

2013 EUROPEAN EDITION

VAULT CAREER GUIDE TO

# INVESTMENT BANKING

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European Edition

**VAULT CAREER GUIDE TO**

# **INVESTMENT BANKING**

**TOM LOTT, MARY PHILLIPS-SANDY, RICHARD ROBERTS  
AND THE STAFF AT VAULT**



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**VAULT CAREER GUIDE TO**

# **INVESTMENT BANKING**

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EUROPEAN EDITION

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# THE INDUSTRY

Vault Career Guide to Investment Banking, European Edition

**Chapter 1: What is Investment Banking?**

**Chapter 2: Commercial Banking, Investment Banking  
and Asset Management**

**Chapter 3: The Equity Markets**

**Chapter 4: The Fixed Income Markets**

**Chapter 5: Trends in the Investment Banking Industry**

**Chapter 6: Stock and Bond Offerings**

**Chapter 7: Mergers and Acquisitions, Private Placements,  
and Reorganizations**



# What is Investment Banking?

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## Chapter 1

What is investment banking? Is it investing? Is it banking? Really, it is neither. Investment banking, or I-banking, as it is often called, is the term used to describe the business of raising capital for companies and advising them on financing and merger alternatives. Capital essentially means money. Companies need cash in order to grow and expand their businesses; investment banks sell securities to public investors in order to raise this cash. These securities can come in the form of stocks or bonds, which we will discuss in depth later.

## THE PLAYERS

Before the global financial crisis took its toll, a handful of American “bulge bracket” banks dominated the investment banking field. These pure-play I-banks included Goldman Sachs, Morgan Stanley, Merrill Lynch, Lehman Brothers and Bear Stearns. But by the end of 2008, a series of bankruptcies, mergers and reorganisations had ended the era of independent bulge bracket I-banking. The former bulge brackets declared bankruptcy, were sold or reorganised. They now exist as holding companies or as parts of other banks—massive conglomerates that provide a diversified range of services, including retail, commercial and investment banking.

Europe’s regional players include pure investment banks Rothschild and Lazard, as well as universal (deposit-taking) banks BNP Paribas, Société Générale, Mediobanca, HSBC and Barclays. Despite the crisis, most of Europe’s banks have remained intact, with a few notable exceptions: Germany’s Dresdner Kleinwort was sold to Commerzbank AG in May 2009, and in late 2007, a consortium including Fortis, Banco Santander and the Royal Bank of Scotland (RBS) acquired Dutch giant ABN AMRO, which was the largest takeover in banking history. But in 2008, Fortis collapsed, was nationalised and was forced to sell off its holdings. RBS also ran aground and required rescue by the British government.

Many an I-banking interviewee asks, “Which firm is the best?” The answer, like many things in life, is unclear. There are several ways to measure the quality of investment banks. You might examine a bank’s expertise in a certain segment of investment banking. For example, Goldman Sachs was the world’s leading mergers and acquisitions (M&A) advisor in 2012, but J.P. Morgan led the way in debt and equity underwriting. Those who watch the industry pay attention to “league tables,” which are rankings of investment banks in several categories (e.g., equity underwriting or M&A advisory).

The most commonly referred to league tables were known, until 2008, as the Thomson Financial tables. Thomson, an American research firm, recently merged with news service Reuters, so the rankings are now published by Thomson Reuters. Each quarter, Thomson Reuters collects data on deals and determines which firm has done the most deals in a given sector over that time period. Essentially, the league tables rank the banks by quantity of deals in a given area. They also provide information about total fees earned, market share and geographic strength.

Vault also provides prestige rankings of the top-50 banking firms, based on surveys of finance professionals. These rankings are available on our web site, [www.vault.com](http://www.vault.com). Of course, industry rankings and prestige ratings don’t tell a firm’s whole story. Since the pay scale in the industry tends to be comparable among different firms, potential investment bankers would be wise to pay attention

What is Investment Banking?

to the quality of life at the firms they're considering for employment. This includes culture, social life and hours. You can glean this information from your job interviews as well as reports on the firms available from Vault.

THE GAME

Generally, the breakdown of an investment bank includes the following areas:

Corporate finance (equity)
Corporate finance (debt)
Mergers & acquisitions (M&A)
Equity sales
Fixed income sales
Syndicate (equity)
Syndicate (debt)
Equity trading
Fixed income trading
Equity research
Fixed income research

The functions of all of these areas will be discussed in much more detail later in the book. In this overview section, we will cover the nuts and bolts of the business, providing an overview of the stock and bond markets and how an I-bank operates within them.

Corporate finance

The bread and butter of a traditional investment bank, corporate finance generally performs two different functions: 1) mergers and acquisitions advisory, and 2) underwriting. On the mergers and acquisitions (M&A) advising side of corporate finance, bankers assist in negotiating and structuring a merger between two companies. If, for example, a company wants to buy another firm, then an investment bank will help finalise the purchase price, structure the deal and generally ensure a smooth transaction. The underwriting function within corporate finance involves shepherding the process of raising capital for a company. In the investment banking world, capital can be raised by selling stocks or bonds (and some more exotic securities) to investors.

## Sales

Sales is another core component of any investment bank. Salespeople take the form of: 1) the classic retail broker, 2) the institutional salesperson or 3) the private wealth manager. Retail brokers develop relationships with individual investors, selling stocks and stock advice to the average Joe. Institutional salespeople develop business relationships with large institutional investors. Institutional investors, like pension funds, mutual funds or large corporations, manage large groups of assets. Private wealth managers lie somewhere between retail brokers and institutional salespeople, providing brokerage and money management services for extremely wealthy individuals. Salespeople make money through commissions on trades made through their firms or, increasingly, as a percentage of their clients' assets with the firm.

## Trading

Traders also perform a vital function in the investment bank. In general, they facilitate the buying and selling of stocks, bonds and other securities such as currencies and futures, either by carrying an inventory of securities for sale or by executing a given trade for a client.

A trader plays two distinct roles for an investment bank:

- (1) **Providing liquidity:** Traders provide liquidity to the firm's clients (that is, they give clients the ability to buy or sell a security on demand). Traders do this by standing ready to buy the client's securities (or sell securities to the client) if the client needs to place a trade quickly. This is also called making a market, or acting as a market maker. Traders performing this function make money for the firm by selling securities at a slightly higher price than they pay for them. This price differential is known as the bid-ask spread. (The bid price at any given time is the price at which customers can sell a security, which is usually slightly lower than the ask price, which is the price at which customers can buy the same security.)
- (2) **Proprietary trading:** In addition to providing liquidity and executing trades for the firm's customers, traders also may take their own trading positions on behalf of the firm, using the firm's capital and hoping to benefit from the rise or fall in the price of securities. This is called proprietary trading. Typically, the marketing-making function and the proprietary trading function is performed by the same trader for each security.

In recent years, executives who cut their teeth on the trading floor have risen to the top of many leading investment banking divisions. Their elevation reflects the growing importance of trading to investment bank profits.

## Research

Research analysts follow stocks and bonds and make recommendations on whether to buy, sell or hold those securities. They also forecast companies' future earnings. Stock analysts (known as equity analysts) typically focus on one industry and will cover up to 20 companies' stocks at a time. Some research analysts work on the fixed income side and will cover a very specific market segment, such as a particular industry's high-yield bonds. The I-bank's salespeople use the research analysts' findings to convince their clients to buy or sell securities through their firm. Corporate finance bankers



What is Investment Banking?

also rely on research teams for expert analysis and forecasts of their industry sectors. Reputable research analysts can help generate substantial corporate finance business for their firm as well as drive trading activity.

## **Syndicate**

The hub of the investment banking wheel, the syndicate group is a vital link between salespeople and corporate finance. Syndicate exists to facilitate the placing of securities in a public offering, a knock-down, drag-out affair between and among buyers of offerings and the investment banks managing the process. In a corporate or municipal debt deal, syndicate also determines the allocation of bonds.

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# Commercial Banking, Investment Banking and Asset Management

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## Chapter 2

“Commercial bankers live off their deposits—investment bankers live off their wits,” goes a traditional saying of the London financial markets. The expression captures the key difference between the two types of banking activity.

Before analysing how an investment bank operates, let’s explore the differences between commercial banking and investment banking—but also what they have in common.

## COMMERCIAL BANKING VS. INVESTMENT BANKING

The fundamental profit-generating business activity of both commercial and investment banks is the provision of funds for borrowers. Commercial banks provide loans for the full spectrum of borrowers, from private individuals, through small businesses, to major “corporates”—large private companies, governments at the municipal, regional and national levels and other public entities. Commercial banks make loans to borrowers from the funds provided by the other side of their business—taking deposits from individuals and firms.

Investment banks mostly deal with corporate-level clients, though some have credit card arms, and many have begun offering a wider range of services. Investment banks do not take deposits—as a result, some people dispute whether they should be called banks at all. They raise funds for borrowers by acting as intermediaries for them in the financial markets. To do this effectively, investment bankers must understand the funding needs of their clients and have an intimate knowledge of the market—hence living off their wits. Since the bulge bracket’s breakup, though, the only “pure” investment banks left are small and mid-sized firms. Most of the world’s investment banking activity is now carried out by I-bank divisions of large diversified financial services companies, many which also carry out commercial banking activities.

### Commercial banks

A commercial bank is licensed to take deposits—the funds that are paid into current (checking) and deposit (savings) accounts by its customers. Banks are highly regulated across Europe, though laws and regulatory arrangements vary from country to country. One reason is to protect the funds of depositors. Another is to safeguard the stability of the financial system, which is vitally important for the economy as a whole—see, for example, the impact of risky mortgage lending on the global economy.

The typical commercial banking process is fairly straightforward. You deposit money into your bank, and the bank loans that money to consumers and companies in need of capital (cash). You borrow to buy a house, finance a car or finance an addition to your home. Companies borrow to finance the growth of their company or meet immediate cash needs. Companies that borrow from commercial banks can range in size from the dry cleaner on the corner to a multinational conglomerate. The commercial bank generates a profit by paying depositors a lower interest rate than the bank charges on loans.

## **Private contracts**

Importantly, loans from commercial banks are structured as private legally binding contracts between two parties—the bank and you (or the bank and a company). Banks work with their clients on an individual basis to determine the terms of the loans, including the time to maturity and the interest rate applied. Your individual credit history (or credit risk profile) determines the amount you can borrow and how much interest you are charged. Suppose your company needs to borrow \$200,000 over 15 years to finance the purchase of equipment, and say your friend's firm needs \$30,000 over five years to finance the purchase of a truck. For the first loan, you and the bank might agree that you pay an interest rate of 7.5 per cent; perhaps for the truck loan, the interest rate will be 11 per cent. The rates are determined through a negotiation between the bank and the company.

Let's take another minute to understand how a bank makes its money. On most loans, commercial banks in the US earn interest anywhere from 5 to 14 per cent. Ask yourself how much your bank pays you on your deposits, which is the money it uses to make loans. You probably earn a paltry 1 per cent on a checking account, if anything, and maybe 2 to 3 per cent on a savings account. Commercial banks make money by taking advantage of the large spread between their cost of funds (1 per cent, for example) and their return on funds loaned (ranging from 5 to 14 per cent).

## **Investment banks**

Historically, investment banks have operated differently. An investment bank does not have an inventory of cash deposits to lend as a commercial bank does. In essence, an investment bank acts as an intermediary, matching sellers of stocks and bonds with buyers of stocks and bonds.

Note, however, that companies use investment banks toward the same end as they use commercial banks. If a company needs capital, it may get a loan from a bank, or it may ask an investment bank to sell equity or debt (stocks or bonds). Because commercial banks already have funds available from their depositors and an investment bank typically does not, an I-bank must spend considerable time finding investors in order to obtain capital for its client. Still, even before the shake-ups of 2008, many investment banks were seeking to become “one-stop” financing sources by setting aside part of their own capital in order to make direct loans to clients.

## Private debt vs. bonds—an example

Let's look at an example to illustrate the difference between private debt and bonds. Suppose Acme Cleaning Company needs capital, and estimates its need to be \$200 million. Acme could obtain a commercial bank loan from Bank of America for the entire \$200 million, and pay interest on that loan just like you would pay on a \$2,000 personal finance loan from Bank of America. Alternately, it could sell bonds publicly using Goldman Sachs' investment banking services. The \$200 million bond issue raised by Goldman would be broken into many smaller bonds and then sold to the public. (For example, the issue could be broken into 200,000 bonds, each worth \$1,000.) Once sold, the company receives its \$200 million (less Goldman's fees) and investors receive bonds worth a total of the same amount.

Over time, the investors in the bond offering receive coupon payments (the interest), and ultimately the principal (the original \$1,000) at the end of the life of the loan, when Acme buys back the bonds (retires the bonds). Thus we see that in a bond offering, while the money is still loaned to Acme, it is actually loaned by numerous investors rather than from a single bank.

Because the investment bank involved in the offering does not own the bonds but merely placed them with investors at the outset, it earns no interest—the bondholders earn this interest in the form of regular coupon payments. The investment bank makes its money by charging the client (in this case, Acme) a small percentage of the transaction upon its completion. Investment banks call this up-front fee the “underwriting discount.” In contrast, a commercial bank making a loan actually receives the interest and simultaneously owns the debt.

Later we will cover the steps involved in underwriting a public bond deal. Legally, most bonds must first be approved by a government regulator: the Securities and Exchange Commission (SEC) in the United States, or the Financial Services Authority (FSA) in the UK. Investment bankers guide the company through the SEC approval process, and then market the offering by using a written prospectus, the bank's sales force and a roadshow to find investors.

## The question of equity

Investment banks underwrite share (stock) offerings as well as bond offerings. In Europe, arrangements for share offerings differ between national jurisdictions. In the share offering process, a company sells a portion of the **equity** (or ownership) of itself to the investing public. The very first time a company chooses to sell equity, this offering of equity is transacted through a process called an initial public offering of stock (commonly known as an IPO). Through the IPO process, stock in a company is created and sold to the public. After the deal, stock sold in the US is traded on a stock exchange such as the New York Stock Exchange (NYSE) or the Nasdaq. In Europe, shares issued in the UK are typically traded on the London Stock Exchange, in Germany on the Deutsche Borse and in France, Belgium, the Netherlands and Portugal on NYSE Euronext. We will cover the equity offering process in greater detail in Chapter 6. The equity underwriting process is another major way in which investment banking differs from commercial banking.

US commercial banks and European universal banks underwrite debt issues, and some have substantial expertise in underwriting public bond deals. So, not only do these banks make loans utilizing their deposits, they also underwrite bonds through a corporate finance department. When it comes to underwriting bond offerings, commercial banks have long competed for this business directly with investment banks. However, as a practical matter, only the biggest tier of commercial banks were ever able to do so, because the size of most public bond issues is large and competition from the major investment banks for such deals was understandably fierce.

## DEVELOPMENT OF INVESTMENT BANKING IN LONDON

London and New York are the world's leading international financial centres and the twin capitals of the investment banking industry. Both serve global, regional and domestic clients. New York is the foremost US domestic financial centre and regional centre for the Americas. London is the primary investment banking centre for the European Union as well as for the UK market.

Among European financial centres, London ranks well ahead of rivals Geneva, Zurich and Frankfurt. In fact, the 2011 Global Financial Centres Index (GFCI), a biannual analysis of financial centre competitiveness across a range of key variables, ranked London No. 1 in the world with a GFCI rating of 775. New York was No. 2 (769), while Zurich, Geneva and Frankfurt were Nos. 8, 9 and 14 respectively. London's leading position is the result of the unrivalled depth of its specialist labour market, its trading culture, the use of English as the language of international finance, the effectiveness of its regulatory arrangements, its relatively attractive taxation levels and a long-standing tradition of openness and internationalism. And as the American financial system teetered in 2008, London began to rise in importance relative to New York.

The district in which banks and other financial services firms traditionally clustered is called “the City.” It is the oldest part of London and was originally surrounded by the city wall—hence its name. The City continues to be the main financial area: it is the location of the Bank of England, the London Stock Exchange, the Lloyd’s of London insurance market and other important financial institutions.

The development of a second financial services cluster at Canary Wharf, about three miles east of the City, began in the late 1980s. Frustrated by the high cost of office rents and zoning restrictions on new developments because of the area’s historic ties, the London head of investment bank Credit Suisse First Boston put together a consortium that developed a new purpose-built complex on the site of derelict docks. The first building at Canary Wharf opened in the early 1990s and today around 80,000 people work in the ever-expanding office and retail complex. Many of the leading players in investment banking have relocated their London headquarters to state-of-the-art buildings at Canary Wharf.

Investment banking activities, such as bond issues, have been undertaken in London for more than two centuries—even longer than New York. The business was undertaken by a set of specialist firms known as merchant banks. Although in Europe there has never been a regulatory prohibition on commercial banks undertaking investment banking activities—no equivalent of the American Glass-Steagall Act—it was not until the 1980s that UK commercial banks began to undertake investment banking business. In continental Europe, however, major banks have always provided investment banking services to their corporate clients along with commercial banking services, a business model known as “universal banking.”

In the 1990s, US investment banks expanded the scale of their operations in London to participate in European economic integration, as did some US commercial banks that were forbidden from doing so at home because of Glass-Steagall regulatory restrictions. At the same time, some of the British and major Continental European universal banks decided to develop their international investment banking activities, which also meant developing a greater presence in London. The quickest way to do so was by buying one of the independent British merchant banks, which largely disappeared as a result.

The outcome of these developments was some fundamental shifts in the ownership pattern and structure of the investment banking industry in London. Today there are three principal types of participant: (1) US universal banks, notably Citigroup and JP Morgan, as well as former pure I-banks Goldman Sachs and Morgan Stanley; (2) UK and European universal banks, notably HSBC, Barclays, Royal Bank of Scotland, Deutsche Bank, UBS, Credit Suisse, BNP Paribas, Société Générale and ING; and (3) a number of specialist independents, such as Rothschild, Lazard and Close Brothers.

## Hedge funds

Hedge funds are the sexy component of the buy side—their operations are mysterious, and their managers can make millions, if not billions, on their investments. Starting in the mid-1990s hedge funds' popularity skyrocketed, but in recent years officials in the US and Europe have begun calling for investigations and tighter regulation of the hedge fund industry. So what do these controversial entities do? Hedge funds pool together money from large investors (usually wealthy individuals) with the goal of making outsized gains. Historically, hedge funds bought individual stocks and shorted (or borrowed against) the S&P 500, FT 100 or another market index, as a hedge against the stock. (The funds bet against the market index in order to reduce their risk.) As long as the individual stocks outperformed the market index, the fund made money.

Nowadays, hedge funds have evolved into a myriad of high-risk money managers who borrow money to invest in a multitude of stocks, bonds and derivative instruments (these funds fed with borrowed money are said to be leveraged).

Essentially, a hedge fund uses its equity base to borrow substantially more capital, and therefore multiply its returns through this risky leveraging. Buying derivatives is a common way to quickly leverage a portfolio, and hedge funds' wealthy shareholders have, in some cases, made a mint. The downside, at least from a regulator's perspective, is a lack of transparency—few people know just how leveraged the average hedge fund is, or what kind of suspicious derivatives might be lurking in its portfolios. In 2009, the European Union and the US state of Connecticut (which boasts the world's third-largest concentration of hedge funds, after New York and London) began drafting tougher rules for the industry, so it is possible these funds will operate under slightly different standards in the near future.

## THE BUY SIDE VS. THE SELL SIDE

The traditional investment banking world is considered the “sell side” of the securities industry. Why? Investment banks create stocks and bonds, and sell these securities to investors. Sell is the key word, as I-banks continually sell their firms’ capabilities to generate corporate finance business, and salespeople sell securities to generate commission revenue.

Who are the buyers (“buy side”) of public stocks and bonds? They are individual investors (you and me) and institutional investors: collectively managed funds such as mutual funds in the US and OEICs (open-ended investment companies) in the European Union, charities, private company and public sector pension funds. The universe of institutional investors is appropriately called the buy-side of the securities industry.

Mutual fund companies, such as Fidelity and Vanguard in the US and Schroders and M&G Group in the UK, now represent a large portion of buy-side business. Insurance companies like Prudential and Northwestern Mutual in the US and Prudential and Legal & General in the UK also manage large blocks of assets and are another segment of the buy side. Yet another class of buy-side firms manage pension fund assets—frequently, a company’s pension assets will be given to a specialty buy-side firm that can manage the funds and (presumably) generate higher returns than the company itself could have. There is substantial overlap among these money managers—some, such as Putnam and T. Rowe Price, manage both mutual funds for individuals as well as pension fund assets of large corporations.





# The Equity Markets

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## Chapter 3

On May 21, 2009, the following news rolled across the Reuters wire: “At 1043 GMT, the FTSEurofirst 300 index of top European shares was down 1.5 per cent at 862.69 points. The index, which on Wednesday ended at its highest close since early January, is up 34 per cent since falling to a record low in early March, but is still down 47 per cent from a multi-year high reached in mid-2007 ... So far in 2009, the FTSE 100 is down 1.2 per cent, the DAX is up 3.2 per cent and the CAC 40 is up 1.2 per cent.”

If you are new to the financial industry, you may be wondering exactly what all of these statistics mean and how to interpret them. The next two chapters are intended to provide a quick overview of the financial markets and what drives them, and introduce you to some market lingo. For reference, many definitions and explanations of many common types of securities can be found in the glossary at the end of this guide.

## BEARS VS. BULLS

Almost everyone loves a bull market, and it seems like investors can't go wrong when the market is moving higher and higher each day. At Goldman Sachs, a bull market is said to occur when stocks exhibit expanding multiples. We'll give you a simpler definition. A bull market occurs when the price of stocks—also called shares in Europe—move up (as measured by an index like the FTSE 100 or the FTSEurofirst 300). A **bear market** occurs when shares fall. Simple. More specifically, bear markets are said to occur when the market has fallen by greater than 20 per cent from its highs, and a correction occurs when the market has fallen by more than 10 per cent but less than 20 per cent.

## Stock market indices

A stock market index provides a statistical summary of the value of the component stocks/shares. Indices are used to monitor the direction of share price movements in the market as a whole, or some component element or sector, and as benchmarks for investment products and the performance of investment portfolios. The most widely publicised, most widely traded and most widely tracked stock index in the world is the **Dow Jones Industrial Average**, created in 1896. The Dow Jones is composed of 30 major US companies. **The Standard and Poor's 500 Index** (S&P 500) provides a broader based yardstick of the US stock prices. The other major US stock market index is the **Nasdaq Composite**, which reflects the prices of stocks quoted on the Nasdaq electronic stock market.

## UK stock market indices

The **FTSE 100** (called the *footsie*) is the leading price index for UK shares. Introduced in 1984, the Financial Times-Stock Exchange 100 Index comprises the 100 most highly capitalised UK companies—known as “large-caps” or “blue chips”—representing around 80 per cent of the UK share market. It is regarded as a barometer for the UK economy and is the foremost European share index. A variety of investment products, such as derivatives and exchange-traded funds (ETFs), are based on the FTSE 100. The make-up of the index is determined quarterly among companies with a full listing on the London Stock Exchange. The threshold for inclusion at the start of 2009 was around £1.7 billion. Royal Dutch Shell had the largest market capitalisation—£106.4 billion. The rest of the top ten constituents were: BP, Vodafone, HSBC, GlaxoSmithKline, AstraZeneca, British American Tobacco, BG Group, Tesco and BHP Billiton. Trading in FTSE 100 company shares comprises around 85 per cent of UK share trading turnover.

The FTSE 100 is produced by the FTSE Group, originally a joint venture between the *Financial Times* newspaper and the London Stock Exchange, but now an independent specialist company that calculates over 120,000 indices covering around 50 countries and all major asset classes. The longest-running UK share index is the FT30, which has been calculated since 1935. Today, however, it is only used only to make very long-term comparisons. The other leading UK indices are the:

- **FTSE 250 Index**—the constituents are the 250 next biggest companies—the so-called “mid-caps”—and represents about 15 per cent of the aggregate market capitalisation of the London Stock Exchange.
- **FTSE 350 Supersectors Index**—an aggregation of the FTSE 100 and FTSE 250 indices.
- **FTSE SmallCap Index**—comprises companies smaller than those included in the FTSE 350 Index, amounting to around 2 per cent of the UK market.
- **FTSE All-Share Index**—comprises the largest 800 or so UK companies that account for some 99 per cent of UK market capitalisation. It is a key benchmark for asset managers—the principal yardstick against which their performance is rated.

As the market report at the start of this chapter demonstrated, it is possible for different indices to move in different directions during the same time period. That is because they measure different parts of the market that are driven by different factors—well, up to a point.

Shares of over 3,000 UK and international companies are listed on the London Stock Exchange's Main Market. Around 1,200 companies that are too small or too new to meet the listing criteria of the senior market may list on the Alternative Investment Market (AIM). This junior market, created in 1995 and run by the London Stock Exchange, is designed to meet the requirements of young and growing companies often based on new technologies. The most successful AIM companies migrate to the Main Market. The AIM market is covered by a range of FTSE indices, notably the:

- **FTSE AIM 50 Index**—comprises the largest 50 AIM-listed companies.
- **FTSE AIM 100 Index**—comprises the largest 100 AIM-listed companies.
- **FTSE AIM All-Share Index**—covers the whole AIM market.

## European stock market indices

The **DAX Index** is the leading share index for German companies, being composed of 30 of the largest companies listed on the Frankfurt Stock Exchange. The CAC 40 Index comprises 40 major French companies whose shares are quoted on the Euronext Paris stock exchange.

The FTSEurofirst Index Series is a range of Europe-wide share indices that are a joint product of the FTSE Group and NYSE Euronext, the operator of the New York, Amsterdam, Brussels, Paris and Lisbon stock exchanges and NYSE LIFFE, the London International Financial Futures and Options Exchange. The series includes:

- **FTSEurofirst 80 Index**—comprises the 60-largest quoted European companies by market capitalisation plus 20 additional companies chosen for their size and sector representation.
- **FTSEurofirst 100 Index**—comprises the 60-largest quoted companies by market capitalisation in the FTSE Developed Europe Index plus 40 additional companies selected on the basis of size and sector representation.
- **FTSEurofirst 300 Index**—comprises the 300-largest European quoted companies by market capitalisation. FTSEurofirst Supersector Indices—two sets of 18 European sector indices, derived from the FTSEurofirst 300.

## Big-cap and small-cap

At a basic level, market capitalisation or market cap represents the company's value according to the market, and is calculated by multiplying the total number of shares by share price. (This is the equity value of the company.) Companies and their stocks tend to be categorised into three broad categories: big-cap, mid-cap and small-cap.

While there are no hard and fast rules, in the UK a company with a market cap greater than £2 billion will generally be classified as a big-cap stock. These companies tend to be established, mature companies, although this is not necessarily the case. Sometimes huge companies, for example the US corporations GE and Microsoft, are called mega-cap stocks. Small-cap stocks tend to be riskier, but are also often the faster growing companies. Roughly speaking, a small-cap stock includes those companies with market caps less than £100 million. As one might expect, the stocks in between £100 million and £2 billion are referred to as mid-cap stocks.

## What moves the stock market?

Not surprisingly, the factors that most influence the broader stock market are economic in nature. Among equities, corporate profits and the interest rates are king.

**Corporate profits:** When gross domestic product slows substantially, market investors fear a recession and a drop in corporate profits. And if economic conditions worsen and the market enters a recession, many companies will face reduced demand for their products, company earnings will be hurt, and hence equity (stock) prices will decline. Thus, when the GDP suffers, so does the stock market.

**Interest rates:** When the consumer price index heats up, investors fear inflation. Inflation fears trigger a different chain of events than fears of recession. Most importantly, inflation will cause interest rates to rise. Companies with debt will be forced to pay higher interest rates on existing debt, thereby reducing earnings (and earnings per share). Compounding the problem, inflation fears cause interest rates to rise, and higher rates will make investments other than stocks more attractive from the investor's perspective. Why would an investor purchase a stock that may only earn 8 per cent (and carries substantial risk), when lower risk CDs and government bonds offer similar yields with less risk? These inflation fears are known as capital allocations in the market (whether investors are putting money into stocks vs. bonds), and can substantially impact stock and bond prices. Investors typically re-allocate funds from stocks to low-risk bonds when the economy experiences a slowdown and vice versa when the opposite occurs.

