

This is "Securities Markets", chapter 8 from the book Finance for Managers (index.html) (v. 0.1).

This book is licensed under a <u>Creative Commons by-nc-sa 3.0 (http://creativecommons.org/licenses/by-nc-sa/3.0/)</u> license. See the license for more details, but that basically means you can share this book as long as you credit the author (but see below), don't make money from it, and do make it available to everyone else under the same terms.

This content was accessible as of December 29, 2012, and it was downloaded then by <u>Andy Schmitz</u> (http://lardbucket.org) in an effort to preserve the availability of this book.

Normally, the author and publisher would be credited here. However, the publisher has asked for the customary Creative Commons attribution to the original publisher, authors, title, and book URI to be removed. Additionally, per the publisher's request, their name has been removed in some passages. More information is available on this project's attribution page (http://2012books.lardbucket.org/attribution.html?utm_source=header).

For more information on the source of this book, or why it is available for free, please see <u>the project's home page</u> (http://2012books.lardbucket.org/). You can browse or download additional books there.

Chapter 8

Securities Markets

"To market, to market..."

PLEASE NOTE: This book is currently in draft form; material is not final.

One of the most difficult ideas to define is the concept of a market. Some physical places are called "markets", and there we expect to see individuals negotiating and exchanging with each other. In the modern age, some markets have become electronic, moving to the internet and other "virtual" systems. But we can also speak of the market for a product or marketing an idea, which implies that a market goes beyond a physical or virtual space. A market can be formed by the beliefs of individuals, and some of these "information markets" can be more accurate in making predicitions than any of the participating individuals! Two defining characteristics of a market are connections between individuals (or companies) and exchange of some sort (usually including information, but often of products or currency).

Modern social networks, like Facebook, are a prime example of the power in making connections. As more and more people are involved, the benefit of the network grows at an even faster rate. Likewise, the more products a supermarket has, the easier it is for shoppers to compare offerings and to make buying decisions. And the more shoppers a store can attract, the greater economies of scale can be realized, to the benefit of the store and the shoppers.

Financial markets (like the New York Stock Exchange) and institutions (like banks) also make use of these network effects and economies of scale, but with capital and information instead of groceries or wall posts. Financial institutions are the major participants in these exchanges, and help to facilitate individuals' and companies' access to markets.

8.1 Financial Environment: Institutions and Markets

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

- 1. Describe the difference between a commercial bank and an investment bank.
- 2. Explain why commercial banks and investment banks have been merging into "megabanks".
- 3. Describe markets, especially with regards to physical vs. electronic presence.

Institutions

The most visible of financial institutions to the majority of people are **commercial banks**¹ that provide checking and savings accounts for depositors and loans for borrowers. Banks can also provide services, such as currency exchange. Successful commercial banks traditionally inspire feelings of security (with thoughts of large vaults) and trust. The overly simplistic view of a bank is that depositors place their money at the bank and it sits there until it is withdrawn. A slightly more accurate view is that the bank takes these deposits and lends most of the money out to borrowers, who promise to pay the money back with interest. When the borrowers pay back the loans, the interest returned is shared by the depositors and the owners of the bank. In reality, there are many ways a bank can take deposits and even more ways to invest the funds.

In contrast, **investment banks**² provide services geared to corporations and market operations. Investment banks have employees who specialize in evaluating, issuing and trading securities, conducting mergers and acquisitions, and raising capital for companies. From 1933 to 1999, the Glass-Steagall Act mandated a separation of the commercial and investment activities in the USA, under the premise that commercial deposits should be protected from the riskier investment activities.

In recent years, many commercial banks in the US have been merging with each other to form large chains, as customers demand greater flexibility and banks can

- 1. A bank that provides checking and savings accounts for depositors and loans for borrowers.
- 2. A bank that provides services geared to corporations and market operations.

make use of economies of scale. Additionally, mergers and acquisitions between commercial banks and investment banks have proliferated since the 1999 repeal of the Glass-Steagall provisions. Since the latest financial crisis, however, there has been some who suggest that this division be restored, as the new "megabanks" are so large and involved in the economy that they are "too big to fail". As used by most commentators, this means that governments are pressured into supporting these companies when they are in distress, as the alternative of letting the company become insolvent is perceived to be even worse.

Markets

Markets exist for trading any product, financial or otherwise. One of the most famous of financial markets is the New York Stock Exchange (operated by NYSE Euronext). Here, various securities, particiularly shares of ownership in corporations, are traded. Through most of its history, these transactions involved representatives of institutions negotiating prices with each other face-to-face. In recent years, however, electronic systems have dominated the transaction volume. As technology and communications have improved, more transactions are occuring in non-traditional marketplaces, some specifically designed to mask the identities of the buyers and sellers, or to allow for transactions of large volume. The NASDAQ is an electronic market that has no physical location, but is an alternative exchange that many companies (especially technology companies) have chosen.

