PEARSON

CHAPTER 1

Introduction to Financial Markets and Institutions

Chapter Overview

This chapter provides an overview of the organisation and structure of financial markets, including an overview of the various market participants and financing methods (direct versus intermediated financing). We take the approach that intermediation should be strictly characterised by the asset transformation function. That is, we argue that a transaction should be classified as an intermediated transaction if assets are transformed with respect to risk characteristics, such that the security held by the ultimate saver has a risk profile not directly linked to the security issued by the ultimate borrower. For example, intermediaries typically transform the credit risk, capital risk, liquidity, maturity and repricing characteristics of the securities they issue to ultimate savers and purchase from ultimate borrowers. For this reason, we classify investment in a managed fund as direct financing, given the performance of the assets in the fund have a direct bearing on the return to investors in the fund.

The chapter also considers the way in which financial institutions and markets are regulated in Australia. The discussion focuses on the two major aims of modern financial regulation—investor protection and systemic stability. In addition, recent regulatory changes are considered.

Objectives

The specific objectives of this chapter are to:

- provide an explanation of funds flows in the economy;
- explain how financial markets transfer funds between sectors and entities;
- examine the factors which determine saving;
- distinguish between direct financing and intermediation (indirect financing);
- identify the benefits of intermediation;
- distinguish between primary and secondary markets;
- outline the desirable characteristics of financial markets;
- consider the role of international markets in providing funds to Australian entities; and
- discuss the aims, institutions and techniques of financial regulation in Australia.

Revision Questions

1. What alternatives are available to an economic entity if its investment exceeds its savings in any given period?

This sector will be in net deficit on the capital account of the flow of funds matrix, and a net borrower on the financial transactions account of the matrix. The sector will have to fund this deficit by selling financial assets and/or issuing financial liabilities.

2. Distinguish between direct and intermediated financing. What factors are driving increases in direct financing in the Australian financial system?

Direct financing represents the direct transfer of funds from ultimate savers to ultimate borrowers, as would be the case if an individual purchased a share in a company. Only one financial asset is created in this process. Intermediated financing represents the channeling of funds from ultimate savers to ultimate borrowers through an intermediary such as a bank. Two financial assets are created in this process—a deposit and a loan. A distinguishing feature of financial intermediation is the transformation of these assets with respect to risk characteristics—the liquidity, credit risk and maturity of bank loans typically differs from that of bank deposits. The financial intermediary *manages these risks, and the return paid to depositors bears no direct relationship to the performance of loans.*

A moot point is the classification of funds under management as either direct or intermediated financing. While funds under management are commonly classified as intermediated financing because two assets are created (the assets held by the fund and the claim of the contributor on the assets the fund), we take the view in the book that funds under management are more akin to direct financing, in the sense that there is typically no transformation of assets by the fund/intermediary with respect to risk, maturity or cash flow characteristics. The fund holds assets on behalf of investors and distributes earnings based on the performance of these assets —in this way there is a direct relationship between the performance of the assets and the return to the ultimate savers. Thus, when classifying financing as either direct or intermediated, we take the asset transformation perspective.

There has been a shift away from intermediation to direct financing in Australia over recent years. A growing number of corporations with strong financial fundamentals and high credit ratings have been bypassing traditional intermediaries such as banks and issuing debt securities direct to investors. There has also been growing interest by individual investors in equity investments such as shares, both through direct participation and managed *funds. Compulsory superannuation in Australia has resulted in a significant shift of household savings away from bank deposits as a source of investment.*

3. Distinguish between primary and secondary markets. Discuss the functions of dealers and brokers in these markets.

Primary markets are markets in which securities are issued for the first time. Investors purchase the securities directly from the issuer or from a tender panel that represents the issuer. Secondary markets are markets in which investors sell their securities to other investors—the subsequent trading of securities.

Dealers are individuals or institutions who hold inventories of assets and stand ready to buy or sell assets out of these inventories. Dealers add to the efficient functioning of markets because they provide an immediate market in the assets in which they trade—this means investors can trade securities with dealers when they please, rather than having to locate other investors willing to buy or sell. While dealers hold an inventory of the assets in which they trade, brokers typically do not hold an inventory and thus do not provide the same immediacy in trading. Brokers bring buyers and sellers together, and as such, act more as sales agents.

4. What is market liquidity and how is it measured? What factors are conducive to the liquidity of financial markets?

Market liquidity refers to the ease with which securities can be bought and sold at 'representative' prices. An asset that takes considerable time to be sold or which can only be sold quickly if its price is reduced significantly below intrinsic value would not be considered a liquid asset. Liquidity is often measured by trading turnover, however, this may be an imperfect measure. Traders typically look for 'smoothness' in price movements over time when assessing the liquidity of an asset. An asset showing sharp jumps in prices, followed by periods of little or no price movement (representative of the silhouette of a city skyline) would be regarded as having low liquidity. These cases are sometimes described as "one-sided markets", e.g. only sellers are entering the market. In that case a large change in price would be necessary to clear the market.

