations in CIS Acts include:

- Appointment of auditors.
- Appointment of custodian or trustee/s.
- Capital requirements.
- Risk management requirements.
- Liquidity requirements.

3.6.6 Examples of exchange traded funds

There are numerous ETFs listed around the world. Table 3 presents a list of the ETF groups of some of the ETFs that are listed on US exchanges[57]:

TABLE 3.3: EXAMPLES OF ETFs (US)

ETF type	Full name of ETF	Index tracked
DIAMONDs	Diamonds Trust Series I	Dow Jones Industrial Average
FITRs	Fixed income exchange traded securities	Various treasuries (including 1, 2, 5 and 10-year)
HOLDRs	Holding company depository receipts (marketed by an investment bank)	Narrow industry groups (each initially owns 20 stocks)
iShares	iShares – "index shares"	Group of ETFs marketed by Barclays Global Investors
QUBEs	Nasdaq-100 tracking stock (QQQ)	Nasdaq-100 index
Spiders	Standard & Poors' Depository Receipts (SPDRs)	Track a variety of Standard & Poors' indexes
StreetTracks	StreetTracks – State Street Global Advisor ETFs	Various indexes, including Dow Jones style indexes and Wilshire indexes
VIPERs	Vanguard Index Participation Receipts	Several Vanguard index funds

3.6.7 Variations on the theme

As noted, ETFs are subject to a "tracking error". This is not the case with a close relative, the exchange traded note (ETN). An ETN is a debt security issued and underwritten by an investment bank. It is listed, has a maturity date, is unsecured, and delivers the principal plus the performance of the index tracked over the period (less an investment fee) at maturity. It therefore carries credit risk, which is the risk of the issuer failing.

3.7 Alternative investments: hedge funds

3.7.1 Introduction

We cover hedge funds under the following sections:

- What is a hedge fund?
- Structure of hedge funds.
- Types of hedge funds.
- Regulation.

3.7.2 What is a hedge fund?

A hedge fund (HF) is akin to a pooled fund such a SUT and an ETF in that it takes in funds from investors and invests the funds on behalf of them in financial and / or real assets. However, it is differentiated from them in that:

- A relatively large proportion of funds taken in are forthcoming from the management company and the fund managers.
- HFs are generally formed by or to accommodate fund managers who are exceptional in their fields.
- Because HFs are managed by highly skilled individuals the model of remuneration adopted is different (a high level of remuneration based on performance).
- The above three characteristics give investors a measure of comfort.
- Investors in HFs tend to be other specialists in the financial and real asset markets, as well as non-HF fund managers who place a portion of their clients' funds in HFs or funds of HFs (FoHFs). The latter is usually favoured in the case of clients' funds, because of the lessening of risk through diversification.
- Apart from being a "long" investment vehicle, HFs are able to:
    - Use leverage (borrow funds),
    - Go "short" of securities, and
    - Engage in derivative instrument (futures, options, swaps, etc.) transactions.
- Given these, HFs are able to employ a more varied investment strategy.
- The returns enjoyed by hedge funds generally show a *low correlation* with traditional pooled funds.
- Traditionally, HFs have not been constrained by statute to the same degree as other pooled funds (such as restrictions on investments, having to provide liquidity, having to quote buying and selling prices on a daily basis, having to value portfolios on a daily basis, etc.). However, this is changing (discussed below).

Generally, hedge fund returns reflect the expertise of the fund managers. However, the level of risk adopted by HFs is higher (which is related to higher returns) and, consequently, hedge funds do also fail. Every financial market participant is familiar with the demise of US-based Long Term Capital Management (LTCM) in 1998 and Amaranth Advisors in 2006[58]. Then calls were made for the avoidance of hedge funds in investment portfolios.

It is important to analyse the demise of hedge funds as they occur. In the case of LTCM the causes were multifaceted, but the main ones were swaps, leverage (at one stage 250:1, and naked options (i.e. the writing of options, without spot market positions), and betting on low volatility of the underlying markets. Losses approached USD 5 billion and the regulatory nightmare of systemic failure was a real threat, prompting the Federal Reserve to step in with a bailout solution involving LTCM's main creditors.[59] In the case of Amaranth Advisors it was found that the most basic principles of investments were not present:

- Risk assessment and management: The risk assessment officer was based a few thousand kilometres from the traders.
- Diversification: The fund was undiversified; its portfolio was virtually exposed to one "investment": "Betting" on a repeat in 2006 of the 2005 increase in natural gas prices following Hurricane Katrina.[60]

It was clear that regulation of HFs was required. We discuss regulation below.

Hedge funds are also sometimes called *absolute return funds* (ARFs). This means that they achieve positive returns irrespective of the direction of the markets in which they invest. As seen, this is not always the case.

3.7.3 Structure of hedge funds

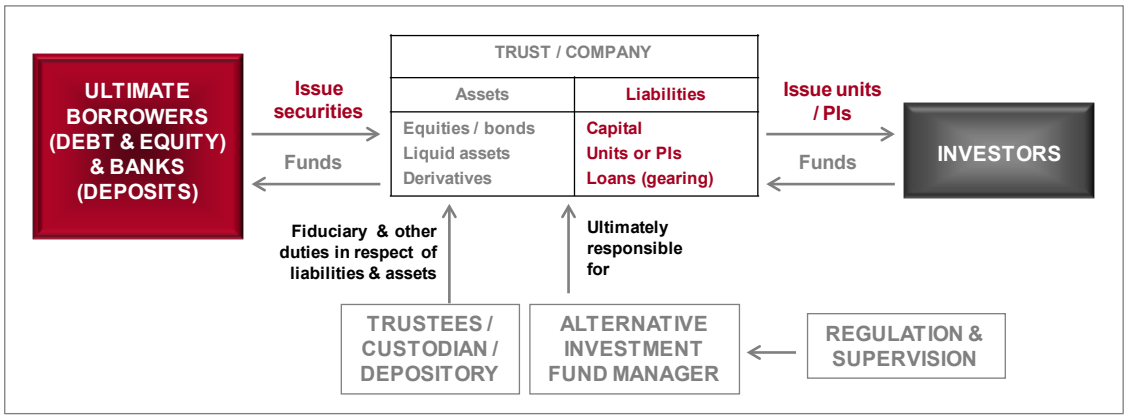

Figure 3.8: Hedge fund structure

HFs were structured in the past in various forms: Limited liability partnerships *(en commandite partnerships)*, variable rate debenture structures, packaged life insurance policies, and so on. Today, they are generally structured as open-ended collective investment schemes (CISs), and may be trusts, limited partnerships, or limited liability companies. HFs may be portrayed simply as in Figure 3.8.

3.7.4 Types of hedge funds

There are many different "types" of hedge funds, and they generally reflect the skill and focus of the fund manager/s. The Morningstar Category Classifications for Hedge Funds[61] lists the following types:

- **Directional equity:**
  - Asia / Pacific long / short equity.
  - Bear-market equities.
  - China long / short equity.
  - Emerging-markets long / short equity.
  - Europe long / short equity.
  - Global long / short equity.
  - US long / short equity.
  - US long / short small-cap equity.
  - Emerging markets long-only equity.
  - Long-only equity.
- **Directional debt:**
  - Long / short debt.
  - Long-only debt.
- **Event:**
  - Distressed securities.
  - Event-driven.
  - Merger arbitrage.

- **Global Derivatives:**
  - Currency.
  - Global macro.
  - Systematic futures.
  - Volatility.
- **Multistrategy:**
  - Long-only other.
  - Fund of funds – debt.
  - Fund of funds – equity.
  - Fund of funds – event.
  - Fund of funds – macro / systematic.
  - Fund of funds – multi-strategy.
  - Fund of funds – relative value.
- **Relative value:**
  - Convertible arbitrage.
  - Debt arbitrage.
  - Diversified arbitrage.
  - Equity market neutral.

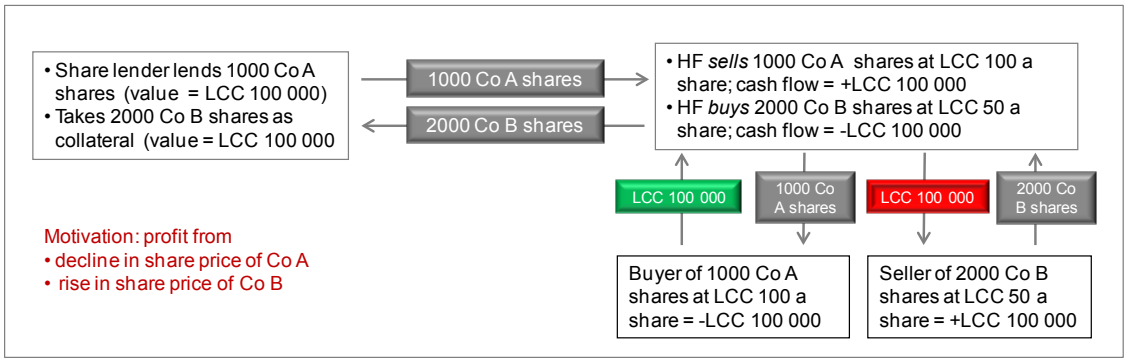

Figure 3.9: Short sale & long position at T+0

Note the existence of funds of hedge funds (FoHFs). FoHFs account for a significant part of the investments into hedge funds. They play an important part of filtering and monitoring single-strategy fund managers and are therefore the appropriate vehicle for pension funds and individuals who have a lower appetite for risk. They reduce risk by being more widely diversified.

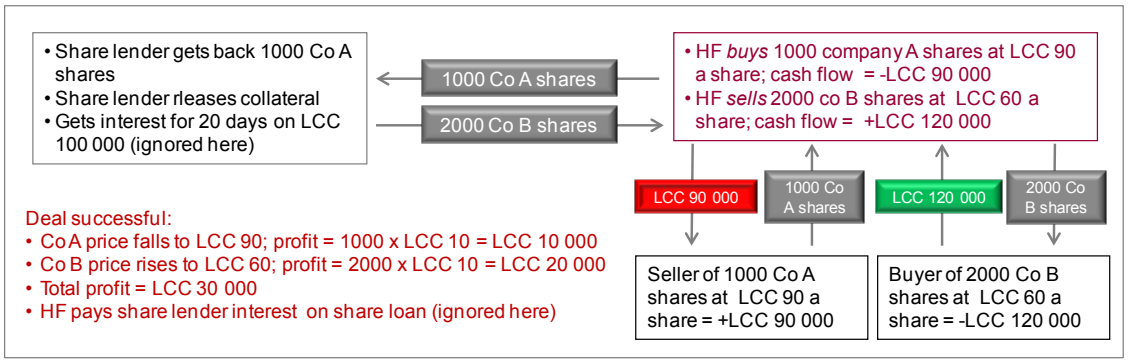

Figure 3.10: Unwinding of short sale & long position at T+20

Long-only funds are similar to SUTs and ETFs. It will have been noticed that there are many long / short funds. It may be useful to provide an example a long / short equity deal. These funds generally seek out anomalies in the various markets in terms of over- and under-pricing (valuation) and take advantage of these. An example is provided in Figures 3.9 and 3.10: Company A's share price is regarded as overpriced and Company B's share price is regarded as being underpriced. The hedge fund borrows (from a share lender) and sells the shares of Company A, and with the proceeds buys the shares of Company B on T+0, and reverses the deal on T+20.

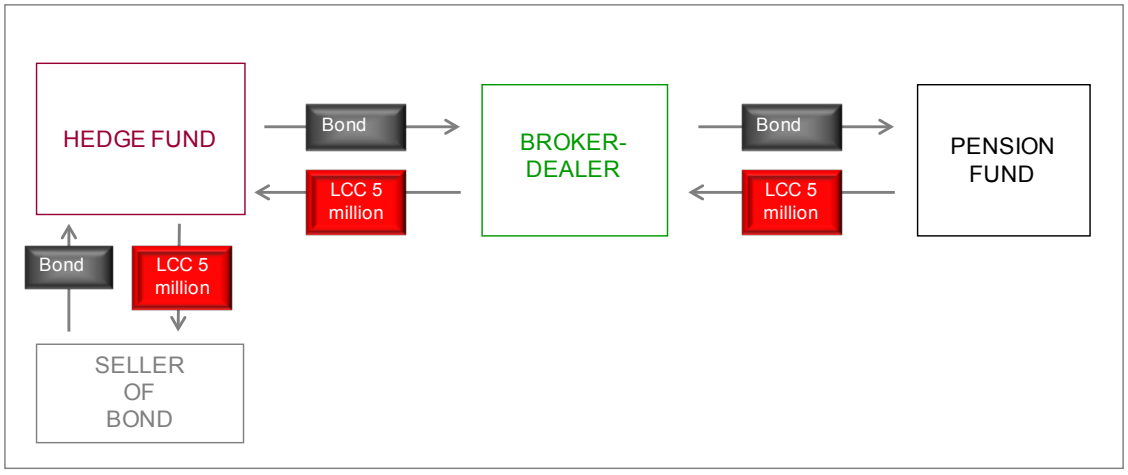

Figure 3.11: Cash and security flow at onset of repo

We also present an example of leverage (aka gearing up) by a hedge fund (see Figures 3.11 and 3.12). The fund is fully invested, but holds the view that medium-term bond rates are about to fall, and would like to speculate on this view. It buys a 5-year LCC 5 million nominal value bond at the spot rate of 9.5% (the consideration will not be a nice round amount, but we assume it is LCC 5 million). The fund immediately (on same day) sells the bond to a broker-dealer (who is involved in the repo market) for 7 days at 10.2% pa (the rate for 7-day money). The broker-dealer in turn on-sells the bond to a pension fund under repurchase agreement for 7 days at a repo rate of 10.0% pa. In both cases we assume the consideration is LCC 5 million (for the sake of pedagogy).