What moves *individual* stocks?

When it comes to individual stocks, it's all about earnings, earnings, earnings. No other measure compares to **earnings per share** (EPS) when it comes to an individual stock's price. Every quarter public companies must report EPS figures, and stockholders wait with bated breath, ready to compare the actual EPS figure with the EPS estimates set by City research analysts. For instance, if a company reports £1.00 EPS for a quarter, but the market had anticipated EPS of £1.20, then the stock will almost certainly be dramatically hit in the market the next trading day. Conversely, a company that beats its estimates will typically rally in the markets.

It is important to note that in the frenzied Internet stock market of 1999 and early 2000, investors did not show the traditional focus on near-term earnings. It was acceptable for these companies to operate at a loss for a year or more because these companies, investors hoped, would achieve long-term future earnings. However, when the markets turned in spring 2000 investors began to expect even "new economy" companies to demonstrate more substantial near-term earnings capacity.

The market does not care about last year's earnings or even last quarter's earnings. What matters most is what will happen in the near future. Investors maintain a tough "what have you done for me lately" attitude, and are slow to forgive a company that consistently fails to meet analysts' estimates ("misses its numbers").

## STOCK VALUATION MEASURES AND RATIOS

As far as stocks go, it is important to realize that absolute stock prices mean nothing. A £100 stock could be "cheaper" than a £10 stock. To clarify how this works, consider the following ratios and what they mean. Keep in mind that these are only a few of the major ratios, and that literally hundreds of financial and accounting ratios have been invented to compare dissimilar companies. Again, it is important to note that most of these ratios were not as applicable in the market's recent evaluation of certain internet and technology stocks.

## P/E ratio

You can't go far into a discussion about the stock market without hearing about the all-important **price to earnings ratio**, or P/E ratio. By definition, a P/E ratio equals the stock price divided by the earnings per share. In usage, investors use the P/E ratio to indicate how cheap or expensive a stock is.

Consider the following example. Two similar firms each have £1.50 in EPS. Company A's stock price is £15.00 per share, and Company B's stock price is £30.00 per share.

Company	Stock Price	Earnings Per Share	P/E Ratio
A	£15.00	£1.50	10x
B	£30.00	£1.50	20x

Clearly, Company A is cheaper than Company B with regard to the P/E ratio because both firms exhibit the same level of earnings, but A's stock trades at a higher price. That is, Company A's P/E ratio of 10 ( $15/1.5$ ) is lower than Company B's P/E ratio of 20 ( $30/1.5$ ). Hence, Company A's stock trades at a lower price. The terminology one hears in the market is, "Company A is trading at 10 times earnings, while Company B is trading at 20 times earnings." Twenty times is a higher multiple.

However, the true measure of cheapness vs. richness cannot be summed up by the P/E ratio. Some firms simply deserve higher P/E ratios than others, and some deserve lower P/Es. Importantly, the distinguishing factor is the anticipated growth in earnings per share.

## PEG ratio

Because companies grow at different rates, another comparison investors make is between the P/E ratio and the stock's expected growth rate in EPS. Returning to our previous example, let's say Company A has an expected EPS growth rate of 10 per cent, while Company B's expected growth rate is 20 per cent.

Company	Stock Price	Earnings Per Share	P/E Ratio	Estimated Growth Rate in EPS
A	£15.00	£1.50	10x	10x
B	£30.00	£1.50	20x	20x

We might propose that the market values Company A at 10 times earnings because it anticipates 10 per cent annual growth in EPS over the next five years. Company B is growing faster—at a 20 per cent rate—and therefore it justifies the 20 times earnings stock price. To determine true cheapness, market analysts have developed a ratio that compares the P/E to the growth rate—the **PEG ratio**. In this example, one could argue that both companies are priced similarly (both have PEG ratios of 1).

Sophisticated market investors therefore utilise this PEG ratio rather than just the P/E ratio. Roughly speaking, the average company has a PEG ratio of 1:1 or 1 (i.e., the P/E ratio matches the anticipated growth rate). By convention, “expensive” firms have a PEG ratio greater than one, and “cheap” stocks have a PEG ratio less than one.

## Cash flow multiples

For companies with no earnings (or losses) and therefore no EPS (or negative EPS), one cannot calculate the P/E ratio—it is a meaningless number. An alternative is to compute the firm's cash flow and compare that to the market value of the firm. The following example illustrates how a typical cash flow multiple like Enterprise Value/EBITDA ratio is calculated.

**EBITDA:** A proxy for cash flow, EBITDA stands for Earnings Before Interest, Taxes, Depreciation and Amortisation. To calculate EBITDA, work your way up the income statement, adding back the appropriate items to net income. (Note: For a more detailed explanation of this and other financial calculations, see the *Vault Guide to Finance Interviews*.) Adding together depreciation and amortisation to operating earnings, a common subtotal on the income statement, can serve as a shortcut to calculating EBITDA.

**Enterprise value (EV)** = market value of equity + net debt. To compute market value of equity, simply multiply the current stock price times the number of shares outstanding. Net debt is simply the firm's total debt (as found on the balance sheet) minus cash.

## Enterprise value to revenue multiple (EV/revenue)

If you follow startup companies, young technology or health care-related companies, you have probably heard the multiple of revenue lingo. Sometimes it is called the price-sales ratio (though this technically is not correct). Why use this ratio? For one, many firms not only have negative earnings, but also negative cash flow. That means any cash flow or P/E multiple must be thrown out the window, leaving revenue as the last positive income statement number left to compare to the firm's enterprise value. Specifically one calculates this ratio by dividing EV by the last 12 months' revenue figure.

## Return on equity (ROE)

ROE = Net income divided by total shareholders equity. An important measure, especially for financial services companies, that evaluates the income return that a firm earned in any given year. Return on equity is expressed as a percentage. Many firms' financial goal is to achieve a certain level of ROE per year, say 20 per cent or more.

## VALUE STOCKS, GROWTH STOCKS AND MOMENTUM INVESTORS

It is important to know that investors typically classify stocks into one of two categories: growth and value stocks. Momentum investors buy a subset of the stocks in the growth category.

Value stocks are those that often have been battered by investors. Typically, a stock that trades at low P/E ratios after having once traded at high P/E's, or a stock with declining sales or earnings fits into the value category. Investors choose value stocks with the hope that their businesses will turn around and profits will return. Or, investors may realize that a stock is trading close to or even below its "break-up value" (net proceeds upon liquidation of the company), and has little downside.

Growth stocks are just the opposite. High P/E's, high growth rates and often hot stocks fit the growth category. Technology stocks, with sometimes astoundingly high P/E's, may be classified as growth stocks, based on their high growth potential. Keep in mind that a P/E ratio often serves as a proxy for a firm's average expected growth rate, because as discussed, investors will generally pay a high P/E for a faster growing company.

Momentum investors buy growth stocks that have exhibited strong upward price appreciation. Usually trading at or near their "52-week highs" (the highest trading price during the previous two weeks), momentum investors cause these stocks to trade up and down with extreme volatility. Momentum investors, who typically don't care much about the firm's business or valuation ratios, will dump their stocks the moment they show price weakness. Thus, a stock run-up by momentum investors can potentially crash dramatically as they bail out at the first sign of trouble.

### Basic equity definitions

**Ordinary shares (UK)/common stock (US)/equity:** Ownership of ordinary shares confers part ownership of the issuing company and rights to vote and receive dividends. The vast majority of shares traded in the markets is ordinary shares.

**Preference shares (UK)/preferred stock (US):** provide shareholders with a first claim on dividends and on the company's assets in case of liquidation. As an asset class, preference shares are a halfway house between fixed-rate bonds and ordinary shares. There are several types of preference share designed to meet companies' financing requirements and to appeal to investors who are apprehensive about the risks of ordinary shares.

**Redeemable preference shares** have a guarantee of repayment by the company at a future date. **Participating preference shares** pay a lower basic dividend, but if the ordinary dividend is high, holders participate in the company's success through a bonus.

**Convertible preference shares** allow holders to convert into ordinary shares, providing the opportunity of future gains.





# The Fixed Income Markets

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## Chapter 4

### WHAT IS THE BOND MARKET?

What is the bond market? The average person doesn't follow it and often doesn't even hear very much about it. Because of the bond market's low profile, it's surprising to many people that the bond markets are even larger than the equity markets.

The total outstanding value of the global bond market in September 2008 was around \$83 trillion—though the market's complexity often leads to conflicting data about its size. The US is the world's largest market for bonds, with about 40 per cent of global outstanding value, but European, Japanese and international bonds have become increasingly important in recent years.

#### US bond markets

Particularly important in the universe of fixed income products are US government bonds, also called Treasuries. These bonds are considered to be among the most reliable in the world, because the US government can essentially print money to meet its debt obligations. And since they carry very little risk of default, US government bonds offer relatively low yields (a low rate of interest), and are the standards by which other bond yields are measured. If a financial ratio refers to the “risk-free rate of return” it's usually referring to a specific US Government Treasury security. Until recently, Treasuries were considered virtually “risk-free.” That is, the major US debt ratings agencies such as Standard & Poor's had given Treasuries its highest rating. But in 2011, due to the “gulf between [the United States'] political parties,” Treasuries were downgraded by S&P, erasing their risk-free status.

Further important components of the US bond market are:

- Agency bonds
- High-grade corporate bonds
- High-yield (junk) bonds
- Municipal bonds
- Mortgage-backed bonds
- Asset-backed securities

#### UK bond markets

The outstanding value of domestic bonds issued in the UK was £1.8 trillion in 2006, the latest date for which figures are available. There's another £1.2 trillion in outstanding international bonds issued by UK borrowers. In the past UK government bonds made up almost half of the UK bond market, but now they make up just about one-fourth of its outstanding value. Meanwhile, international bonds have been on the rise in the UK, and now take up over 65 per cent of the market's value. Still, there is a very active market in UK government bonds, known as gilts, and dealing is handled by major I-banks and commercial banks registered as gilt-edged market makers (GEMMS). Other UK fixed interest securities include convertible and preference shares, and bonds issues by companies, banks and local authorities. Traditionally UK companies have raised debt finance from banks, so the corporate bond market is relatively small—but it is growing fast, and currently accounts for over 10 per cent of the UK bond market's value.

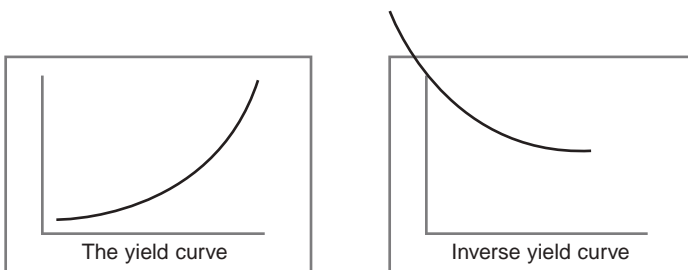
## International bonds

London is the world's foremost centre for the issuance and trading of international bonds, the bulk of which are **eurobonds**—bonds issued by a borrower in a currency other than its domestic currency (in London, usually dollars or yen or Deutsche marks). It is estimated that 60 per cent of eurobond primary issuance and 70 per cent of secondary market trading is conducted in London and these activities are chief among the reasons for London's importance as an I-banking and international financial centre.

## BOND MARKET INDICATORS

### The yield curve

Bond **"yields"** are the current rate of return to an investor who buys the bond. (Yield is measured in **"basis points"**; each basis point = 1/100 of 1 per cent.) A primary measure of importance to fixed income investors is the yield curve. The **yield curve** (also called the "term structure of interest rates") depicts graphically the yields on different maturity US government securities. To construct a simple yield curve, investors typically look at the yield on a 90-day US T-bill and then the yield on the 30-year US government bond (called the Long Bond). Typically, the yields of shorter-term government T-bill are lower than Long Bond's yield, indicating what is called an **"upward sloping yield curve."** Sometimes, short-term interest rates are higher than long-term rates, creating what is known as an **"inverse yield curve."**



## Bond indices

As with the stock market, the bond market has some widely watched indexes of its own. One prominent example is the Barclays US Aggregate Bond Index. This index is perhaps the most popular that investors use to track the investment grade bond market in the US. (Investment grade bonds are those rated at least Baa3 by Moody's and BBB by Standard & Poor's). This index includes more than 8,200 fixed-income securities of various types, such as corporate bonds, government bonds, mortgage-backed securities and foreign bonds.

## Spreads

In the bond world, investors track "spreads" as carefully as any single index of bond prices or any single bond. The spread is essentially the difference between a bond's yield (the amount of interest, measured in per cent, paid to bondholders), and the yield on a US treasury bond of the same time to maturity. For instance, an investor investigating the 20-year Acme Corp. bond would compare it to a US treasury bond that has 20 years remaining until maturity. Because US treasury bonds are considered to have zero risk of default, a corporation's bond will always trade at a yield that is over the yield on a comparable treasury bond. For example, if the Acme Corp. 10-year bond traded at a yield of 8.4 per cent and a 10-year treasury note was trading at 8 per cent, a trader would say that the Acme bond was trading at "40 over" (here, the "40" refers to 40 basis points).

## Bond ratings for corporate and municipal bonds

A bond's risk level, or the risk that the bond issuer will default on payments to bondholders, is measured by bond rating agencies. Several companies rate credit, but Standard & Poor's and Moody's are the two largest. The riskier a bond, the larger the spread: low-risk bonds trade at a small spread to treasuries, while below-investment grade bonds trade at tremendous spreads to treasuries. Investors refer to company specific risk as credit risk.

Triple A ratings represents the highest possible corporate bond designation, and are reserved for the best-managed, largest blue-chip companies. Triple A bonds trade at a yield close to the yield on a risk-free government treasury. Junk bonds, or bonds with a rating of BB or below on the S&P scale, currently trade at yields ranging from 10 to 15 per cent, depending on the precise rating and government bond interest rates at the time.

Companies continue to be monitored by the rating agencies as long as their bonds trade in the markets. If a company is put on "credit watch," it is possible that the rating agencies are considering raising or lowering the rating on the company. Often an agency will put a company's bonds on credit watch "with positive or negative implications," giving investors a preview of which way any future change will go. When a bond is actually downgraded by Moody's or S&P, the bond's price drops dramatically (and therefore its yield increases).

The following table summarises rating symbols of the two major rating agencies and provides a brief definition of each.

**Bond Rating Codes**

Rating	S&P	Moody's
Highest quality	AAA	Aaa
High quality	AA	Aa
Upper medium quality	A	A
Medium grade	BBB	Baa
Somewhat speculative	BB	Ba
Low grade, speculative	B	B
Low grade, default possible	CCC	Caa
Low grade, partial recovery possible	CC	Ca
Default expected	C	C

*Source: Moody's Investor's Service and Standard and Poor's*

**Factors affecting the bond market**

What factors affect the bond market? In short, **interest rates**. The general level of interest rates, as measured by many different barometers (see inset) moves bond prices up and down, in dramatic inverse fashion. In other words, if interest rates rise, the bond markets suffer.

Think of it this way. Say you own a bond that is paying you a fixed rate of 8 per cent today, and that this rate represents a 1.5 per cent spread over Treasuries. An increase in rates of 1 per cent means that this same bond purchased now (as opposed to when you purchased the bond) will now yield 9 per cent. And as the yield goes up, the price declines. So, your bond loses value and you are only earning 8 per cent when the rest of the market is earning 9 per cent.

You could have waited, purchased the bond after the rate increase and earned a greater yield. The opposite occurs when rates go down. If you lock in a fixed rate of 8 per cent and rates plunge by 1 per cent, you now earn more than those who purchase the bond after the rate decrease. Therefore, as interest rates change, the price or value of bonds will rise or fall so that all comparable bonds will trade at the same yield regardless of when or at what interest rate these bonds were issued.

## Which Interest Rate Are You Talking About?

Investment banking professionals often discuss interest rates in general terms. But what are they really talking about? So many rates are tossed about that they may be difficult to track. To clarify, we will take a brief look at the key rates worth tracking. We have ranked them in typically ascending order: the discount rate usually is the lowest rate; the yield on junk bonds is usually the highest.

**The discount rate:** The discount rate is the rate that the Federal Reserve charges on overnight loans to banks. Today, the discount rate can be directly changed by the Fed, but maintains a largely symbolic role.

**Federal funds rate:** The rate domestic banks charge one another on overnight loans to meet Federal Reserve requirements. This rate is also directly controlled by the Fed and is a critical interest rate to financial markets.

**T-Bill yields:** The yield or internal rate of return an investor would receive at any given moment on a 90- to 360-day treasury bill.

**LIBOR (London Interbank offered rate):** The wholesale rate banks active in the London eurocurrency market charge one another on overnight loans or loans up to five years. Often used by banks to quote floating rate loan interest rates. Typically, the benchmark LIBOR used on loans is the three-month rate.

**The Long Bond (30-Year Treasury) yield:** The yield or internal rate of return an investor would receive at any given moment on the 30-year US Treasury bond.

**Municipal bond yields:** The yield or internal rate of return an investor would receive at any given moment by investing in municipal bonds. We should note that the interest on municipal bonds typically is free from federal government taxes and therefore has a lower yield than other bonds of similar risk. These yields, however, can vary substantially depending on their rating, so could be higher or lower than presented here.

**High-grade corporate bond yield:** The yield or internal rate of return an investor would receive by purchasing a corporate bond with a rating above BB.

**Prime rate:** The average rate that US banks charge to companies for loans.

**30-year mortgage rates:** The average interest rate on 30-year home mortgages. Mortgage rates typically move in line with the yield on the 10-year Treasury note

**High-yield bonds:** The yield or internal rate of return an investor would receive by purchasing a corporate bond with a rating below BBB (also called junk bonds).

## Why do interest rates move?

Interest rates react mostly to inflation expectations (that is, expectations of a rise in prices), and vary from country to country. If it is believed that inflation will rise, then interest rates rise. Think of it this way: Say inflation is 5 per cent a year. In order to make money on a loan, a bank would have to charge more than 5 per cent—otherwise it would be losing money on the loan. The same is true with bonds and other fixed income products.

In the late 1970s, interest rates topped 20 per cent in the US and other nations as inflation spiraled and the market expected continued high inflation. By the end of the 1980s rates were back to the teens, and continued to drop—with some exceptions—through the 1990s and 2000s. In the UK, rates hovered in the 4 to 5 per cent range from 2004 through 2008. In the US, the Federal Reserve's actions to control inflation have been eclipsed by the recession of 2008, which depressed interest rates and prices worldwide.

### A Note About the Federal Reserve

The Federal Reserve Bank in the United States monitors the US money supply, regulates banking institutions and adjusts the interest rate banks charge one another for loans. The Fed's role is crucial to the US economy and stock market.

Academic studies of economic history have shown that a country's inflation rate tends to track that country's increase in its money supply. Therefore, if the Fed allows the money supply to increase by 2 per cent this year, inflation can best be predicted to increase by about 2 per cent as well. And because inflation so dramatically impacts the stock and bond markets, the markets scrutinise the daily activities of the Fed and hang onto every word uttered by the Fed chairman. These days, the US Fed is also focused on post-recession economic recovery plans, doing everything from adjusting rates to providing bailout funds for troubled banks.

The Fed can manage consumption patterns, and hence the GDP, by raising or lowering interest rates. The chain of events when the Fed raises rates is as follows:

The Fed raises interest rates. This interest rate increase triggers banks to raise interest rates, which leads to consumers and businesses borrowing less and spending less. This decrease in consumption tends to slow down GDP, thereby reducing earnings at companies. Since consumers and businesses borrow less, they have left their money in the bank and hence the money supply does not expand. Note also that since companies tend to borrow less when rates go up, they therefore typically invest less in capital equipment, which discourages productivity gains and hurts earnings of capital goods providers. Any economist will tell you that a key to a growing economy on a per capita basis is improving labor productivity.

## FIXED INCOME DEFINITIONS

The following glossary may be useful for defining securities that trade in the markets as well as talking about the factors that influence them. Note that this is just a list of the most common types of fixed income products and economic indicators. Thousands of fixed income products actually trade in the markets.

### Types of Securities

#### Treasury securities

US government-issued securities. Categorized as Treasury bills (maturity of up to-but not including-two years), Treasury notes (from two years to 10 years maturity), and Treasury bonds (10 years to 30 years). Until recently, Treasuries were considered "risk-free." But in 2011, Treasuries were downgraded, erasing their risk-free status. In addition to carrying some default risk, Treasuries also carry interest rate risk: if rates increase, then the price of US Treasuries issued in the past will decrease.

#### Agency bonds

Agencies represent all bonds issued by the federal government and federal agencies, but excluding those issued by the Treasury (i.e., bonds issued by other agencies of the federal government). Examples of agencies that issue bonds include Federal National Mortgage Association (FNMA) and Guaranteed National Mortgage Association (GNMA).

#### Investment grade (high grade) corporate bonds

Bonds with a Standard & Poor's rating of at least a BBB-. Typically big, blue-chip companies issue highly rated bonds.

#### High-yield (junk) bonds

Bonds with a Standard & Poor's rating lower than BBB-. Typically smaller, riskier companies issue high-yield bonds.

#### Money market securities

The market for securities (typically corporate, but also Treasury securities) maturing within one year, including short-term CDs, repurchase agreements, and commercial paper (low-risk corporate issues), among others. These are low-risk, short-term securities that have yields similar to Treasuries.

#### Mortgage-backed bonds

Bonds collateralized by a pool of mortgages. Interest and principal payments are based on the individual homeowners making their mortgage payments. The more diverse the pool of mortgages backing the bond, the less risky they are typically considered.



### Economic Indicators

**Gross domestic product**

GDP measures the total domestic output of goods and services in the United States. Generally, when the GDP grows at a rate of less than 2%, the economy is considered to be in an economic slowdown; negative growth, or shrinkage, indicates recession.

**Consumer price index**

The CPI measures the per centage increase in the price for goods and services. Essentially, the CPI measures inflation affecting consumers.

**Producer price index**

The PPI measures the per centage increase in the price of a standard basket of goods and services. PPI is a measure of inflation for producers and manufacturers.

**Unemployment rate and wages**

In 1999 through early 2000, US unemployment was at record lows. Clearly, this was a positive sign for the US economy because jobs were plentiful. In 2008 and 2009 unemployment soared, yet another symptom of the ongoing recession and the country's economic weakness. The markets sometimes react negatively to extremely low levels of unemployment, since a tight labor market means that firms may have to raise wages (called wage pressure). Substantial wage pressure may force firms to raise prices, and hence may cause inflation to flare up. On the other hand, severe unemployment depresses consumer and investor confidence, reduces consumption and may prolong periods of GDP shrinkage.

# Trends in the Investment Banking Industry

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## Chapter 5

### RECENT DEVELOPMENTS IN I-BANKING

When the world of finance was rocked by billion-dollar write-downs, mass layoffs, declarations of bankruptcy, rumours of nationalisation of the world's biggest banks and grim-faced government officials unveiling plans to bail out financial institutions, experts from London to Tokyo to New York turned to each another and asked, "What just happened?"

We'll be parsing the events of 2007, 2008 and 2009 for decades to come; the scope of the crisis, fallout and blame is still being assessed. For now, we know that the I-banking landscape has been permanently changed. In a nutshell, here's what happened. The US housing market, which had risen steadily through 1990s, finally began to slow down. At the same time, mortgage lenders were making increasingly risky loans—approving mortgages for "subprime" customers who were at high risk of defaulting. (Later, the world heard horror stories about unemployed people being approved for expensive home loans, despite having no real proof of income.) Meanwhile, I-banks had figured out ways to securitise home loans and the risks involved with them, packaging and slicing these new securities into arcane derivatives. These derivatives wound their way through the world's financial system, piling up in banks' balance sheets. This created a ticking time bomb: as people began defaulting on their mortgage payments, these assets' values evaporated, leading to massive write-downs and losses.

In fall 2008, the world's investment banks were in a state of panic, fearing for their own—and others'—safety. Things that looked like assets on paper proved worthless. Because of the way credit risk was spread through the system, banks began freezing lines of credit to other banks and consumers: no one knew for sure who was liquid and who was on the verge of collapse. The credit crunch slammed the brakes on an already-slowing economy, and banks, mortgage lenders, insurers and public companies scrambled to avoid bankruptcy. Some were successful; some were not.

### Giants fall

Perhaps the most lasting legacy of the financial crisis will be its impact on Wall Street's biggest players. Bear Stearns was the first to collapse, and the US government helped engineer a sale of Bear to JPMorgan Chase in March 2008. Lehman Brothers toppled into bankruptcy and was sold in pieces to Nomura Securities, which now owns its European and Asia-Pacific businesses, and to Barclays, which owns its North American operations. (The US government's refusal to step in for Lehman, as it had for Bear, remains a source of anger and bewilderment for its former employees.) And after 94 years in business as an independent I-bank, Merrill Lynch (part of the so-called bulge bracket) admitted defeat and sold itself to Bank of America.

That left Goldman Sachs and Morgan Stanley as the last independent bulge bracket banks on Wall Street. But even they succumbed. In late 2008, both banks received permission from US regulators to convert themselves into bank holding companies, a restructuring move that allowed them to receive government assistance—but also left them bound by strict regulations and rules regarding leverage and risk-taking.

This raised an important point: in the UK and US, banks that took government assistance (“bailout funds”) faced the imposition of new operating requirements. In other words, governments that poured billions into their banks now wanted a say in how they’re run, especially in light of the fact that loosely regulated derivatives trading were partially blamed for fuelling the crisis.

Will I-banks—or the banks that acquired the I-banks—ever go back to their unfettered ways? Maybe. In some cases, banks won back some freedom when they repaid their bailout allotments. But the bottom line is the days of high-flying, overleveraged risk-taking are over, at least in the near term. International and local regulators, politicians and taxpayers are watching banks like hawks, keeping an eye on everything from executive compensation to the state of their balance sheets.

## **M&A boom and bust and boom again**

Mergers and acquisitions advisory was, for most of the late 1990s and early 2000s, a leading source of revenue for the global investment banking industry. In 2000 the world’s volume of M&A activity totaled almost \$3.5 trillion; business dipped in 2001, and in 2002 deal volume was down to \$1.2 trillion worldwide.

Things picked up in 2004 as a strong global economy, low interest rates and thriving stock prices raised confidence and spurred dealmaking. Global M&A activity was up to \$2.7 trillion by 2005, and both Europe and the US saw 30 to 40 per cent increases in volume. Deals kept going through 2006, peaking in mid-2007. (Incidentally, European M&A once accounted for just 10 per cent of the world’s dealmaking; now, it’s closer to 40 per cent.)

A notable feature of the mid-2000s M&A boom was the major part played by financial purchasers, including some multi billion-dollar deals. Private equity groups, which were raising ever-larger funds, were buyers on an unprecedented scale. Some of the major investment banks played a significant role in this development. Management buyouts were also a thriving contributor.

The global recession that nearly destroyed banks in 2008 took a big toll on mergers and acquisitions. Without access to cheap, plentiful credit, potential buyers were less likely to buy. Embattled companies made less-attractive targets. And in a climate of no confidence, few CEOs wanted to take on any unnecessary risk. As a result, banks’ M&A revenues largely dwindled.

However, after a slow 2009 in M&A, 2010 was a comeback year of sorts. Global M&A deal volume rose 23 per cent versus 2009, as \$2.4 trillion worth of deals were announced. Perhaps the biggest (and most lucrative) news in M&A in recent years has occurred in the emerging markets.

In 2010, emerging markets M&A deals rose 76 per cent to \$806 billion and accounted for more than one-third of all M&A deals worldwide during the year. China was the most active emerging market, and Brazil and Russia were the second and third most active, respectively.

In 2011, however, emerging markets M&A slowed, decreasing by 14 per cent on the year. Still, emerging markets deals accounted for about 25 per cent of all M&A deals worldwide. And overall, announced global M&A deals rose to \$2.5 trillion.

In 2012, announced M&A volume worldwide again rose modestly, increasing to \$2.6 trillion. Deal volume in Europe, though, rose significantly, as the market increased by 12.5 per cent. In comparison, US announced deal volume fell by nearly 4 per cent in 2012. Meanwhile, emerging markets M&A worldwide deal volume was back on track, increasing by 9 per cent versus 2011.