Factors conducive to the liquidity of markets are depth (ability to absorb temporary imbalances in demand and supply without dramatic price swings), breadth (prices are competitive) and resilience (speed of recovery following an abnormal price change).

5. Without the aid of a financial intermediary, individuals can invest in the claims of a number of different corporations and in the process diversify their investment portfolio. Under what circumstances might individuals seek to use financial intermediaries to do this for them?

It is true that individuals can diversify their investments to reduce risk in much the same way that financial intermediaries can spread their risk across different asset categories. However, intermediaries can do this more cost effectively than individuals because intermediaries pool the funds of many investors and (1) can spread these funds across a much larger range of assets (diversify), in some cases accessing high value assets which would not be available to individual investors and (2) intermediaries can generally do so at lower transaction costs than individuals. The latter arises to the extent that a fixed component of brokerage charges are paid regardless of the size of the investment. Further, intermediaries employ specialists who carry substantial knowledge and expertise regarding specific investment markets and can select investments accordingly. An individual would be unlikely to be able to gain or absorb such knowledge across a range of investment alternatives.

6. How do you go about short-selling a security?

Short-selling refers to the sale of a security that you do not currently hold. Therefore, you need to borrow the security from a broker and then sell it. You are then obligated to buy back the security in the market at a later date in order to replace the borrowed security. Short-selling is only profitable when the security's price falls, so there is a risk that you will make a loss if the price rises. To cover this potential loss, the broker requires that you post a certain amount of funds (known as a margin) into an account held with the broker. These funds essentially act as your collateral.

"Naked short-selling" occurs when the seller simply undertakes to deliver a security at a later date without any other transactions.

7 Do the arguments for regulation of deposit-taking institutions apply to other financial institutions such as managed investment funds?

The two arguments for financial regulation are:

- *systemic stability*
- *asymmetric information*

Systemic stability is generally discussed in the context of deposit-taking institutions. Their deposits form part of the payments system and any *undermining of this mechanism can have very unfavourable effects on the performance of the economy. Also, their function of liquidity transformation makes them vulnerable to "runs" and to contagion.*

The Wallis Committee argued that units in managed funds should not be treated in the same way as the deposits in deposit-taking institutions. The latter are capital guaranteed, i.e. the depositor expects to receive back the full value of the original deposit. In contrast, the units in managed funds vary in value as the market prices of the assets held by the funds change. Therefore, there is no point in "running" on managed funds.

However, the problem of asymmetric information may be even more relevant in the case of managed funds than in the case of deposit-taking institutions. Some of the products of managed funds are very complex and investors often have little information on the investment activities of these institutions. Therefore, there is an argument for some regulation of managed funds in order to protect investors. However, the nature of this regulation will be very different from that appropriate for deposit-taking institutions.

8 What are the effects on borrowers of putting a ceiling on the rates that banks charge on housing loans?

Let us assume that the ceiling is a binding constraint, i.e. that a higher interest rate would be established in a free market. This means that, at the ceiling rate, the demand for loans will exceed the amount the banks would be willing to provide.

This shortfall could have a number of implications. First, it could lead to banks adopting stringent credit standards, lending only to the most credit-worthy borrowers. This means that the poorer members of the community are likely to be the ones who are rationed out.

Secondly, those borrowers who are rationed out will look for funding elsewhere. They are likely to obtain it from non-bank institutions that lend at higher interest rates. That is, the ceiling has the perverse effect of forcing poorer borrowers to pay higher interest rates. This means that the non-bank organisations can pay higher returns on their deposits and they will therefore attract funds away from the banks.

This drift of funds could be a matter of concern because:

- *the non-bank institutions are smaller and less efficient than the banks;*
- *the non-bank institutions are less regulated than banks, which means that the financial system is becoming riskier.*

9 What evidence of contagion has there been in the post-war Australian financial system?

There have actually been very few examples of contagion in Australia. Fitz-Gibbon and Gizycki (2001) examine a number of examples of runs on financial institutions in difficulties, but remarkably few of them had repercussions.

There were some runs on building societies around Australia as a result of the failure of Cambridge Credit in 1974. These runs had a particularly powerful effect in Queensland where some building societies were suspended or put under administration. The closure of Queensland Permanent led to a run on the Metropolitan Building Society.

In 1974, there was a run on the St. George Permanent Building Society following unfounded rumours propagated by a popular broadcaster. The run had no important repercussions for other organisations.