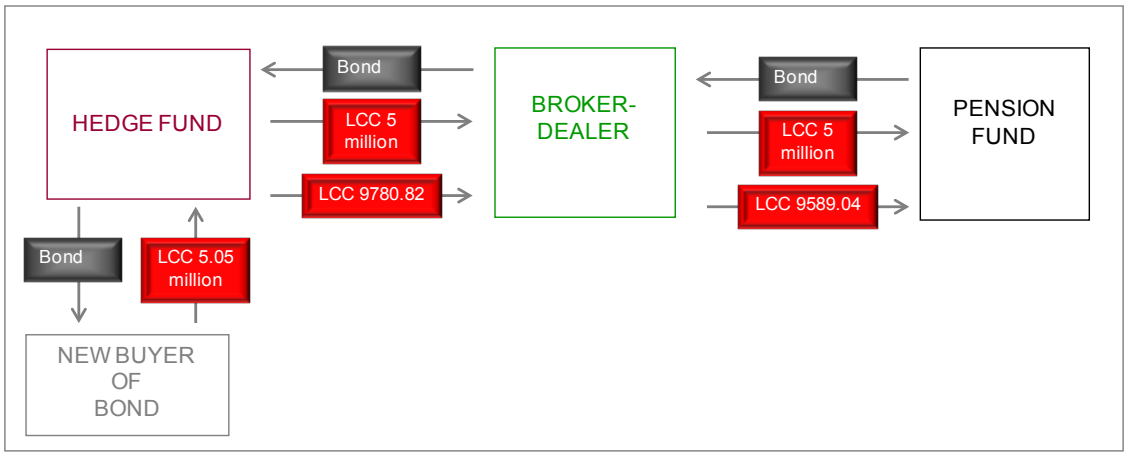

Figure 3.12: Cash and security flow on termination of repo

Assume now that the 5-year bond rate falls to 9.4% on day seven. The broker-dealer unwinds the repo deal and pays the pension fund LCC 5 million plus interest at 10% for 7 days (LCC 5 000 000 × 7/365 × 0.10 = LCC 9 589.04). The broker-dealer then sells the bond back to the HF for LCC 5 million plus interest at 10.2% (LCC 5 000 000 × 7/365 × 0.102 = LCC 9 780.82).

The broker's profit on the repo deal is 0.2% on LCC 5 million for 7 days (i.e. the difference between the two above amounts (LCC 191.78). The HF sells the bond in the bond market at 9.4% (remember it bought the bond at 9.5%). Its profit on the 5-year-less-7-days bond is 0.1% (which is probably around LCC 50 000 – we assume this), i.e. the consideration for the bond is LCC 5 050 000. Its overall profit is thus LCC 50 000 minus the cost of the *carry* (LCC 9 780.82), i.e. LCC 40 219.18.

3.7.5 Regulation

As noted above, traditionally HFs were not constrained by statute to the same degree as other pooled funds. However, this is no longer the case: HFs are now subject to robust regulation and supervision.

In the European Union, for example, the Alternative Investment Fund Managers Directive (AIFMD) was adopted by the European Parliament in 2011 and implemented over the following few years. The AIFMD is focussed on the Alternative Investment Fund Managers (AIFMs) rather than the funds [i.e. HFs and private equity funds (PEFs)], and regulates EU-based AIFMs as well as non-EU-based AIFMs which manage or market HFs and PEFs in the EU. The regulations include:

- Registration.
- Initial capital and own funds requirements.
- Liquidity requirements.
- Functions of firms acting as a depository for alternative investment funds (AIFs) (cash flow monitoring, safe-keeping and record-keeping of assets, oversight of certain operational functions).
- Appointment of prime broker (discussed later).
- General conduct of business principles.
- Corporate governance.
- Requirements for assets managed on a delegated basis.
- Requirements in respect of independent risk management and valuation functions.
- Maximum leverage setting and disclosure in prospectus.
- Transparency / disclosure / reporting (including the issues of a prospectus to prospective clients).
- Appointment of independent custodian.
- Supervision: EU Financial Conduct Authority (FCA) and the European Commission.
- Remuneration policies and practices.[62]

In the US HFs are "…subject to the same trading reporting and record-keeping requirements as other investors in publicly traded securities. They are also subject to a number of additional restrictions and regulations, including a limit on the number and type of investors that each fund may have."[63] The latter includes "accredited investor" and "qualified purchaser" requirements (minimum net worth for individual investors and minimum total assets for institutions). HFs are also prohibited from making public offerings.

In many other countries, HFs are required to comply with the provisions of the CIS Act. For example, the Swiss CIS Act[64] defines "Other funds for alternative investments" to include: "…open-ended collective investment schemes whose investments, structure, investment techniques (short-selling, borrowing of funds, etc.) and investment restrictions exhibit a risk profile that is typical for alternative investments." It provides that:

- "…Leverage is permitted only up to a certain percentage of the fund's net assets. The Federal Council determines the percentage rate. FINMA [Swiss Financial Market Supervisory Authority] regulates the details…
- Reference must be made in the fund name, as well as in the prospectus and marketing material, to the special risks involved in alternative investments…
- The prospectus must be offered free of charge to interested persons prior to an agreement being concluded or prior to subscription…
- FINMA may allow the transaction-related settlement services of a directly investing other fund for alternative investments to be provided by a regulated institution specializing in such transactions (prime broker). It may specify which monitoring functions must be undertaken by the fund management company and the SICAV."

3.8 Alternative investments: private equity funds

3.8.1 Introduction

We cover private equity funds under the following sections:

- What is a private equity fund?
- Structure of a private equity fund.
- Types of private equity funds.
- Regulation.

3.8.2 What is a private equity fund?

The term *private equity* refers to the purchase, by a *private equity fund*, of shares (i.e. investments) in non-listed companies, which have high potential for growth (and are assisted along this path), and which are later exited by a listing or a sale to other companies. To a small degree private equity also includes a listed company (which is identified as highly undervalued in relation to net asset value) purchase. It is "bought out / taken over" and de-listed, with a view (usually) to "stripping" its assets, i.e. selling the assets of the company for more than the cost of the shares purchased.

It is necessary to differentiate between *private equity firms* and *private equity funds*.

- *Private equity firms*: They create *private equity funds*. They may be divided into two groups:
  - Non-financial-institution-related companies, such as Carlyle Group and Blackstone Group.
  - Financial-institution-related companies (usually subsidiaries), such AAC Capital Partners (ABN AMRO) and Goldman Sachs Capital Partners (Goldman Sachs).
- *Private equity funds* (PEFs): They are *pooled funds*, aka CISs such as SUTs and ETFs, which invest the pooled funds in either of the above, but usually in non-listed companies. However, they differ from SUTs and ETFs in that they are closed-ended and usually have a limited (medium term to long term) lifespan. Unlimited lifespan PEFs do exist, but they are in the minority.

According to the European Private Equity and Venture Capital Association (PEVCA)[65], PEFs may be categorised according to *capital contribution* as follows:

- *Independent PEFs*: Those which have third party investors as the main sources of capital, and no investor has a majority stake. This is the most common type of PEF.
- *Captive PEFs*: Those in which one party contributes most of the capital. These PEFs are subsidiaries of the large financial intermediaries such as banks and insurers.
- *Semi-captive PEFs*: A party, such as a bank or an insurer, contributes most of the capital and the balance is raised from third parties.

3.8.3 Structure of a private equity fund

PEFs are structured in various forms, such as a limited liability company (LLC) and a limited partnership (LP), also a separate legal personality. The latter is the common form of a PEF in the US, the EU and Canada. An LLC is formed in terms of a country's statute relating to companies, while an LP is formed by the registration of a *certificate of limited partnership* with the relevant authority by the *general partner* (GP) or partners (GPs). The other parties are *limited partners* (LPs). The latter has limited liability (capital contributed), while the GP, as manager of the partnership, has unlimited liability in respect of the obligations of the partnership.[66]

PEFs are managed by specialised fund management companies, which may be the GP or a specialist management company appointed by the GP (for a fee). The functions of a management company include[67]:

- Raising investment capital.
- Locating investment opportunities.
- Executing investment transactions.
- Providing leadership and management.
- Monitoring of the investments.
- Managing liquidity. Generally, however, PEFs have illiquid investments which are liquidated after many years.

Generally, the investors in PEFs are sophisticated investors (who have sufficient market experience to evaluate an investment in the fund) including retirement funds, insurers, bank holding companies, university endowment funds, sovereign wealth funds, and high net worth individuals.[68] All the players involved in a PEF are illustrated in Figure 3.13[69].

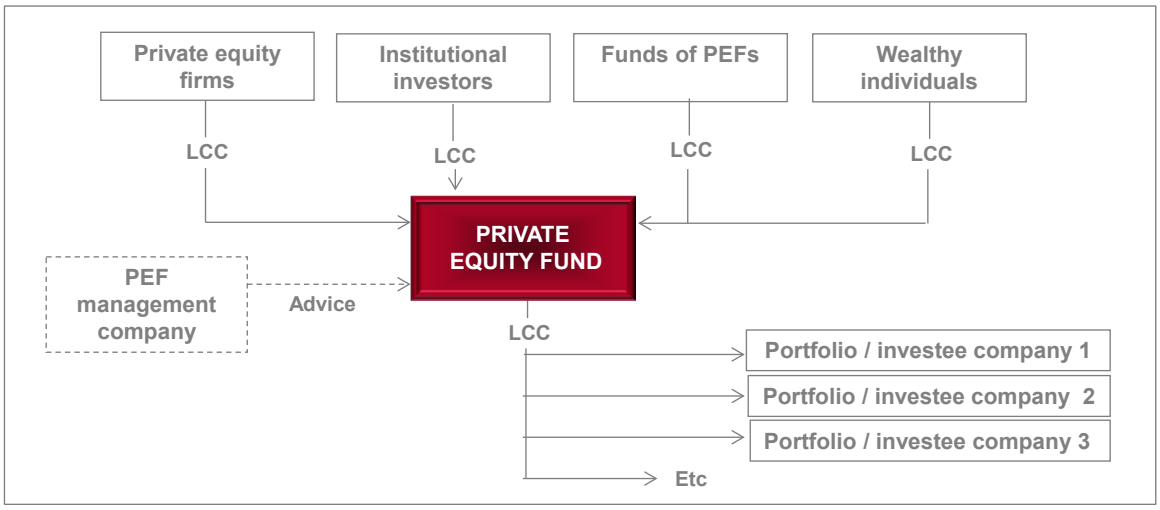

Figure 3.13: Players in the PEF business

It is evident that PEFs intermediate between:

- Non-bank private sector and banking sector (loans to the PEF).
- Corporate sector (non-listed equities purchased by the PEF).

3.8.4 Types of private equity funds

Earlier we categorised PEFs according to *capital-contribution*:

- Independent PEFs.
- Captive PEFs.
- Semi-captive PEFs.

However, PEFs are usually categorised according to *investment strategy*[70]:

- *Buyout capital funds*: Buyout of part or whole of mature companies from existing shareholders, often accompanied by leverage (borrowing). The leverage is forthcoming from banks and / or mezzanine capital funds (see below).
- *Venture capital funds*: Smaller PEFs which focus on equity investment in early-stage development companies.
- *Mezzanine capital funds*: Investment in the preference shares of, or the provision of subordinated debt to, companies requiring capital for expansion. Often part of a leveraged buyout transaction.
- *Growth capital funds*: Equity investment in non-mature companies seeking capital to expand, make an acquisition, restructure, enter new markets, etc.
- *Funds of PEFs* (FoPEFs): PEFs established with the purpose of investing in other PEFs. As in the case of FoHFs, an investment in a FoPEF increases diversification and reduces risk.