## Bankers vs. traders

Investment banks have long contained two cultures—traders and corporate finance advisers. It was the latter who traditionally became firms' chief executives and chairmen. The lines have blurred, however, as former traders have risen in prominence at their respective firms. (Some corporate financiers have responded by heading out on their own to start boutique advisory firms.) Among the traders who worked their way to the top: Goldman Sachs CEO Lloyd Blankfein, a former commodities trader; Huw Jenkins, who led UBS until stepping down in 2007 after massive losses at the investment bank; and Oswald Grubel, a former floor trader who served as CEO of Credit Suisse and then later at UBS before stepping down as UBS CEO in late 2011.

Speaking of losses, traditional trading at I-banks consisted of dealing in equities, bonds and basic financial derivatives for currency and interest rate products. That changed when banks began inventing new kinds of derivatives, an effort to wring more return from, well, just about anything. New types of derivatives allow banks to trade contracts based on future energy prices, complicated bundles of currency prices, even the odds of another company defaulting on its debt.

What's more, investment banks and brokerage firms used to act only as agents: they bought and sold securities on behalf of their clients. Now they're just as likely to be principals in trades, using firm assets to make their own bets. When they get it right, traders have reaped big rewards for their employers. When they get it wrong, as the world discovered in 2007 and 2008, the losses can be devastating.

Compounding these issues is the fact that trading activity has increased as a proportion of I-banking revenue, and brokerage services have expanded at many banks. The growth of hedge funds drove banks to build prime brokerage units, which offer dedicated financing, securities lending, clearing, custody and advisory services to major investors and hedge funds.

## The European scene

Europe's major commercial banks have traditionally provided investment banking services for corporate clients, and as economic divisions among European nations have relaxed, opportunities for cross-border bank mergers have expanded. Despite differences in legal, tax, accounting and regulatory systems, a number of banks have sought targets beyond their home borders.

Spain's Banco Santander kicked off the cross-country mega-merger trend with its \$17 billion acquisition of the UK's Abbey National in 2004. This was followed a year later by Italian bank UniCredit's \$22 billion purchase of Germany's HBV and Dutch giant ABN AMRO's \$7 billion acquisition of Banca Antonveneta of Italy. Not to be outdone, in 2006 France's BNP Paribas spent \$11 billion to buy Italy's Banco del Lavoro.

But the biggest acquisition of all came in 2007 when a consortium led by the Royal Bank of Scotland beat out Barclays to buy ABN AMRO in a £70 billion deal—the biggest bank takeover in history. Joining RBS in the winning consortium were Spain's Banco Santander and Belgium's Fortis. Game, set, match? Not quite.

Both RBS and Fortis were slammed with losses in 2008, partially the result of bad investments linked to subprime assets, partially the result of the expensive acquisition. (Some observers wondered why,

exactly, the RBS-led consortium decided that the onset of a global recession was a good time to forge ahead with such an outsized deal.) In late 2008, RBS joined HBOS and Lloyds TSB in accepting bailout funds from the UK Treasury; as a result, the British government ended up with a 58 per cent stake in the bank. Disgraced CEO Sir Fred Goodwin resigned over the matter. It gets worse: in January 2009, RBS reported a £28 billion loss, the largest in UK banking history. Of this, about £20 billion was attributable to the ABN AMRO purchase. The UK government raised its stake in RBS to 70 per cent by converting preferred shares to ordinary shares.

Fortis also took a hit after the headline-worthy ABN AMRO deal, which drained the Belgian bank of capital. CEO Jean Votron stepped down, and in September 2008, Fortis announced that it would divest most of the ABN AMRO pieces it had acquired, mostly operations in Belgium and the Netherlands. Shortly thereafter, the Benelux governments had to step in, and in the end, the remains of Fortis were sold to its former consortium partner BNP Paribas.

Although they were not involved with the disastrous ABN AMRO transaction, UK banks Lloyds TSB and HBOS floundered in the global crisis. After accepting bailout funds from the government, the two banks were forced into a merger, forming a new entity called Lloyds Banking Group. It, too, is poised for greater government involvement.

## **Jobs and bonuses**

Losses and write-offs led, necessarily, to layoffs, bonus cuts and pay freezes at many top banks in 2008 and 2009. For the full year 2008, the financial services sector cut over 225,000 jobs worldwide. Economic turmoil has meant a mixed bag for prospective I-bank employees: some banks have limited new hires, while others are taking advantage of a flooded candidate pool to scoop up displaced talent at lower-than-usual pay scales.

Despite the grim numbers, 2009 brought tentative signs of a turnaround in London, where thousands of finance workers received pink slips in late 2007 and 2008. In May alone, 500 new jobs were created, driven by Barclays' announcement that it would hire 300 new equities bankers by the end of 2009. (Why? As Barclays reshuffled people to accommodate its purchase of Lehman in North America, positions opened up.) Other European and Asian firms, including Japan's Mizuho Securities, UniCredit and Standard Chartered, began modest UK hiring efforts.

## **Big banks getting their bankers back**

At the beginning of 2010, a reversal act of sorts began to occur in London. When the financial crisis had hit in 2008 and early 2009, many high-level investment banking dealmakers jumped ship to smaller banking boutiques. The thinking behind the moves was boutiques were less likely to fold and more likely to be able to pay dealmakers what dealmakers believed they were worth (as opposed to what governments and taxpayers believed). But come 2010, when big banks appeared to be out of the line of fire and back in the black financially, they started to lure bankers back with big pay packages. As a result, many bankers came full circle, moving back into offices housed in large buildings leased or owned by global financial institutions.

## Hiring spree in London

In May 2010, it was reported that opportunities for bankers in London were up threefold versus 2009, according to UK recruiters cited by The New York Times, and bonuses were well up, too. Due to the surprisingly quick turnaround in the equity markets, UK-based banks and US banks with significant operations overseas were said to be on the hunt for talent, and a lot of it: the City of London expected to add 22,000 finance jobs over the next two years (after sacking nearly 50,000 in 2008 and 2009).

Especially needed were sales professionals as well as distressed debt experts, risk managers, computer programmers and private bankers. The specific companies reportedly on the lookout for bankers were UBS, Credit Suisse, Lloyds, J.P. Morgan, Goldman Sachs and Morgan Stanley. And jobs seemed to be available for the taking at all levels, from senior slots ("many in their late 40s ... took the financial turmoil as an opportunity to retire or change careers") to young guns looking to pitch new products ("banks are ... expanding into commodities, currencies, even so-called 'green' investment products").

The same was true across the Atlantic. In mid-2010, investment banks in the US began hiring bankers by the hundreds and offering bonuses by the millions. Much of the hiring was a result of the return of the equity and M&A deal markets. American financial services firms (and foreign firms with operations in the US) could begin to replace the hundreds of thousands of jobs that were cut in the fallout after the financial crisis.

A lot of these new jobs and bonuses were offered by the largest banks on Wall Street (such as Citi and Goldman Sachs), but some were also offered by relatively smaller banks (such as Jefferies, which had recently increased headcount by 25 per cent, taking advantage of the bulge-bracket talent that had been laid off in 2008 and 2009). The hiring trend continued during the second half of 2010, albeit at a much slower pace.

## Regulation in the U.S. and Europe

Since the worldwide financial crisis of 2008, financial regulation has taken center stage in the US as well as in Europe. In the US, the much publicized and debated Dodd-Frank Act was enacted in 2010. The act, the most significant piece of financial regulation in the US since the 1930s, increased restrictions on hedge funds and private equity investing, and increased transparency in derivatives trading and regulation of credit agencies. In addition, the so-called Volcker Rule portion of the act more or less prohibited banking institutions from engaging in proprietary trading—that is, trading their own accounts, which was largely seen as one of the main causes of the financial crisis of 2008. As a result of the Volcker Rule, firms like Goldman Sachs and Morgan Stanley were forced to break off their proprietary trading units in 2010 and 2011, significantly altering the landscape of the worldwide investment management industry.

An increased focus on regulation has also meant new regulatory bodies. In 2009 the EU announced the creation of three new financial regulatory agencies. And in 2010 the UK announced the abolishment of the more than 25-year-old Financial Services Authority (FSA), creating, in its place, the Financial Conduct Authority and Prudential Regulation Authority. Going forward, the new bodies, along with the Bank of England, will be responsible for financial regulation in the UK. Among other things, the new regulatory system hopes to better protect investors by making investment management advice and transaction charges more transparent. It also aims to more closely police banks and better prepare for (and prevent) any future financial crises.

Adding to these changes in Europe is the possibility of a break-up of the euro. With investors increasingly moving their wealth outside Europe's borders to America and Asia due to the euro zone debt crisis, debate has arisen with respect to the viability of keeping the euro intact. In fact, a May 2012 article in *The Economist* entitled "The Choice" begins with this paragraph: "What will become of the European Union? One road leads to the full break-up of the euro, with all its economic and political repercussions. The other involves an unprecedented transfer of wealth across Europe's borders and, in return, a corresponding surrender of sovereignty. Separate or superstate: those seem to be the alternatives now."

## **Banks hit the BRICs**

By the fourth quarter of 2010, it became clear that the world's emerging markets held the biggest opportunity for revenue growth for the world's largest banks. This is why firms such as Citi, J.P. Morgan, Morgan Stanley, Standard Chartered and Goldman Sachs all announced intentions to deploy capital to the so-called BRICs (Brazil, Russia, India and China). This meant that these firms and others began to hire investment banking and trading professionals in these areas by the hundreds.

All of the BRIC countries currently possess, and have been forecasted to maintain for some time, booming deal markets. And so, in the coming years, Brazil, Russia, India and China will likely be hosting the fiercest battles for investment banking deals.

## **Return of the IPO**

Amid all the sour news about job losses, there was some good news at the halfway mark of 2011. And that news had to do with equity underwriting. For the first six months of the year, global equity underwriting volume was 27 per cent higher than it was in the same period in 2010. In fact, the first half of the year was the best first-six-month period since 2007. In the EMEA region alone, equity deal volume was up 46 per cent in the first half of 2011, and IPO volume rose 25 per cent.

However, more recently the IPO market has been on the decline. During 2012, global IPO volume fell 29 per cent to \$117 billion. And in Europe, total IPO volume fell by more than 54 per cent.

## **Scandalous spring and summer**

In the spring and summer of 2012, while a major debt crisis loomed in Europe, Wall Street was again hit with scandal. In March 2012, Greg Smith, a vice president at Goldman Sachs, very publicly (in a *New York Times* op-ed) resigned from the firm, writing that Goldman executives often referred to clients as "muppets" and "callously talk[ed] about ripping off clients."

Two months later, in June, it was JPMorgan Chase's turn to take the hot seat when it was revealed that one of its traders, now known widely as the "London Whale," took a position in an index of credit default swaps that lost approximately \$6 billion.

Other scandalous news in 2012 included an interest rate fixing scandal that ultimately led to the resignation of Barclays' chairman and CEO; an insider trading scandal at Nomura that led to the ouster of its CEO; HSBC turning a blind eye to transactions apparently made by terrorists and drug dealers; and allegations that Standard Chartered Bank laundered billions of dollars for Iran.

# Stock and Bond Offerings

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## Chapter 6

In this chapter, we will take you through the three basic forms of US public offerings: the IPO, the follow-on equity offering and the bond offering. Traditionally, the London and other European markets had a variety of local procedures for capital raising but increasingly US forms are becoming standard practice internationally.

## INITIAL PUBLIC OFFERINGS

An **initial public offering (IPO)** is the process by which a private company transforms itself into a public company. The company offers, for the first time, shares of its equity (ownership) to the investing public. These shares subsequently trade on a public stock exchange like the London or New York Stock Exchange (NYSE).

The first question you may ask is why a company would want to go public. Many private companies succeed remarkably well as privately owned enterprises. One privately held company, Cargill, books more than \$120 billion in annual revenue. And until its IPO in 1999, Wall Street legend Goldman Sachs was a private company. However, for many large or growing private companies, a day of reckoning comes for the owners when they decide to sell a portion of their ownership in their firm to the public.

The primary reason for going through the rigors of an IPO is to raise cash to fund the growth of a company and to increase the company's ability to make acquisitions using stock. For example, industry observers believe that Goldman Sachs' partners wished to have available a publicly traded currency (the stock in the company) with which to acquire other financial services firms.

While obtaining growth capital is the main reason for going public, it is not the only reason. Often, the owners of a company may simply wish to cash out either partially or entirely by selling their ownership in the firm in the offering. Thus, the owners will sell shares in the IPO and get cash for their equity in the firm. Or, sometimes a company's CEO may own a majority or all of the equity, and will offer a few shares in an IPO in order to diversify his or her net worth or to gain some liquidity. To return to the example of Goldman Sachs, some felt that another driving force behind the partners' decision to go public was the feeling that financial markets were at their peak, and that they could get a good price for their equity in their firm. But going public is not a slam dunk. Firms that are too small, too stagnant or have poor growth prospects will—in general—fail to find an investment bank (or at least a top-tier investment bank) willing to underwrite their IPOs.

From an investment banking perspective, the IPO process consists of these three major phases: hiring the managers, due diligence and marketing.

**Hiring the managers.** The first step for a company wishing to go public is to hire managers for its offering. This choosing of an investment bank is often referred to as a “**beauty contest**.” Typically, this process involves meeting with and interviewing investment bankers from different firms, discussing the firm's reasons for going public and ultimately nailing down a valuation. In making a valuation, I-bankers, through a mix of art and science, pitch to the company wishing to go public what they believe the firm is worth, and therefore how much stock it can realistically sell. Perhaps understandably, companies often choose the bank that predict the highest valuation during this



beauty contest phase, instead of the best-qualified manager. Almost all IPO candidates select two or more investment banks to manage the IPO process. The primary manager is known as the “**lead manager**,” while additional banks are known as “**co-managers**.”

**Due diligence and drafting.** Once managers are selected, the second phase of the IPO process begins. For investment bankers on the deal, this phase involves understanding the company's business as well as possible scenarios (called **due diligence**), and then filing the legal documents as required by the regulatory authorities. In the US, the SEC legal form used by a company issuing new public securities is called the S-1 (or **prospectus**) and requires quite a bit of effort to draft. Lawyers, accountants, I-bankers, and of course, company management must all toil for countless hours to complete the S-1 in a timely manner. The final step of filing the completed S-1 usually culminates at “**the printer**” (see sidebar in Chapter 8).

**Marketing.** The third phase of an IPO is the marketing phase. Once the SEC has approved the prospectus, the company embarks on a **roadshow** to sell the deal. A roadshow involves flying the company's management from city to city (and often between countries) to visit institutional investors who might be interested in buying shares in the offering. Typical roadshows last from two to three weeks, and involve meeting hundreds of investors, who listen to the company's canned PowerPoint presentation and ask scrutinising questions. Insiders say money managers decide whether or not to invest thousands of dollars in a company within just a few minutes into a presentation.

The marketing phase ends abruptly with the placement and final “pricing” of the stock, which results in a new security trading in the market. Investment banks earn fees by taking a percentage commission (called the “**underwriting discount**,” usually around 8 per cent for an IPO) on the proceeds of the offering. Successful IPOs will trade up on their first day (increase in share price). Young public companies that miss their numbers are dealt with harshly by institutional investors, who not only sell the stock, causing it to drop precipitously, but also lose confidence in the company's management team.

## FOLLOW-ON STOCK OFFERINGS

A company that is already publicly traded will sometimes sell stock to the public again. This type of offering is called a **follow-on offering**, or a secondary offering. One reason for a follow-on offering is the same as a major reason for the initial offering: a company may be growing rapidly, either by making acquisitions or by internal growth, and may simply require additional capital.

Another reason that a company would issue a follow-on offering is similar to the cashing out scenario in the IPO. In a secondary offering, a large existing shareholder (usually the largest shareholder, say, the CEO or founder) may wish to sell a large block of stock in one fell swoop. The reason for this is that this must be done through an additional offering (rather than through a simple sale on the stock market through a broker), is that a company may have shareholders with “unregistered” stock who wish to sell large blocks of their shares. In the US, by SEC decree, all stock must first be registered by filing an S-1 or similar document before it can trade on a public stock exchange. Thus, pre-IPO shareholders who do not sell shares in the initial offering hold what is called unregistered stock, and are restricted from selling large blocks unless the company registers them. (The equity owners who hold the shares sold in an offering, whether it be an IPO or a follow-on, are called the selling shareholders.)

## An example of a follow-on offering

“New” and “Old” Shares. There are two types of shares that are sold in secondary offerings. When a company requires additional growth capital, it sells “new” shares to the public. When an existing shareholder wishes to sell a huge block of stock, “old” shares are sold to the public. Follow-on offerings often include both types of shares.

Let's look at an example. Suppose Acme Company wished to raise £100 million to fund certain growth prospects. Suppose that at the same time, its biggest shareholder, a venture capital firm, was looking to “cash out,” or sell its stock.

Assume the firm already had 100 million shares of stock trading in the market. Let's also say that Acme's stock price traded most recently at £10 per share. The current market value of the firm's equity is:

$£10 \times 100,000,000 \text{ shares} = £1,000,000,000$  (£1 billion)

Say XYZ Venture Capitalists owned 10 million shares (comprising 10 per cent of the firm's equity). They want to sell all of their equity in the firm, or the entire 10 million shares. And to raise £100 million of new capital, Acme would have to sell 10 million additional (or new) shares of stock to the public. These shares would be newly created during the offering process. In fact, the prospectus for the follow-on legally “registers” the stock with the Financial Services Authority (FSA), the financial services industry regulator which is referred to as the UK Listing Authority (UKLA) when acting as the authority for listing shares on a stock exchange, thus authorising the sale of stock to investors.

The total size of the deal would thus need to be 20 million shares, 10 million of which are “new” and 10 million of which are coming from the selling shareholders, the venture capital firm. Interestingly, because of the additional shares and what is called “dilution of earnings” or “dilution of EPS,” stock prices typically trade down upon a follow-on offering announcement. (Of course, this only happens if the stock to be issued in the deal is “new” stock.)

After this secondary offering is completed, Acme would have 110 million shares outstanding, and its market value would be £1.1 billion if the stock remains at £10 per share. The shares sold by XYZ Venture Capitalists will now be in the hands of new investors in the form of freely tradable securities.

*Market reaction.* What happens when a company announces a secondary offering indicates the market's tolerance for additional equity? Because more shares of stock "dilute" the old shareholders, and "dumps" shares of stock for sale on the market, the stock price usually drops on the announcement of a follow-on offering. Dilution occurs because earnings per share (EPS) in the future will decline, simply based on the fact that more shares will exist post-deal. And since EPS drives stock prices, the share price generally drops.

*The process.* The follow-on offering process differs little from that of an IPO, and actually is far less complicated. Since underwriters have already represented the company in an IPO, a company often chooses the same managers, thus making the hiring the manager or beauty contest phase much simpler. Also, no real valuation work is required (the market now values the firm's stock), a prospectus has already been written and a roadshow presentation is already prepared. Modifications to the prospectus and the roadshow demand the most time in a follow-on offering, but typically can be completed with a fraction of the effort required for an initial offering.

## BOND OFFERINGS

When a company requires capital it sometimes chooses to issue **public debt** instead of equity. Almost always, however, a firm undergoing a public bond deal will already have stock trading in the market. (It is relatively rare for a private company to issue bonds before its IPO.)

The reasons for issuing bonds rather than stock are various. Perhaps the stock price of the issuer is down, and thus a bond issue is a better alternative. Or perhaps the firm does not wish to dilute its existing shareholders by issuing more equity. Or perhaps a company is quite profitable and wants the tax deduction from paying bond interest, while issuing stock offers no tax deduction. These are all valid reasons for issuing bonds rather than equity. Sometimes in down markets, investor appetite for public offerings dwindles to the point where an equity deal just could not get done (investors would not buy the issue).

The bond offering process resembles the IPO process. The primary difference lies in: (1) the focus of the prospectus (a prospectus for a bond offering will emphasise the company's stability and steady cash flow, whereas a stock prospectus will usually play up the company's growth and expansion opportunities), and (2) the importance of the bond's credit rating (the company will want to obtain a favorable credit rating from a debt rating agency like S&P or Moody's, with the help of the "credit department" of the investment bank issuing the bond; the bank's credit department will negotiate with the rating agencies to obtain the best possible rating). As covered in Chapter 5, the better the credit rating—and therefore, the safer the bonds—the lower the interest rate the company must pay on the bonds to entice investors to buy the issue. Clearly, a firm issuing debt will want to have the highest possible bond rating, and hence pay a lower interest rate (or yield).

As with stock offerings, investment banks earn underwriting fees on bond offerings in the form of an underwriting discount on the proceeds of the offering. The per centage fee for bond underwriting tends to be lower than for stock underwriting. For more detail on your role as an investment banker in stock and bond offerings, see Chapter 8.

# Mergers and Acquisitions, Private Placements and Reorganizations

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## Chapter 7

### MERGERS AND ACQUISITIONS

In the 1980s, hostile takeovers and leveraged buyout (LBO) acquisitions were all the rage. Companies sought to acquire others through aggressive stock purchases, showing little regard for target companies' concerns. The 1990s were the decade of friendly mergers, dominated by a few sectors of the economy. Mergers in the telecommunications, financial services and technology industries commanded headlines as these sectors went through dramatic change, both regulatory and financial. But giant mergers were occurring in virtually every industry (witness one of the biggest of them all, the merger between Exxon and Mobil). Except for short periods of market volatility, M&A (mergers and acquisitions) business was brisk in the 1990s, as CEOs responded to pressure to go global, to keep pace with the competition and to expand earnings by any possible means.

At the beginning of the millennium, however, M&A activity slowed, hitting bottom in 2002 when the value of deals crashed by 40 per cent. Activity began to revive in 2003, and in 2005 worldwide volume rose by 38 per cent versus 2004.

Five straight years of M&A activity growth came to a halt during the downturn of 2008, when global announced deal volume fell 29.6 per cent from 2007. The US led the slide, with the number of transactions slipping 37 per cent. European dealmaking fell 27.3 per cent, while the Asia-Pacific region fared best of all, down only 8.7 per cent. A lesser-known statistic, the number of withdrawn transactions, proved the extent to which the recession was hurting M&A worldwide. In 2008, a staggering 1,194 mergers or acquisitions were simply called off—a record since 2000. However, more recently, the M&A deal market has rebounded. Both 2010 and the first six months of 2011 were lucrative times for M&A, with deal volume rising more than 20 per cent during 2010, and by more than 40 per cent during the first half of 2011.

When a public company acquires another public company, the target company's stock often rises while the acquiring company's stock often declines. Why? One must realize that existing shareholders must be convinced to sell their stock. Few shareholders are willing to sell their stock to an acquirer without first being paid a premium on the current stock price. In addition, shareholders must also capture a takeover premium to relinquish control over the stock. The large shareholders of the target company typically demand such an extraction. (Usually once a takeover is announced, the "arbs," or arbitrageurs, buy up shares on the open market and drive up the share price to near the proposed takeover price.)

M&A transactions can be roughly divided into either mergers or acquisitions. These terms are often used interchangeably in the press, and the actual legal difference between the two involves arcana of accounting procedures, but we can still draw a rough difference between the two.

**Acquisition.** When a larger company takes over another (smaller firm) and clearly becomes the new owner, the purchase is typically called an acquisition. In most cases the target company ceases to exist post-transaction (from a legal point of view) and the acquiring corporation swallows its business. The stock of the acquiring company continues to be traded.

**Merger.** A merger occurs when two companies, often roughly of the same size, combine to create a new company. Such a situation is often called a “merger of equals.” Both companies’ stocks are tendered (or given up), and new company stock is issued in its place. For example, both Chrysler and Daimler-Benz ceased to exist when their firms merged, and a new combined company, DaimlerChrysler, was created.

## **M&A advisory services**

For an I-bank, M&A advising can be highly profitable, and there are possibilities for many types of transactions. Perhaps a small private company’s owner/manager wishes to sell out for cash and retire. Or perhaps a big public firm aims to buy a competitor through a stock swap. Whatever the case, M&A advisors come directly from the corporate finance departments of investment banks. Unlike public offerings, merger transactions do not directly involve salespeople, traders or research analysts, although research analysts in particular can play an important role in “blessing” the merger. In particular, M&A advisory falls onto the laps of M&A specialists and fits into one of either two buckets: seller representation or buyer representation (also called **target representation** and **acquirer representation**).

## **Representing the target**

An I-bank that represents a potential seller has a much greater likelihood of completing a transaction (and therefore being paid) than an I-bank that represents a potential acquirer. Also known as sell-side work, this type of advisory assignment is generated by a company that approaches an investment bank and asks the bank to find a buyer of either the entire company or a division. (For that matter, an investment bank may make the initial approach and “pitch” the idea of the company being sold or merged.) Often, sell-side representation comes when a company asks an investment bank to help it sell a division, plant or subsidiary operation.

### **Buyout firms and LBOs**

Buyout firms, which are also called financial sponsors, acquire companies by borrowing substantial cash. These buyout firms (also called LBO firms) implement a management team they trust, improve sales and profits and ultimately seek an exit strategy (usually a sale or IPO) for their investment within a few years. These firms are driven to achieve a high return on investment (ROI), and focus their efforts toward streamlining the acquired business and preparing the company for a future IPO or sale. It is quite common for a buyout firm to be the selling shareholder in an IPO or follow-on offering.

Generally speaking, the work involved in finding a buyer includes writing a selling memorandum and then contacting potential strategic or financial buyers of the client. If the client hopes to sell a semiconductor plant, for instance, the I-bankers will contact firms in that industry, as well as buyout firms that focus on purchasing technology or high-tech manufacturing operations.

## **Representing the acquirer**

In advising sellers, the I-bank's work is complete once another party purchases the business up for sale, i.e., once another party buys your client's company or division or assets. Buy-side work is an entirely different animal. The advisory work itself is straightforward: the investment bank contacts the firm its client wishes to purchase, attempts to structure a palatable offer for all parties and makes the deal a reality. (Again, the initial contact may be from the acquiring company, or the investment bank may "pitch" the idea of buying Company X to the acquiring company.) However, most of these proposals do not work out; few firms or owners are that quick to sell their business. And because the I-banks primarily collect fees based on completed transactions, their work often goes unpaid.

As a result, the I-bank's work can drag on for months when it is advising clients looking to buy a business. Often a firm will pay a nonrefundable retainer fee to hire a bank and say, "Find us a target company to buy." These acquisition searches can last for months and produce nothing except associate and analyst fatigue as they pull all-nighters building merger models. Deals that do get done, though, are a boon for the I-bank representing the buyer because of their enormous profitability. Typical fees depend on the size of the deal, but generally fall in the 1 per cent range. For a \$100 million deal, an investment bank takes home \$1 million. Not bad for a few months' work.

## **PRIVATE PLACEMENTS**

A private placement, which involves the selling of debt or equity to private investors, resembles both a public offering and a merger. A private placement differs little from a public offering aside from the fact that a private placement involves a firm selling stock or equity to private investors rather than to public investors. Also, a typical private placement deal is smaller than a public transaction. Despite these differences, the primary reason for a private placement—to raise capital—is fundamentally the same as a public offering.

### **Why private placements?**

As mentioned previously, firms wishing to raise capital often discover that they are unable to go public for a number of reasons. The company may not be big enough; the markets may not have an appetite for IPOs; the company may be too young or not ready to be a public company; or the company may simply prefer not to have its stock be publicly traded. Such firms with solidly growing businesses make excellent private placement candidates. Often, firms wishing to go public may be advised by investment bankers to do a private placement first, as they need to gain critical mass or size in order to justify an IPO.

Private placements, then, are usually the province of smaller companies aiming to go public at a later date. The process of raising private equity or debt changes only slightly from a public deal. One

difference is that private placements do not involve a roadshow, and in the US, the securities do not have to be registered with the SEC. In place of the prospectus, I-banks draft a detailed **private placement memorandum (PPM)** which divulges information similar to a prospectus. Instead of a roadshow, companies looking to sell private stock or debt will host potential investors as interest arises, giving presentations that detail the ways in which they will be the greatest thing since sliced bread.

Often, one firm will be the sole or lead investor in a private placement. In other words, if a company sells stock through a private placement, often only one venture capital firm or institution will buy most or all of the stock offered. Conversely, in an IPO, shares of stock fall into the hands of literally thousands of buyers immediately after the deal is completed.

## **The I-bank's role in private placements**

The investment banker's work in a private placement is quite similar to sell-side M&A representation. The bankers attempt to find a buyer by writing the PPM and then contacting potential strategic or financial buyers of the client.