Markets used to be segmented by product (such as pork bellies vs. shares of IBM) and location (Tokyo vs. New York), but these barriers are rapidly falling away. Virtually every product is trading somewhere in the world at any point in a 24 hour day, and technology is allowing for linkages among the various markets. As a consequence, markets are broadening the variety of products with which they deal, and mergers among the exchanges are becoming more commonplace. Many "markets" have no physical location or formal recognition, as they are decentralized; for example, most corporate bonds are traded amongst representatives at the various financial institutions. These are called **over-the-counter (OTC) markets**⁴. We will discuss the various types of securities and financial products and where they are traded later in this chapter.

- 3. A label that means governments are pressured into supporting a company when it is in distress, as the alternative of letting the company become insolvent is perceived to be even worse.
- 4. Decentralized market with no physical location or formal recognition.

KEY TAKEAWAYS

- Commercial banks focus on retail customers and small businesses; investment banks focus on capital markets for larger businesses.
- Since 1999, many commercial banks and investment banks have been merging after the elimination of government restrictions on the practice
- Many markets still have a physical presence, but the bulk of volume is now electronic.

EXERCISES

1. When a company is in distress, a government can choose to let it fail or attempt to rescue it (often termed a "bailout" by those against the move). When might it be in the best interest of the populace to "bail out" a company? If "bailouts" are common, would companies be more or less likely to engage in risky business activities?

8.2 Regulation of Financial Institutions

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVE

1. Describe the main regulatory acts for US markets and institutions.

Financial institutions face different regulations depending upon where they operate. Some countries, particularly those with communist ties, heavily control banks and who can invest and how. As the largest markets and most of the largest banks (as of this writing) are located in the USA, we will focus on the key regulations governing these bodies.

The **Glass-Steagall Act of 1933**⁵, in addition to separating investment from commercial banks, also established the Federal Deposit Insurance Corporation (FDIC), which insures deposits made by consumers at commercial banks. On the one hand, banks so insured benefit from the added perceived security, since depositors are confident that their money is secured by the government. This gives the FDIC, and thus the government, the ability to monitor insured banks and close those deemed unsound.

The Securities Act of 1933⁶ and Securities Exchange Act of 1934⁷ created regulations governing the sale of securities (such as what can be promised and who can advise) and established the Securities and Exchange Commission (SEC)⁸ to enforce securities laws.

The **Dodd-Frank Wall Street Reform and Consumer Protection Act**⁹ passed into law in July 2010 and gave the task to many government oversight agencies (FDIC, SEC, etc.) to enact more regulations. Certain provisions of Dodd-Frank are still being worked out legislatively (especially regarding the "Volker rule", which regulates risky speculative trading by commercial banks). As the fallout from the latest crisis continues to be felt and understood, the nature of government regulation is bound to change.

- 5. Imposed banking reforms on relationships between investment and commercial banks and established the FDIC.
- Limited affiliations between commercial and investment banks.
- 7. Further regulated financial markets and established the SEC.
- Federal agency responsible for regulating securities and enforcing federal securities laws.
- 9. Changed American financial regulatory environment by improving accountability and transparency.

KEY TAKEAWAY

• Regulation is constantly changing, and a financial manager should monitor regulations that affect his or her business.

EXERCISE

1. On the whole, do you think that regulations are beneficial or a hindrance to financial institutions?

8.3 Modern History of Financial Crises

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

- 1. Describe recurrent themes of financial crises.
- 2. Enumerate recent financial crises.
- 3. Describe how financial crises can relate to the business cycle.

Financial crises are not new phenomena, existing at least since coins have been used for currency; very early crises tended to focus on the debasement of hard currency (that is, whether the metal in the coins had the value the coin declared) or on a government's **solvency**¹⁰, or ability to successfully repay debt (and, thus, were often tied to political crises). Most modern crises are similar in that they involve an uncetainty in the valuation of some sort of asset, and many also include a decline in confidence of governments or banks and other financial institutions.

The most significant financial crisis of the 20th century was the Great Depression, which is typically dated as lasting from the stock market crash in 1929 through the next decade into the beginning of World War II. During the depression, many banks failed, particularly when investors would have doubts about a banks solvency, choosing to withdraw all deposited funds in a **run on the bank**¹¹.