3.8.5 Regulation

Regulation of PEFs varies from country to country, but in most cases regulation is voluntary. In the UK, for example, while the Financial Services Authority (FSA) has oversight, the industry is self-regulated in the form of the voluntary Walker Guidelines and the supporting Guidelines Monitoring Group (GMG). According to the British Private Equity & Venture Capital Association[71]:

"The Walker Guidelines are completely voluntary and apply to private equity firms that invest in large companies: in a public to private transaction where the market capitalisation, together with the premium for acquisition of control, or in a secondary transaction where enterprise value at the time of the transaction is in excess of £350; and those that have raised more than 50% of their revenue in the UK or have more than 1,000 employees. Through their annually published reports our member firms have gone further than anywhere else in the world in reaching for greater transparency."

In the US, the Dodd-Frank Act requires fund managers / advisers (the management company in the case of PEFs) to register as investment advisers with the SEC and be subject to its oversight. Note that the oversight applies to the management company and not the PEF. According to PWC[72]:

"One of the more significant new obligations is the 'Compliance Program Rule' requiring an investment adviser to adopt and implement formal written compliance policies and procedures, appoint a chief compliance officer, and perform regular testing and oversight."

In the EU, the regulation regime outlined under HFs applies to PEFs. In addition PEFs are subject to certain asset stripping rules.

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4 Quasi-financial intermediaries

4.1 Study outcomes

After studying this material, the student should be able to:

- List and elucidate the roles of the quasi-financial intermediaries.

4.2 Introduction

There are a number of institutions which border on being financial intermediaries. They are not banks (make loans and issue deposit certificates), or investment vehicles, but exhibit many of the characteristics and functions of banks and investment vehicles; hence the name quasi-financial intermediaries (QFIs). The features which differentiate the QFIs from the mainstream financial intermediaries include: They are much smaller, they are specialised, and they do not take deposits (there are exceptions). The QFIs are the:

- Development finance institutions.
- Short-term insurers.
- Investment trust companies.
- Open-ended investment companies.
- Finance companies.
- Special purpose vehicles.
- Securities broker-dealers.
- Credit unions / savings and credit cooperatives.
- Friendly societies.
- Buying associations.
- Micro-finance institutions.

4.3 Development finance institutions

4.3.1 Introduction

We cover private development finance institutions under the following sections:

- What is a development finance institution?
- Structure of a development finance institution.
- Types of development finance institutions.
- Regulation.

4.3.2 What is a development finance institution?

Development finance institution (DFI) is a internationally-used term for a government-created and -owned institution, which has an explicit mandate to assist in the development of key economic sectors in the interests of socio-economic development. Generally, DFIs exist in developing countries and take on projects which are not of interest to or are too large to be undertaken by the fledgling (in many developing countries) mainstream financial intermediaries. They are stand-alone corporations created by statute, and are funded by share capital and loans (by government), detained earnings, and securities issues (money and bond market instruments).

The key sectors targeted by government via DFIs include industrial development, agricultural development, infrastructural development, small and medium enterprise (SME) development, and so on. We discuss the DFI types further below.

4.3.3 Structure of a development finance institution

An example will be useful. Balance Sheet 4.1 shows the uncomplicated structure of a typical DFI: In this case the Development Bank of Southern Africa (DBSA). It is funded by capital (subscribed by government) and reserves (31% of capital and liabilities), and financial market liabilities, predominantly bonds issued (67% of capital and liabilities) (which are mainly held by insurers and retirement funds). As to be expected, assets are dominated by *investments in development activities* (87%).[73]

BALANCE SHEET 4.1: DBSA[73] (% DISTRIBUTION)		
Capital and reserves		31.0
Liabilities		
Financial market liabilities (mainly bonds)	67.0	
Other liabilities	2.0	
Total liabilities		69.0
Total capital, reserves & other liabilities		100.0
Assets		
Cash and cash equivalents	2.3	
Financial market assets	9.0	
Investments in development activities	87.3	
Other assets	1.4	
Total assets		100.0

The DBSA intermediates between:

- Lenders:
  - Ultimate lenders: Government sector (capital).
  - Other financial intermediaries (retirement funds and insurers – bonds held).

- Borrowers:
  - Ultimate borrowers: Government sector: Local authorities and SOEs.
  - Ultimate borrowers: Foreign sector:
    - Local authorities and SOEs in other African countries.
    - Pan-African private equity funds.

Clearly, the DFIs of different countries will have a similar structure on the equity and liabilities side of the balance sheet, as well as the asset side. However, the recipients of DFI development funding will differ.

4.3.4 Types of development finance institutions

It will be useful to provide representative examples of DFIs (see Table 4.1).

TABLE 4.1: REPRESENTATIVE EXAMPLES OF DFIs

DFI	Mandate
Export-Import Bank of Malaysia	Provision of credit facilities to finance exports and imports of goods, export financing insurance, overseas investments insurance, guarantee facilities.[74]
Malaysia Development Bank	Development of target sectors: Infrastructure, maritime, technology, oil and gas.[75]
Malaysian Industrial Development Finance	Industrial development – financing for manufacturing-based small and medium enterprises (SMEs).[76]
Development Bank of Southern Africa	Focus on infrastructure and leverage the private sector.[77]
Land Bank (South Africa)	Agricultural sector finance and development, focused on emerging farmers.[78]
The Brazilian Development Bank	Plays a "…fundamental role in stimulating the expansion of industry and infrastructure in the country."[79]
National Bank for Economic Development (Burundi)	Financing of agriculture, industry and agro-industry, tourism, real estate, health and education, transport, leasing, microfinance institutions.[80]
Botswana Development Corporation	Commercial and industrial development.[81]

The key sectors targeted by governments for development via DFIs include:

- Commercial and industrial development (including oil and gas, maritime, technology, transport, tourism, real estate, etc.).
- Agricultural development.
- Infrastructural development
- Small and medium enterprise (SME) development.
- Financial sector development.
- Export-import financing (including insurance and guarantee facilities).

4.3.5 Regulation

As noted above, DFIs are (usually) corporations created by statute. The statute, inter alia, prescribes the regulatory and supervisory framework, the objective being to ensure financial and operational soundness, and prudent and effective performance of mandates, of DFIs. A few examples:

- Malaysia: Development Financial Institutions Act of 2002.
- South Africa: Industrial Development Act of 1940.
- Seychelles: Industrial Development Corporation Act of 1988.
- Kenya: The Kenya Tourist Development Corporation Act of 1965.
- Pakistan: Industrial Development Corporation Act of 1950.
- Uganda: Uganda Development Corporation Act of 1952.

The statutes are placed under the purview of the central bank or a government department, usually the department responsible for trade and industry.

4.4 Short-term insurers

4.4.1 Introduction

We cover private short-term insurers under the following sections:

- What is short-term insurance?
- Short-term insurance markets.
- Balance sheet.
- Regulation.

4.4.2 What is short-term insurance?

As discussed earlier, there are two types of insurance companies, long-term insurers and short-term insurers. The reinsurers fall into either or both camps. The *short-term insurers* are known also as *non-life insurers* and *property-casualty insurers* in some countries. Their function is to *provide protection* against almost any event that may result in *injury or loss or damage to property* (such as fire, theft, destructive weather, negligence, accidents), but the events insured against are *not certain* and, consequently, the premium paid by the insured party does not represent an investment or saving. For this reason it can be argued that short-term insurers are not mainstream financial intermediaries, and therefore belong here as QFIs.

Balanced against the uncertainty that insured individuals or companies will be paid out sums of money, which makes them QFIs, is the counterargument that at some stage the insured persons or companies *will* claim from the short-term insurer. Thus, the premiums paid could be seen to be "hidden" or "potential" savings.

4.4.3 Short-term insurance markets

Short-term insurers provide protection against such a wide array of risks that they are at times called *insurance markets*. Many of them, however, specialise. Traditionally these companies were involved in the insurance markets: *Vehicle, fire, personal liability, marine* and *property*. Over the past forty years or so, however, the industry has expanded its range of products to include the following:

- Vehicle liability (including windscreen and radio) insurance.
- Medical malpractice insurance.
- Fire insurance.
- Farmers' comprehensive (including crop and hail) insurance.
- Homeowners' comprehensive insurance.
- Boiler and machinery insurance.
- Workers compensation insurance.
- Commercial comprehensive insurance.
- Accident insurance.
- Marine insurance.

- Health insurance.
- Surety and fidelity insurance.
- Aircraft insurance.
- Burglary and theft insurance.
- Financial guarantee coverage insurance.
- Other liability insurance.

4.4.4 Balance sheet

We present the balance sheet of the average short-term insurer[82] in Balance Sheet 4.2 in the form of percentage distribution.

BALANCE SHEET 4.2: SHORT-TERM INSURERS (% DISTRIBUTION)		
Capital, reserves & unappropriated profits		
Share capital	2.8	
Insurance fund surplus	8.2	
Other reserves	16.4	
Unappropriated profits	21.2	
Total capital, reserves & unappropriated profits		48.6
Liabilities		
Liabilities under unmatured policies	10.8	
Insurer creditors	4.6	
Claims not yet paid out	18.0	
Creditors	0.9	
Other liabilities	18.1	
Total liabilities		52.4
Total capital, reserves & unappropriated profits + liabilities		100.0
Assets		
Cash and deposits at banks	34.5	
Fixed interest securities (govt, local govt, corporate, etc)	15.4	
Ordinary shares	19.9	
Loans	1.9	
Fixed property	1.2	
Other assets	27.1	
Total assets		100.0

The following is evident from Balance Sheet 4.2:

- Short-term insurers intermediate between the:
  - Ultimate lenders: Household and corporate sectors in the form of policies, on the one hand, and the
  - Ultimate borrowers: Government sector (government fixed interest securities), corporate sector (shares and corporate bonds), and household (mortgage bonds, loans against policies, etc., but the amounts are small), on the other hand.

- The vast majority of investments are in the financial asset classes (70%):
  - Financial assets
    - Money market 34.5%
    - Bond market 15.4%
    - Equity market 19.9%
  - Real assets
    - Fixed property 1.2%
    - Commodities (gold coins, etc.) 0.0%
    - Other (art, rare stamps, furniture) 0.0%.
- The vast majority of assets are invested in the money market (NNCDs, NCDs, Treasury bills, commercial paper, etc.) and the bond market (50%). This number, plus the relatively small investment in equities compared with the long-term insurers (20% versus 54%), reflects the short-term nature of the liabilities.

4.4.5 Regulation

Short-term insurers are constituted as companies (public or private) and are governed by the provisions of the Short-term Insurance Act (STIA) of countries (different names apply), regulations under the statute, as well as other statutes in some countries. The STIA provides for the registration of short-term insurers, for the control of certain activities of short-term insurers, and the appointment of a Registrar of Short-term Insurance which has responsibility for the overseeing of compliance with the STIA. The prudential requirements of the statute include:

- Minimum capital requirement.
- Risk-based capital requirement.
- Reporting requirements.
- Liquidity requirement.
- Governance requirements.

4.5 Investment trust companies

4.5.1 Introduction

We cover investment trust companies under the following sections:

- What are investment trust companies?
- Balance sheet.
- Regulation.
- Variations on the theme.

4.5.2 What are investment trust companies?

The term *investment trust* is well-known, but is misleading, because in countries where these entities exist (mainly the UK and some EU countries) they are not trusts controlled by trustees. Rather, they are constituted as public companies. They should therefore be called *investment companies*, but continue being referred to as *investment trusts*. We refer to them here as *investment trust companies* (ITCs).

ITCs are listed companies, the shareholders of which are their investors, and they invest in the shares of other listed companies with strong growth potential, as well as other securities (such as bonds), and property. They are usually managed by a fund manager, and are closed-ended (i.e. have a fixed capital structure). In this way, they are dissimilar to the open-ended SUTs. They also differ in that their shares are publicly traded, whereas SUTs are priced daily by the SUT management company.

They also differ from "long-only" SUTS in that they are able to borrow and are permitted (in the UK) to retain 15% of income in order to "smooth out" dividend payments. As said, the prices of the shares are market-determined, but tend to hug the NAV of the underlying investments. One example of an ITC is *Aberdeen New Dawn Investment Trust PLC*, which is listed on the main board of the LSE in the sector *Equity Investment Instruments*. The trust is managed by Aberdeen Asset Management.

According to Aberdeen New Dawn Investment Trust PLC[83]:

"Investment trusts are public limited companies traded on the London Stock Exchange and have a history stretc.hing back to the 1880s. Investment trusts are created with the sole purpose of generating returns for their shareholders by investing in shares and other securities. By bringing together a professionally-managed and diversified investment portfolio, investment trusts have long been considered one of the simplest ways to share in the growth potential of the stock market."