In the case of private placements, however, financial buyers are typically venture capitalists rather than buyout firms, which is an important distinction. A VC firm invests in less than 50 per cent of a company's equity, whereas a buyout firm purchases greater than 50 per cent and often nearly 100 per cent of a company's equity, thereby gaining control of the firm. The same difference applies to private placements on the sell-side: A sale occurs when a firm sells greater than 50 per cent of its equity (giving up control), but a private placement occurs usually when less than 50 per cent of its equity is sold. Note that in private placements, the company typically offers convertible preferred stock, rather than common stock.

Because private placements involve selling equity and debt to a single buyer, the investor and the seller (the company) typically negotiate the terms of the deal. Investment bankers function as negotiators for the company, helping to convince the investor of the value of the firm.

Fees involved in private placements work like those in public offerings. Usually they are a fixed percentage of the size of the transaction. (Of course, the fees depend on whether a deal is consummated or not.) A common private placement fee is 5 to 8 per cent of the size of the equity/debt sold.

## **FINANCIAL RESTRUCTURINGS**

When a company cannot pay its cash obligations—for example, when it cannot meet its bond payments or its payments to other creditors (such as vendors)—it usually must file for bankruptcy court protection from creditors. In this situation, a company can, of course, choose to simply shut down operations and walk away. On the other hand, it can also restructure and remain in business.

What does it mean to restructure? The process can be thought of as twofold: financial restructuring and organisational restructuring. Restructuring from a financial viewpoint involves renegotiating payment terms on debt obligations, issuing new debt and restructuring payables to vendors. Bankers provide guidance to the restructuring firm by recommending the sale of assets, the issuing of special securities such as convertible stock and bonds or working with M&A advisors to sell the company entirely.

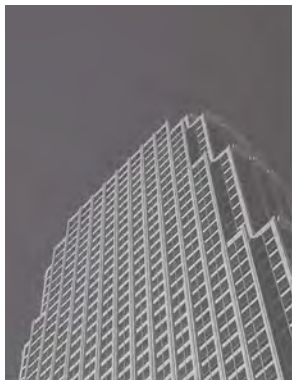
From an organisational viewpoint, a restructuring can involve a change in management, strategy and focus. I-bankers with expertise in “reorgs” can facilitate and ease the transition from bankruptcy to viability.

## **Fees in restructuring work**

Typical investment banking fees in a restructuring depend on what new securities are issued post-bankruptcy and whether the company is sold, but usually includes a retainer fee paid upfront to the investment bank. When a bank represents a bankrupt company, the brunt of the work is focused on analysing and recommending financing alternatives. Thus, the fee structure resembles that of a private placement. How does the work differ from that of a private placement? I-bankers not only work in securing financing, but may assist in building projections for the client (which show potential financiers what the firm’s prospects may be). They might also renegotiate credit terms with lenders, work with the company’s lawyers to navigate the bankruptcy court process and help re-establish the business as a going concern.

Because a firm in bankruptcy already has substantial cash flow problems, investment banks often charge minimal monthly retainers, hoping to cash in on the spread from issuing new securities or selling the company. Like other offerings, this can be a highly lucrative and steady business.





# ON THE JOB

Vault Career Guide to Investment Banking, European Edition

**Chapter 8: Corporate Finance**

**Chapter 9: Institutional Sales and Trading**

**Chapter 10: Research**

**Chapter 11: Syndicate: The Go-betweens**



# Corporate Finance

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## Chapter 8

### Stuffy bankers?

The stereotype of the corporate finance department is stuffy, arrogant (white and male) MBAs who frequent golf courses and talk on cellphones nonstop. While this is increasingly less true, corporate finance remains the most elite department in the typical investment bank. The atmosphere in corporate finance is, unlike that in sales and trading, often quiet and reserved. Junior bankers sit separated by cubicles, quietly crunching numbers.

Depending on the firm, corporate finance can also be a tough place to work, with unforgiving bankers and expectations through the roof. Although decreasing, stories of analyst abuse abound, and some bankers come down hard on new analysts to scare and intimidate them. The lifestyle for corporate finance professionals can be a killer. In fact, many corporate finance workers find that they literally dedicate their lives to the job. Social life suffers, free time disappears and stress multiplies. It is not uncommon to find analysts and associates wearing rumpled pants and wrinkled shirts, exhibiting the wear and tear of all-nighters.

In good times, these long hours have paid off in the form of six-figure salaries and massive year-end bonuses, which many in the business saw as a given. However, the financial crisis and government bailout plans have put a damper on the high-flying bank culture. Pay regulations in Europe and the US are evolving, with some companies limiting bonuses, halting automatic pay rises and ending the practice of multiyear bonus guarantees, at least for a while.

Even at reduced bonus levels, bankers can make quite a lot, and many anticipate working for just a few years to earn as much as possible before finding less demanding work. Personality-wise, bankers tend to be highly intelligent, motivated and not lacking in confidence. Analysts and associates also tend to be ambitious, intelligent and pedigreed. If you're going into an analyst or associate position, make sure to check your ego at the door. But don't be afraid to ask penetrating questions about deals and what is required of you.

### The deal team

Investment bankers generally work in **deal teams** which, depending on the size of a deal, vary somewhat in makeup. In this chapter we will provide an overview of the roles and lifestyles of the positions in corporate finance, from analyst to managing director. (Often, people in corporate finance are called I-bankers.) Because the titles and roles don't differ significantly, whether the job at hand is underwriting or M&A, we have included both in this explanation. In fact, at most smaller firms, underwriting and transaction advisory are not separated, and bankers typically pitch whatever business they can scout out within their industry sector.

## THE PLAYERS

### Analysts

**Analysts** are the grunts of the corporate finance world. They often toil endlessly with little thanks, little pay (when figured on an hourly basis) and barely enough free time to sleep four hours a night. Typically hired straight from top undergraduate universities, this crop of bright, highly motivated kids does the financial modeling and basic entry-level duties associated with any corporate finance deal.

Modeling every night until 2 a.m. and sacrificing a social life proves unbearable before long, and after two years many analysts leave the industry. Unfortunately, many bankers know the transient nature of analysts, and drive them hard to get as much from the juniors as they can. The unfortunate analyst who screws up or talks back may never get quality work, and will spend his days waiting until 11 p.m. for work to come, bored yet stressing even more than the busy analyst. These are the analysts who do not get called to work on live transactions, and who do menial work or assemble pitchbooks all the time.

Salaries for first-year analysts in the city at a major investment bank begin around £30,000 to £40,000 per year, with an annual bonus of perhaps £15,000 (depending heavily on economic factors). While this seems like a lot for a 22-year-old with an undergraduate degree, it's not a great deal if you consider per-hour compensation. (At most firms, analysts also get dinner every night for free if—rather, when—they work late, so there's that.) Because they have so little time to spend their income, they can build fat current and deposit accounts and ample means to fund business school or law school. While the salary does not improve much for second-year analysts, the bonus can double for those second years who demonstrate high performance. At this level, bonuses depend mostly on an analyst's contribution, attitude and work ethic, as opposed to the volume of business generated by the bankers with whom he or she works.

### Associates

Much like analysts, associates hit the grindstone hard. Working 80- to 100-hour weeks, associates sweat over pitchbooks and models, become experts with financial modeling on Excel and sometimes shake their heads as they wonder what the point is. Unlike analysts, however, associates can become involved with clients and, most importantly, are not at the foot of the ladder. Associates quickly learn to delegate and hand off menial modeling work and research projects to analysts. However, treatment from vice presidents and managing directors doesn't necessarily improve for associates versus analysts, as bankers sometimes care more about the work getting done, and less about the guy or gal working all night to complete it.

Usually hailing directly from top business schools (and sometimes law schools or other grad schools), associates often possess only a summer's worth of experience in corporate finance, so they must start almost from the beginning. Associates who worked as analysts before grad school have a little more experience under their belts. The overall level of business awareness and knowledge a bright MBA has, however, makes a tremendous difference, and associates quickly earn the luxury of more complicated work, client contact and bigger bonuses.

Associates are, at least, better paid than analysts. They generally start off at a salary of £40,000 to £50,000, progressing to £60,000 and up (in some cases, way up) by the time they're in their third year. In the past, their bonuses have hit £20,000-plus in the first six months; these days, with bonus cutbacks, some associate bonuses have dropped as low as £10,000. (At most firms, associates start in August and get their first prorated bonus in January.) Newly minted MBAs can also receive forgivable loans, relocation assistance and signing bonuses. These can be worth another £5,000 to £10,000 or more, depending on the firm, its performance and the economy.

## Vice presidents

Upon attaining the position of vice president (at most firms, after four or five years as associates), those in corporate finance enter the realm of real bankers. The lifestyle becomes more manageable once the associate moves up to VP. On the plus side, weekends sometimes free up, all-nighters drop off and the general level of responsibility increases—VPs are the ones telling associates and analysts to stay late on Friday nights. In the office, VPs manage the financial modeling/pitchbook production process in the office. On the negative side, the wear and tear of traveling that accompanies VP-level banker responsibilities can be difficult. As a VP, one begins to handle client relationships, and thus spends much more time on the road than analysts or associates. You can look forward to being on the road at least two to four days per week, usually visiting clients and potential clients. Don't forget about closing dinners (to celebrate completed deals), industry conferences (to drum up potential business and build a solid network within their industry) and, of course, roadshows. VPs are perfect candidates to baby-sit company management on roadshows.

## Directors/managing directors

Directors and managing directors (MDs) are the major players in corporate finance. Typically, MDs set their own hours, deal with clients at the highest level and disappear whenever a drafting session takes place, leaving this grueling work to others. (We will examine these drafting sessions in depth later.) MDs mostly develop and cultivate relationships with various companies in order to generate corporate finance business for the firm. MDs typically focus on one industry, develop relationships among management teams of companies in the industry and visit these companies on a regular basis. These visits are aptly called sales calls.

## Pay scales

The formula for paying bankers varies dramatically from firm to firm. Some banks adhere to rigid formulas based on how much business a banker brought in, while others pay is based on a subjective allocation of corporate finance profits. Given taxpayer outcry in the wake of government bailouts, "pay for performance" could become more strictly enforced, even at banks that have survived the financial storm reasonably intact. One thing is certain: slow business and firm losses mean bonuses decline. Before the meltdown, bankers easily made £60,000 to £120,000, plus hefty bonuses and generous perks. Top bankers at the MD level raked in bonuses of £500,000 or more a year. Post-crisis, firms are aggressively cutting perks and making an effort to rationalise huge bonus payouts. But there are still big deals to be done, and MDs—who are essentially paid on commission—will still have plenty to show for their work.

## THE ROLE OF THE PLAYERS

What do corporate finance professionals actually do on a day-to-day basis to underwrite an offering? The process, though not simple, can easily be broken up into the same three phases that we described previously. We will illustrate the role of the bankers by walking through the IPO process in more detail. Note that other types of stock or debt offerings closely mirror the IPO process.

### Hiring the managers

This phase in the process can vary in length substantially, lasting for many months or just a few short weeks. The length of the hiring phase depends on how many I-banks the company wishes to meet, when they want to go public and how market conditions fare. Remember that two or more investment banks are usually tapped to manage a single equity or debt deal, complicating the hiring decisions that companies face.

#### MDs and sales calls

Often when a large IPO candidate is preparing for an offering, word gets out that the company is looking to go public. MDs all over the city and Wall Street scramble to create pitchbooks (see sidebar on next page) and set up meetings called “pitches” in order to convince the company to hire them as the lead manager. I-bankers who have previously established a good relationship with the company have a distinct advantage. What is surprising to many people unfamiliar with I-banking is that MDs are essentially traveling salespeople who pay visits to the CEOs and CFOs of companies, with the goal of building investment banking relationships.

Typically, MDs meet informally with the company several times. In an initial meeting with a firm’s management, the MD will have an analyst and an associate put together a general pitchbook, which is left with the company to illustrate the I-bank’s capabilities.

Once an MD knows a company plans to go public, he or she will first discuss the IPO with the company’s top management and gather data regarding past financial performance and future expected results. This data, farmed out to a VP or associate and crucial to the valuation, is then used in the preparation of the pitchbook.

#### Pitchbook preparation

After substantial effort and probably a few all-nighters on the part of analysts and associates, the deal-specific pitchbook is complete. The most important piece of information in this kind of pitchbook is the valuation of the company going public. Prior to its initial public offering, a company has no public equity and therefore no clear market value of common stock. So the investment bankers, through a mix of financial and industry expertise, including analysis of comparable public companies, develop a suitable offering size range and hence a marketable valuation range for the company. Of course, the higher the valuation, the happier the potential client. At the same time, though, I-bankers must not be too aggressive in their valuation—if the market does not support the valuation and the IPO fails, the bank loses credibility.

## A word about pitchbooks

Pitchbooks come in two flavors: the general pitchbook and the deal-specific pitchbook. Bankers use the general pitchbook to guide their introductions and presentations during sales calls. These pitchbooks contain general information and include a wide variety of selling points bankers make to potential clients. Usually, general pitchbooks include an overview of the I-bank and detail its specific capabilities in research, corporate finance, sales and trading.

The second flavor of pitchbooks is the deal-specific pitch. While a general pitchbook does not differ much from deal to deal, bankers prepare by offering pitchbooks specifically for the transactions (for example, an IPO or proposed sale of the company) they are proposing to a company's top managers. Deal-specific pitchbooks are highly customised and usually require at least one analyst or associate all-nighter to put together (although MDs, VPs, associates, and analysts all work closely together to create the book). The most difficult aspect to creating this type of pitchbook is the financial modeling involved. In an IPO pitchbook valuations, comparable company analyses and industry analyses are but a few of the many specific topics covered in detail. Apart from the numbers, these pitchbooks also include the bank's customised selling points. The most common of these include:

- The bank's reputation, which can lend the offering an aura of respectability.
- The performance of other IPOs or similar offerings managed by the bank.
- The prominence of a bank's research analysts in the industry, which can tacitly guarantee that the new public stock will receive favorable coverage by listened-to stock experts.
- The bank's expertise as an underwriter in the industry, including its ranking in the "league tables" (rankings of investment banks based on their volume of offerings handled in a given category).

## The pitch

While analysts and associates are the members of the **deal team** who spend the most time working on the pitchbook, the MD is the one who actually visits the company with the books under his or her arm to make the pitch, perhaps with a VP. The pitchbook serves as a guide for the presentation (led by the MD) to the company. This presentation generally concludes with the valuation. Companies invite many I-banks to present their pitches at separate meetings. These multiple rounds of presentations comprise what is often called the beauty contest or beauty pageant.

The pitch comes from the managing director in charge of the deal. The MD's supporting cast typically consists of a VP from corporate finance, as well as the research analyst who will cover the company's stock once the IPO is complete. For especially important pitches, an I-bank will send other top representatives from its corporate finance, research or syndicate departments. (We will cover the syndicate and research departments later.) Some companies opt to have their board of directors sit



in on the pitch—the MD might face the added pressure of tough questions from the board during the presentation.

Selecting the managers

After a company has seen all the pitches in a beauty contest, it selects one firm as the lead manager, while some of the other firms are chosen as the co-managers. The number of firms chosen to manage a deal runs the gamut. Sometimes a firm will sole manage a deal, and sometimes, especially on large global deals, four to six firms might be selected as managers. An average-sized offering will generally have three to four managers underwriting the offering — one lead manager and two or three co-managers.

Due diligence and drafting

Organisational meeting

Once the I-bank has been selected as a manager in the IPO, the next step is an organisational meeting at the company’s headquarters. All parties in the working group involved in the deal meet for the first time, shake hands and get down to business.

The attendees and their roles are summarised in the table below.

Group	Typical Participants
The company	Management, namely the CEO and CFO, division heads, and heads of major departments or lines of business.
The company’s lawyers	Partner plus one associate.
The company’s accountants	Partner, plus one or two associates.
The lead manager	I-banking team, with up to four corporate finance professionals. A research analyst may come for due diligence meetings.
The co-manager(s), or I-bank(s) selected behind the lead	I-banking team with typically two or three members instead of four.
Underwriters’ counsel, or the lawyers representing the managers	Partner plus one associate.

At the initial organisational meeting, the MD from the lead manager guides and moderates the meeting. Details discussed at the meeting include the exact size of the offering, the timetable for completing

the deal and other concerns the group may have. Usually a two-or three-month schedule is established as a beacon toward the completion of the offering. A sheet is distributed so all parties can list home, office and cell phone numbers. Often, the organisational meeting wraps up in an hour or two and leads directly to due diligence.

### **Due diligence**

**Due diligence** involves studying the company going public in as much detail as possible. Much of this process involves interviewing senior management at the firm. Due diligence usually entails a plant tour (if relevant), plus explanations of the company's business, how the company operates, how management plans to grow the company and how the company will perform over the next few quarters.

As at the organisational meeting, the moderator and lead questioner throughout the due diligence sessions is the senior banker in attendance from the lead manager. Research analysts from the I-banks attend the due diligence meetings during the IPO process in order to probe the business, ask questions and learn more in order to project the company's financials. While bankers tend to focus on the relevant operational, financial and strategic issues at the firm, lawyers involved in the deal explore mostly legal issues, such as pending litigation.

### **Drafting the prospectus**

Once due diligence wraps up, the IPO process moves quickly into the drafting stage. Drafting refers to the process by which the working group writes the prospectus. This prospectus provides detailed financial information and is the document used to market the offering to potential investors.

Generally, the client company's lawyers ("issuer's counsel") compile the first draft of the prospectus, but thereafter the drafting process includes the entire working group. Unfortunately, writing by committee means a multitude of style clashes, disagreements and tangential discussions, but the end result is a prospectus that most team members can live with. (Usually.) On average, the drafting stage takes anywhere from four to seven drafting sessions, spread over a six- to 10-week period. Initially, all the top corporate finance representatives from each of the managers attend, but these meetings thin out to fewer and fewer members as they continue. The lead manager will always have at least a VP to represent the firm, but co-managers often settle on VPs, associates and sometimes even analysts to represent their firms.

At first, drafting sessions are exciting for analysts and associates to attend, since they offer client exposure, opportunities to learn about a business or industry and a chance to get out of the office. However, these sessions can quickly grow tiring and annoying. Final drafting sessions at the printer mean more all-nighters as the group scrambles to finish the prospectus on time.

## Going to the printer

When a prospectus is near completion, lawyers, bankers and the company's senior management go to the printer, which, as one insider says, is "sort of like going to a country club prison." These 24-hour financial printers, where prospectuses are actually printed, are equipped with showers, all the food you can eat and other amenities to accommodate locked-in-until-you're-done sessions.

Printers are employed by companies to print and distribute prospectus. A typical Wall Street or City public deal requires anywhere from 10,000 to 20,000 copies of the preliminary prospectus (called the red herring or red) and 5,000 to 10,000 copies of the final prospectus. Printers receive the final edited version from the working group, literally print the thousands of copies in-house and then mail them to potential investors in a deal. (The list of investors comes from the managers.) In the US, printers also file the document electronically with the SEC via the "EDGAR" system. As the last meeting before the prospectus is completed, printer meetings can last anywhere from a day to a week or even more. Why is this significant? Because printers are extraordinarily expensive and companies are eager to move onto the next phase of the deal. This amounts to loads of pressure on the working group to finish the prospectus.

For those in the working group, perfecting the prospectus means wrangling over commas, legal language and grammar until the document is error-free. Nothing is allowed to interrupt a printer meeting, meaning one or two all-nighters in a row is not unheard of for working groups.

On the plus side, printers stock anything and everything that a person could want to eat or drink. The best restaurants cater to printers, and M&Ms always seem to appear on the table just when you want a handful. Food isn't all: Many printers have pool tables and stocked bars for those half-hour breaks at 2 a.m. Needless to say, an abundance of coffee and fattening food keeps the group going during late hours.

## Marketing

### Designing marketing material

When the prospectus is finally ready, and any required regulatory filings have been made, the printer spits out thousands of copies, which are mailed to the entire universe of potential institutional investors.

In the meantime, the MD and VP of the lead manager work closely with the CEO and CFO of the company to develop a road show presentation, which consists of 20 to 40 slides for use during meetings with investors. Junior team members in corporate finance help edit the road show slides and begin working on other marketing documents. For example, associates and analysts develop a summary rehash of the prospectus in a brief “selling memo,” which is distributed to the bank’s sales force and contains key selling points for salespeople to use in pitching the offering to clients.

### The road show (babysitting)

The actual **road show** begins soon after the reds are printed. The preliminary prospectus helps salespeople and investors alike understand the IPO candidate’s business, historical financial performance, growth opportunities and risk factors. Using the prospectus and the selling memo as references, the salespeople of the investment banks managing the deal contact the institutional investors they cover and set up road show meetings. The syndicate department, the facilitators between the salesperson and corporate finance, finalises the morass of meetings and communicates the agenda to corporate finance and sales. And, on the road show itself, VPs or associates escort the company’s representatives. Despite the seemingly glamorous nature of a road show (traveling all over the country in limos and chartered jets with your client, the CEO), the corporate finance professional acts as little more than a babysitter on the road show. The most important duties of the junior corporate finance professionals often include making sure luggage gets from point A to point B, ensuring that hotel rooms are booked and finding the limousine driver at the airport terminal.

After a grueling two to three weeks and hundreds of presentations, the road show ends and the group flies home for some much needed rest. During the road show, sales and syndicate departments compile orders for the company’s stock and develop what is called “the book.” The book details how investors have responded, how much stock they want (if any), and at what price they are willing to buy into the offering.

# Going Public

## Phase 1 Hiring the Managers

Pitching/Beauty  
Contests



Selecting the  
Managers in the Deal



## Phase 3 Marketing

Amend the  
Prospectus



Designing the Road  
Show—Slides &  
Presentation

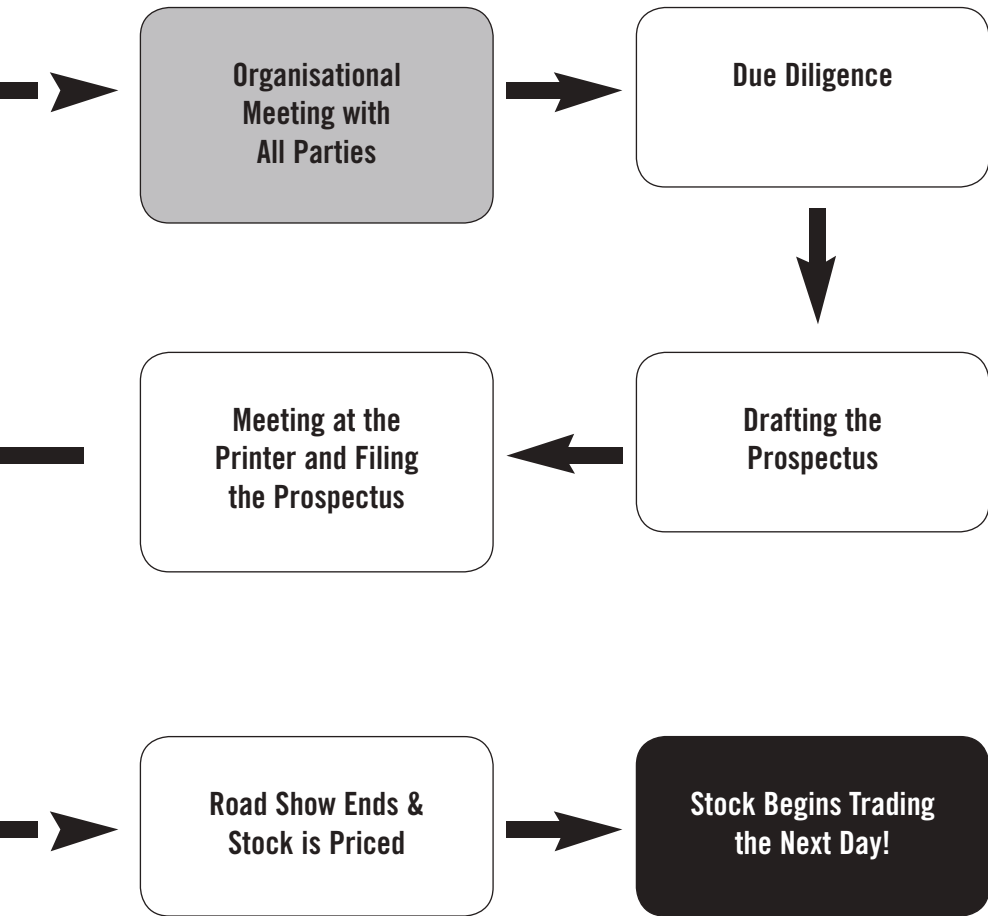


Managers Set up  
Road Show Meetings



Road Show Begins



**Phase 2 Due Diligence & Drafting**

### **The end in sight: pricing the deal**

IPO prospectuses list a range of stock prices on the cover (for example, between £16 to £18 per share). This range is preset by the underwriting team before the road show and is meant to tell investors what the company is worth and hence where it will price. Highly sought-after offerings will price at or even above the top of the range and those in less demand will price at the bottom of the range.

Hot IPOs with tremendous demand end up above the range and often trade up significantly on the first day in the market. The hottest offerings have closed two to three times higher than the initial offering price. Memorable examples in the US stock markets include Apple Computer in the 1980s, Boston Chicken in the mid-1990s, Netscape Communications and a slew of Internet stocks in late 1998 through early 2000, Visa in 2008, and LinkedIn in 2011. The process of going public is summarised graphically on pages 64 to 65.

### **Follow-on public offerings and bond offerings**

Bond deals and follow-on offerings are less complex in nature than IPOs for many reasons. The biggest reason is that they have an already agreed-upon and approved prospectus from prior publicly filed documents. The language, content and style of the prospectus usually stay updated year to year, as the company either files for additional offerings or files its annual report. Also, the fact that the legal hurdles involved in registering a company's securities have already been leaped makes life significantly easier for everyone involved in a follow-on or bond offering.

If a follow-on offering involves the I-banks that handled a company's IPO (and they often do), the MDs that worked on the deal are already familiar with the company. They may not even have to develop a pitchbook to formally pitch the follow-on if the relationship is sound. Because the banking relationship is usually between individual bankers and individual executives at client companies, bankers can often take clients with them if they switch banks.

Because of their relative simplicity, follow-ons and bond deals quickly jump from the manager-choosing phase to the due diligence and drafting phase, which also progresses more quickly than it would for an IPO. The road show proceeds as before, with the company and a corporate finance VP or associate accompanying management to ensure that the logistics work out.

## THE TYPICAL WEEK IN CORPORATE FINANCE

One of the most common questions an interviewee asks is “What is the typical day for an investment banker like?” Truth be told, days spent in investment banking often vary widely, depending on what aspect of a deal you might be working on. But because deals are similar, you might be able to conjure up a typical week in the life of an analyst, associate, vice president or managing director in corporate finance. We’ll start with analysts.

### Analysts

For I-banking analysts, it’s all about the computer screen. Analysts, especially those in their first year, spend countless hours staring at their computer monitors and working until midnight or all night. Building models, creating “comps” (see sidebar) and editing pitchbooks fills the majority of their time. Many analysts do nothing but put together pitchbooks, and never see the light of day. Hard-working and talented analysts, however, tend to find their way out of the office and become involved in meetings related to live transactions.

A typical week for an analyst might involve the following:

#### Monday

Up at 7:30 a.m. Monday morning, the analyst makes it into the office by 9. Mornings often move at a snail’s pace, so the analyst builds a set of comparable company analysis (a/k/a comps, see sidebar) and then updates the latest league table data, which track how many deals I-banks have completed. Lunch is a leisurely forty-five minutes spent with other analysts at a deli a few blocks away. The afternoon includes a conference call with a company considering an IPO, and at 5, a meeting with a VP who drops a big model on the analyst’s lap. Dinner is delivered at 8 and paid for by the firm, but this is no great joy—it is going to be a late night because of the model. At midnight, the analyst has reached a stopping point and calls a car service to give him a free ride home.

#### Tuesday

The next day is similar, but the analyst spends all day working on a pitchbook for a meeting on Wednesday that a banker has set up. Of course, the banker waited until the day before the meeting to tell the analyst about it. After working all night and into the morning, including submitting numerous changes to the 24-hour word processing department, the analyst finally gets home at 5 a.m., which gives him enough time for a two-hour nap, a shower and a change of clothes.