The last thirty years in the United States have witnessed the stock market crash of 1987, the savings and loan crisis, the liquidation of Long Term Capital Management in 1998, the bursting of the internet bubble in 2000–2001, and the housing bubble/financial crisis. Other countries have had their fair share of crises as well (for example, the Asian currency crisis), though as the economy has become more global in nature, as have the crises. For example, the latest crisis (by some metrics, the worst since the Great Depression) has had serious implications on the stability of the European Union and questions of solvency regarding Greece, Ireland, Portugal, Spain, among other nations.

- 10. The ability of an entity to successfully repay debt.
- 11. When investors have doubts about a banks solvency, choosing to withdraw all deposited funds.

Financial crises are often tied with the concept of the **business cycle**¹², the periodic rise and fall of nations' gross domestic product observed over years. The direction of causality is a hotly debated topic (that is, whether financial crises tend to be caused by or are the cause of a lagging economy). **Asset bubbles**¹³, where a type of asset (like real estate, technology stocks, or tulips) rises dramatically in valuation seemingly well beyond its intrinsic value, are often a component in these boom/bust patterns; the dramatic increase in the asset's value leading up to the "bubble bursting" makes the decline in value have a larger impact on the balance sheet of the asset owners. Despite having a seemingly regular periodic occurrence, the effective predictability of the specific cause a financial crisis is also a debated topic. See the work of Nassim Nicholas Taleb regarding "black swans".

KEY TAKEAWAYS

- Financial crises usually boil down to issues of trust: either trust in the value of an asset, or of an entity like a government or bank.
- Financial crises often correlate with the down-swing of a business cycle, though it isn't always clear which caused the other.

EXERCISE

1. What are some factors that have contributed to past financial crises?

- 12. The periodic rise and fall of nations' gross domestic product observed over years.
- 13. A type of asset (like real estate, technology stocks, or tulips) rises dramatically in valuation seemingly well beyond its intrinsic value.

8.4 Types of Financial and Other Traded Assets

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

- 1. Describe commonly traded assets.
- 2. Explain the concepts of liquidity and fungibility.

Almost anything we can imagine is traded somewhere (although not always legally!), and one aim of markets is to increase the **liquidity of assets**¹⁴, or their ease at arranging a trade between a buyer and a seller. Certain assets are easier to trade or value than others, due to government regulation, ease of transfer or storage, **fungibility**¹⁵ of assets (the ability to substitue one instance of the asset for another), or a myriad of other factors. We will now discuss the most common types of traded assets.

- **Commodities**¹⁶ include agriculture products (like wheat, corn, pork bellies, or coffee), metals (like gold, silver, or iron), energy products (like oil or electricity), or a host of other highly fungible physical products. Some of the earliest exchanges focused on commodities, as farmers and other producers of goods sought corresponding buyers.
- Currency trading has become more significant since the largest economies removed tying their currencies directly to the value of precious metals. Given the high level of liquidity in most currencies (government regulated currencies being the chief exception), these markets are very competitive and active 24 hours a day.
- **Real estate**¹⁷, which includes land the fixed developments upon it, is in contrast much less liquid than previously discussed assets. As such, transactions tend not to occur in organized markets, but are handled by localized agents arranging specific transactions. Nonetheless, the value in this market is significant; for homeowners, real estate is typically the largest capital investment.

- 14. The ease at arranging a trade between a buyer and a seller of an asset.
- 15. The ability to substitue one instance of the asset for another. Gasoline is very fungible, since any one gallon is very like another, whereas a unique work of art is not fungible.
- 16. Agriculture products (like wheat, corn, pork bellies, or coffee), metals (like gold, silver, or iron), energy products (like oil or electricity), or a host of other highly fungible physical products.
- 17. Land the fixed developments upon it.

Alternative investments¹⁸ like art, antiques, wine, and collectibles (like rare baseball cards) are extremely illiquid and hard to value. There are auction houses that specialize in pricing and trading these items, but the market is relatively small compared to other assets.

In addition to these physical assets, which derive most of their value from what they are, and currencies, which have purchasing power backed by their respective governments, there exist financial assets, whose value derives from some sort of contractual agreement involving future transfers of wealth. The three main categories of financial assets are debt instruments, equity, and derivatives. Many financial assets have contracts written so that the owner of the instrument has the ability to transfer the benefits (that is, sell it) to another, in which case we call the asset a **security**¹⁹.

Bonds²⁰ and debt instruments (for example, certificates of deposit) are securitized loans, principally traded over the counter (OTC). While some government issues (especially US treasuries) can be liquid, the majority of this market has a lower liquidity. Many loans, however, are not securitized, and typically remain between the bank and the borrower until they are fulfilled.