Another example is the UK-listed *JPMorgan Indian Investment Trust Plc*[84], managed by JP Morgan Asset Management. It presents the detail of the ITC as follows:

- Investment style: Growth.
- Sector: India equity.
- Asset class: Equity.
- Benchmark: MSCI India GR USD.
- Fund size: £482,439,819 (as at 31/05/2014).
- Share price: 428.00.
- Net asset value: 459.82.
- Discount (-) / premium (+): -8.61%.

Generally, an investment in an ITC is considered as a long term investment, whereas a SUT investment is considered a short term investment (in that the units / PIs can be sold anytime).

As companies ITCs have a board of directors, all of whom are independent and non-executive, and they are accountable to, and can therefore be removed by, the shareholders. There are two types of investment trusts[85]:

- *Internally-managed ITCs*: All investment decisions are made by internal fund managers under the guidance of the non-executive board of directors.
- *Externally-managed ITCs*: The board outsources investment decisions to one or more external managers. The external fund manager is accountable to the board and can be replaced at any time.

4.5.3 Balance sheet

We present the typical balance sheet of an ITC (in this case Aberdeen New Dawn Investment Trust PLC[86]) in Balance Sheet 4.3 in the form of percentage distribution. It is evident that:

- The balance sheet structure is uncomplicated.
- It is funded predominantly by capital, share premium and reserves (all of which belong to the shareholders).
- Investments, which reflect the "use of funds" and therefore the business of and ITC, make up 99% of assets.
- ITCs intermediate between:
    - Ultimate lenders: The shareholders, which are members of the household sector (high net worth individuals) in the main.
    - Ultimate borrowers: The issuers of the shares held, i.e. the corporate sector, and the issuers of the debt securities held, i.e. the government and corporate sectors.

BALANCE SHEET 4.3: ABERDEEN NEW DAWN INVESTMENT TRUST PLC (% DISTRIBUTION)		
Capital and reserves		
Share capital and premium	8.6	
Reserves	83.9	
Total capital and reserves		92.5
Liabilities		
Loans	7.4	
Other creditors	0.1	
Total liabilities		7.5
Total capital, reserves and liabilities		100.0
Assets		
Cash and deposits at banks	0.4	
Debtors	0.8	
Investments at fair value	98.8	
Total assets		100.0

4.5.4 Regulation

Investments in ITCs fall outside the remit of the Financial Services Authority (FCA) in the UK. However, as listed companies, they are regulated by company law and the listing rules of the LSE.[87] The fund managers of ITCs are authorised and regulated by the Financial Conduct Authority (FCA) in the United Kingdom.

4.5.5 Variations on the theme

A variation on the theme is the well-known Chinese ITC, also referred to as an *investment trust*. They are similar to the UK / EU ITCs, but do not have the obligation to list on an exchange. These institutions are referred to as "shadow banking institutions", and make up a large share of the financial services market. They are regulated.

4.6 Open-ended investment companies

An *open-ended investment company* (OEIC), aka an *investment company with variable capital* (ICVC) is a form of CIS, but with a difference: It is a limited liability company which creates and issues new shares when funds are invested and redeems shares when shareholders sell them back. As SUTs do, OEICs invest in the various asset classes: Equities, money market, bonds, and property. OEICs may operate as an umbrella fund (for sub-funds) and have the option of listing. They are valued daily at NAV per share and a single price is quoted for buyers and sellers (with commission being separate).[88] OEICs exist in the UK and in some EU countries.

In the UK, OEICs are regulated by the Financial Conduct Authority (FCA), and governed by a separate corporate code set out in the Open-Ended Investment Companies Regulations, 2001, issued under the Financial Services and Markets Act, 2000. The corporate code includes:

- OEICs are obliged to issue a prospectus, a key investor information document (KIID), an annual and other periodic reports to investors, which, together with the instrument of incorporation, must be filed with the FCA.[89]
- As a company, the OEIC has a board, but it is headed by an *authorised corporate director* (ACD), a FCA-approved firm which has full control, and has responsibilities which includes operations, management of investments, selling and buying of shares, and the setting of the price of shares which must equal net asset value per share.
- OEICs are obliged to appoint a depository (usually a bank), which has title to the assets and ensures safe custody.

OEICs are seen as a modern form of the SUT, and many SUTs are adopting this legal persona form.

4.7 Finance companies

Finance companies are usually limited liability companies which provide credit as banks do, but do not take deposits. They are funded by capital, bank credit and funds acquired from the issue of securities, usually corporate bonds. They usually specialise in a particular form of credit, including:

- Instalment credit (instalment sale and leasing).
- Factoring.
- Purchase order financing.
- Trade finance.
- Asset-backed finance.

Many banks also provide these services or have subsidiaries which provide these services. We cover them briefly.

Instalment credit is a term used for two main credit types: Instalment sale and leasing. *Instalment sale* is the provision of credit for the purchase of, for example, a motor vehicle. Repayment is effected by a fixed payment (called an instalment) over a fixed period (usually a number of years). *Leasing* involves a contract in terms of which the lessee (user) pays the lessor (owner = the finance company) regular (usually fixed) instalments for the use of an asset. An example of an instalment credit financing company is Mercedes Benz Financial Services, which provides instalment credit facilities to buyers of Mercedes Benz vehicles. It funds the credit provided by the issue of bonds which, given its financial standing, are highly rated, and therefore carry a low rate for corporate bonds.

Factoring is the purchase by a *factor* (factoring company) of the accounts receivable (aka invoices or "debtors book") of a company at a discount. Factoring is differentiated from invoice discounting, which is the provision of a loan with the accounts receivable provided as collateral. The factor has full legal rights to the receivables and attempts to recover the full value of the invoices.

Purchase order financing is the provision of a facility to companies to enable them to purchase goods for sale. The purchase order (PO) financing company does not make a loan to the purchasing company, but pays the suppliers of the goods. The goods purchased are the property of the PO company until the goods are sold and the PO company is paid. This type of finance is of benefit for smaller companies which need to deliver large purchase orders (which they are not able to finance themselves). It will be evident that while factoring fast-forwards cash from invoices, PO financing enables invoicing. An example of a PO financing company is Paragon Financial Group.[90]

Trade finance involves the provision of letters of credit, guarantees for payments, direct payments (to local and overseas suppliers), funding of local and foreign currencies and, in some cases, forwarding, shipping and clearing facilities. An example of a trade finance company is Reichmans Capital.[91]

Asset-backed finance, aka asset-based and commercial finance / lending, is lending secured by an asset. The loan provided is equal to a proportion (usually 70–80%) of the value of the asset, and the asset is forfeited if the borrower defaults. While any asset financed by a loan is asset-backed finance (such as a mortgage loan for a home), the term is generally used in the financing of companies' inventories, debtors' books, machinery, and equipment.

Finance companies are regulated in most countries. In Singapore, for example, they are licensed under and are governed by the Finance Companies Act, which, inter alia, restricts them from offering demand deposit accounts and making unsecured loans above a stipulated (low) amount.[92]

4.8 Special purpose vehicles

Special purpose vehicles (SPVs), aka special purpose entities (SPEs) are legal entities (such as limited liability companies and trusts) set up for the purpose of achieving a specific objective, such as transfer of assets which are not easily transferable, risk sharing, financial engineering, regulatory arbitrage, tax arbitrage, and *securitisation*. We are interested in the latter because the SPVs created for this purpose represent quasi-financial intermediation.

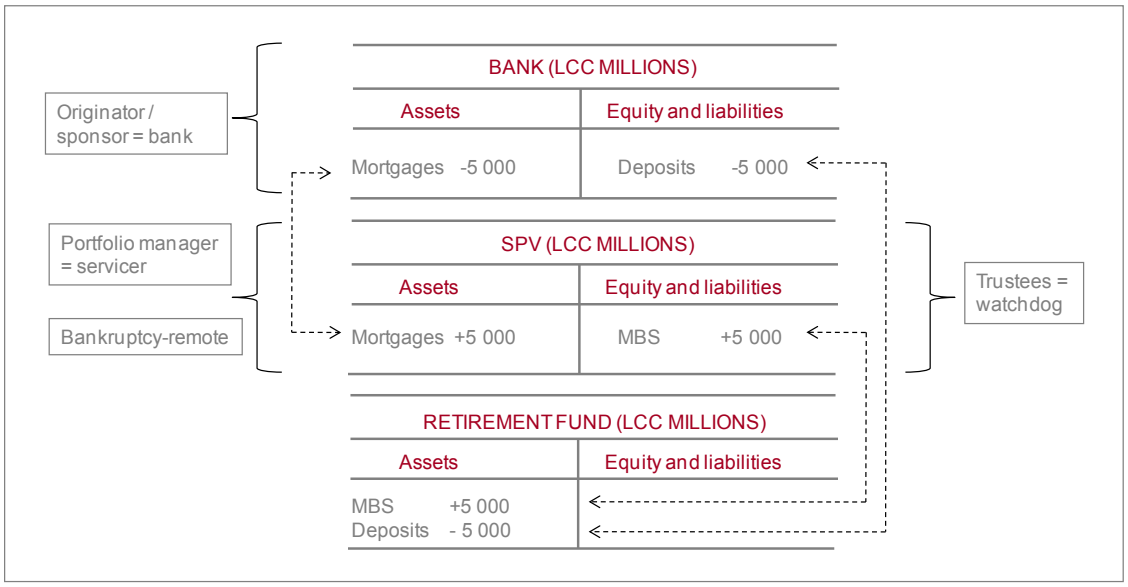

Figure 4.1: Example: Securitisation of mortgages

In essence an originator (usually a bank), called the *sponsor*, sets up a SPV to hold non-marketable financial assets which have a cash flow (mortgages, company debtors, credit card receivables, etc.). The assets are financed by the creation and issue by the SPV of debt securities (bonds or commercial paper, but usually the former). An example (see Figure 4.1): Bank sponsor creates SPV for mortgage securitisation:

- LCC 5 000 million mortgage loans placed in a SPV = the assets of the SPV.
- The SPV issues LCC 5 000 million fixed-interest (coupon) bonds, called mortgage-backed securities (MBS) to finance its assets. These bonds are thus the SPV's liabilities.
- The cash flows generated by the mortgages cover the coupon payments on the bonds.
- As a separate legal entity the SPV is bankruptcy-remote from the sponsor.
- In this example, the MBS are taken up by retirement funds (as investments), and they use their bank deposits to pay for them.
- The SPV is managed by a fund manager, and trustees are appointed as independent custodians with fiduciary duties.
- It will be evident that the creation of the SPV (intermediation) amounts to bank disintermediation: Bank assets and liabilities were reduced by LCC 5 000 million.
- In order to enable the marketing of the MBS, they are rated by one or more rating agencies. The rating agency will enforce a "credit enhancement" regime on the SPV (designed to reduce risk for the investors in the MBS), of which there are three main types:
    - Insurance guarantees.
    - Credit default swaps.
    - Tranching, i.e. degrees of subordination, of the SPV bonds (usually accompanied by a liquidity requirement).
- The latter is the most popular. An example: 90% rated AA+ (called senior bonds), 7% rated BBB (called mezzanine bonds); 3% unrated (called junior bonds). The originator usually takes up the junior bonds, which may be regarded as the capital of the SPV. This credit enhancement type creates a "waterfall" of risk. Should the SPV default and be wound up, the bondholders' (creditors') claims on the assets of the SPV follow the order: Senior, mezzanine, junior, i.e. losses are absorbed in the order: Junior, mezzanine, senior.

There are many bond types created by SPVs, including:

- Asset backed securities (ABS): Usually backed by receivables, such as credit card receivables and motor vehicle loan receivables.
- Mortgage backed securities (MBS): Backed by mortgage loans. There are two types of MBS: Retail MBS (RMBS) and commercial MBS (CMBS).
- Collateralised debt obligations (CDOs): Backed by non-marketable loans and / or other bonds. The term thus includes MBS. However, this bond type has a poor image, as it is usually associated with the subprime crisis, because the CDOs issued were highly rated despite the underlying assets being the lower-rated MBS tranches.

It will be evident that SPVs intermediate between:

- Lenders: Holders of the liabilities of the SPVs: usually other financial intermediaries such as retirement funds.
- Borrowers: Household sector (mortgage loans, credit card loans, motor vehicle loans) and corporate sector (loans).

4.9 Securities broker-dealers

The generic term *securities broker-dealers* covers *members of financial exchanges.* The members act either as:

- Pure brokers (match buyers and sellers), i.e. they act in *single capacity*;
- Dealers (buy, sell and hold securities for own account), i.e. they act in *single capacity*; or
- Act in both capacities (called *dual capacity*).

We are interested here in the broker-dealers which operate for own account, i.e. the broker-dealers who speculate in securities in order to profit from capital gains. They act as QFIs when they hold securities in portfolio and finance the holdings by means of borrowing funds – usually from banks, retirement funds or insurers. This is usually accomplished by means of a repurchase agreement (repo).