#### Wednesday

Unfortunately, there is a scheduled drafting session out of town on Wednesday relating to another transaction, and the flight is at 8 a.m. Having slept only two hours, the analyst reads his draft of the prospectus on the plane, and arrives with a VP at the law firm’s office at 11 a.m., armed with some comments to point out to the group. Many hours and coffees later, the VP and analyst get back on the plane, where the analyst falls dead asleep. After the flight touches down, the analyst returns to the office at 8 p.m.—and continues modeling for a few hours. At midnight, the analyst heads home.



### **Thursday**

The analyst is roped into doing another pitchbook, this one for a merger deal. He frantically works to complete a merger model: gathering information, keying in data and working with an associate looking over his shoulder. By the time he and the associate have finished the analysis, it is 1 a.m.

### **Friday**

Friday is even worse. The merger model is delivered to the hands of the senior VP overseeing the work, but returned covered in red ink. Changes take the better part of the day, and progress is slow. Projections have to be reconfigured, more research found and new companies added to the list of comps. At 7 p.m. on Friday, the analyst calls his friends to tell them he won't make it out tonight—again. At 11 p.m., he heads home.

### **Saturday**

Even Saturday requires nearly 10 hours of work, but much of the afternoon the analyst waits by the phone to hear from the VP who is looking at the latest version of the models.

### **Sunday**

No rest on Sunday. This day involves checking some numbers, but the afternoon, thankfully, is completely free for some napping and downtime.

The analyst adds up a total of maybe 90 hours this week. It could have been much worse: at some firms, analysts average more than 100 hours per week.

## Comps, Illustrated

What exactly are **comps**? You may have heard of comps—or comparable company analysis—and the fact that after two years, analysts never want to do comp analysis ever again.

In short, comps summarize financial market measures of similar companies within an industry group. For example, suppose we wanted to compare a software company (our client, Company C, which is considering a sale of the company to other software companies), Companies A and B. Comps usually are many pages long, but often begin with something like the following.

Last 12 Months Data (£ in millions)					
Company	Sales	EBITDA	Net Income	EPS	Stock Price
A	2,800	500	200	\$ 2.00	\$ 75.00
B	900	200	50	\$ 0.65	\$ 18.00
C	3,000	600	195	\$ 1.15	\$ 48.75

Valuation Measures				
Company	Shares (millions)	Market Value	Net Debt	Enterprise Value
A	100	7,500	1,450	8,950
B	77	1,385	600	1,985
C	170	8,266	190	8,456

Ratios and Multiples			
Company	Ent Value/Revenue	Ent Value/EBITDA	Price/Earning
A	3	18	38
B	2	10	28
C	3	14	42

Here we begin to summarise income statement data, including sales and EPS and build up to market valuation measures and, finally, a few ratios. From this illustration, we could interpret the numbers above as: “Our client (Company C) is the biggest firm in terms of sales, has the most cash flow, and the highest P/E ratio. The high P/E ratio makes Company C the most “expensive” stock, trading at 42 times earnings. Note that EBITDA is often used as a proxy for cash flow.

Such analyses help bankers interpret how firms are trading in the market, how they compare to their peers, and what valuations seem typical. Comps are useful for valuing companies going public as well as valuing companies that are acquisition targets. Keep in mind that this is a very simplified version of what true comps look like.

## A Day in the Life: Analyst, Investment Banking (UBS)

**8:00 a.m.:** This is a good time to start for first-year analysts; everyone else comes in a half an hour or an hour later.

**8:03 a.m.:** Upon entering cube/office, check to see if voicemail light is on. If it's Monday, pray to God it's not on, because that means you didn't check it over the weekend and someone might have had work for you to do and wants it in an hour from now (or worse, wanted it yesterday).

**8:05 a.m.:** Get hot coffee or tea; you'll need it to wake up. Also, out of camaraderie, get one for other analyst guy who didn't go home in the first place. He'll thank you for it, though he probably won't know your name in his state of stupor.

**8:10 a.m.:** Check email. Receive a bunch of transaction announcements from all over the world, as well as some newsletter relevant to your industry/group sent out by another analyst to everyone. Unless you're into the latest news on, say, regulatory decisions on telecoms or the roofing equipment industry, it's safe to delete and go on with the remainder of emails. Email might contain information requests by others in the firm, asking for case studies, connections with certain personnel at client firms, etc. As an analyst, you won't know most of this stuff anyway, so hit delete.

**8:30 a.m.:** Look nervously around the corner to see if an associate or director has arrived, so nobody catches you reading a chapter in that novel you've been trying to finish on the weekends and spare morning hours—for the past six months.

**9:00 a.m.:** Office/floor officially running, phones ringing, workday starts. Greet the assistants. Don't call them secretaries. Make sure they like you so you can avoid having a short-lived career.

**9:15 a.m.:** After waiting for five minutes for a slow network to load, find your files and continue on research/model—whatever you didn't finish the night before because you knew you still had this morning.

**9:17 a.m.:** Phone rings. Director/associate calls you for status on the one thing you haven't finished yet. Hold him off until you can finish it and curse yourself for not finishing up last night.

**9:30 a.m.:** Phone rings again. You know what director/associate is going to ask, so right off the bat you say, "I'm almost done." Then in between a lot of "OKs" you curse your computer for being so slow.

**10:00 a.m.:** Conference call with deal team, which may include people from other product and industry groups who work in conjunction on a project with you. Managing director is

likely to read over material that you were 90 per cent responsible for—but only your associate and director know this. Pray nothing's wrong with numbers and grammar.

**11:10 a.m.:** Too early for lunch but you're already hungry. What to do? Put together a few public information books ("PIBs"), work on a pitchbook or keep trying to balance your model, which won't happen because you're too hungry to concentrate.

**11:15 a.m.:** Call up an analyst buddy in some other group or office and make small talk. He won't really have time to chat, but it beats having to look at the model again.

**12:30 p.m.:** You're starving, but you must print out some files for your associate/director before you leave, so nobody will come around looking for you when they need the printouts. Email only if they ask for it. They'll forget it's there anyway.

**12:45 p.m.:** Lunch across the street or, if you feel rich, pick up food from some fancy sandwich place a few miles away as a sign of your protest to the cafeteria's overpriced salads. Always take cell phone with you.

**1:45 p.m.:** Return to work and hope nobody cared that you were gone for an hour.

**2:00 p.m.:** Try not to fall asleep because of the heavy wrap or potatoes you had for lunch. Drink lots of water. Sit down with associate to talk about some preliminary research he needs you to pull from all kinds of sources. He tells you a few other things and goes off. Take notes so you won't forget a single thing. Best excuse later: "I only did what you told me to." This works only if you really did exactly that. Wait for presentations department to turn around a job you sent with the director's changes. He always has some.

**3:00 p.m.:** New business coming in through another managing director. Your task, should you accept (and you will), is to fill out the first in a long series of forms that will be submitted to one committee after another for review.

Essentially, every form looks the same and involves a "company overview." If this is a form for a credit approval committee for a "risky" company, be prepared to write 75 to 100 pages worth of memo, the contents of which are virtually identical with the company's 10-K. But, it has to be in UBS format, so you can't just pass along the 10-K. You will agonize over the outline and dig through countless sources to extract information and dump it, reformatted, into your growing file. This will take the rest of the week if your managing director planned ahead. Otherwise, the loan commitment is due in two days and you will not sleep.

**4:30 p.m.:** It's fair game that anyone, anywhere, anyplace can walk by or call you up during this time for tasks/chores, like putting together a set of trading/transaction comparables, make more PIBs, do extra research, fetch a few industry reports, download files accessible to everyone on the Internet, make printouts, put together working group lists for deal teams on a transaction, etc. Help out other analysts calling for some files or work you've done on something so they don't have to start from scratch on their related project. Sometimes

a managing director calls and asks you something you could not possibly know. Sound as smart as possible and then defer the question to your associate.

**6:30 p.m.:** Order dinner. At UBS, any dinner ordered before this time is not eligible for refund. Adjust stomach and eating habits accordingly from day one, or suffer irritability and lack of concentration going forward. Everyone asks you to put it on your corporate Amex card. Make sure you have enough on your personal bank balance to pay the full amount when the bill is due later, since your refund through the ubiquitous UBS expense system will take a month to process. Run around with list of who wants what, don't make suggestions, don't write down the wrong thing and get on with it.

**6:35 p.m.:** Wait for dinner. (An alternative to waiting might be: A managing director/executive director gives a director a call. The director calls an associate. The associate calls you, and your evening/week/weekend is ruined because a client wants presentation and model X by the end of next week. The managing director assured the client we'd deliver model X by Monday, "no problem at all." He also said, "While we're at it, we'll also supply Y, Z and A, as well as the reverse of X for two other companies" to further elucidate the issue for the client, who said he really doesn't need all this. But after gentle insistence by the managing director, the client consents, and is glad he went with an ambitious firm such as UBS. After the director gives last instructions to associate or you, then wait for dinner.)

**7:45 p.m.:** Eat dinner, chat with other analysts about what's up. Take great interest in rumors, gossip and all kinds of BS that would get you fired if you spoke about it outside the conference room you're all huddled in.

**8:35 p.m.:** Return to work. Call up internal library for some research you don't have access to and hope someone's still there, or it will be a tight morning tomorrow.

**10:00 p.m.:** Associate leaves, giving you a couple more things to do on way out. "Take your time, no rush," he assures and thanks you for the good job you've been doing in advance. You appreciate his gratitude but would also like to go home at some point.

**11:00 p.m.:** Discounted cash flow model inputs take forever and the model still doesn't balance. It will be a long night.

**2:00 a.m.:** You check your email one more time (in fact, you never close it in the first place, as this is the first rule of survival for anyone in investment banking), then you make sure everything is saved and log out the computer. Call a car and get some sleep.

## Associates

With a role similar to analysts, associates are primarily responsible for financial models and pitchbooks. A week for an associate (especially a first-year associate) might closely resemble the scenario painted above, with oversight duties over analysts working on models for the associate. In addition, the associate may be more involved in dealing with the MDs and in checking pitchbooks before they are sent out.

An experienced associate will sit down more frequently with a VP or MD, going over details of potential deals or discussing numbers. In contrast to analysts, who work as generalists, associates typically focus on one specific industry. One week for an analyst might include deals for a steel company, a high-tech company and a restaurant company; an associate will typically focus on an industry like high tech or health care. However, like analysts, associates must work carefully and thoughtfully and put in long hours to gain the respect of their supervisors.

### A Day in the Life: Associate, Investment Banking (Goldman Sachs)

**8:30 a.m.:** Get in. Check email and voicemail.

**9:00 a.m.:** Breakfast with summer associates “to see how they’re doing.”

**10:00 a.m.:** A couple of conference calls with clients that are usually “30-minute phone meetings talking about what I’m planning on presenting to clients next week, and to find out what other topics I should discuss. We basically share ideas.”

**11:00 a.m.:** Emailing results of conference call meeting to MDs.

**11:30 a.m.:** Meet with analysts to assign them work. (“I usually give work to full-time analysts and let them run with it. For summer analysts, I’ll make sure they’re getting a good perspective and are learning. I’ll also make sure I’m giving them enough to test them to see if they get it, and have what it takes to be a full-time analyst.”)

**12:30 p.m.:** Lunch. (“About four days a week I grab a sandwich at a deli and eat it at my desk. Sometimes, with a group of people, I eat at the cafeteria, which is pretty good. They recently redid the cafeteria. It used to be a dump.”)

**1:30 p.m.:** Conference call with a Goldman MD and a client’s CEO about meeting next week.

**3:00 p.m.:** Prepare reports based on call for meetings next week.

**6:30 p.m.:** Meet with analysts to dole out work such as research and financial modeling.

**7:00 p.m.:** Order dinner and eat with a few other people in the office.

**8:00 p.m.:** Continue on reports for tomorrow’s and next week’s meetings.

**12:00 a.m.:** Call car and head home. (“When you leave all depends. On average I leave around midnight, but it’s not uncommon to leave after 1 a.m. And sometimes, not often but during slow times, I’ll leave as early as 7:30 p.m. or 8:00 p.m. Third-year associates work between 10 and 20 hours collectively on the weekends. For first- and second-year associates, it’s pretty much a full-time job.”)

*Overall, what Goldman does exceptionally well is create a team culture. And what that really means is people respect young bankers’ opinions and look out for the development of junior bankers. Juniors’ opinions count and everyone’s included on calls. Analysts and associates are encouraged to contribute. They’re not locked in a room running numbers. People expect you to have an opinion. It’s a place where people have a very low tolerance for egos and obnoxious behavior. There’s no yelling and screaming.”*

*-Goldman Sachs insider*

## Vice presidents and MDs (a.k.a. “bankers”)

As you become a banker, you begin to shift from modeling and number crunching to relationship building. This gradual transition happens during the senior associate phase as the associate starts interfacing with existing clients. Ultimately, VPs and MDs spend most of their time and energy finding new clients and servicing existing clients. VPs spend more time managing associates, analysts and the pitchbook creation process than MDs, but their responsibilities begin to resemble those of MDs at the senior VP level. The typical week for a VP or MD, then, looks quite different from that of an analyst or associate.

### Monday

The banker gets a courier package delivered at 6 a.m. at her house, and carries this with her to the airport. The package contains several copies of an M&A pitch that she intends to make that day. Her team put the finishing touches on the analysis just a few hours before, while she slept at home. Her schedule that day includes three meetings in Houston and one important pitch in the afternoon. As an oil and gas banker, she finds she spends two-thirds of her time flying to Texas and Louisiana, where her clients are clustered. In her morning sales calls, the banker visits with a couple CEOs of different companies, gives them an updated general pitchbook and discusses their businesses and whether they have upcoming financing needs. The third meeting of the day is a lunch meeting with a CFO from a company she led a deal for last year.

The banker's cell phone seems glued to her head as she drives from meeting to meeting, but she turns it off for her final meeting—an M&A pitch to a CEO of an oilfield service company. Afterward, the banker grabs dinner with the company's CFO and finds her way to her hotel around 9 p.m.

## **Tuesday**

The next day the banker heads to a drafting session at the offices of a law firm downtown. She had gotten up early to read through and review the draft of the prospectus, and made comments in the margins. As her firm is only the co-manager on the deal, she merely brings up issues for the group to consider and does not lead the discussion, leaving that to the lead manager. After the drafting session, the banker catches an early afternoon flight home, leaving an associate at the drafting session to cover for her.

## **Wednesday**

Back in the office, the banker spends all day on the phone. Flooded with calls, the banker has no time to look at any of the models dropped off in her inbox. Finally, around 6 p.m., she calls the associate and analyst team building an IPO model into her office. For an hour, they go through the numbers, with the banker pointing out problems and missing data items. The associate and analyst leave with a full plate of work ahead. The banker heads home at 8 p.m.

## **Thursday**

The banker is back in the office in the morning to review more models and take some phone calls, but she leaves around noon to catch a flight to make it to a “closing dinner” in Texas. It is time to celebrate one of her successfully managed transactions (it was a follow-on) with the working group. As the lead manager, the banker makes sure that she has plenty of gag gifts for the management team and war stories from the offering to share with the group.

## **Friday**

The banker plans on staying in town to make a few sales visits in the morning. Armed again with pitchbooks, the banker spends a few hours wooing potential clients by discussing merger ideas, financing alternatives and any other relevant transaction that could lead to a fee. Heading home, the banker touches base with her favorite associate to discuss a few models that need work, and what she needs for Monday.

## **Weekend**

Over the weekend, the banker has models couriered to her home, where she goes over the numbers and calls in or messengers her comments and changes to the associate back at the office.



## FORMULAS FOR SUCCESS

The formula for succeeding in banking depends on your role, but some generalisations can be made. The expected qualities of hard work, confidence and dedication ring true in every job, but corporate finance takes these expectations to the nth degree.

### Analysts

For the analyst, it is all about keeping your head in the computer, working long hours and double-checking your work before showing it to bankers. Nothing angers a time-constrained VP more than a young naive analyst who puts together subpar work. Quality of work is key to establishing respect early on, and bankers respect number crunchers who make few mistakes and are not afraid to ask smart, to-the-point questions pertaining to a particular assignment. And, while face time is officially rejected at every bank, bankers tend to frown upon analysts gone before dinner time. A new analyst's best move is to ease into a stressful environment by working hard and learning the ropes as quickly as possible.

Generally, analyst programs last two years, although some analysts are invited to stay a third-year. Then, graduating analysts often leave to attend graduate school or to find another job. In rare cases, an analyst may be promoted directly to associate, bypassing grad school entirely. The experience is not all gloom and doom, as analysts receive a fast-track learning experience in the City and on Wall Street, bonus potential and admission to some of the best business schools in the country. Depending on the firm, City analysts either join a specific industry or product group or fall into a category called generalists, which means that they work on deals and pitchbooks for a variety of industry groups. Generalists, as the name implies, will learn about a variety of companies in a range of industries.

### Associates

New MBA, law or other grad-school graduates begin as associates. The associate excels by demonstrating an aptitude to learn quickly, work hard and establish himself or herself early on as a dedicated group member. At the associate level, placement into an industry group typically occurs soon after the training program ends, although some firms offer generalist programs for an extended period. Impressions can form quickly, and a new group member who shows willingness to work hard and late for a group will create a positive impression. Associates are more involved than analysts in client meetings, due diligence meetings, drafting sessions and roadshows. So associates must be able to socialise well with clients.

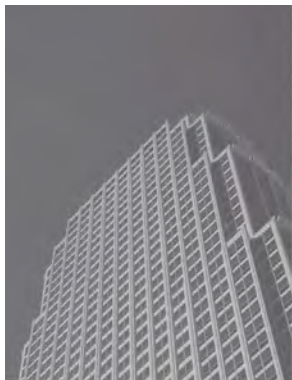
Associates gradually spend more time on the road, and supervisors keep an eye on their manner and carriage in front of clients. At this, point sharp comments, confidence and poise in front of clients will do more for an associate than all-nighters and face time. Several I-banks have also started to offer private equity investment opportunities to associates—opportunities that were previously available only to officers of the firm (vice presidents or higher). Typically, associates move up to vice president level within three to five years.

## Vice presidents

Depending on the firm, VPs succeed by showing good managerial skills over deals and transactions, as well as over analysts and associates. VPs ultimately are responsible for pitchbooks and transaction details, effectively functioning as managers both in and out of the office. Organisation, attention to detail and strong motivational skills lead to the big bonuses. Most important however, is a demonstration of leadership. VPs must win business, convince clients to go ahead with certain deals, handle meetings effectively and cover for MDs at all times. At regional I-banks the ability to generate business reigns supreme over other characteristics, whereas big bank VPs tend to be transaction processors, completing deals handed to them.

## Managing directors

Success for an MD comes with industry knowledge, an ability to handle clients and an ability to find new ones. The MD's most important task includes schmoozing in the industry, finding potential deals and pitching them with confidence and poise. Public speaking skills, industry awareness, demonstrated experience and an ability to sell combine to create the best bankers. But it's still critical for MDs to be able to grasp the numbers side of the business, and so they can explain all the details to clients. The progression from associate to MD is typically an eight- to 10-year track.



# Institutional Sales and Trading (S&T)

## Chapter 9

### The war zone

If you've ever been to an investment banking trading floor, you've witnessed the chaos. It's usually a lot of swearing, yelling and flashing computer screens: a pressure cooker of stress. Sometimes the floor is a quiet rumble of activity, but when the market takes a nosedive, panic ensues and the volume kicks up a notch. Traders must rely on their market instincts, and salespeople yell for bids when the market tumbles. Deciding what to buy or sell, and at what price to buy and sell, is difficult when millions of dollars are at stake.

However, salespeople and traders work much more reasonable hours than research analysts or corporate finance bankers. Rarely does a salesperson or trader venture into the office on a Saturday or Sunday; the trading floor is completely devoid of life on weekends. Any corporate finance analyst who has crossed a trading floor on a Saturday will tell you that the only noise to be heard on the floor is the clocks ticking every minute and the whirl of the air conditioner.

### Shop Talk

Here's a quick example of how a salesperson and a trader interact on an emerging market bond trade.

**SALESPERSON:** Receives a call from a buy-side firm (say, a large mutual fund). The buy-side firm wishes to sell \$10 million of a particular Mexican Par government-issued bond (denominated in US dollars). The emerging markets bond salesperson, seated next to the emerging markets traders, stands up in his chair and yells to the relevant trader, "Give me a bid on \$10 million Mex Par, six and a quarter, nineteens."

**TRADER:** "I got 'em at 73 and an eighth."

*Translation: "I am willing to buy them at a price of \$73.125 per \$100 of face value." As mentioned, the \$10 million represents amount of par value the client wanted to sell, meaning the trader will buy the bonds, paying 73.125 per cent of \$10 million plus accrued interest (to factor in interest earned between interest payments).*

**SALESPERSON:** "Can't you do any better than that?"

*Translation: Please buy at a higher price, as I will get a higher commission.*

**TRADER:** "That's the best I can do. The market is falling right now. You want to sell?"

**SALESPERSON:** "Done. \$10 million."

## **S&T: a symbiotic relationship?**

Institutional sales and trading are highly dependent on one another. The propaganda that you read in glossy firm brochures portrays those in sales and trading as a shiny, happy integrated team environment of professionals working for the client's interests. While often that is true, salespeople and traders frequently clash, disagree and bicker.

Simply put, salespeople provide the clients for traders, and traders provide the products for sales. Traders would have nobody to trade for without sales, but sales would have nothing to sell without traders. Understanding how a trader makes money and how a salesperson makes money should explain how conflicts can arise.

Traders make money by selling high and buying low (this difference is called the spread). They are buying stocks or bonds for clients, and these clients filter in through sales. A trader faced with a buy order for a buy-side firm could care less about the performance of the securities once they are sold. He or she just cares about making the spread. In a sell trade, this means selling at the highest price possible. In a buy trade, this means buying at the lowest price possible.

The salesperson, however, has a different incentive. The total return on the trade often determines the money a salesperson makes, so he wants the trader to sell at a low price. The salesperson also wants to be able to offer the client a better price than competing firms in order to get the trade and earn a commission. This can lead to many interesting situations, and at the extreme, salespeople and traders who eye one another suspiciously.

## **The personalities**

Salespeople possess remarkable communication skills, including outgoing personalities and a smoothness not often seen in traders. Traders sometimes call them bullshit artists while salespeople counter by calling traders quant guys with no personality. Traders are tough, quick and often consider themselves smarter than salespeople. The salespeople probably know how to have more fun, but the traders win the prize for mental sharpness and the ability to handle stress.

## TRADING: THE BASICS

Trading can make or break an investment bank. Without traders to execute buy and sell transactions, no public deal would get done, no liquidity would exist for securities, and no commissions or spreads would accrue to the bank. Traders carry a “book” accounting for the daily revenue that they generate for the firm—down to the dollar.

### Liquidity

As discussed earlier, liquidity is the ability to find tradable securities in the market. When a large number of buyers and sellers co-exist in the market, a stock or bond is said to be highly liquid. Let's take a look at the liquidity of various types of securities.

- **Common stock.** For stock, liquidity depends on the stock's float in the market. Float is the number of shares available for trade in the market (not the total number of shares, which may include unregistered stock) times the stock price. Usually over time, as a company grows and issues more stock, its float and liquidity increase.
- **Debt.** Debt, or bonds, is another story, however. For debt issues, corporate bonds typically have the most liquidity immediately following the placement of the bonds. After a few months, most bonds trade infrequently, ending up in a few big money managers' portfolios for good. If buyers and sellers want to trade corporate debt, the lack of liquidity will mean that buyers will be forced to pay a liquidity premium, or sellers will be forced to accept a liquidity discount.
- **Government issues.** Government bonds are yet another story. Munis, treasuries, agencies and other government bonds form an active market with better liquidity than that of corporate bonds. In fact, the largest single traded security in the world is the 30-year US Government bond (known as the Long Bond). The Long Bond was suspended in 2001 to combat the US budget deficit, thereby allowing the 10-year note to rise in trading; the Long Bond returned in late 2005 and has since regained its stature in the market.

## Trading and traders

Trading of financial securities and derivatives is conducted either over-the-counter (OTC) or through exchanges. In the OTC markets trading is conducted by screen or telephone on the basis of bank-to-bank dealing. The main OTC markets are the massive foreign exchange market, the interbank market for short-term deposits, the bullion market, Nasdaq and the international bond market.

Stock exchanges are member organisations with buildings, rule books, standard contract units, settlement dates and delivery specifications. All the European stock exchanges are now electronic markets. Traders operate through computerised dealing systems from dealing rooms at the banks for which they work.

In the US, the NYSE and the Chicago commodities and derivatives exchanges continue to use floor trading as well as electronic dealing. At the NYSE, the trading floor bustles with activity as stocks and bonds are traded and auctioned back and forth by floor traders. In fact, these traders are really floor brokers, who follow through with the execution of a stock or bond transaction. Floor brokers receive their orders from traders working at the offices of investment banks or brokerage firms, handling orders from salespeople and investors. We will cover the mechanics of a trade later. First, let's discuss the basics of how a trader makes money and carries inventory.

## How the trader makes money

Understanding how traders make money is simple. As discussed earlier, traders buy stocks and bonds at a low price, then sell them for a slightly higher price. This difference is called the **bid-ask spread**, or, simply, the spread. For example, a bond may be quoted at 99 1/2 bid, 99 5/8 ask. Money managers who wish to buy this bond would have to pay the ask price to the trader, or 99 5/8. It is likely that the trader purchased the bond earlier at 99 1/2, from an investor looking to sell his securities. Therefore, the trader earns the bid-ask spread on a buy/sell transaction. The bid-ask spread here is 1/8 of a dollar, or \$0.125, per \$100 of bonds. If the trader bought and sold 10,000 bonds (which each have \$1,000 face value for a total value of \$100 million), the spread earned would amount to \$125,000 for the trader. Not bad for a couple of trades.

Spreads vary depending on the security sold. Generally speaking, the more liquidity a stock or bond has, the narrower the spread. Government bonds (also referred to as sovereign bonds), the most liquid of all securities, typically trade at spreads of a mere 1/128th of a dollar. That is, a \$1,000 trade nets only 78 cents for the trader. However, government bonds (sometimes called govies for short) trade in huge volumes. So, a \$100 million govie trade nets \$78,125 to the investment bank—not a bad trade.

## Inventory

While the concept of how a trader makes money (the bid-ask spread) is eminently simple, actually executing this strategy is a different story. Traders are subject to market movements—bond and stock prices fluctuate constantly. Because the trader's ultimate responsibility is simply to buy low and sell high, this means anticipating and reacting appropriately to dynamic market conditions that often catch even the most experienced people off guard. A trader who has bought securities but has not sold them is said to be carrying **inventory**.

Suppose, for instance, that a trader purchased stock at €52 7/8, the market bid price, from a money manager selling his stock. The ask was €53 when the trade was executed. Now the trader looks to unload the stock. The trader has committed the firm's money to purchase stock, and therefore has what is called price movement risk. What happens if the stock price falls before she can unload at the current ask price of €53? Obviously, the trader and the firm lose money. Because of this risk, traders attempt to ensure that the bid-ask spread has enough cushion so that when a stock falls, they do not lose money.

The problem with carrying inventory is that security prices can move dramatically. A company announcing bad news may cause such a rush of sell orders that the price may drop significantly. Remember, every trade has two sides, a buyer and a seller. If the price of a stock or bond is falling, the only buyers in the market may be the traders making a market in that security (as opposed to individual investors). These market makers have to judge by instinct and market savvy where to offer to buy the stock back from investors. If they buy at too high a price (a price higher than the trader can sell the stock back for), they can lose big. Banks will lose even more if a stock falls while a trader holds that stock in inventory.

So what happens in a widespread free-falling market? Well, you can just imagine the pandemonium on the trading floor as investors rush to sell their securities by any means possible. Traders and investors carrying inventory all lose money. At that point, no one knows where the market will bottom out.

On the flip side, in a booming market, carrying inventory consistently leads to making money. In fact, it is almost impossible not to. Any stock or bond held on the books overnight appreciates in value the next day in a strong bull market. This can foster an environment in which poor decisions become overlooked because of the steady upward climb of the markets. Traders buy and sell securities as investors demand. Usually, a trader owns a stock or bond, ready to sell when asked. When a trader owns the security, he is said to be long the security (what we previously called carrying inventory). This is easy enough to understand.