In 1979, the Bank of Adelaide failed because of the difficulties of its subsidiary, the Finance Corporation of Australia (FCA). It was taken over by the ANZ and there were no significant impacts on other institutions. Similar results were produced by the later failures and absorption by other banks of the State Banks of Victoria and South Australia.

In February 1990, there was a run on all the building societies owned by the Victorian Farrow Group, including the Pyramid Building Society. There was some spillover to other financial institutions (including the Bank of Melbourne), but the damage was limited. The Metway Bank in Queensland was also affected, but it was able to survive the pressures.

These examples are fairly minor, but as Fitz-Gibbon and Gizycki (2001) show, this is partly a result of the actions of various government authorities.

10 Consider the impact of primary reserve requirements on the loan rates charged by the institutions subject to them. Who bears the cost of a penal interest rate (i.e. below-market interest rate) being paid on these reserves?

In a competitive environment, the loan rate will be set as:

Cost of funds + Administrative costs related to the loan + Normal profit

If any of the components increase, the loan rate must increase.

Assume that a financial institution is required to put 10% of its deposits with the central bank and receives no interest on this reserve (obviously a penal rate). Assume also that the institution's cost of funds (the rate it pays depositors) is 10% p.a. In order to raise 90¢ for a loan, the institution has to raise $1 and it pays 10¢. Therefore, the cost of loan funds is:

$$\frac{10}{90} \times 100\% \ p.a. = 11.11\% \ p.a.$$

i.e. the reserve requirement has raised the cost of funds by 1.11%. In a competitive environment, this would be passed on to the borrower.

It should be noted that real life examples would not involve such a high reserve requirement or so penal an interest rate.

Reference

Fitz-Gibbon, B. and M. Gizycki (2001), *A History of Last-resort Lending and Other Support for Troubled Financial Institutions in Australia*, Research Discussion Paper RDP2001-07, Reserve Bank of Australia.

True/False Questions

Answer True or False to each of the following:

1 The purchase of shares by a superannuation fund is an example of direct financing.

True. While the superannuation fund is an intermediary and two assets are created, we take the 'asset transformation' perspective in this book when deciding whether financing should be classified as direct or intermediated. There is a direct relationship between the performance of the assets in the fund and the return to investors in the fund—the manger holds assets on behalf of investors, rather than transforming the assets by risk or maturity.

2 The purchase by a foreign corporation of bonds (debt securities) issued by the Commonwealth Government is an example of direct financing.

True. There is a direct dealing between the surplus and deficit units.

3 The stock exchange is a financial intermediary.

False. The exchange facilitates transactions in the sharemarket and does not borrow from investors and lend to borrowers.

4 A financial claim can be both an asset and a liability at the same time.

True. In a flow-of-funds setting, the issuer of a financial claim records a liability and the buyer of the financial claim records an asset.

5 The purchase by the ANZ bank of equity securities issued by the Telstra is an example of direct financing.

False. The ANZ bank is a financial intermediary, which will have used the proceeds of deposits or debt raisings to acquire the equity securities. The bank is thus performing the classic asset transformation function, which is a defining feature of intermediation versus direct financing.

6 The liquidity of a market for a security would be enhanced by requiring banks to invest 20% of their portfolios in it.

False. The liquidity of a market is increased by encouraging trading in the security. Forcing financial institutions to hold the security does not do this. Rather, it provides a disincentive for the financial institution to trade in the security.

7 Arbitrage involves significant risk and only wealthy people should undertake it.

False. Pure arbitrage involves simultaneously buying and selling the same product. Therefore, it does not incur risk

8 The RBA has no role in the regulation of banks.

False. APRA is the main bank regulator, but the RBA is responsible for the payments mechanism which is dominated by the banks.

9 The objective of prudential regulation is to ensure that financial institutions do not make excessive profits.

False. The objectives of financial regulation are to ensure systemic stability and to reduce problems of asymmetric information.

10 Only banks are subject to contagion.

False. Non-bank deposit-taking institutions can suffer from contagion.

11 Moral hazard is the possibility that the management of a bank which is protected by regulation will go into risky/high-yield investments.

True. The management believes the regulator will bail out the institution if the investment fails.

12 APRA is responsible for all superannuation funds.

False. The ATO regulates small self-managed funds.

13 APRA does not subject Australian banks to required liquidity ratios.

True. It is believed that the banks can raise any required cash on the market. However, other deposit-taking institutions remain subject to such ratios.

14 The RBA is responsible for the integrity of domestic financial and investment markets.

False. This role is played by ASIC.

15 APRA guarantees the deposits of ADIs.

False. There is no deposit guarantee in Australia. APRA does not have a balance sheet that would allow it to guarantee deposits. Of course, this describes the legal situation and does not tell us what the government would do if an ADI got into difficulties.