A repo is a simultaneous spot and a forward transaction, specifically a spot sale and a simultaneous forward purchase of the same instrument (from the point of view of the repo maker). The buyer of the repo does a simultaneous spot purchase and forward sale. It will be evident that a repo in essence is a short-term loan secured by the assets sold to the lender: A collateralised loan in that the purchaser of the securities under repo is providing funds to the seller and its loan is backed by the securities for the period of the agreement; the lender receives a return based on the fixed price of the agreement when it is reversed.

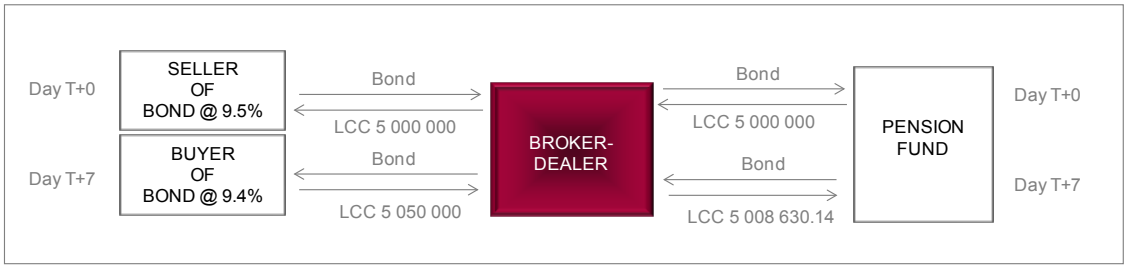

Figure 4.2: Example of repo deal

Figure 4.2 provides a simplified example of a repo deal. A broker-dealer believes that bond rates will fall in the next week. He buys a 5-year government bond to the value of LCC 5 million at the spot rate of 9.5% pa (the consideration of course will not be a nice round amount, but we assume it is) on T+0 (i.e. transaction day). He does not have the funds to undertake this transaction, but has the creditworthiness to borrow this amount. The broker-dealer on-sells the bond to pension fund for 7 days at the money market rate for 7-day money, say, 9.0% pa, on T+0. The pension fund has title to the bond in the event of non-performance by the broker-dealer.

On T+7 the 5-year bond rate is 9.4% pa. As per the repo contract, the broker-dealer unwinds the repo and pays the pension fund LCC 5 million plus interest at 9.0% pa for 7 days (LCC 5 000 000 × 7 / 365 × 0.09 = LCC 8 630.14). The broker-dealer then sells the bond in the market at the current rate of 9.4% pa, which yields a consideration of LCC 5 050 000 (assumed). His overall profit is thus LCC 50 000 minus the cost of the repo (LCC 8 630.14), i.e. LCC 41 369.86. (A reminder: when the interest rate on a security declines, its price rises.)

The broker-dealer, during the term of the repo, has a balance sheet as indicated in Balance Sheet 4.4. He has intermediated as follows:

- Lenders: Another financial intermediary.
- Borrowers: Government sector.

BALANCE SHEET 4.4: BROKER-DEALER (LCC)			
Assets		Liabilities	
Bonds (5 years)	5 000 000	Loans (7 days)	5 000 000
Total	5 000 000	Total	5 000 000

4.10 Credit unions / savings and credit co-operatives

Credit unions (CUs), known as *savings and credit co-operatives* (SACCOs) in Africa, exist in both developed and developing countries, and are member-owned financial co-operatives which provide savings and credit as well as other financial services (insurance, credit and debit cards, stop orders, etc.) to members, which share a common relationship (labour union, church, community, social fraternity). CUs / SACCOs are not-for-profit institutions and are member-controlled (membership is secured by the purchase of a minimum shareholding) through the election of a board (which employs staff to carry out the day-to-day operations) and a supervisory committee (which performs certain functions such as internal audit.)[93] According to the Association of British Credit Unions[94]:

"Credit unions promote responsible lending. The services they provide should give all members access to: Banking services – offering members a current account so they have access to their savings at any time; Savings accounts – members are encouraged to build up their assets and accumulate savings; Affordable loans – taking into account the member's personal circumstances, payment history and ability to repay the loan; Financial education and access to money advice – empowering members to make informed choices about financial products; Insurance products – enabling members to build on and protect their assets. Credit unions have a number of clear objectives enshrined in their constitution: …Promoting thrift – members must be encouraged to save as well as borrow; Providing credit and loan products with fair and reasonable interest rates; The efficient use and control of members' savings for mutual benefit in order to earn a rate of return (the dividend); Training members to use money wisely, devise a budget and manage their financial affairs; Members own and control their credit unions."

In general, because SACCOs have low overheads, interest rates paid on savings are high, and charged for loans are low, in comparison with banks' rates. They also pay dividends on member shares.

In most countries CUs / SACCOs democratically create and control their industry association (examples: Savings and Credit Co-operative League of South Africa – SACCOL; Malawi Union of Savings and Credit Cooperatives – MUSCCO; Association of British Credit Unions Limited – ABCUL). The role of the industry association is:

- Representation of the CU / SACCO movement.
- Provision of development services to SACCOs (assist with setting up, training, accounting services, etc.).
- Operation of a Central Finance Facility (CFF), aka depository of liquid reserves: CUs / SACCOs in some countries are required to deposit a stipulated proportion of assets (usually 10%) with the industry association. It is analogous to a central bank reserve requirement, and it supports liquidity management.
- Regulation of CUs / SACCOs: Certain tasks are stipulated in the relevant statute, and many (such as the ABCUL) have a code of conduct covering compliance and continuity, integrity and accountability, structure and the principles of good governance.

BALANCE SHEET 4.5: COMMONWEALTH CREDIT UNION (% DISTRIBUTION)		
Member equity		18.8
Liabilities		
Deposits	80.1	
Other liabilities	1.1	
Total liabilities		81.2
Total capital, reserves and liabilities		100.0
Assets		
Cash and deposits at banks	2.6	
Investments	30.9	
Loans to members	62.0	
Other assets	4.5	
Total assets		100.0

The balance sheet of a credit union (see Balance Sheet 4.5[95]) provides a window into its business. They intermediate exclusively between:

- Lenders: Ultimate lenders: Household sector.
- Borrowers: Ultimate borrowers: Household sector (loans to), government sector (assuming *investments* are government bonds and Treasury bills); and other financial intermediaries (deposits at banks).

As (small) deposit-takers, SACCOs are regulated. In the UK, for example, the administration authorities of the relevant statutes (one of which is the Credit Unions Act, 1979) are the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA). In Kenya the administration authority is the Sacco Societies Regulatory Authority (SASRA), appointed under the Sacco Societies Act, 2008. In South Africa, CUs / SACCOs are obliged to register as co-operative banks, and are therefore subject to the dictates of the Co-operative Banks Act, 2007 (discussed earlier).

4.11 Friendly societies

Friendly societies (FSs), aka *benefit societies*, are mutually owned (co-operative-type) institutions, which date back to the Middle Ages, and were formed by groups of persons with a common bond to *protect* themselves against *loss of income* due to unemployment, illness or retirement. According to The Foresters Heritage Trust[96]:

"…at heart, all friendly societies conformed to one model of clearly identified purpose. That was to enable people to contribute voluntarily to a common financial fund from which, on the occasion of illness or death, a benefit, as a right, not charity, would be available to meet immediate needs. In many societies this was underpinned by a strong element of self-management and social activity. By the mid 18th century, friendly societies could be found throughout England."

Friendly societies are uniquely British and are found today in the UK and previous colonies. They follow the same objectives, which have been refined by modern finance. According to one source[97]:

"…Friendly Societies, one of the oldest types of financial services operations around. Friendly Societies offer members a wide range of affordable savings, investments, insurances, pensions and specialist annuities, to provide help when needed; or the nice things in life, or for more trying times."

Their products may be categorised as follows:

- *Savings and investments*: Tax-exempt savings (in some countries), unit trusts, child savings, funeral expenses funds, etc.
- *Insurance*: Health insurance, term assurance, whole life assurance, general insurance, etc.
- *Pensions and annuities*: Personal pensions, compulsory purchase annuities, purchased life annuities, etc.
- *Other:* Social and benevolent activities, etc.[98]

Note the differentiation from other mutual institutions: They do not provide credit to members, they place a larger emphasis on insurance, and they offer pension products. Balance Sheet 4.6 provides an insight into the operations of a friendly society (in this case the largest one in the UK).

BALANCE SHEET 4.6: LIVERPOOL VICTORIA[99] (% DISTRIBUTION)		
Liabilities		
Unallocated divisible surplus	7.9	
Insurance contract liabilities	70.2	
Investment contact liabilities	14.1	
Net asset value attributable to external unit holders	3.9	
Financial liabilities	3.9	
Other liabilities	0.0	
Total liabilities		100.0
Assets		
Cash and deposits at banks	6.3	
Financial assets	83.3	
Reinsurance assets and insurance receivables	6.0	
Other assets	4.4	
Total assets		100.0

It will be evident that friendly societies, as mutual institutions, do not have a share capital, and that they intermediate mainly between: [99]

- Ultimate lenders: Household sector (insurance and investment products and the surplus, which belongs to members).
- Borrowers: Ultimate borrowers: Corporate and government sectors [financial assets (equities and bonds) issued by]; and other financial intermediaries (banks).

Friendly societies are regulated by dedicated statute (examples: South African Friendly Societies Act, 1956; New Zealand Friendly Societies and Credit Unions Act, 1982; UK Friendly Societies Act, 1992) and, given the insurance business they conduct, by insurance company legislation. Administration of the Act in the UK, and therefore prudential regulation, is shared between the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA).

4.12 Buying associations

Buying associations, usually structured as private companies or co-operatives, exist for one purpose: To *mobilise the buying power of large groups of individuals in order to negotiate discounts on purchases of goods and services on behalf of the individuals* (called members). The discounts, augmented by other income (mainly interest), are paid to members once a year (usually November / December).

Buying associations are often associated with particular groups of individuals that have something in common, such as a shared employer. Examples: *Pretorium Trust*[100]: A buying association (a co-operative) for state employees in Pretoria, South Africa; *Cape Consumers*[101]: A buying association (a limited liability company) for state employees in Cape Town. Purchases are done by the buying association's credit card with merchants contracted to the organisation. The merchants contracted to the buying associations are wide-ranging, and include travel agents, motor car spares merchants, insurers, grocers, animal care givers, pharmacists, stationers, furniture merchants, etc.; the number is in the tens of thousands.

Members purchase (from the contractors) and pay (to the association) according to the rules of the association, and there is a discrepancy between the members' payment date and the association's date of payment to the contractors, in favour of the association. Some associations levy a small monthly membership fee. As noted, bonuses are paid to members toward the end of the year, mainly in order to augment the purchasing power of members before the holiday season. Bonuses are paid net of the costs of managing the organisation.

In addition to the core function, some buying associations have diversified to a degree and offer short term insurance products, asset backed loans (such a vehicle finance), and personal loans, to members. They have a high degree of positive cash flows emanating from the following sources:

- Lag between receipts from members and payments to contractors.
- Membership fee in the case of some associations.
- Discounts negotiated.
- Interest on loans to members.
- Interest earned on surplus funds.

The buying associations are QFIs in that they have *liabilities* (to be paid to members at year end), and investments in the form of loans to members and bank deposits. They thus intermediate as follows:

- Lenders: Ultimate lenders: Household sector (reserves owned by, and funds held which are to be paid to, members).
- Borrowers: Ultimate borrowers: Household sector (loans to); and financial intermediaries (bank deposits).

As buying associations have high positive cash flows and pay members' cash bonuses only from available funds, and therefore have low risk, they are not regulated in the normal sense. However, light regulation does apply in the form of co-operative law, corporate law and, in some cases, the law applying to credit providers.

4.13 Micro-finance institutions

Micro-finance institutions (MFIs) come in various guises, including:

- Village (or local) financial services co-operatives (VFSCs).
- Credit and savings institutions.
- Micro-credit institutions, aka micro-enterprise credit institutions.
- Loan activities of rotating savings and credit associations (RoSCAs), such as the South African "stokvels".
- Micro-finance departments of smaller banks and some of the QFIs mentioned above.

At the outset we need to differentiate between *micro-finance* and *micro-credit*. Micro-finance refers to a range of financial services (including micro-credit, savings, insurance, money transfers, etc.) aimed at unsalaried and low-income persons who do not have access to traditional banking facilities. Micro-credit refers to *small loans* provided to unsalaried and low-income persons with little or no collateral.[102] Micro-finance facilities and micro-credit are provided by MFIs, which may be a division of (and funded by) a government department or a stand-alone institution, such as a VFSC, which is funded by community savings.