## Being long or short

Consider the following, though. Suppose an investor wished to buy a security and called a trader who at the time did not have the security in inventory. In this case, the trader can do one of two things: 1) not execute the trade or 2) sell the security, despite the fact that he or she does not own it.

How does the second scenario work? The trader goes short the security by selling it to the investor without owning it. Where does he get the security? By borrowing the security from someone else.

Let's look at an example. Suppose a client wished to buy 10,000 shares of Microsoft (MSFT) stock, but the trader did not have any MSFT stock to sell. The trader likely would sell shares to the client by borrowing them from elsewhere and doing what is called **short-selling**, or shorting. In such a short transaction, the trader must eventually buy 10,000 shares back of MSFT to replace the shares he borrowed. The trader will then look for sellers of MSFT in the broker-dealer market, and will often indicate to salespeople of his need to buy MSFT shares. (Salespeople may even seek out their clients who own MSFT, checking to see if they would be willing to sell the stock.)



The problems with shorting or short-selling stock are the opposite of the problems that one faces by owning the stock. In a long position, traders worry about big price drops—as the value of your inventory declines, you lose money. In a short position, a trader worries that the stock increases in price. He has locked in his selling price up front, but has not locked in his purchase price. If the price of the stock moves up, then the purchase price moves up as well.

## Tracking the trades

Traders keep track of the exact details of every trade they make. Trading assistants often perform this function, detailing the transaction (buy or sell), the amount (number of shares or bonds), the price, the buyer/seller and the time of the trade. At the end of the day, the compilation of the dollars made/lost for that day is called a profit and loss statement, or P&L statement. The P&L statement is all-important to a trader: daily, weekly, monthly, quarterly—traders know the status of their P&L's for these periods at any given time.

## Types of trades

Unbeknownst to most people, traders actually work in two different markets. That is, they buy and sell securities for two different types of customers.

- One is the **inside market**, which is a monopoly market made up only of broker-dealers. Traders use a special broker screen that posts the prices broker-dealers are willing to buy and sell to each other. This works as an important source of liquidity when a trader needs to buy or sell securities.
- The other is the **outside market**, composed of outside customers an investment bank transacts with. These include a diverse range of money managers and investors, or the firm's outside clients. Traders earn the bulk of their profits in the outside market.

Not only do traders at investment banks work in two different markets, but they can make two different types of trades. As mentioned earlier, these include:

- **Client trades.** These are simply trades done on the behest of outside customers. Most traders' jobs are to make a market in a security for the firm's clients. They buy and sell as market forces dictate and pocket the bid-ask spread along the way. The vast majority of traders trade for clients.
- **Proprietary trades.** Sometimes traders are given leeway in terms of what securities they may buy and sell for the firm. Using firm capital, proprietary traders (or prop traders, as they are often called) actually trade not to fulfill client demand for stocks and bonds, but to make bets on the market. Some prop traders trade such obscure things as the yield curve, making bets as the direction that the yield curve will move. Other are arbitrageurs, who follow the markets and lock in arbitrage profit when market inefficiencies develop. (In a simple example, a market inefficiency would occur if a security, say US government bonds, is trading for different prices in different locales, say in the US vs. the UK. Actual market inefficiencies these days often involve derivatives and currency exchange rates.)

## A trader's cockpit

You may have wondered about the pile of computer gear a trader uses. This impressive mess of technology, which includes half a dozen blinking monitors, represents more technology per square inch than that used by any other professional in the City or on Wall Street. Each trader relies on different information sources, and so has different computer screens spouting data and news. Typically, though, a trader has the following:

- **Bloomberg machine:** Bloomburgs were invented as bond calculators. (The company that makes them was founded by a former Salomon Brothers trader, Mike Bloomberg, now a media industry billionaire and mayor of New York City.) Today, however, they perform so many intricate and complex functions that they've become ubiquitous on any equity or debt trading floor. In a few quick keystrokes, a trader can access a bond's price, yield, rating, duration, convexity and thousands of other tidbits. Market news, stock information, even email reside real-time on the Bloomberg.
- **Phone monitor:** Traders' phone systems are almost as complex as the Bloomburgs. The phones consist of a touch-screen monitor with a cluster of phone lines. There are multiple screens that a trader can flip to, with direct dialing and secured lines designed to ensure a foolproof means of communicating with investors, floor brokers, salespeople and the like. One Morgan Stanley associate tells of a direct phone line to billionaire George Soros.
- **Small broker screens:** These include monitors posting market prices from other broker-dealers or investment banks. Traders deal with each other to facilitate client needs and provide a forum for the flow of securities.
- **Large Sun monitor:** Typically divided into numerous sections, the Sun monitor can be tailored to the trader's needs. Popular pages include US Treasury markets, bond market data, news pages and equity prices.

## EXECUTING A TRADE

If you are a retail investor, and call your broker to place an order, how is the trade actually executed? Now that we know the basics of the trading business, we will cover the mechanics of how stocks or bonds are actually traded. We will begin with what is called small lots trading, or the trading of relatively small amounts of a security.

### Small lots trading

Surprising to many people, the process of completing a small lot transaction differs depending on where the security is traded and what type of security it is. In the US the pattern is as follows:

- For a NYSE-traded stock, the transaction begins with an investor placing the order and ends with the actual transaction being executed on the floor of the New York Stock Exchange. Here, the trade is a physical, as opposed to an electronic one.
- For Nasdaq-traded stocks, the transaction typically originates with an investor placing an order with a broker and ends with that broker selling stock from his current inventory of securities (stocks the broker actually owns). An excellent analogy of this type of market, called an over-the-counter (OTC) market, is that a trader acts like a pawn shop, selling an inventory of securities when a buyer desires, just like the pawn shop owner sells a watch to a store visitor. And, when an investor wishes to sell securities, he or she contacts a trader who willingly purchases them at a price dictated by the trader, just like the pawn shop owner gives prices at which he will buy watches. (As in a pawn shop, the trader makes money through the difference between the buying and selling price, the bid-ask spread.) In the OTC scenario, the actual storage of the securities is electronic, residing inside the trader's computer.
- For bonds, transactions rarely occur in small lots. By convention, most bonds have a face value of \$1,000, and orders for one or even 10 bonds are not common. However, the execution of the trade is similar to Nasdaq stocks. Traders carry inventory on their computer and buy and sell on the spot without the need for an NYSE-style trading pit.

The following pages illustrate the execution of a trade on both the Nasdaq and the NYSE stock exchanges. A bond transaction works similarly to a Nasdaq trade.

Here's a look at the actions that take place during a trade of a Nasdaq-listed stock.

## Nasdaq

**ORDER;** You call in an order of 1,000 shares of Microsoft stock to your retail broker. For small orders, you agree on a trade placed at the market. That is, you say you are willing to pay the ask price as it is currently trading in the market.



**EXECUTION;** First, the retail broker calls the appropriate trader to handle the transaction. The Nasdaq trader, called a market maker, carries an inventory of certain stocks available for purchase.



**TRANSACTION;** The market maker checks his inventory of stock. If he carries the security, he simply makes the trade, selling the 1,000 shares of Microsoft from his account (the market maker's account) to you. If he does not already own the stock, then he will buy 1,000 shares directly from another market maker and then sell them immediately to you at a slightly higher price than he paid for them.

Here's a look at a trade of a stock listed on the New York Stock Exchange.

## **New York Stock Exchange**

**ORDER;** You decide to buy 1,000 shares of GE. You contact your broker and give an order to buy 1,000 shares. The broker tells you the last trade price ( $65 \frac{1}{2}$ ) and the current quote ( $65 \frac{3}{8}$  bid,  $65 \frac{5}{8}$  ask) and takes your order to buy 1,000 shares at the market. The broker also notes the volume of stock available for buy and sell, currently 500 X 500 (i.e., 500 shares of GE in demand at the bid and 500 shares of GE available for sale at the ask).



**TRANSMITTAL TO THE FLOOR;** The order is transmitted from the broker at the I-bank through the NYSE's computer network directly to what are called NYSE specialists (see sidebar) handling the stock.



**THE TRADE;** The specialist's book displays a new order to buy 1,000 shares of XYZ at the market. At this point, the specialist can fill the order himself from his own account at the last trade price of  $65 \frac{1}{2}$ , or alternatively, he can transact the 1,000 shares trade at  $65 \frac{5}{8}$ . In the latter case, 500 shares would come from the public customer (who had 500 shares of stock available at the bid price) and 500 shares would come from the specialist selling from his own account.



**THE TRADE FINALIZED:** If the floor specialist elects to trade at  $65 \frac{5}{8}$ , he sends the details of the trade to his back office via the Exchange's computer network and also electronically to the brokerage firm. This officially records the transaction.

## US and European stock exchanges

The New York Stock Exchange (NYSE) is the world's biggest securities exchange by value, with around 2,700 listed stocks and a market capitalisation of about \$14.7 trillion. Since a 2007 merger with European exchange Euronext, the New York exchange has been operated by NYSE Euronext. In 2008 NYSE Euronext added the American Stock Exchange (Amex) to its holdings; Amex now operates as NYSE Amex Equities. The NYSE's physical and often flamboyant trading floor is located at the corner of Wall Street and Broad Street in lower Manhattan. By contrast, Nasdaq, the second US stock market, has no physical location, since it's a virtual trading arena. Approved Nasdaq dealers make a market in particular stocks by buying and selling shares through a computerised trading system. This is called an over-the-counter system or OTC system, with a network of linked computers acting as the auctioneer. The Nasdaq acquired Nordic exchange OMX in 2008, forming a new group called Nasdaq OMX, with over 3,800 listed companies.

Euronext, a combination of the Amsterdam, Brussels, Paris and Lisbon stock exchanges formed in 2000, is one of two major exchanges in Europe. Like the NYSE, Euronext belongs to the NYSE Euronext Group, and the market capitalisation of its quoted shares is nearly \$2 trillion. It's home to some 3,900 companies, over 1,700 of which are listed in Europe. The Euronext also operates NYSE Alternext, which lists small and mid-cap firms, and a multilateral trading facility (MTF) called NYSE Arca Europe.

The London Stock Exchange (LSE) is Europe's second leading stock exchange and one of the largest in the world, behind New York, Tokyo, Nasdaq and Euronext. The shares of over 3,100 companies from 60 countries trade on the LSE, which merged with the Milan Exchange (also known as the Borsa Italiana) in October 2007. Some 750,000 trades a day are executed on the LSE's four markets. The Main Market is where large-cap companies reside, while mid-cap growth companies list on the Alternative Investment Market (AIM). The Professional Securities Market (PSM) is a market for debt and debt-related securities, and last but not least, the Specialist Fund Market is dedicated to issuers of specialist funds.

Germany was slow to develop an equities culture because of the traditional role of the major domestic banks in the provision of corporate funding and their substantial shareholdings, and in recent years its Deutsche Borse exchange has been involved in several unsuccessful merger discussions. A 2006 takeover of the London Stock Exchange was thwarted, leading Deutsche Borse to set its sights on Euronext, which merged with the New York Stock Exchange instead.

## Block trades

Small trades placed through brokers (often called **retail trades**) require a few simple entries into a computer. In these cases, traders record the exchange of a few hundred shares or a few thousand shares, and the trade happens with a few swift keystrokes.

However, when a large institutional investor seeks to buy or sell a large chunk of stock, or a block of stock, the sheer size of the order involves additional facilitation. A buy order for 200,000 shares of IBM stock, for instance, would not easily be accomplished without a block trader. At any given moment, only so much stock is available for sale, and to buy a large quantity would drive the price up in the market (to entice more sellers into the market to sell).

For a NYSE stock, the process of **block trading** is similar to that of any small buy or sell order. The difference is that a small trade arrives electronically to the specialist on the floor of the exchange, while a block trade runs through a floor broker, who then hand delivers the order to the specialist. The style of a block trade also differs, depending on the client's wishes. Some block trades are done at the market and some block trades involve working the order.

- **At the market.** Say Fidelity wishes to buy 200,000 shares of IBM. First, they contact the block trader at an investment bank. If Fidelity believed that IBM stock was moving up, they would indicate that the purchase of the shares should occur at the market. In this case, the trader would call the floor broker (in reality, he contacts the floor broker's clerk), to tell him or her to buy the next available 200,000 shares of IBM. The clerk delivers the ticket to the floor broker, who then takes it to the specialist dealing in IBM stock. Again, the specialist acts as an auctioneer, matching sellers to the IBM buyer. Once the floor broker accumulates the entire amount of stock, likely from many sellers, his or her clerk is sent back to the phones to call back the trader. The final trading price is a weighted average of all of the purchase prices from the individual sellers.
- **Working the order.** Alternately, if Fidelity believes that IBM was going to bounce around in price, they might ask the trader to work the order in order to get a better price than what is currently in the market. The trader then would call the floor broker and indicate that he or she should work at finding as low a price as possible. In this case, the floor broker might linger at the IBM trading post, watching for sell orders to come in, hoping to accumulate the shares at as low a price as possible.

## Trading bonds

Bond trading takes place in OTC fashion, just as stocks do on the Nasdaq. That is, there is no physical trading floor for bonds, merely a collection of linked computers and market makers around the world. There is no central open outcry market floor for bonds as there is for NYSE stocks. Therefore, for bond orders, the transaction flow is similar to that of an OTC stock. A buyer calls a broker-dealer and indicates the bonds he wishes to buy. The trader sells the securities with a phone call and a few keystrokes on his computer.

## TRADING: THE PLAYERS

Each desk on a trading floor carries its own subculture. Some are tougher than others, some work late and some socialize outside of work on a regular basis. While some new associates in trading maintain ambitions of working on a particular desk because of the product (say, equities or high yield debt), most find themselves drawn to an environment where they enjoy the people. After all, salespeople and traders sit side-by-side for 10 hours a day. Liking the guy in the next chair takes precedence when placing an associate full time on a desk, especially considering the levels of stress, noise and pressure on a trading floor.

### The desk

Different areas on the trading floor at an I-bank typically are divided into groups called “**desks**.” Common desks include OTC equity trading, Big Board (NYSE) equity trading, convertibles (or “converts”), municipal bonds (“munis”), high yield and Treasuries. This list is far from complete — some of the bigger firms have 50 or more distinct trading desks on the floor (depending how they are defined). Investment banks usually separate the equity trading floor from the fixed income trading floor. In fact, equity traders and debt traders rarely interact. Conversely, sales and trading within one of these departments are combined and integrated as much as possible. For example, treasury salespeople and treasury traders work next to one another on the same desk. Sales will be covered in following sections.

### The players

The players in the trading game depend on the firm. There are no hard and fast rules regarding whether or not one needs an MBA in trading. The degree itself, though less applicable directly to the trading position, tends to matter beyond the trader level. Managers (heads of desks) and higher-ups are often selected from the MBA ranks.

Generally, regional I-banks hire clerks and/or trading assistants (non-MBAs) who are sometimes able to advance to a full-fledged trading job within a few years. Bigger banks may hire analysts and associates just as they do for investment banking roles. Thus an analyst job in a major firm's trading department includes a two- to three-year stint before the expectation of going back to business school, and the associate position begins after one earns his or her MBA. The ultimate job in trading is to become a full-fledged trader or a manager over a trading desk. Here we break out the early positions into those more common at regional I-banks and those more common on Wall Street or in the City's top firms.

### Entry-level positions

**Clerks.** The bottom rung of the ladder in trading in regional firms, clerks generally balance the books, tracking a desk or a particular trader's buy and sell transactions throughout the day. A starting point for an undergrad aiming to move up to an assistant trader role, clerks gain exposure to the trading floor environment, the traders themselves and the markets. However, clerks take messages, make copies, fetch coffee and are hardly respected by traders. And at bigger firms, this position can be a



dead-end job: clerks may remain in these roles indefinitely, while new MBAs move into full-time trading positions or graduates of top colleges move into real analyst jobs.

**Trading assistants.** Typically filled by recent graduates of undergraduate universities, the trading assistant position is more involved in trades than the clerk position. Trading assistants move beyond staring at the computer and balancing the books to become more involved with the actual traders. Backing up accounts, relaying messages and reports to and from the floor of the stock exchange, speaking with some accounts—these responsibilities bring trading assistants much closer to understanding how the whole biz works. Depending on the firm, some undergrads immediately move into a trading assistant position with the hope of moving into a full-time trading job.

*Note: Clerks and trading assistants at some firms are hired with the possibility of upward advancement, although promoting non-MBAs to full-time trading jobs is becoming more and more uncommon, even at regional firms.*

## **Wall Street/City analyst and associate programs**

**Analysts.** Like corporate finance analysts, trading analysts at major firms tend to be smart undergraduates with a desire to become a trader or learn about the trading environment. Quantitative skills are a must for analysts, as much of their time is spent dealing with books of trades and numbers. The ability to crunch numbers in a short time is especially important on the fixed income side. Traders often demand bond price or yield calculations with only a moment's notice, and analysts must be able to produce. After a two- to three-year stint, analysts move on to business school or go to another firm, although promotion to the associate level is much more common in trading than it is in corporate finance. (Salaries mirror those paid to corporate finance analysts.)

**Associates.** Trading associates, typically recent business school graduates, begin in either rotational programs or are hired directly to a desk. Rotations can last anywhere from a month to a year, and are designed to both educate new MBAs on various desks and to ensure a good fit prior to placement. New MBAs at major banks begin at about £60,000, depending on a number of factors, and may receive bonuses that effectively double that figure. Second-year associate compensation tracks closely to that of the second-year corporate finance associate. Associates move to full-fledged trading positions generally in about two to three years, but can move more quickly if they perform well and there are openings (turnover) on the desk.

## **Full-fledged trading positions**

**Block traders.** These are the folks you see sitting on a desk with dozens of phone lines ringing simultaneously and four or more computer monitors blinking, with orders coming in like machine-gun fire. Typically, traders deal in active, mature markets, such as government securities, stocks, currencies and corporate bonds. Sometimes hailing from top MBA schools, and sometimes tough guys named Vinny from the mailroom, traders historically are hired based on work ethic, attitude and street smarts.

**Sales-traders.** A hybrid between sales and trading, sales-traders operate in a dual role, serving as salesperson and block trader. While block traders deal with huge trades and massive inventories of stocks or bonds, sales-traders act as a go-between for salespeople and block traders and trade

somewhat smaller blocks of securities. Different from the pure block trader, the sales-trader initiates calls to clients, pitches investment ideas and gives market commentary. The sales-trader keeps abreast of market conditions and research commentaries, but, unlike the salesperson, does not need to know the ins and outs of every company when pitching products to clients. Salespeople must be thoroughly versed in the companies they are pitching to clients, whereas sales-traders typically cover the highlights and the big picture. When specific questions arise, a sales-trader will often refer a client to the research analyst.

**Structured product traders.** At some of the biggest Wall Street firms, structured product traders deal with derivatives, a.k.a. structured products. **Derivatives** are complex securities that derive their value from, or have their value contingent on, the values of other assets like stocks, bonds, commodity prices or market index values. Credit default swaps (particularly complicated derivatives used to hedge credit risk) and collateralised debt obligations (CDOs, another type of credit derivative) have come under global scrutiny for their roles in the 2007 subprime mortgage crisis and subsequent bank write-downs.

Because of their complexity, derivatives typically require substantial time to price and structure, so it's an entirely different environment than that of a block trader who deals with heavy trading flows and intense on-the-spot pressure. Note, however, that common stock options (calls and puts) and even treasury options trade much like any other liquid security. The pricing is fairly transparent, the securities standardised and the volume high. Low-volume, complex derivatives such as interest rate swaps, structured repurchase agreements and credit derivatives require sophisticated pricing and more legwork prior to trading.

In trading, job titles can range from associate to VP to managing director. But the roles as a trader change little. The difference is that MDs typically manage the desks, spending their time dealing with desk issues, risk management issues, personnel issues, etc.

## Trader's compensation: The bonus pool

In trading, most firms pay a fixed salary plus a bonus based on the profits the trader brings to the group. Once associates have moved into full-fledged trading roles after two or three years, they begin to be judged by their profit contributions. How much can a trader make? Typically, each desk on the trading floor has a P&L statement for the group. As the group does well, so do the primary contributors. In a down year, everyone suffers. In up years, everyone is happy.

Exactly how the bonuses are determined can be a mystery. Office politics, profits brought into the firm and tenure all contribute to the final distribution. Often, the MDs on the desk or the top two or three traders on the desk get together and hash out how the bonus pool will be allocated to each person. Then each trader is told what his or her bonus is. If he or she is unhappy, it is not uncommon for a trader (as well as any other employee at an I-bank) to jump ship and leave the firm the second that his or her bonus check clears the bank. Top traders can pull in well over \$1 million per year.

## TRADING: THE ROUTINE

### The compressed day

Instead of working long hours, traders pack more work into an abbreviated day—a sprint instead of the slow marathon that corporate finance bankers endure. Stress, caffeine and adrenaline keep traders wired to the markets, their screens and the trades they are developing. While most traders arrive by 7 a.m., it is not unheard of to make phone calls to overseas markets in the middle of the night or wake up at 4 a.m. to check on the latest market news from Asia. The link among markets worldwide has never been so apparent as in the past several years, and traders, perhaps more so than any other finance professional, must take care to know the implications of a wide variety of global economic and market events.

Traders consider themselves smarter than the salespeople, who they believe don't understand the products they sell, and bankers, who they believe are slaves with no lives whatsoever. Traders take pride in having free weekends and the option of leaving early on a Friday afternoon. Typically, a trader's day tracks follows the schedule of the market, and includes an additional two or more hours. Many traders wonder why anyone would become a banker when traders earn as much money with fewer hours.

A London trader's morning usually starts between 6:30 a.m. and 7 a.m., and the day ends soon after the market closes between 5:00 and 5:30 p.m.

Traders start the day by checking news, reviewing markets that trade overnight (i.e., Asian markets) and examining their inventory. Typically, at 7:15 a.m., the morning meeting is held to cover a multitude of issues (see inset).

After the morning meeting, between 7:15 and 7:30 a.m., the traders begin to gear up for the market opening. At 8 a.m., the fun begins in many fixed income markets—calls begin pouring in and trades start flying. At 8 a.m. GMT the London Stock Exchange opens and a flurry of activity immediately ensues.

### The morning meeting

Every morning of every trading day, each I-banking firm (both in the City and on Wall Street) holds a morning meeting. What happens at these meetings? Besides coffee all around and a few yawns, morning meetings generally are a way to brief sales, trading and research on market activity—past and expected.

At smaller regional firms, the entire equity group usually meets: the sales force, traders and research analysts. The bigger firms, because of their sheer size, wire speakers to an overhead speaking system, which is broadcast to the entire equity trading floor. Institutional salespeople and brokers outside the home office also call in to listen in on the meeting.

In fixed income, meetings are often broken down by groups. For example, the government desk, the mortgage desk, the emerging markets desk and the high yield desk will each have their own morning meetings with the relevant traders, salespeople and research analysts present.

Let's take a look at the participants in morning meetings and their roles:

- In equity, the research analysts review updates to their stocks, present new research and generally discuss the scoop on their universe of stocks. Rating changes and initiation of coverage reports command the most attention to both traders and salespeople on the equity side. In fixed income, meetings will often have analysts who cover economic issues discuss interest rates, Fed activity or market issues, as these often dominate activity in the debt markets.
- Traders cover their inventory, mainly for the benefit of salespeople and brokers in the field. Sometimes a trader eager to move some stock or bonds he or she has carried on the books too long will give quick selling points and indicate where he or she is willing to sell the securities.
- Salespeople, including both brokers and institutional sales, primarily listen and ask relevant questions to the research analyst or to traders, sometimes chipping in with additional information about news or market data.

Morning meetings include rapid-fire discussions on market movements, positions and trade ideas relevant to them. Time is short, however, so a babbling research analyst will quickly lose the attentions spans of impatient salespeople.

Corporate finance professionals rarely attend morning meetings, choosing instead to show up for work around 9 or 10 a.m.

The day continues with a barrage of market news from the outside, rating changes from research analysts and phone calls from clients. The first breather does not come until lunchtime, when traders take five to grab a sandwich and relax for a few brief minutes. However, the market does not close at lunch, and if a trade is in progress, the traders go without their meals or with meals swallowed at their desks amidst the frenzy. Traders often send an intern to a nearby McDonald's to bring back burgers.

The action heats up again after lunchtime and continues as before. At 4 p.m., the stock markets officially close and wrap-up begins. Most traders leave around 5 p.m. after closing the books for the day and tying up loose ends. On Fridays, most trading floors are completely empty by 5. Unlike bankers, for salespeople and traders golf games, trips to the bar and other social activities are not usually hampered by Friday nights often spent at work.

## A Day in the Life: Sales-trader (Nomura Securities)

*Here's a look at a day in the life of a sales-trader, given to us by an associate in the equities division of Nomura Securities.*

**6:30 a.m.** Get into work. Check voicemail and e-mail. Chat with some people at your desk about the headlines in the *FT*, on Reuters or Bloomberg.

**7:15 a.m.** Equities morning call. You find out what's up to sell. ("I'm sort of a liaison between the accounts [clients] and the block traders. What I do is help traders execute their trading strategies, give them market colour. If they want something I try to find the other side of the trade. Or if I have stuff available, I get info out, without exposing what we have.")

**8:00 a.m.** Markets open. You hit the phones. ("You want to make outgoing calls, you don't really want people to call you. I'm calling my clients, telling them what research is relevant to them, and what merchandise I have, if there's any news on any of their positions.")

**10:00 a.m.** More calls. ("I usually have about 35 different clients. It's always listed equities, but it's a huge range of equities. The client can be a buyer or seller—there's one sales-trader representing a buyer, another representing the seller.")

**10:30 a.m.** On the phone with another Nomura trader, trying to satisfy a client. ("If they have questions in another product, I'll try to help them out.")

**11:00 a.m.** Calling another client. ("It's a trader at the other end, receiving discussions from portfolio manager; their discretion varies from client to client.")

**12:00 p.m.** You hear a call for the sale for a stock that several of your clients are keen on acquiring. ("It's usually a block trader, although sometimes it's another sales-trader. The announcement comes 'over the top,'—over the speaker. It also comes on my computer.")

**12:30 p.m.** Food from the sandwich shop comes in. (You can't go to the bathroom sometimes. Say you're working 10 orders, you want to see every stock. We don't leave to get our lunch, we order lunch in.")

**1:00 p.m.** Watching your terminal ("There's a lot of action. If there are 200,000 shares to trade in your name [a stock that a client has a position in or wants] and it's not you, you want to go back to your client and say who it was.")

**2:00 p.m.** Taking a call from a client. ("You can't miss a beat, you are literally in your seat all day.")

**2:05 p.m.** You tell the client that you have some shares he had indicated interest in previously, but you don't let him know how much you can unload. ("It's a lot

of how to get a trade done without disclosing anything that's going to hurt the account. If you have to unload shares, you don't want the whole Street to know or it'll drive down the price.")

**5:00 p.m.** Head home to rest a bit before going out. ("I leave at 5:00 or sometimes 5:30. It depends.")

**7:00 p.m.** Meet a buy-side trader, one of your clients, at a bar. ("We entertain a lot of buy-side traders—dinner, we go to baseball games, we go to bars. Maybe this happens once or twice a week.")

## Success factors in trading

There are many keys to success in trading. On the fixed income side, numbers and quantitative skills are especially important, but truly are a prerequisite to survival—more than a factor to success. In equities, traders must not only juggle the numbers, but also understand what drives stock prices. These factors include earnings, management assessments, how news affects stocks, etc.

To be one of the best traders, an instinct about the market is key. Some traders look at technical indicators and numbers until they are blue in the face, but without a gut feeling on how the market moves, they will never rank among the best. A trader must make rapid decisions at times with little information to go on, and so must be able to quickly assess investor sentiment, market dynamics and the ins and outs of the securities they are trading.

## INSTITUTIONAL SALES: THE BASICS

Sales is a core area of any investment bank, comprising the vast majority of people and the relationships that account for a substantial portion of any investment banks' revenue. This section illustrates the divisions seen in sales today at most investment banks. Note, however, that many firms, such as Goldman Sachs, identify themselves as institutionally focussed I-banks, and do not even have a retail sales distribution network. Goldman, does, however maintain a solid presence in providing brokerage services to the vastly rich in a division called private wealth management.