Equity includes **shares of stock**²¹, securitized ownership in a corporation, which can range in liquidity depending upon the size of the company, where it is registered, and many other factors. Many shares are traded in exchanges, either physically located (like the NYSE) or electronically (like the NASDAQ). Smaller companies can be traded in the distributed OTC markets. **Private equity**²² (investments in non-public companies) is also an asset, though it tends to be very illiquid (some contracts barring investors from withdrawing funds for over a decade!).

Derivatives²³ include any financial assets which primarily derive their value from any other asset. For example, stock options can give the purchaser the ability to buy or sell shares of stock, and futures contracts can guarantee a price for a transaction of a commodity to occur at a future date. Most derivatives are illiquid, although some products are specifically designed to take illiquid assets (like mortgages) and make them easier to trade. Derivative contracts have been prominently featured in some of the most spectacular losses by traders, as they often have complex risks associated with their trading.

- 18. Art, antiques, wine, and collectibles (like rare baseball cards) are extremely illiquid and hard to value.
- 19. Financial assets with contracts written so that the owner of the instrument has the ability to transfer the benefits (that is, sell it) to another.
- 20. Securitized loans.
- 21. Securitized ownership in a corporation.
- 22. Investments in non-public companies.
- 23. Any financial assets which primarily derive their value from any other asset.

KEY TAKEAWAYS

- Many different assets are traded, and each has different features and risks.
- One goal of markets is to increase the liquidity of assets.

EXERCISES

- 1. If the liquidity of an asset increases, does that benefit the buyer or seller of the asset?
- 2. How are financial assets different from other traded assets?

8.5 The Bigger Picture

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

- 1. Explain how financial markets and institutions fit into financial decision making.
- 2. Discuss ethical implications of financial institutions and markets.

All companies need access to capital: growing companies need to purchase assets to expand, distressed companies need to maintain liquidity while "righting the ship", and established companies may need to fund existing projects. Financial institutions and markets provide this access. During financial crises, when aquiring more capital can be more costly or difficult, companies may have to scale back on new projects. Good relationships with financial institutions need to be maintained if a company wants to be certain of having the necessary cash without paying an exhorbitant cost.

Managers must be able to "think like an investor" when necessary, as these stakeholders are able to choke off access to capital if they are unhappy. Additionally, financial managers need to pay attention to what is happening in the markets, as during a financial crisis might not be the best time to embark on a large expansion project. In upcoming chapters, we will examine how investors value the financial assets that companies issue to raise cash, and also consider how we factor in this valuation to enable us to make capital budgeting decisions.

Ethical Considerations

Unfortuantely, some managers view meeting the bare minimum the regulations require as sufficient for fulfilling the obligations to investors. A few even go so far as trying to mislead investors with the information presented when applying for loans, issuing stock or bonds, and the like.

On the other side of the coin, financial institutions have much influence over companies' actions because of their control of capital access. In recent years, financial institutions have been criticized for taking on extra risk with the intention of increasing profits. This extra risk might result in increased capital access: for example, issuing mortgages or business loans to higher risk individuals. This added risk might be one of the factors leading to more extreme financial crises in recent years.

Though markets are made up of hopefully ethical individuals, there is no guarantee that aggregate results will reflect a concrete opinion of management's actions. Often, managers will justify an unethical course of action by the market's positive response; in reality, the market participants could be reacting to any number of pieces of information, such as expected return, risk, or a number of other factors. This is especially true when material information has not yet been made public. In such situations, management must do what is right for the stakeholders using their own judgment, since they might be the only ones with the relevant knowledge.

KEY TAKEAWAYS

- Management needs to be able to "think like an investor".
- Keeping the markets happy is important, but not if it means misleading statements or unethical behavior.

EXERCISE

1. A bank manager is considering relaxing certain restrictions on the types of mortgages that the bank can issue. By lowering standards, 50 more families will qualify for mortgages to purchase their first homes. Since these mortgages will come with a higher interest rate attached, bank profits will be affected positively if the mortgages are repaid, but if the mortgages aren't repaid, then the bank's finances will be in trouble. What are some ethical considerations the manager should include in making this decision?

8.5 The Bigger Picture 125

8.6 End-of-Chapter Exercises

PLEASE NOTE: This book is currently in draft form; material is not final.

End-of-Chapter Problems

- 1. Does financial regulation seem to be proactive or reactive in the US? Look at the dates the key pieces of legislation were enacted, and consider the main financial event a few years before and after the legislation.
- 2. What are some reasons that some assets can be easily traded on a global exchange, while others never progress beyond regional markets?