Micro-finance (which, as said, includes micro-credit) is provided for many reasons, including:

- Income-producing activities (called micro-enterprises, such as small shops, street vending, artisanal manufacture, farming, food processing).
- Build assets (for example, purchasing land) for stability of income and future collateral provision.
- Stabilise consumption (credit smoothes cash flows which is conducive to the health of the borrower and family, and therefore to repayment).
- Protect against risks (examples, crop failure, illness).[103]

Credit risk is ever-present in micro-credit, especially when no or little collateral is provided by the borrower. Risk mitigation methods employed include:

- Group lending and liability (often to female groups, as in the case of Grameen Bank).
- Fostering a better repayment discipline.
- Pre-loan savings requirements.
- Gradually increasing loan sizes, depending on repayment history.
- An implicit guarantee of ready access to future loans if present loans are repaid fully and promptly.
- Provision of loans at rates of interest which cover the cost of credit delivery.[104]

The history of micro-finance is generally associated with the formation of Grameen Bank in Bangladesh in 1983 by Nobel Peace Prize Laureate Prof Muhammad Yunus. It was originally a non-profit institution and made micro-credit loans to female groups, reflecting the mobilisation of peer pressure, the effectiveness of which is found in the repayment success rate of around 98%.

Regulation of MFIs differs from country to country. In South Africa, for example, MFIs are regulated by exemptions under the Banks Act and the Usury Act. The statutes limit the size of deposits taken, the size of loans made, the term of loans made, and the interest rate. In addition MFIs are obliged to register with the government-initiated Micro Finance Regulatory Council (MFRC). According to the MFRC[105] [sic]: "The MFRC have detailed powers to help them regulate the micro lending industry. These are:

- Implement and execute the terms of any exemptions issued under the Banks Act or Usury Act.
- Regulate its members.
- Address complaints about lenders and enforce the appropriate action.
- Create new rules and enforce them on the activities of its lenders.
- Inspect members annually.
- Collect annual and registration fees."

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5 Ancillary financial entities

5.1 Study outcomes

After studying this material, the student should be able to:

- Elucidate the roles of financial exchanges.
- Describe the activities of securities broker-dealer firms.
- Explain the main function of the fund managers.
- Elucidate the significant roles of the financial regulators.

5.2 Introduction

We have discussed the roles of the mainstream financial intermediaries (banks and investment vehicles) and the quasi-financial intermediaries. There exist also a number of entities, which are not financial intermediaries, but which play a significant role in the financial system. We call them ancillary financial entities:

- Financial exchanges.
- Securities broker-dealer firms.
- Fund managers (aka portfolio managers and asset managers).
- Financial regulators.

5.3 Financial exchanges

5.3.1 Introduction

We cover financial exchanges under the following headings:

- Market form: OTC or exchange-driven.
- Spot and derivative markets.
- Primary and secondary markets.
- Economic functions of secondary markets.
- Roles of exchanges.
- Regulation.

5.3.2 Market form: OTC or exchange-driven

TABLE 5.1: MARKET FORM: OTC OR EXCHANGE-DRIVEN

Market	Description	OTC / exchange
Money	Short-term debt and deposit market	OTC
Foreign exchange	Market for the exchange of currencies	OTC
Bonds	Marketable arm of long-term debt market	Exchange or OTC, usually former
Equities	Market for the sale / purchase of listed equities	Exchange
Derivatives	Forwards Futures Swaps Options on futures Options on underlying Other (credit, weather, etc.)	OTC (usually) Exchange OTC Exchange OTC OTC (usually)
Participation interests	Market for the purchase of participation interests in investment vehicles	OTC
Commodities	Vegetables, grains, metals, etc.	OTC or exchange

Financial markets are either over-the-counter (OTC) or exchange-driven (see Table 5.1). In the former, trading takes place bilaterally (i.e. between the two parties directly) without the intermediation of a formal exchange. An exchange-driven market is formalised, and is buttressed by statute and administered and regulated by (usually) a government agency appointed under the statute. Apart from the advantage of regulation in terms of risk (settlement, credit, etc.) mitigation, exchange-driven markets have transparency and efficient price discovery (in most cases) because of the facilitation of liquidity.

It is important to add here that OTC markets are not necessarily riskier; this is so because the major OTC markets (money, foreign exchange, forwards, swaps, etc.) are firmly in the domain of the robustly regulated banks.

5.3.3 Spot and derivative markets

As seen in Table 5.1, there are a number of *derivative* markets. What are they? They are best elucidated when differentiated from *spot* markets. If one buys LCC 5 million Treasury bills at 5.65% pa on transaction day (T+0) for settlement on one of the accepted settlement days [T+0 or T+1 (settlement on transaction day + 1 day)] it is a *spot* deal. If one buys the Treasury bills at 6.65% pa on T+0 for *settlement* on T+91, it is a *forward* deal (i.e. a forward contract = a derivative deal). Thus, in both cases the deal is transacted on the same day (T+0) at a rate / price agreed on T+0, but the *settlement day differs*. This is the difference. The same applies to all other derivatives, with some adjustments.

There are exchanges for *spot* transactions (examples are equities, bonds) and exchanges for *derivative* transactions (examples are futures on equities, futures on bonds), and there are some exchanges for both *spot and derivative* transactions. However, the spot and derivative markets differ in terms of primary and secondary markets. Spot markets have primary markets only (non-marketable securities) or primary and secondary markets (marketable securities) whereas derivative markets do not (there are a few exceptions). Without a secondary market how does one "get out" of a derivative deal? A futures contract, for example, can be bought, but a new futures contract (of the same type) must be sold in order to cancel the first one. What are primary and secondary markets?

5.3.4 Primary and secondary markets

The *primary market* is the market for the issue of new securities (debt and shares / equities) in order to borrow money for consumption or investment purposes. (One can split hairs and say that equities do not represent borrowing, but ownership, but we will not worry about this issue here; from the point of view of many holders of equities, they represent a temporary loan.) It will be evident that the markets in non-negotiable instruments such as mortgage loans, savings deposits and life policies, are entirely primary markets, while NCDs and bonds (for example) are *issued* in the primary market, but are *traded* in the secondary market.

Secondary market is the term used for the markets in which previously issued financial claims are traded (i.e. bought and sold). Broker-dealers usually facilitate these secondary market transactions. In the primary market the issuer receives funds, whereas in the secondary market the original issuer does not receive funds; only the seller does.

A spot market (or a spot market division of an) exchange is a *secondary market*, as opposed to a primary market. Secondary markets play a significant role in the financial system and the economy, including facilitating the primary markets.

5.3.5 Economic functions of secondary markets

5.3.5.1 Introduction

The economic functions of secondary markets may be summarised as follows:

- Price discovery.
- Liquidity and borrowing cost reduction.
- Support of primary market.
- Implementation of monetary policy.

5.3.5.2 Price discovery

Price discovery is one of the central functions of secondary markets. It is the route through which securities markets arrive at prices for the securities traded. (It must be kept in mind that *prices* in the fixed-interest markets are the *inverse of interest rates*.) The "route" refers to the method of trading, and there are various trading methods (order or quote on ATS, floor, telephone, or screen), which we do not have the space to discuss here. Price discovery is important because it provides information that influences economic decisions, for example whether a company will expand production and finance this with long-term borrowing, or the issue of new shares (rights offer). Price discovery also provides clues as to the prices that need to be offered on new issues of securities.

In an order-driven secondary market there are two prices / rates: Buy and sell. In a quote-driven secondary market there are also two prices / rates: *Bid* and *offer* (or *bid* and *ask* in some countries). The *bid price / rate* is the price that buyers are prepared to pay and the *offer price / rate* is the price at which holders of securities are prepared to sell. The bid price is always lower that the offer price (the opposite applies in the case of rates), and the difference between the two rates / prices is called the *spread*.

The *spread* is a valuable piece of information, for two main reasons. Firstly, it represents the cost of trading, i.e. it is a transaction cost, and this is significant in the creation or lack of liquidity (see below). Secondly, the spread is a reflection of marketability / liquidity. If the spread is narrow, the relevant market is said to be *liquid* (some use the word *thick*, but we will not use it because of its uncharitable connotation), and if the spread is wide the market is *illiquid* (some say *thin*).

5.3.5.3 Liquidity and borrowing cost reduction

Liquidity (some say *marketability* – these two terms mean the same in the financial markets) refers to the ability to trade a security with ease, and without impacting significantly on its price. It will be apparent that in liquid markets, prices will not be adversely affected by large volume deals, whereas in thin markets prices may be shifted markedly by small volume deals. It may be said that a liquid market is more likely to create a *state of equilibrium* in the market. By this is meant that if the buyers and sellers are equally matched in terms of volume, the price will not be affected adversely (up or down), i.e. the price is a market-clearing price. As indicated, in a thin market, the market may clear at a vastly different price, depending on whether buyer volumes outweigh sell volumes (higher price), or vice versa (lower price). Equilibrium is disturbed in thin markets.

Liquidity is significant for two main reasons. Firstly, it enables investors to rapidly adjust their portfolios in terms of size, risk, return, liquidity and maturity. This in turn has a major influence of the *liquidity premium* investors place on liquid securities. This of course means that the issuer is able to *borrow at a lower cost* than in the absence of liquidity. It is for this reason that many issuers of bonds attempt to create their own markets by acting as market makers (quoting buying and selling prices simultaneously) in their own securities, or by outsourcing this function to an investment / merchant bank/s. It is notable that central governments usually jumpstart the bond market by market making in their own securities (or outsourcing this to the central bank).

An important question is how to enhance liquidity. The answer is, firstly, the active participation of the role-players in the financial markets, secondly, the existence of market makers, and thirdly the existence of arbitrageurs and speculators. These will be covered in more detail in a later section on the broker-dealers.

5.3.5.4 Support of primary market

The secondary market plays an important role in terms of *supporting the primary market*. We noted above that price discovery in the secondary market assists the primary markets in terms of providing clues as to the *pricing of new issues*. In addition to this important function, the secondary market provides clues as to the *receptiveness of market for new issues* (which is reflected in the spread). Clearly, a liquid market improves the ability of issuers to place securities, and lowers the rate / increases the price.

5.3.5.5 Implementation of monetary policy

An active secondary market enables the central bank to buy and sell securities in order to influence the liquidity of the banking system, with a view to ultimately influencing interest rates. This is termed *open market operations*, which means that the central bank buys and sells securities / foreign exchange in the *open market*.

5.3.6 Roles of exchanges

The roles of an exchange were partially elucidated above. An exchange is a secondary market (where already-issued securities are traded), and it has a number of economic functions, including price / rate discovery and facilitating the primary market (i.e. capital-raising). The trading (broking and / or dealing) is undertaken by the *members* (various names are used) of the exchange. In addition, the exchange creates the mechanism for clearing and settlement of trades in a risk-minimising manner.[106] Efficient clearing and settlement are essential elements in financial market transactions.

Clearing is usually defined as: "…the process of determining accountability for the exchange of funds and financial assets among the parties to a financial transaction… Clearing involves reporting details of the trade to counterparties, clients, exchanges, regulatory bodies, and others. It also involves matching or comparing the details of the trade with clients and counterparties to make certain all the parties agree." *Settlement* is defined as the fulfilment by each party to a deal of its obligation, in the case of the financial markets by the transfer of funds and scrip[107] certificates.

There are a number of risks inherent in clearing and settlement. They are:

- *Credit risk* is the risk that a deal will not be honoured in full, and is also called *default risk*. If a party defaults on a deal the counterparty either does not receive the scrip (i.e. security) or the funds. On default, the counterparty faces replacement cost risk or principal risk.
- *Replacement cost risk*. The counterparty to, for example, a failed bond market transaction (in terms of not receiving the security), and not paying, faces the risk of recreating the deal at a different price which could be worse, involving him / her in a loss. There may also be a settlement timing difference, which could make the counterparty a defaulting party to another transaction. The danger of a *domino effect* exists.
- *Principal risk* is the risk that *after the transaction is settled* a party defaults. In the above example this amounts to the counterparty not receiving scrip after payment has been completed. The opposite case is where one party receives scrip but does not pay. Included in this type of risk is the *risk of tainted*[108] *scrip* (which is discovered after settlement).
- *Operational risk* is where there is a failure of some facet of the computer system (hardware) or software or communications system.
- *Systemic risk* is the risk that large defaults or failed transactions threaten the entire financial system.

- *Errors risk* is where the deal is different to that intended, for example the wrong scrip, the incorrect amount, buying as opposed to selling, the incorrect order (market order instead of limit order), etc.
- *Other risks* include one of the entities involved in a deal failing, such as the broking firm, the clearinghouse, the central scrip depository, the exchange, etc. Also in cross-border deals there may be complications in laws or the rules of exchanges.