### Retail brokers

Some firms call them account executives and some call them financial advisors or financial consultants. Regardless of this official designator, they are still referring to your classic **retail broker**. The broker's job involves managing the account portfolios for individual investors—usually called retail investors. Brokers charge a commission on any stock trade and also give advice to their clients regarding stocks to buy or sell, and when to buy or sell them. To get into the business, retail brokers

must have an undergraduate degree and demonstrated sales skills. Passing the Series 7 and Series 63 examinations are also required before selling commences. Being networked to people with money offers a tremendous advantage for a starting broker.

## **Institutional sales**

Basically a retail broker with an MBA and more market savvy, the **institutional salesperson** manages the bank's relationships with institutional money managers such as mutual funds or pension funds. Institutional sales is often called research sales, as salespeople focus on selling the firm's research to institutions. As in other areas in banking, the typical hire hails from a top business school and carries a tiptop resume (that usually involves prior sales experience).

## **Private wealth management**

A cross between institutional sales and retail brokerage, **private wealth management** focuses on providing money management services to extremely wealthy individuals. A client with more than \$3 to \$5 million in assets usually upgrades from having a classic retail broker deal with him or her to a private wealth manager. Similar to institutional sales, private wealth management generally hires only MBAs with solid selling experience and top credentials. Because private wealth managers become high-end relationship managers, as well as money managers and advisors, the job requires greater expertise than the classic retail broker. Also, because private wealth management clients trade in larger volumes, the fees and commissions are larger and the number of candidates lining up to become private wealth managers is longer.

# **INSTITUTIONAL SALES: THE PLAYERS**

## **The players in sales**

For many, institutional sales offers the best of all worlds: great pay, fewer hours than in corporate finance or research, less stress than in trading and a nice blend of travel and office work. Like traders, the hours typically follow the market, with a few tacked on at the end of the day after the market closes. Another plus for talented salespeople is that they develop relationships with key money managers. On the downside, many institutional salespeople complain that many buyers disregard their calls, that compensation can exhibit volatile mood swings, that they are overeducated for what they do and that constantly entertaining clients can prove exhausting.

**Sales assistants:** This position is most often a dead-end job. It is extremely difficult to move into institutional sales without an MBA, so sales assistants take on a primarily clerical role on the desk. Handling the phones, administrative duties, message taking, letter writing—there's nothing glamorous for the assistants.

**Associates:** The newly hired MBA is called an associate, or sales associate. Like analogous associates in other investment banking departments, a sales associate spends a year or so in the role learning the ropes and establishing her or himself. Associates typically spend one to two months rotating

through various desks and ensuring a solid fit between the desk and the new associate. Once the rotations end, the associate is placed on a desk and the business of building client relationships begins.

A sales associate joining a leading firm in the City might expect to pull in a base salary of around £45,000, plus a bonus of perhaps £15,000 in the first six months, though there's no guarantee. Pay escalation in the first year depends on the bonus, which can range from 50 per cent (or less) of salary to 90 per cent of salary. Beyond that, compensation packages depend on the firm—most pay based on commissions generated for the firm. Second- and third-year sales associates may see their base pay rise to £55,000 or more.

**Salesperson:** The associate moves into a full-fledged salesperson role extremely quickly. Within a few months on a desk, the associate begins to handle “B” accounts and gradually manages them exclusively. A salesperson's ultimate goal is the account at a huge money manager, such as Fidelity or Putnam, which trades in huge volumes on a daily basis. Therefore, a salesperson slowly moves up the account chain, yielding B accounts to younger salespeople and taking on bigger and better “A” accounts. Good salespeople make anywhere from £150,000 to beyond £500,000 and more per year in total compensation.

Salespeople usually focus by region, especially in the United States. For example, an institutional equity salesperson will cover all of the buy-side firms in one small region of the country like New England, San Francisco or Chicago. Many salespeople cover New York, as the sheer number of money managers in that city makes for a tremendous volume of work. Salespeople work on specific desks on the trading floor next to traders. Because so much of their work overlaps, sales and trading truly go hand-in-hand. Here's a look at how a trade works from the sales perspective.



## The flow of the trade: the sales perspective

The salesperson has a relationship with a money manager, or an account, as they say. Suppose a research analyst initiates coverage of a new stock with a Buy-1 rating. The salesperson calls the portfolio manager (PM) at the account and gives an overview of the stock and why it is a good buy. The PM will have his own internal research analysts compile a financial model, just as the sell-side research analyst has done, but likely with slightly different expectations and numbers. If the portfolio manager likes the stock, she will contact her trader to work with the trader at the investment bank.

1. Sell-side research analyst initiates Buy-1 coverage of stock XYZ
2. Institutional salesperson listens to analyst present stock at morning meeting.
3. Institutional salesperson understands key points of stock XYZ and calls the portfolio manager (PM) at the buy-side firm.
4. Salesperson pitches stock to PM.
5. PM talks to internal analyst and discusses potential purchase.
6. Analyst performs analysis on company XYZ and gets back to PM with a recommendation to buy.
7. PM calls institutional salesperson, and indicates a desire to buy the stock, also indicating how many shares.
8. PM contacts her own internal trader, who calls the investment bank's trader to give the official order.
9. The sell-side trader works the order as described in previous chapters.

## Involvement in an IPO

Corporate finance investment bankers would argue that the sales force does the least work on an IPO and makes the most money. Salespeople, however, truly help place the offering with various money managers. To give you a breakdown, IPOs typically cost the company going public 7 per cent of the gross proceeds raised in the offering. That 7 per cent is divided between sales, syndicate and investment banking (i.e., corporate finance) in approximately the following manner:

- 60 per cent to sales
- 20 per cent to corporate finance
- 20 per cent to syndicate

(If there are any deal expenses, those get charged to the syndicate account and the profits left over from syndicate get split between the syndicate group and the corporate finance group.)

As we can see from this breakdown, the sales department stands the most to gain from an IPO. Their involvement does not begin, however, until a week or two prior to the road show. At that point, salespeople begin brushing up on the offering company, making calls to their accounts and pitching the deal. Ideally, they are setting up meetings (called one-on-ones when the meetings are private) between the portfolio manager and the management team of the company issuing the offering. During the road show itself, salespeople from the lead underwriter often fly out to attend the meeting between the company and the buy-side PM. While their role is limited during the actual meeting, salespeople essentially hold the PMs' hands, convincing them to buy into the offering.

## The sales routine

The institutional salesperson's day begins early. Most arrive at 7 a.m. having already read the morning papers. Each day a package of research is delivered to the salesperson's chair, so reading and skimming these reports begins immediately. The morning meeting at 7:30 involves research commentaries and new developments from research analysts. The trading meeting usually begins 20 minutes later, with updates on trading positions and possible bargains for salespeople to pitch.

At 8 a.m., the salesperson picks up the phone. Calls initially go to the most important of clients, or the bigger clients wishing to get a market overview before trading begins. As the market approaches the opening bell, the salesperson finishes the morning calls and gets ready for the market opening. Some morning calls involve buy or sell ideas, while others involve market updates and stock expectations. At 9:30, the markets open for business and salespeople continue to call clients, scrutinise the market and look for trading ideas.

### Day in the Life: Sales Associate (J.P. Morgan)

*Here's a look at a day in the life of a sales associate in the fixed-income division at J.P. Morgan in New York.*

**6:45 a.m.:** Get to work. ("I try to get in around 6:45. Sometimes it's 7:00.)

**6:50 a.m.:** After checking email and voicemail, start looking over *The Wall Street Journal*. ("I get most of my sales ideas from *The Wall Street Journal*. I'd say 70 to 75 per cent of my ideas. I also read the *Economist*, *Barron's* and the *Financial Times* just for an overview. Maybe three issues out of the five for the week for *Financial Times*.")

**7:15 a.m.:** Start checking Bloomberg, getting warmed up, going over your ideas and figuring out where things stand.

**7:45 a.m.:** Meet with your group in a conference room for a brief meeting to go over stuff. (“We go over the traders’ axe [what the traders will focus on that day], go over research, what the market quotes are on a particular issue.”)

**8:15 a.m.:** Get back to desk, and get ready to start pitching ideas.

**9:15 a.m.:** Have a short meeting with your smaller group.

**10:00 a.m.:** One of your clients calls to ask about bonds from a particular company. You tell her you’ll get right back to her. Walk over to talk to an analyst who covers that company. (“I’m in contact a lot with my analyst. I listen to my analyst.”)

**10:15 a.m.:** Back on the horn with your client.

**12:30 p.m.:** Run out to lunch with another salesperson from your group. (“We often buy each other lunch. Sometimes to celebrate a big deal we’ll order in lunch. We usually go to Little Italy Pizza Place, or Cusi’s Sandwiches. It’s always the same people, and it’s always the same six places.”)

**1:00 p.m.:** Back at your desk, check voicemail. (“If I leave for 30 minutes or so, when I get back, I’ll have five messages.”)

**2:00 p.m.:** One of your clients wants to make a move. (“I trade something every day. Maybe anywhere from one to 10 trades. It’s on a rolling basis. You plant seeds, and maybe someday one of them grows into a trade.”)

**3:15 p.m.:** Another client calls and wants to place an order.

**5:30 p.m.:** Still on the phone. (“Although the markets close, that’s when you can really take the time to talk about where things are and why you think someone should do something.”)

**7:30 p.m.:** Head for home, you’re meeting a client for a late dinner. (“Often on Thursdays we go out as a group.”)

Lunchtime is less critical to the salesperson than the trader, although most tend to eat at their desk on the floor. The afternoon often involves more contacting buy-siders regarding trade ideas, as new updates arrive by the minute from research.

The regular session of the major markets close abruptly after 4 p.m. By 4:01, many salespeople have fled the building, although many put in a couple more hours of work. Salespeople often entertain buy-side clients in the evening with ball games, fancy dinners, etc.

## Success factors in institutional sales

Early on, new associates must demonstrate an ability to get along with the clients they are asked to handle. Usually, the first-year sales associate plays second string to the senior salesperson's account. Any perception that the young salesperson does not get along with the PM or buy-side analyst means he or she may be immediately yanked from the account. Personality, the ability to learn quickly and fit into the sales group will ensure movement up the ladder. The timing of the career path in sales, more so than in corporate finance, depends on the firm. Some firms trust sales associates quickly with accounts, relying on a sink-or-swim culture. Others, especially the biggest I-banks, wait until they are absolutely sure that the sales associate knows the account and what is going on before handing over accounts.

Once the level of full-on salesperson is reached (usually after one year to one-and-a-half years on the desk), the goal shifts to growing accounts and successfully managing relationships. Developing and managing the relationships at the various buy-side firms is especially critical. Buy-siders can be thought of as time-constrained, wary investors who follow a regimented investing philosophy. Importantly, salespeople must know how and when to contact the investor. For example, a portfolio manager with a goal of finding growth technology stocks will cringe every time a salesperson calls with anything outside of that focused area. Therefore, the salesperson carefully funnels only the most relevant information to the client.

Promotions depend on a combination of individual performance and desk performance. The ability to handle relationships, to bring in new clients, and to generate commission sales for the firm are paramount. Those that have managed to join the ranks of institutional sales without an MBA may be at a disadvantage when it comes to promotions into management roles.

## PRIVATE WEALTH MANAGEMENT

The job can be exhilarating, exhausting, and frustrating all at once. As a private wealth manager, your job is to bring in individual accounts with at least \$2 to \$3 million in assets. This involves incessantly pounding the pavement and reading the tape (market news) to find clients, followed by advising them on how to manage their wealth. Private wealth management is a highly entrepreneurial environment. Building the book is all that matters, and superiors don't care how private wealth managers spend their time, whether this be on the road, in the office, or at parties; the goal is to bring in the cash. Culture-wise, therefore, one typically finds a spirited entrepreneurial group of people, working their own hours and talking on the phone for the better part of the day. It is not uncommon for private wealth managers to leave the office early on Fridays with a golf bag slung over one shoulder for a game with existing clients or with a few big shots with money to invest (read: potential clients).

### The growth in private wealth management

Not long ago, private wealth management was considered a small, unimportant aspect of investment banking. Private wealth managers were essentially retail brokers, always bothering other departments for leads and not as sophisticated as their counterparts in corporate finance or institutional sales and trading. But times have changed. Today, spurred by the tremendous stock market wealth that has been created in recent decades, private wealth management is one of the most rapidly growing parts

of virtually every investment bank. While in the past, many banks essentially had no private wealth division, or simply hired a few star retail brokers that were, in essence, private wealth managers, Wall Street is recruiting heavily on top-tier MBA campuses today, scouring to find good talent for their private wealth divisions.

## **Getting in the door**

It takes an MBA these days, or a stellar record as a retail broker to become a private wealth manager. Even firms such as Bank of America Merrill Lynch, which historically promoted retail brokers to the private wealth manager role, are moving more and more toward hiring only those with business degrees from top schools and proven selling credentials, rather than proven brokers. Private wealth management is also evolving into an entirely different business from traditional retail brokerage.

Whereas retail brokers make money on commissions generated through trades, private wealth managers are increasingly charging clients just as money managers do: as a per cent of assets under management. A typical fee might be 1 per cent per year of total assets under management. This fee obviously increases as the value of the assets increases, thereby motivating the private wealth manager to generate solid returns on the portfolio. This move to fee-based management is designed to take away the incentive of a salesperson to churn or trade an account just for the sake of the commissions. One should note, however, that the trend to charge a fee instead of commissions is just that: a trend. Many Wall Street private wealth managers still work on a commission basis.

## **The associate position**

Once in the door, as a private wealth management associate, extensive training begins. The PWM associate must be well versed in all areas of the market and able to understand a wide variety of investing strategies. While a corporate bond salesperson has to know only corporate bonds, a private wealth manager must be able to discuss the big picture of the market, equities, bonds, and even a slew of derivative products. At any given moment, a very wealthy client might want instant information on any number of products or markets. Thus, training is said to be intensive in PWM, with many weeks of classroom learning.

Once training is complete, a new PWM associate often works to find his way onto a team, which pairs PWM beginners with one or two experienced private wealth managers. The process of matching a new associate onto a team is driven largely by personality and fit. Once paired with an older rep or two, the associate works to understand the process of finding new clients and managing a portfolio of assets.

Generally speaking, PWM hires are given two years to build a book, or establish a reasonable level of business for the firm. While salaries for PWM associates out of business school matches those of other Wall Street hires (\$100,000 salary plus a \$50,000 bonus in the first six months), they quickly are shifted to a straight commission basis. The first years of PWM are the most important when building a long-lasting career in the industry.

## Pay beyond the associate level

After a successful client list has been established, the sky is the limit in terms of pay. The best of the best PCS pros can earn well over £500,000 a year. The bottom-of-the-barrel PCS reps, however, may take home a “mere” £100,000 or so. The average number is somewhere around £250,00 for a PCS pro working for a leading City firm. Insiders say it takes an average of five or six years to reach that level, however. Still, there are exceptions. One insider at Goldman Sachs reports that a PCS representative with that firm reached \$3.4 million in compensation only five years out of business school.

### How to build a book

PWM associates must establish themselves in the first two years through any means possible. Once established, the game changes to managing relationships and using these relationships to gain new clients. Typically, once the PWM associate has learned how to pitch to clients and how to give money-management advice, he or she begins to look for leads. As PWM is a sales job, leads and clients are developed just like at any other sales job. Phone calls, networking and visiting potential clients are key. Ultimately, converting these leads into long-term clients is the name of the game. To find leads, associates might do any of the following:

- Read the tape (follow market news). Many news articles in the markets discuss companies merging, companies going public, companies selling out, management selling stock in their companies, etc. In these cases, there often are CEOs and others on the management team who will find themselves with gobs of cash that must be invested. These are excellent sources of leads.
- Follow up with leads from other areas within the investment bank. A substantial number of corporate finance bankers represent management teams selling stock in public offerings, or selling stock in mergers. The real bonus is that the bankers already know the CEO or CFO with newfound wealth, and can provide an excellent introduction.
- Network. The power of being a friend of a friend cannot be underestimated. That is why private wealth managers spend time at parties, functions, on the golf course, and anywhere else they can find leads. Often an “in” such as an introduction provided by a personal friend is the best lead of all.

## **Managing the portfolio**

You may wonder how a private wealth manager with a substantial client base and millions of dollars under account manages all these assets. It actually depends on the firm. Some firms break the PWM job into relationship managers and portfolio managers. For example, some PWM reps solely manage the portfolios of the various accounts, and are even paid a straight salary and bonus, depending on returns, while other reps work on client relations. Other firms, with newly built or bought asset management divisions, are attempting to pair PWM and asset management in order to utilize the existing money management expertise. Regardless of how the portfolio is managed, the movement toward teams will be a key to melding asset management and relationship management expertise on Wall Street.

## **Key success factors in PCS**

One should keep in mind that PWM divisions essentially want to hire good salespeople, not good number crunchers. They don't need or want quant jocks in private wealth management; they want salespeople and schmoozers to find and land new clients. The key to succeeding in private wealth management is generating more assets to manage.

Good private wealth managers will manage their client relationships extremely well, as these clients become the bread and butter for them over time. Understanding the goals of clients and executing them are extremely important. For example, one finds in PWM that some investors are not out to beat the S&P at all, and would rather earn steady returns without risking their principal. Remember, a wealthy and retired ex-CEO may not care that his \$100 million jackpot beats the market. After all, he's got much more than he could spend in a lifetime. Lower risk and decent returns work just fine in some cases, and private wealth managers must be attuned to these individual differences.

# Research

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## Chapter 10

If you have a brokerage account, you have likely been given access to research on stocks that you asked about. This research was probably written by an investment banks' research department.

To the outsider, it seems that research analysts spend their time in a quiet room poring over numbers, calling companies and writing research reports. The truth is an entirely different story, involving quite a bit of selling on the phone and on the road. Analysts produce research ideas, hand them to associates and assistants and then man the phone talking to buy-side stock/bond pickers, company managers, and internal salespeople. They become the managers of research reports and the experts on their industries to the outside world. Thus, while the lifestyle of the research analyst would initially appear to resemble that of a statistician, it often comes closer to that of a diplomat or salesperson.

## THE PLAYERS

### Research assistants

The bottom-level number crunchers in research, research assistants generally begin with no industry or market expertise. They come from solid undergraduate schools and performed well in school, but initially perform mundane research tasks, such as digging up information and editing/formatting reports. Research assistants also take over the spreadsheet modeling functions required by the analyst. Travel is limited for the budding research assistant, as it usually does not make sense financially to send more than the research analyst to meetings with company officials or money managers.

### Research associates

Burdened with numbers and deadlines, the research associate often feels like a cross between a statistician and a corporate finance analyst. Long hours, weekends in the office and number-crunching sum up the routine of the associate. However, compared to analyst and associate analogues in corporate finance, the research associate works fewer hours, often makes it home at a reasonable time and works less on the weekend. Unfortunately, the associate is required to be present and accounted for at 7:30 a.m., when most morning meetings take place.

Mirroring the corporate finance analyst and associate positions, research associates can be bright, motivated kids directly out of top undergraduate universities, or at firms dedicated to hiring MBAs in research, the research associate role is the entry-level position once a MBA has been earned.

A talented research associate can earn much in the way of responsibility. For example, the research associate may field phone calls from smaller "B" accounts (i.e., smaller money managers) and companies less important to the analyst. (The analyst handles the relationships with the biggest buy-siders, best clients and top salespeople.) When it comes to writing reports, some analysts give free reign to associates in writing. Also, research associates focus on one industry and typically work for only one full-fledged research analyst. This structure helps research associates delve deeper into the aspects of one industry group and enable them to work closely with a senior-level research analyst.



To start, research assistants/associates out of undergraduate school typically get paid similarly to the corporate finance analyst right out of college. After one or two years, the compensation varies dramatically, depending on performance and the success of the analysts in the industry group as well as the associate's contribution. For the MBA research associate, the compensation is similar to I-banking associates: around £50,000 salaries with perhaps a £15,000 signing bonus, plus maybe a £15,000 year-end bonus.

### **It all depends on the analyst**

Insiders stress that the research associate's contribution entirely depends on the particular analyst. Good analysts (from the perspective of the associate) encourage responsibility and hand-off a significant amount of work. Others communicate poorly, maintain rigid control and don't trust their assistants and associates to do much more than the most mundane tasks.

Being stuck with a mediocre analyst can make your job miserable. If you are considering an entry-level position in research, you should carefully evaluate the research analyst you will work with, as this person will have a huge impact on your job experience.

Note that in research, the job titles for analyst and associate have switched. In corporate finance, one begins as an analyst, and is promoted to associate post-MBA. In research, one begins as a research associate, and ultimately is promoted to the research analyst title.

## **Research analysts**

The research analyst, especially in equity, is truly a guru. Analysts follow particular industries, recommend stocks to buy and sell and convince salespeople and buy-siders why they or their clients should or should not invest in Company XYZ. The road to becoming an analyst is either paved with solid industry experience, or through the research assistant/associate path.

Full-fledged analyst positions are difficult to come by. The skills required to succeed as an analyst include a firm grasp of: 1) the industry and dynamics of stock picking, and 2) the sales skills required to convince investors and insiders alike why a stock is such an excellent buy. An analyst lacking in either area will simply not become the next *I/I*-rated star (that is, an analyst highly rated by the annual *Institutional Investor* poll).

Research analysts spend considerable time talking on the phone to investors, salespeople and traders, pitching buy and sell ideas or simply discussing industry or company trends. Everyone tries to get the research analyst's ear, to ask for advice or (as we will discuss in-depth later) to pressure him or her to change a rating or initiate coverage of a particular stock. Analysts also travel regularly, visiting buy-siders or big money managers and companies in their field. Indirectly, they are trying to generate trading business with money managers, research ideas from companies or trying to build a reputation in the industry. All in all, analysts must be able to convincingly and quickly pitch an idea, and defend it thoroughly when the time comes.

In this atmosphere, research analysts must scrutinise every company that they maintain under coverage. Any news or company announcements will prompt a deluge of phone calls to the analyst, with questions ranging from the big picture to the tiniest of details. They also must maintain a handle on an extremely important aspect of any company—the numbers. Inaccurate earnings estimates, especially when they are far from the mark, reflect poorly on the analyst. Why didn't an analyst know the company stock was going to come out with such low earnings? Or why didn't the research analyst know that industry growth was slowing down? The analyst is responsible for staying on top of these things.

Compensation packages for research analysts run the gamut. Some II-rated star analysts in hot industries command multimillion-dollar annual packages, especially during bull markets. Most banks figure their compensation for analysts with formulas that are usually incomprehensible to even the research analysts. The factors that go into analyst compensation typically includes a mix of the following:

- The performance of stocks under coverage (meaning that if their stocks perform like the analyst predicts, they get paid well)
- Trading activity within the firm of stocks under coverage
- Corporate finance business revenue of companies in their industry
- Performance evaluations of the research analyst by superiors
- *Institutional Investor* rankings. (Once a research analyst finds himself listed as an II-ranked analyst, the first stop is into his boss's office to renegotiate his annual package.)

*Note: As they progress in their career, research analysts receive titles similar to investment bankers, namely VP, SVP and ultimately MD. However, the tasks of a research analyst tend to remain somewhat consistent once the analyst level is reached, with perhaps more selling of research and traveling involved at the most senior levels, and more oversight of a group of more junior analysts.*

## The *Institutional Investor* (II) Ratings Scorecard

*Institutional Investor* is a monthly magazine publication that, among other things, rates research analysts. The importance of the II ratings to investment banks and even many institutional investors cannot be overstated. Most industry watchers believe and follow the ratings as if they were gospel.

How do the ratings work? Essentially, II utilises a formula to determine the best research analysts in the world, surveys industry professionals and publishes their rankings annually. There is a bias toward research analysts at large firms in these ratings. II's formula essentially involves surveys of "directors of research, chief investment officers, portfolio managers and buy-side analysts at the major money management institutions around the world." Major money managers deal primarily with large investment banks for their trading needs and a portion of their research needs.

In 2012, for the third year in a row, J.P. Morgan took the top spot in the II All-America Research Team ranking. Barclays took second place, and Bank of America Merrill Lynch came in third.

## THE PRODUCT

### Industry research reports

To establish themselves as knowledgeable analysts, many researchers begin by writing and issuing an industry piece. For example, an industry research report on the oil and gas sector might discuss issues such as commodity prices, the general outlook for the sector and valuations of companies in the industry.

The time required to generate an industry piece depends on the length of the report, the complexity of the industry and how important it is to demonstrate expertise for investors and management teams in the industry. For completely new industries for new analysts, a full six months or more is given to enable the analyst to fully understand the industry and develop a thorough report. Once it is printed, salespeople will use an industry research report to get up to speed and learn about a particular segment.

Touted as industry gospel, industry research reports take substantial time to produce and earn the firm nothing except awareness that the investment bank follows an industry and has expertise in that industry. However, the brand equity built by an industry piece can be substantial and make corporate finance banker cold-calling a much easier process.

### Company-specific research reports

Once an analyst's industry piece has been written and digested by the investment community, the analyst focuses on publishing research reports on specific companies. To create a well-rounded research universe, research analysts will write on the top industry players as well as several smaller players. One of the most critical roles of an equity research analyst is to make future earnings estimates for the companies he or she covers. (The average earnings estimate of all analysts covering a company is called the "consensus" estimate.) Company-specific reports fall into three categories: initiation of coverage, updates and rating changes.

**Initiation of coverage:** This is exactly what it sounds like. These reports indicate that an analyst has not previously written research or covered the particular company. Usually an initiation of coverage report includes substantial information about the business, a detailed forecast model and risk factors inherent in the business.

**Update:** When a stock moves, news/earnings are released, or the analyst meets with management, an update report is put out. Often one-pagers, updates provide quick information important to current movements in the stock or will raise or lower earnings estimates.

**Change of rating:** Whenever an I-bank alters its rating on a stock (we will discuss these ratings later), a report is issued. These reports vary in length from one to five pages. Reasons for a downgrade include: lower than expected earnings, forecasts for diminished industry or firm growth, management departures, problems integrating a merger or even overpriced stocks. Reasons for an upgrade include: better than expected earnings, new management, stock repurchases or beneficial industry trends.

## Conflict of interest

A monumental securities investigation came to end in 2002, forever altering the way investment banks do business. In December 2002, 10 of Wall Street's largest investment firms agreed to pay \$1.4 billion to settle research and advisory conflicts-of-interest violations. The settlement closed an investigation that was initially opened by former New York State Attorney General Eliot Spitzer, which began in early 2002 with an investigation into research practices at banking behemoth Merrill Lynch. Spitzer alleged that research analysts there allowed potential investment banking fees to influence the ratings given to companies covered by the firm.

## Market commentary

Analysts usually cover a particular (small) universe of stocks, but some analysts, called market strategists, survey and report on market conditions as a whole. Most large banks publish market commentary reports on a daily basis (sometimes even several within a day), augmented with weekly, monthly and quarterly reviews. Included in such reports is information on the performance of stocks in major market indices in the US, major markets worldwide, and in various sectors—such as transportation, technology and energy—in the US. Some of these commentaries offer forecasts for the markets or for particular sectors. Naturally, economic data is paramount to stock market performance overall and thus pervades market commentaries.

## Economic commentary

Similar to a market commentary, economic reports are also published periodically and cover economic indicators and trends. These reports are often stuffed with graphs of macroeconomic factors such as GDP, inflation, interest rates, consumer spending, new home sales, import/export data, etc. They provide useful information regarding government fiscal and monetary policy, and often link to fixed income reports. Often the same market strategist writes both the economic commentaries and the market commentaries for a firm.

Fixed income commentary

Analysts covering the fixed income markets publish periodic reports on the debt markets. Often tied to the economic commentaries, fixed income market reports comment on the performance of various fixed income instruments including US government securities, mortgages, corporate bonds, commodity prices and other specialized fixed income securities. The three-point scale for rating stocks has become ubiquitous in banking (since the conflicts-of-interest settlement), but the definitions that banks refer to do not accurately measure what the analyst believes. The following scale reflects the general consensus on stock ratings, but keep in mind that these vary by firm.