The *procedural methods* involved in mitigating *clearing and settlement risk* are as follows:

- *Netting*. Netting involves the offsetting of the obligations of trading entities, and applies to payments and securities delivery. Netting reduces obligations substantially and therefore reduces *costs* and *credit risk*. Netting can be bilateral (between two parties) or multilateral (between groups of trading entities).
- *Settlement day*. As noted earlier, the risk of replacement cost exists prior to settlement risk. For this reason markets around the world continue to reduce the time period between transaction date and settlement date.
- *Delivery versus payment on settlement day*. When settlement day arrives, risk management is focussed on the reduction of *principal risk*. The key here is to secure *delivery versus payment*, i.e. to ensure that both settling parties exchange assets (money and scrip) at the same time.
- *Margin*. Here one needs to distinguish between the spot markets and the derivative markets. In the latter case, all the parties to a deal are obliged to put up (make a) "margin" payment, which is like a *performance guarantee*. The individual places the margin with the broker-dealer, the broker-dealer places this with the relevant clearing member (which is usually a bank of substance), the clearing member places this with the exchange, which deposits it at different banks. In the case of the debt and share markets, the individual speculator (not institutions) is required to put up margin, which is a *down payment*, with the broker-dealer lending the remainder of the purchase price. Margin is based on the volatility of the underlying instrument.

The *institutions* put in place in many markets to deal with *clearing and settlement risk* are as follows:

- *Clearinghouses*. A clearinghouse (CH) is an entity that handles clearing and some aspects of settlement, such as deal matching and netting. In some markets the CH interposes itself between the parties to a deal and itself becomes the counterparty to both these parties. Many CHs have clearing members (as noted above), which usually are the large banks, and all broker-dealers are obliged to clear through them.
- *Common agreements*. In many markets of the world, parties to certain transactions use agreements issued by international organisations. This reduces the risk of legal misconstruction. An example is the Master Agreement of the International Swap Dealers Association (ISDA).

- *Central scrip depositories* (CSDs). CSDs are entities that accept deposits of securities and account for the transfer of these securities among participants. *Immobilisation* and *dematerialisation* is applicable here. In many markets scrip is *immobilised* in a CSD to eliminate the physical movement of scrip in transfers of ownership. Transfers of ownership become book entries (in accounts that participants have). In the case of dematerialisation, scrip no longer exists, and proof of ownership becomes electronic.
- *Global custodians*. Global custodians are usually banks that hold scrip in safe custody on behalf of clients and ensure that clients' transactions are settled and registered accurately. They are also responsible for the collection of dividends, interest, share splits, etc., on behalf of clients.
- *Communications networks*. Communications networks such as the well-known SWIFT (Society for Worldwide Interbank Financial Telecommunications) assist in clearing and settlement. Participants use SWIFT to send details on transactions and confirmations for the transfer of funds and securities.

5.3.7 Regulation

Generally, exchanges have a blend of statutory and self-regulation: They are established under a dedicated law which appoints the administrative and regulatory authority / authorities, and circumscribes the exchanges' and related institutions' (such as the CSD and the CH) broad activities, including the *obligation to have a Rule Book*. The statute presents the broad outlines of the Rule Books but leaves the detailed provisions up to the exchanges and related institutions (because they are closer to the coal face). The Rule Books are a manifestation of the self-regulation aspect of the law.

Below are the main provisions of the South African Financial Markets Act, 2012 [South Africa, in the World Economic Forum's Global Competitiveness Report 2013–2014 (and earlier reports), was ranked No 1 in "regulation of securities exchanges" (and other corporate rankings)]. The Act provides for: "…the regulation of financial markets; to license and regulate exchanges, central securities depositories, clearing houses and trade repositories; to regulate and control securities trading, clearing and settlement, and the custody and administration of securities; to prohibit insider trading, and other market abuses; to provide for the approval of nominees; to provide for codes of conduct…" The main provisions are:

- Powers of the Minister and the Registrar of Securities Services.
- Licensing and functions of exchange.
- Exchange Rules: Requirements with which exchange Rules must comply.
- Provisions in respect of authorised users (i.e. members) (including segregation of funds and securities).
- General provisions in relation to listed securities (most exchanges – or divisions – have a detailed listing requirements document).
- Custody and administration of securities (including licensing and functioning of CSD and depository rules: Requirements with which depository rules must comply).
- Clearing house (CH) (including licensing and functions of CH and CH rules: Requirements with which CH rules must comply).
- Provisions applicable to market infrastructures.
- Code of conduct.
- Market abuse (including insider trading).
- Auditing requirements.
- Maintenance, by exchange and related institutions, of insurance, guarantees, compensation funds or other warranties.

As said above, exchanges (or divisions) have a Rule Book which sets out the details with which members must comply. This includes educational requirements for broker-dealers.

5.4 Securities broker-dealer firms

5.4.1 Introduction

Most securities broker-dealer firms are members (also known by other names) of the financial exchanges and their prime function is to facilitate the trading of financial securities in a secure environment. Note that here we exclude the foreign exchange (forex) market, which is the domain of the banks. Some firms, such as money brokers and interdealer brokers in some countries, are not members of an exchange. The securities broker-dealer firms are:

- The member firms (aka *authorised users*) of financial exchanges.
- Interdealer brokers (IDBs).
- Money brokers.

These firms trade either in *single capacity* (purely as *brokers*, or purely as *dealers* for own account) or *dual capacity* (trade as brokers and dealers). One type of dealer we need to isolate is the *market maker* (aka *specialist* on the New York Stock Exchange). As discussed before, they quote buying (aka bid) and selling (aka offer or ask) rates / prices simultaneously and are prepared to buy or sell at the quotes once the volume of the deal is disclosed. We refer to them here collectively as *broker-dealers.* Broker-dealers are the entry point into securities buying / selling.

5.4.2 Member firms

The members of exchanges are authorised to trade in terms of the Rules of the exchange. The Rules are a statutory obligation in terms of the statute governing the exchange. The Rule Book is an elaborate set of requirements and includes (this is the essence of the London Stock Exchange Rule Book):

- Core rules (including authorisation of members, member firm categories, general conduct, segregation of funds of clients, systems, trading, etc.).
- Order book trading rules.
- Off-order book trading rules.
- Market maker rules (including special registration, obligations in order-driven and quote-driven securities, obligations of fixed-interest and gilt-edged market makers, etc.).
- Settlement, clearing rules.
- Compliance rules.
- Default rules.

There is one variation on the theme of stockbroker member firms: The *prime broker.* Prime brokers emerged as providers of special services required by hedge funds, including custodial services, securities lending (to facilitate short sales), settlements, centralised clearing (to ensure netting of trades and margining), financing (for leveraged trades, and cash management), specialised technological requirements, reporting, etc. prime brokerage services are usually provided by the larger broker-dealers.[109]

5.4.3 Interdealer brokers

Interdealer brokers (IDBs) are independent (because of their nature of business) firms which offer a "pure" broking service (in the sense that they do not take positions themselves) to the large market making participants in the financial and commodity markets. The list differs from country to country. An example is required: In the forex market, in which the large banks are the market makers (MM; also denotes "market making"), the IDBs provide the bids and offers of the MM banks to other MM banks over "squawk boxes" (a live voice communication system on the desks of the MM bank forex dealers; however, there is a move toward electronic broking). Through these systems MM banks are able to communicate deals to other MM banks in real time with anonymity.

There are two classes of IDBs: *Name-passing* IDBs (NP-IDBs) (aka *name-give-up* IDBs) and *principal-broker* IDBs (PB-IDBs). The NP-IDBs disclose the two MM banks' names to one another after a deal is struck so that they may settle the deal directly. These IDBs are not highly capitalised, as they take on little risk (a misdeal which may lead to a buy / sell at a poor rate / price). The PB-IDBs are well capitalised and, because of this, the two MM banks to a deal are happy to settle with the PB-IDB instead of with one another.

IDBs do not take a spread; only a small commission related with the size of deal. IDBs do not deal with clients of the banks, only with the MM banks. Traditionally, IDBs were not, or were lightly, regulated. There are plans to regulate IDBs via requiring them to deal on regulated platforms and in standardised OTC derivative contracts. According to a commentator[110], "Financial regulators in the US and Europe have pushed for greater standardization of over-the-counter (OTC) derivative contracts, supporting electronic price discovery, trade execution and reporting, and mandating central counterparty (CCP) clearing to reduce systemic risk."

According to The Economist[111], five firms dominate the landscape: The largest, London-based *Icap*; second-largest, London-based *Tullett Prebon*; Swiss firm *Tradition*; New York-based *BGC Partners*. IDBs play an important role in terms of assisting in price discovery (on a micro level).

In the distant past IDBs only provided a broking service to the MM banks in the forex market, but this has expanded over the years to include (in some countries) the other markets. This applies also to the traditional and separate *money brokers*, which provided a service restricted to bank deposit broking. The separation of the two types of brokers is reflected in the original industry association, *the Foreign Exchange and Deposit Brokers' Association* (FEDBA), established about 50 years' ago. It is now called the *Wholesale Markets Brokers' Association* (WMBA). According to the WMBA, it "…works on behalf of the inter-dealer broker (IDB) industry to represent their interests and those of the markets in which they operate. Of particular importance are the relationships that the WMBA has with regulators, government bodies and central banks. The Association also supports efforts to ensure the highest standards of training and competence and codes of conduct are adhered to."[112]

Money brokers still exist in countries such as China-Hong Kong, Malta, Malaysia, Sri Lanka, Singapore, etc.; they have also expanded their scope of business, bringing them closer to IDBs. We cover them next.

5.4.4 Money brokers

The term money broker is usually associated with "pure" (i.e. no positions are taken) brokers in local bank deposits (in some countries broking in other currency deposits, and financial instruments, are permitted). In the case of deposits, they broke between depositors and banks which require deposits, and earn a commission.

Money brokers are regulated, usually by registration under the banking statute. In Hong Kong, for example, the Banking Ordinance provides that "…no person shall act as a money broker unless that person is approved by the Monetary Authority under the [Banking] Ordinance. The administrator of the Ordinance, the Hong Kong Monetary Authority, determines that 'money broker' is defined to mean a person who, for reward, carries on the business…of negotiating, arranging or facilitating…agreements between other persons –

- in respect of the making of deposits of any currency; the purchase or sale of any currency; or the purchase or sale of an instrument specified in a notice under…the Ordinance by the Monetary Authority
- one of which is an authorized institution
- as agent for, or as the provider of a dealing service to, not less than one of those persons."[113]

The regulation of money brokers in Singapore is similar. The Monetary Authority of Singapore (MAS) states that "Money brokers are approved and governed under the MAS Act. The money brokers…shall only provide broking services and not act as principal or take positions in the foreign exchange and money markets. Money brokers shall only deal with banks and financial institutions licensed, approved, registered or regulated by MAS to have direct access to money brokers in Singapore."[114]

5.5 Fund managers

5.5.1 Classes

Fund managers (aka portfolio / asset / investment managers) are low-capitalised corporate entities which manage funds *on behalf of* principals (i.e. the owners of funds). They are minimally capitalised because they take no financial risk; their principal risk is reputation risk. Generally, three classes are identifiable:

- *Standalone fund managers* (SFMs), which are corporate entities, and which may or may not be a part of large financial services groups (predominately insurance or banking).
- *Stockbrokers* (SBs), which may or may not be corporate entities [some countries allow individuals to be members of exchanges (in which case they have unlimited liability in their personal capacities)].
- *Departments of long-term insurers* (LTIs). As we saw earlier, a large part of the business of long-terms insurers is the management of the funds of smaller retirement funds, which are "pooled" and unitised.

5.5.2 Portfolio types

There are three broad types of portfolios / funds that need management. They are shown below, with the fund manager class usually engaged (management in-house is denoted by MIH):

Liability and asset portfolios:

- Banks MIH only
- Insurers MIH or SFMs
- Hedge funds MIH

Liability portfolios (debt management):

- Government MIH (usually)
- Companies MIH or SFMs (aka "treasury outsourcing")

Asset portfolios:

- Securities unit trusts (SUTS) and ETFs
  - Money market funds MIH or SFMs
  - Bond funds MIH or SFMs
  - Share funds (various) MIH or SFMs
- Retirement funds MIH, SFMs or LTIs
- Individuals MIH, SFMs or SBs.

Fund managers tend to specialise. For example, some SFM's only offer bond management services; some offer only "treasury outsourcing" services; some offer only retirement fund management; stockbrokers generally only offer equity / share management services.

To say that the fund managers play a significant role in the economy and the financial system is an understatement. The largest funds are the retirement funds, the insurers, the SUTS and ETFs, and almost all these funds are managed. Therefore, the fund managers "control" the majority of funds investible in the economy, and they contribute significantly to market liquidity, efficient market pricing, and so on.

5.5.3 Regulation

We have briefly discussed the regulation of the financial institutions such as SUTs, ETFs, retirement funds, and so on, many of which are managed by fund managers. What about the regulation of the three classes of fund managers? Regulation of the SB and the LTI classes is relatively straightforward as there are specific statutes which deal with these industries. It is more complex in the SFM class because there are different specialisations which require customised regulation (for example the hedge fund industry). It is not easy to provide a summary of the wide-ranging and complex legislation. Below we just touch the surface.

The fund management business of a stockbroker is a department of the business, and this function is (usually) regulated under the statute that applies to stockbrokers, as well as the Rules of the exchange, which are issued in terms of the statute. The most important directives of the statute and the Rules in this respect are: (1) protection of client money and custody assets, through Rules which ensure segregation of clients' funds and securities from the firm's funds and securities, (2) fit and proper (honesty, integrity, experience, educational, etc.) requirements, and (3) the capital requirement.

The fund management business of LTIs is regulated under the same statute that applies to the industry, usually called the Long-term Insurance Act.

Standalone fund managers are also strictly regulated. In Australia, for example the fund management industry is regulated by *Australian Financial Services Licence* (AFSL) regulations, which are issued by the *Australian Securities and Investment Commission* (ASIC). The ASIC is a department of the Federal Government which is responsible for the *Corporations Act*. The provisions of the AFSL are based on parts of the *Corporations Act*.

In essence, any provider of a *financial product or service* in Australia is required to hold an AFS licence covering the *specific* financial services being provided. In order to obtain an AFSL, the licensee must demonstrate to the ASIC that they meet various professional and industry standards, including business and financial resources, relevant experience, industry knowledge, and do not engage in deceptive and misleading conduct.[115]

In the UK fund managers are regulated by the Financial Conduct Authority (FCA). It articulates its priority: "The protection of client money and custody assets (client assets) is an FCA regulatory priority."[116] Fund managers are licensed (authorised) by the FCA, which requires (1) regular reporting via regulatory returns, (2) adherence to a treating-customers-fairly requirement[117], and (3) a capital requirements directive (which is an EU-wide directive).

In the US fund managers are regulated by the SEC's *Division of Investment Management*. The division "…works to: protect investors, promote informed investment decisions, and facilitate appropriate innovation in investment products and services through regulating the asset management industry."[118]

5.6 Regulators

5.6.1 Introduction

It is commonly accepted that financial systems are prone to instability. At the centre of instability are the banks: It is rare for non-bank financial intermediaries to fail (they do but it is uncommon), but many banks do fail, or are recapitalised in order that they do not fail (often for the account of the taxpayer). The large banks are bailed out because of the threat of contagion and systemic failure (i.e. the so-called "systemically important" banks), while the smaller ones are not. The worse case scenario was experienced after the 2007–2009 great recession, when a number of the world's largest banks were recapitalised. So, banks are inherently unstable.

Why is this so? It is because we, the public, generally accept *bank deposits to be the means of payments*. This is the definition of money (by the way, bank notes are also bank deposits). This means that we accept the *deposit liabilities* of banks to be money. It follows that banks are able to create new deposits (i.e. new money) by simply making loans (however, there must be a demand for credit). We discussed this earlier and presented the fact that the correlation between bank credit growth (the outcome of which is money creation) and nominal GDP growth is just about perfect (R^2 = just below 1.0).

What does this mean? It means that boom periods (high GDP growth) are associated with strong bank credit / money growth. Boom periods are brought to an end by high bank lending interest rates (the only tool a central bank actually has – via hiking of the policy interest rate supported by a central bank-engineered liquidity shortage). This *re-action* by the central bank has two main consequences: (1) it compromises the ability of the bank credit borrowers (who, with the banks, brought about the boom) to service the bank debt incurred, i.e. their balance sheets are compromised. Many of them fail to repay their loans, which compromises bank solvability. (2) High interest rates curb bank credit demand (upon which a boom is based). The consequence is profound: A recession (negative GDP growth), which further compromises the ability of borrowers to repay or service their bank debt.

How is GDP growth restored? It is restored painfully slowly, starting with a major drop in interest rates engineered by the central bank. This positively affects individuals' and companies' liabilities, and allows them to nurse their balance sheets back to health. The recession (negative GDP growth) ends after 2–3 years, but it takes about 5 years before GDP growth gets back to a reasonable level.

What has this go to do with regulation? It is that bank regulation is aimed at protecting the consumers of bank products: The depositors, and the borrowers (which, generally, are borrowing to expand businesses, or to purchase a dwelling). Their protection, as well as the financial wellbeing of the banks (depositors and borrowers represent both sides of banks' balance sheets), is closely tied with interest rates, i.e. monetary policy. This is why the bank regulator is situated in the central bank (in most countries), and the central aim of the central bank is *financial stability*.

The stability of banks also indirectly influences the stability of non-bank financial intermediaries. For this reason many central banks have taken over, or are taking over, the *prudential* regulation of the other main financial intermediaries (insurers, retirement funds, CISs, etc.), leaving *market conduct* to another regulatory authority. This model of financial regulation has a name: *Twin Peaks*.

With this as a backdrop, we discuss the *regulators* under the following sections:

- Objectives of regulation.
- What is regulation?
- What is regulatory supervision?
- Scope of financial intermediary regulation.
- Regulatory agencies.

5.6.2 Objectives of regulation[119]

The objectives of financial regulation can be distilled into three:

- Systemic stability.
- Safety and soundness of financial intermediaries.
- Consumer protection.

These are the ultimate objectives. The intermediate objectives are:

- Objective of systemic stability:
  - Competitive market infrastructure.
  - Acceptable maturity and currency mismatches.
  - Sufficient market depth and liquidity.
  - Efficient securities markets as alternative to bank intermediation (i.e. the achievement of competition between banks and securities markets).
  - Regulatory effectiveness, efficiency and economy.
- Objective of safety and soundness of financial intermediaries:
  - Adequate capital resources.
  - Proper risk assessment.
  - Proper financial institutional and market infrastructure.
  - Suitable ("fit and proper") directors and management.
  - Global institutional competitiveness.
- Objective of consumer protection:
  - Integrity and fairness (i.e. address the problems of failed contracts).
  - Competence (fit and proper requirements for staff, compliance officer, internal and external auditors, etc.).
  - Transparency and disclosure.
  - Adequate access to retail financial services.
  - Protection of retail funds.
  - Retail compensation schemes.

5.6.3 What is regulation?

Let us take a step back and ask: *What is regulation*? According to one legal dictionary[120] the term *regulation* means: "A rule or order having the force of law, prescribed by a superior or competent authority, relating to the actions of those under the authority's control." In non-legal terms, *regulation* covers *statutes* (aka *laws*) enacted by the highest legislative authority (in most countries called Parliament), and *regulations issued under statutes*, which govern, direct, or control the activities of institutions or persons.

A law is not administered by Parliament, but by an *agency* or *agencies* appointed under the law. The agency (called the *regulator*), being the closest to the coal face, is empowered under the law to issue *regulations* under the law to give effect to the law. A good example is a Banks Act, which is administered by the *agent / regulator* appointed under the law, the central bank, and the central bank is able to issue *regulations* under the Act. The law can be seen as the "broad-stroke rules" and the regulations as the "narrow-stroke rules". According to the above-mentioned source[121]: "Much of the legislative power vested in administrative agencies comes from the fact that Congress can only go so far in enacting legislation or establishing guidelines for the agencies to follow. Language that is intrinsically vague and cannot speak for every factual situation to which it is applied, as well as political factors, dictate that the agencies have much to interpret and decide in enforcing legislation."

5.6.4 What is regulatory supervision?

Related to regulation is regulatory supervision? In the case of banks, according the Federal Reserve Bank[122], supervision "…involves monitoring and examining the condition of banks and their compliance with laws and regulations. If a bank under the Federal Reserve's jurisdiction is found to have problems or be noncompliant, the Federal Reserve may use its authority to request that the bank correct the problems." Supervision takes many forms, including:

- Scrutiny of the returns financial institutions are required to submit to the regulator.
- On-site inspections.

5.6.5 Scope of financial intermediary regulation

Because of the significant role played by financial institutions (not least of which is as custodian of the major proportion of the financial resources of the nation) the scope of regulation as applied to financial institutions is wide and complex. It is not possible to summarise the scope for all financial intermediaries. Instead, we offer a brief generic list of the main requirements (they apply to the various intermediaries in various degrees):

- Administration of Act:
  - Creation of Office for… (financial institution type).
  - Appointment and powers of Registrar of… (financial institution type).
  - Licensing / registration.
- Prudential requirements:
  - Minimum share capital and unimpaired reserve funds, and quality thereof (in most cases related to risk), which could include:
    - Definition of capital: Tier 1 capital, Tier 2 capital, etc.
    - Level of capital.
    - Capital conservation buffer.
    - Counter-cyclical capital buffer.
    - Leverage ratio.
    - Systemically important banks: To have loss absorbing capacity beyond "normal" requirements.
    - Derivatives: Certain restrictions or special capital requirements in some cases.
  - Minimum liquid assets (including cash reserves), which could include:
    - Liquidity coverage ratio.
    - Net stable funding ratio: Alignment of long-term liabilities with long-term assets.
  - Diversification of assets (amongst asset classes).
  - Large exposure limits.
  - Returns to Registrar (generally prescribed).

- Provisions relating to conduct of business:
  - Restrictions on certain investments, for example property, shares loans to subsidiaries.
  - Undesirable practices.
  - Limitation on certain activities, such as proprietary trading.
- Governance (sometimes termed *functioning with reference to company law*):
  - Adoption of and compliance with "code of governance principles", a voluntary code proposed by countries' corporate association bodies (such as an Institute of Directors). In many countries the codes are incorporated into company law and exchange listing requirements.
  - Appointment of board members (especially in respect of the split between executive and non-executive), and conduct of directors.
  - Appointment of trustees (which applies in some cases).
  - Appointment of board committees: Risk, audit, compliance, etc.
  - Appointment and functions of internal and external auditors.
  - Appointment of actuaries (in the case of insurers and retirement funds).
  - Audit and internal audit reports.
  - Financial statements.
- General provisions:
  - Supervision by the agency.
  - Powers of inspection of Registrar.
  - Issue of regulations under the Act.
  - Review of the Act.

Given a focus on financial stability, regulators give serious consideration to the effect of all requirements introduced on financial stability.

5.6.6 Regulatory agencies

There are four approaches in respect of the regulatory agencies[123]:

- *Institutional approach*: A firm's legal status (for example: bank, broker-dealer, insurance company) determines which regulator is tasked with overseeing its activity from both a safety and soundness and a business conduct perspective.
- *Functional approach*: Supervisory oversight is determined by the business that is being transacted by the entity, without regard to its legal status. Each type of business may have its own functional regulator.
- *Integrated approach*: A single universal regulator conducts both safety and soundness oversight and conduct-of-business regulation for all the sectors of financial services business.
- *Twin Peaks approach (a form of regulation by objective)*: Separation of regulatory functions between two regulators: One that performs the safety and soundness supervision function and the other that focuses on conduct-of-business regulation.

As stated earlier, the model of financial regulation a number of countries have adopted[124] or are considering adopting[125] is the latter: The *Twin Peaks* model. This model has two regulators:

- Prudential regulator (the central bank).
- Market conduct regulator (a government agency.

The Financial Services Board (FSB)[126] elucidates that the *prudential regulator*, the central bank: "…will be responsible for both micro and macro-prudential regulation and supervision. Micro-prudential regulation aims to secure the safety and soundness of banks, insurers, financial conglomerates and financial market infrastructure. Macroprudential regulation seeks to promote the stability of the financial system as a whole. The stability function will also look at crisis management and resolution."

The FSB articulates that the *market conduct regulator*: "…will focus on protecting consumers of financial products and services. The most vulnerable customers are retail clients who often lack the sophistication and information necessary to protect themselves from fraud, market abuse or ill-informed advice. They rely on financial institutions and their representatives to look after their interests. The new market conduct regulator will therefore oversee the market conduct of all financial services institutions, including banks. Market integrity is seen as an essential foundation for Twin Peaks implementation. Regulating for market integrity, which will continue under the Twin Peaks model, typically involves setting and enforcing rules governing product disclosure, rules to promote orderly and efficient trading and price formation, rules to avoid market abuse and requirements to oversee the operation of exchanges and market infrastructure."

An example of this model is the UK: The Bank of England is the *prudential regulator*, and the *market conduct regulator* is the Financial Conduct Authority (FCA). The UK has a third regulator: Financial Policy Committee (FPC) which is responsible for identifying and correcting broad threats to financial stability. Another example is South Africa: The central bank is the *prudential regulator*, and the Financial Services Board (FSB) is the *market conduct regulator*.

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Endnotes

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