Rating	Published Definition	Actual Meaning
Outperform	STRONG BUY. The company's stock is a strong buy, and will outperform the market over the next 18 months.	The stock is a worthy buy. Or, if the investment bank writing the research just completed a transaction for the company, the analyst may simply believe it is a decent company that will perform as well as the market in the next 18 months.
Neutral	MARKET PERFORM. The stock will perform approximately as well as the market over the next 18 months.	Be wary about buying this stock. It is either richly valued or has potential problems which will inhibit the firm's growth over the next 18 months.
Underperform	SELL. The stock will perform below the market over the next 18 months	Dump this stock as soon as possible. An underperform rating issued by an analyst means the company is not moving in the right direction.

## THREE MONTHS IN RESEARCH: THE CYCLE

Many research analysts say there's not a typical day, or even a typical week in research. On the equity side, the workload is highly cyclical. Everything revolves around earnings reports, which come out quarterly during **earnings season**. The importance of the earnings figures to the stock analyst cannot be stressed enough, and once a quarter, when companies report their earnings data, the job often gets a little crazy.

On the fixed income side, the workflow depends entirely on the product. A high-yield or high-grade corporate bond research analyst may have some ups and downs in the workload based on the earnings season, but earnings reports are not nearly as critical as they are to equity analysts. We will cover a typical day in debt research in abbreviated form at end of this chapter. First we'll take a look at a three-month period for an equity research analyst.

While we will focus on the analyst himself, keep in mind that the research associate will also perform many of the same tasks, helping the analyst in any way possible.

### March

On 1 March, four weeks prior to the end of the quarter (31 March), the analyst begins to look at the financial models relating to the companies under coverage. He is worried about his stocks' earnings per share numbers, which will be reported approximately two to four weeks after the quarter's end. If the estimated EPS numbers stray too far from the actual reported EPS when it comes out, the analyst will find himself dealing with many angry investors and salespeople, at the very least.

To fine-tune his earnings estimates, the analyst begins calling the companies that he covers, testing assumptions, refining certain predictions and trying to grasp exactly where the company and industry stand. Details make the difference, and the analyst discusses with the company CFO gross margin estimates, revenue predictions, even tax issues, to arrive at an acceptable EPS figure. Conversations such as these can become excruciatingly detailed.

### April

The quarter has ended, and in early April the research analyst enters the quiet period. During this time companies are restricted from discussing their upcoming earnings release, as this may constitute sensitive inside information. The calm before the storm, the quiet period (in this case, early April) finds many analysts calling other contacts in the industry to discuss broader trends and recent developments in the field.

Once companies begin reporting earnings (which starts mid-month), the analyst scrambles to digest the information and issue one-page update reports. The deluge of company earnings releases causes long and hectic days for the analyst, who must deal with a barrage of phone calls and the demand for written reports from salespeople and institutional investors. Within two weeks

after the earnings release, the analyst will typically publish another three-page report on his companies, often with new ratings, new analysis and revised earnings estimates for the next few quarters.

## **May**

In early May, the analyst finishes writing update reports and is afforded a little breathing room. While earnings season involves putting out fires left and right, the end of the reporting period means the analyst can relax and get back to working on long-term projects. These might include industry pieces, initiation reports or other long-term projects. Banks with large corporate finance businesses may encourage their research analysts and associates to spend time working with investment bankers, developing leads, advising them who to target and performing a variety of other research tasks.

## **Travel**

You'd better like suitcases and hotel rooms if you're aiming for a research analyst position—the position requires a great deal of travel. Usually, the full-fledged analyst (as opposed to the associate) does most of the work requiring travel, including meeting with money managers (the buy-side clients) and company management, and accompanying corporate finance professionals on roadshows. However, associates will fill in for unavailable analysts, attend some due diligence meetings and attend conferences and trade shows.

These occasional outside meetings aside, research associates spend almost all of their time in the home office. On the plus side, many associates meet with managers of the companies that come to visit the bank, meaning research associates have the luxury of meeting one-on-one with top management teams and investor relations representatives. This is especially the case in New York, where research analysts with big firms carry a lot of influence.

## Writing the report

Where do new research ideas come from? And when and why do analysts change their ratings?

Frankly, many young analysts are told what companies or areas to cover—until one becomes a seasoned analyst, you'll focus on ideas based on firm demands. Veteran analysts with more leeway generate ideas either through industry knowledge or new stocks. Typically, investment banks will compel an analyst to follow a particular stock but will not dictate the rating assigned to the stock. The pressure to publish certain ratings, however, is real and cannot be understated, as it can come from all angles.

The writing process is straightforward, and really depends on the type of report needed. For the inch-thick industry report, for example, research analysts utilise research associates and assistants to the utmost. Analysts coordinate the direction, thesis and basic content of the report, and do much of the writing. For an introductory initiation of coverage report, the work parallels the industry piece. Substantial research, financial analysis and information gathering require much time and effort. Behind the scenes, management interviews and company visits to understand and probe the business render the biggest volume of data.

For less labor-intensive pieces, such as changes in ratings or updates, either the analyst or the associate whips out the report in short time. Keep in mind that the analyst usually produces the idea and reviews the report prior to press time, but the associate may, in reality, put together the entire piece (and put the analyst's name on top).

For all of these reports, research associates and assistants typically find data, compile other research, edit the written material, build financial models and construct graphs and charts of relevant information. The analyst utilises his or her contacts within the industry to interview insiders to get a glimpse of the latest trends and current events.



## COMMONLY USED RATIOS

**Solvency Ratios**

$$\text{Quick Ratio} = \frac{\text{Cash} + \text{Accts Receivable}}{\text{Total Current Liabilities}}$$

*Shows the dollars of liquid assets (convertible into cash within 30 days) available to cover each dollar of current debt.*

$$\text{Current Ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

*Measures the margin of safety present to cover any possible reduction of current assets.*

$$\frac{\text{Current Liabilities}}{\text{to Net Worth}} = \frac{\text{Total Current Liabilities}}{\text{Net Worth}}$$

*Contrasts the amounts due creditors within a year with the funds permanently invested by owners. The smaller the net worth and the larger the liabilities, the greater the risk.*

$$\frac{\text{Current Liabilities}}{\text{to Inventory}} = \frac{\text{Total Liabilities}}{\text{Net Worth}}$$

*Compares the company's total indebtedness to the venture capital invested by the owners. High debt levels can indicate greater risk.*

$$\text{Fixed assets to net worth} = \frac{\text{Fixed assets}}{\text{net worth}}$$

*Reflects the portion of net worth that consists of fixed assets. Generally, a smaller ratio is desired.*

**Efficiency Ratios**

$$\text{Collection Period} = \frac{\text{Accounts Receivable}}{\text{Sales}} \times 365$$

*Reflects the average number of days it takes to collect receivables*

$$\text{Inventory Turnover} = \frac{\text{Sales}}{\text{Inventory}}$$

*Determine the rate at which merchandise is being moved and the effect of the flow of funds into a business.*

$$\text{Assets to Sales} = \frac{\text{Total Assets}}{\text{Sales}}$$

*This rate ties in sales and the total investment in assets that is used to generate those sales.*

$$\text{Sales to Net} = \frac{\text{Sales}}{\frac{\text{Working Capital}}{\text{Net Working Capital}}}$$

*Measures the efficiency of management to use its short-term assets and liabilities to generate revenue*

$$\text{Accounts Payable to Sales} = \frac{\text{Accounts Payable}}{\text{Sales}}$$

*Measure the extent to which the supplier's money is being used to generate sales. When this ratio is multiplied by 365 days, it reflects the average number of days it takes the company to repay its suppliers.*

## COMMONLY USED RATIOS CONT.

### Probability Ratios

**Return on Sales** = Net Profit After Taxes (Profit Margin) Sales

*Reveals profits earned per dollar of sales and measures the efficiency of the operation.*

**Return on Assets** = Net Profit After Taxes Total Assets

*This is the key indicator of profitability for a firm. It matches net profits with the assets available to earn a return.*

**Return on Net Worth** = Net Profit after Taxes (Return on Equity) Net Worth

*Analyses the ability of the firm's management to realize an adequate return on the capital invested by the owners of the firm.*

*\* Net Working Capital = Current Assets — Current Liabilities  
Source: Dun & Bradstreet*

## Fixed income research—yawning?

The attitude of many equity bankers, equity sales and traders and even some equity research analysts is that fixed income research is the most boring area in any investment bank. Why? Unlike stock analysts, many fixed income analysts do not have clients. If a fixed income analyst issues a report on US Treasury bonds, there is no company calling, fewer surprises, and few salespeople/traders to sing the praises of a good research piece. More importantly, there is often less money to make. While equity analysts often can rise to stardom (i.e., // ranking), those who work in fixed income play second fiddle. All in all, the fixed income research job is one of the least glamorous on the Street or in the City.

## A day in the life of a fixed income analyst

How is the debt analyst different than the equity analyst? As previously mentioned, there is no earnings season driving fixed income as much as there is in equity. But corporate bond analysts and high-yield analysts do have some seasonal swings. In municipal bond research, emerging markets research, asset-backed research and government/Treasury research, reports are more evenly spaced and the stress and pressure often lower. But certain monthly events and surprising news (usually macroeconomic in nature) can spark analysts to stay busy. For example, US Treasury research reports often come out around monthly CPI, PPI and quarterly GDP numbers. In general, interest rate news always impacts bonds and creates work for analysts to interpret.

The day begins early for the debt research analyst just as it does for the equity analyst. Morning meetings take place around 7:30, no matter where you happen to work.

The day includes all of the typical work that an equity research analyst does. The analyst is on the phone with buy-side portfolio managers, doing fundamental research, writing reports, tracking bond

prices and yield data and looking for trade ideas to give to the sales force. Hours tend to resemble the equity analyst, with 12- to 13-hour days the norm, but with less time on the road.

## FORMULAS FOR SUCCESS

### Research assistants/associates

To excel initially, research assistants and associates must work hard, learn quickly and become whizzes at Microsoft Excel and Word. Especially important to research associates are good writing skills, as analysts often hand off a significant portion of the writing and editing of research reports to the associate. Early on, the biggest mistake a research assistant or associate can make is to mess up the financial models and lose sight of the details.

Research is built on a foundation of good models with reasonable assumptions, and research associates must first master that domain. Later on, research assistants and associates must show an ability to handle the phones—answer questions from investors and internal salespeople about the current goings-on at companies they cover, as well as ask smart due diligence questions to company managers in order to generate the next research piece.

Unlike most corporate finance analysts, research assistants/associates can and do rise to the analyst level without an MBA. Some firms promote research assistants to the full-fledged analyst role after one or two years of solid performance, while some hire research associates only for two-year stints, emulating the corporate finance two-year programs. The firms that are less stringent about hiring MBAs full-time for research are more likely to promote internal associates to the analyst position.

Still, the number that makes this jump is a small portion of assistants and associates. Why? Some simply discover that the analyst job is not for them. Many research dropouts move to hedge funds, business school, the buy-side, or institutional sales departments at I-banks. Others simply find that the path to becoming a research analyst nonexistent. Explains one research associate at Morgan Stanley, “A lot of it is demand-driven. If you want to be the head technology analyst, you might have to wait until that person retires or moves to another firm. But sometimes they will add on analysts, maybe they need a retail analyst to bring I-banking business in. And sometimes a new subsector will turn into a new category.”

### Research analysts

Newly hired research analysts must start as the associates do—learning, modeling and working long hours. Beyond the inaugural two years, analysts begin to branch out and become full-fledged analysts, covering their own set of stocks and their own industry segment or sub-segment. Winning respect internally from corporate finance and sales and trading departments may be the first hurdle a new analyst must overcome. This respect comes from detailed research and careful analysis before making assertions about anything. Salespeople can be ruthless when it comes to researchers who make sloppy or unsubstantiated claims. Says one fixed income insider, “There are people who will eat you alive if your analysis is off. They control a huge universe of issues and a huge amount of

buyers to make that market liquid, and when you present your analysis you had better be ready. These guys are serious. It's like playing for the San Francisco 49ers; you better be prepared."

Down the road, research analysts—even good ones—are always on somebody's bad side. When the analyst wins respect from the salesperson by turning down a potentially bad IPO, he angers to no end the corporate finance banker who wants to take the company public. When the analyst puts a sell recommendation on a poor stock, the salespeople also cheer, but the company grows angry, sometimes severing all ties with their investment bank. Thus, the best analysts function as diplomats, capable of making clear objective arguments regarding decisions combined with a mix of sweet-talking salespeople and investors.

### **Do research analysts need MBAs and CFAs?**

Although it's not required, an MBA opens doors in research. Ten years ago, research departments cared little about educational pedigree and a business school education, but today more and more emphasis is placed on attaining an MBA. On Wall Street and in the City's top research departments, perhaps even more important than earning an MBA is becoming a chartered financial analyst, or CFA. The CFA Institute confers this international designation on those who pass a three-part series of examinations, which are offered around the world in June and December. According to the CFA Institute, while the exams can be completed in just 18 months, the average candidate (who's also working full time) takes about four years. You must pass each test level in order to progress and earn the CFA charter, but you may re-take the exams as needed and your results won't expire. The program and tests are not easy, and candidates are advised to devote at least six months to preparation. According to the CFA Institute, for the exam administered in June 2012, Level I pass rates were 38 per cent, whereas pass rates for Levels II and III were 42 per cent and 52 per cent, respectively.

The CFA designation lends the analyst respect and credibility to investors and seems to be more and more a prerequisite to moving up. As one analyst notes, "All things being equal, promotions will go to the analyst with his CFA examinations complete or with his MBA degree." In addition, a candidate interviewing for a research position will stand out by expressing a commitment to passing the CFA examinations.



# Syndicate: The Go-Betweens

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## Chapter 11

What does the syndicate department at an investment bank do? Syndicate usually sits on the trading floor, but syndicate employees don't trade securities or sell them to clients. Nor do they bring in clients for corporate finance.

Instead, syndicate plays a vital role in placing stock or bond offerings with buy-siders, and aims to find the offering price that satisfies the company, the salespeople, the investors and the corporate finance bankers working the deal.

### Syndicate and public offerings

In any public offering, syndicate gets involved once the prospectus is filed with the appropriate regulatory agency. At that point, syndicate associates begin to contact other investment banks interested in being underwriters in the deal. Before we continue with our discussion of the syndicate's role, we should first understand the difference between managers and underwriters and how fees earned through security offerings are allocated.

#### Managers

The managers of an IPO get involved from the beginning. These are the I-banks attending all the meetings and slaving away to complete the deal. Managers get paid a substantial portion of the total fee—called underwriting discounts and commissions on the cover of a prospectus, and known as the spread in the industry. In a Wall Street or City IPO, the spread is usually 7 per cent, unless the deal is huge, which means that the offering company can negotiate a slightly lower fee. For a follow-on offering, typical fees start at 5 per cent, and again, decrease as the deal size increases.

As discussed previously in this guide, deals typically have between two and five managers. To further confuse the situation, managers are often called managing underwriters, as all managers are underwriters, but not all underwriters are managers. Confused? Keep reading.

#### Underwriters

The **underwriters** on the deal are so-called because they are the ones assuming liability, though they usually have no shares of stock to sell in the deal. They are not necessarily the I-banks that work intimately on the deal; most underwriters do nothing other than accept any potential liability for lawsuits against the underwriting group.

Underwriters are selected by the lead manager in conjunction with the company. This role is often called participating in the syndicate. In a prospectus, you can always find a section entitled "Underwriting," which lists the underwriting group. Anywhere from 10 to 30 investment banks can make up the underwriting group in a securities offering.

In the underwriting section, next to each participant is listed a number of shares. While underwriting sections list quite a few investment banks and shares next to each bank, it is important to realise that these banks do not sell shares. Neither do they have anything to do with how the shares in the deal are allocated to investors. They merely assume the per centage of liability indicated by the per centage of deal shares listed in the prospectus. To take on such liability, underwriters are paid a small fee, depending on their level of underwriting involvement (i.e., the number of shares next to their

name). The managers in the deal will account for the liability of approximately 50 to 70 per cent of the shares, while the underwriters account for the rest.

## **The economics of a deal**

Suppose there are three managers in an IPO transaction for ABC Corporation. Say the deal is \$200 million in size. And let's say that this \$200 million is accounted for because the deal is priced at \$20 per share and the company is offering 10 million shares to the public. With a 7 per cent spread (the deal fee per cent typical in IPOs), we come up with a generous \$14 million fee.

How is the \$14 million divvied up? Each department is allocated a piece of the deal before the firms divide their shares. First, corporate finance (the bankers working the deal) grabs 20 per cent of the fee. So, in our example, \$2.8 million (20 per cent of \$14 million) is split among the three managers' corporate finance departments. Then the salespeople from the managing group take their share—a whopping 60 per cent of the spread, totaling \$8.4 million. Again, this \$8.4 million is divided by the few managers in the deal.

This 20/60 split is typical for almost any deal. The last portion of the spread goes to the syndicate group (a/k/a the underwriters) and is appropriately called the underwriting fee. However, expenses for the deal are taken out of the underwriting fee, so it never amounts to a full 20 per cent of the spread. Suppose this deal had 20 underwriters. The underwriting section in the prospectus might look like:

The total number of shares accounted for by each underwriter (the number of shares each underwriter assumes liability for) adds up to the total number of shares sold in the transaction. Note that the managers or underwriting managers take the biggest chunk of the liability. (In this case, each manager would pay 25 per cent of damages from a lawsuit, as 5,000,000 shares represent 25 per cent of the 20,000,000-share offering.)

If we return to our example, we see that after the sales and corporate finance managers are paid, the last 20 per cent comes out to \$2.8 million. This is quite a bit, but remember that the way deals work, expenses are netted against the underwriting fee. Flights to the company, lawyers, road show expenses, etc., all add up to a lot of money and are taken out of the underwriting fee. Why? Nobody exactly knows why this is the practice, except that it doesn't seem quite fair to have the syndicate receive as much as the bankers—who put in countless weekends and hours putting together a deal.

Let's pretend that deal expenses totaled \$1.8 million, leaving \$2.8 million underwriting fees minus \$1.8 million of expenses equals an underwriting profit \$1 million.

Therefore, the lead manager gets 35 per cent of the underwriting profit (7,000,000 shares divided by the total 20,000,000 = 35 per cent). The two co-managers each receive 20 per cent of the underwriting profit (4,000,000 divided by 20,000,000) and each underwriter

receives approximately 1.47 per cent of the underwriting profit (294,118 divided by 20,000,000). Therefore the lead manager gets \$350,000 of the underwriting profit, the co-managers each get \$200,000 and the other underwriters each get approximately \$14,706. Not bad for doing nothing but assuming minimal risk.

Why the long diversion into the mechanics of what an underwriter is and how much they are paid? Because this is what syndicate spends considerable time doing.

Syndicate professionals:

- Make sure their banks are included in the underwriting of other deals
- Put together the underwriting group in deals the I-bank is managing
- Allocate stock to the various buy-side firms indicating interest in deal
- Determine the final offering price of various offerings

What is involved on a day-to-day basis? Quite a bit of phone time and quite a bit of dealing with the book.

## The book

As mentioned earlier, the **“book”** is a listing of all investors who have indicated interest in buying stock in an offering. Investors place orders by telling their respective salesperson at the investment bank or by calling the syndicate department of the lead manager. Only the lead manager maintains (or carries) the book in a deal.

Orders can come in one of two forms—either an order for a specified number of shares at any price, or for a specified number of shares up to a specified price. Most buy-siders indicate a price range of some kind. Often, large institutions come in with a “10 per cent order.” That is the goal of the managers, and means that the investor wants to buy 10 per cent of the shares in the deal.

In terms of timing, the book comes together during the road show as investors meet the company's management team. Adding to the excitement, many investors wait until the day or two prior to pricing to call in their order. Thus, a manager may not know if they can sell the deal until the very last minute. The day before the securities begin to trade, syndicate looks at the book and calls each potential buyer one last time. It is important to ferret out which money managers are serious about owning the stock/ bonds over the long haul. Those who don't are called **flippers**. Why would a money manager choose this strategy? Because in a good market, getting shares in the offering is often a sure way to make money, as stocks usually jump up a few per centage points at the opening bell. However, flippers are



the bane of successful offerings. Institutional money managers who buy into public deals just to sell their shares on the first day only cause the stock to immediately trade down.

## Pricing and allocation

How does syndicate price a stock? Simple—by supply and demand. There are a fixed number of shares or bonds in a public deal available, and buyers indicate exactly how many shares and at what price they are willing to purchase the securities. The problem is that most deals are **oversubscribed**, i.e., there are more shares demanded than available for sale. Therefore, syndicate must determine how many shares to allocate to each buyer. To add to the headache, because investors know that every successful deal is oversubscribed, they inflate their actual share indications. So, a 10 per cent order may in fact mean that the money manager actually wants something like 2 or 3 per cent of the deal. The irony, then, is that any money manager that actually got as many shares as she asked for would immediately cancel her order, realising that the deal was a “dog.”

In the end, a combination of syndicate's experience with investors and their instincts about buyers tells them how many shares to give to each buy-sider. Syndicate tries to avoid flippers, but can never entirely do so.

After the book is set, syndicate calls the offering company to report the details. This **“pricing call,”** as it is called, occurs immediately after the road show ends and the day before the stock begins trading in the market. Pricing calls sometimes result in yelling, cursing and swearing from the management teams of companies going public. Remember that in IPOs, the call is telling founders of companies what their firm is worth—reactions sometimes border on the extreme. If a deal is not hot (as most are not), then the given price may be disappointing to the company. “How can my company not be the greatest thing since sliced bread?” CEOs think.

Also, company managers often believe, mistakenly, that the pricing call is some sort of negotiation, and fire back with higher prices. However, it's a rare occasion when a CEO can influence the final price—and even then only a little. Their negotiating strength stems from the fact that they can walk away from a deal. Managers will then be out months of work and a lot of money (deal expenses can be very high). An untold number of deals have been shelved because the company has insisted on another 50 cents on the offered share price, and the syndicate department has told management that it simply is not feasible. It may sound like a pittance, but on a 20 million share deal, 50 cents per share is a cool \$10 million in proceeds to the company (less underwriting fees).

## Politicians

Because of this tension over the offering price, senior syndicate professionals must be able to handle difficult and delicate situations. But it's not just company management that must be handled with care. During a deal, syndicate must also deal with the sales force, other underwriters and buy-siders. Like the research analyst, the syndicate professional finds that diplomacy is one of the most critical elements to success. Successful syndicate pros can read between the lines and figure out the real intentions of buy-siders (are they flippers or are they committed to the offering, do they really want 10 per cent of the offering, etc.). Also, good syndicate associates are proficient at schmoozing with other investment banks and garnering underwriting business (when the syndicate department is not representing the manager).

## It's still a bank, not a cocktail party

Although syndicate professionals must have people skills, a knack for number-crunching and market knowledge are also important. Offerings involve many buy orders at various prices and for various levels of stock. Syndicate must allocate down from the biggest institutional investors to the smallest retail client (if retail clients are allowed to get shares in the deal). And pricing is quite a mix of art and science. Judging market momentum, deal interest and company egos can be trying indeed.

## Who works in syndicate?

As for the players in syndicate, some have MBAs, and some don't. Some worked their way up and some were hired directly into an associate syndicate position. The payoffs in syndicate can be excellent for top performers, however, as the most advanced syndicate professionals deal directly with clients (management teams of companies doing an offering), handle pricing calls and talk to the biggest investors. They become salespeople themselves, touting the firm, their expertise in placing stock or bonds and their track record. Occasionally, syndicate MDs will attend an important deal pitch to potential clients, especially if he or she is a good talker. At the same time, some syndicate professionals move into sales or other areas, often in order to get away from the endless politicking involved with working in the syndicate department.

Beginners in the syndicate department help put together the book, schedule road show meetings and work their way up to dealing with investors, other I-banks and internal sales. Because syndicate requires far fewer people than other areas in the bank, fewer job openings are to be found. Rarely does a firm recruit on college campuses for syndicate jobs—instead, firms generally hire from within the industry or from within the firm.



# APPENDIX

Vault Career Guide to Investment Banking, European Edition

## **Recommended Reading**



# Recommended Reading

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## BOOKS

*Cityboy: Beer and Loathing in the Square Mile*, by Geraint Anderson, Headline Book Publishing, January 2009.

*The Great Financial Crisis: Causes and Consequences*, by John Bellamy Foster and Fred Magdoff, Monthly Review Press, January 2009.

*House of Cards: A Tale of Hubris and Wretched Excess on Wall Street*, by William D. Cohan, Doubleday, March 2009.

*This Time Is Different: Eight Centuries of Financial Folly*, by Cramen M. Reinhart and Kenneth Rogoff, Princeton University Press, September 2009

*Too Big to Fail: The Inside Story of How Wall Street and Washington Fought to Save the Financial System—and Themselves*, by Andrew Ross Sorkin, Penguin, October 2009

*The Big Short: Inside the Doomsday Machine*, by Michael Lewis, W.W. Norton & Company, March 2010

*The End of Wall Street*, by Roger Lowenstein, Penguin Press, April 2010

*All the Devils Are Here: The Hidden History of the Financial Crisis*, by Bethany McLean and Joe Nocera, Portfolio Hardcover, November 2010

*Crash of the Titans: Greed, Hubris, the Fall of Merrill Lynch, and the Near-Collapse of Bank of America*, by Greg Farrell, Crown Business, November 2010

*Boomerang: Travels in the New Third World*, by Michael Lewis, W.W. Norton & Company, October 2011.

*Financial Turmoil in Europe and the United States: Essays*, by George Soros, PublicAffairs, February 2012.

*The Crisis of the European Union: A Response*, by Jürgen Habermas, Polity, June 2012.

*Bailout: An Inside Account of How Washington Abandoned Main Street While Rescuing Wall Street*, by Neil Barofsky, Free Press, July 2012.

# About the Authors

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**Richard Roberts** is a professor at the University of Sussex, UK. He is author of numerous books and articles on investment banking, the international financial system and international financial centres, especially London.

**Tom Lott**, born in Dallas, Texas, graduated from Vanderbilt University in 1993. He started in the investment banking business upon graduation, joining Raymond James & Associates, an investment bank in St. Petersburg, Florida. His work experience includes a brief stint in research and four years in corporate finance. He obtained his MBA from the J.L. Kellogg Graduate School of Management (Northwestern), where he served as chairman of the investments club. He now works in fixed income trading at Merrill Lynch in New York City.

**Mary Phillips-Sandy** is a graduate of the College of the Holy Cross and Columbia University. Besides writing for *Vault*, she is a daily contributor at Comedy Central's *Indecision*. She lives in Portland, Maine.







● 001	● 1H 3100 Helsinki	11:00	● 040	● 1H 4250 Paris CDG	10:00
● 002	● 1H 022 Frankfurt	12:00	● 041	● 1H 4300 Amsterdam	10:00
● 003	● 1H 4750 Oslo	12:00	● 042	● 1H 4350 Stockholm	10:00
● 004	● 1H 2110 Paris CDG	12:00	● 043	● 1H 4400 Copenhagen	10:00
● 005	● 1H 4800 Zurich	12:00	● 044	● 1H 4450 Bern	10:00
● 006	● 1H 3124 American Express	12:00	● 045	● 1H 4500 Geneva	10:00
● 007	● 1H 350 Istanbul	12:00	● 046	● 1H 4550 Lyon	10:00
● 008	● 1H 710 Saudi Arabia	12:00	● 047	● 1H 4600 Marseille	10:00
● 009	● 1H 3250 Saudi Arabia	12:00	● 048	● 1H 4650 Nice	10:00
● 010	● 1H 1500 Madrid	12:00	● 049	● 1H 4700 Palermo	10:00
● 011	● 1H 400 Mexico/Mexico	12:00	● 050	● 1H 4750 Rome	10:00
● 012	● 1H 551 Asian Airways	12:00	● 051	● 1H 4800 Seville	10:00
● 013	● 1H 1075 Zurich	12:00	● 052	● 1H 4850 Valencia	10:00
● 014	● 1H 300 Taiwan	12:00	● 053	● 1H 4900 Warsaw	10:00
● 015	● 1H 812 Denmark	12:00	● 054	● 1H 4950 Wrocław	10:00
● 016	● 1H 8700 London City	12:00	● 055	● 1H 5000 Zagreb	10:00
● 017	● 1H 1056 Stuttgart	12:00	● 056	● 1H 5050 Zadar	10:00

● 057	● 1H 5100 Belgrade	10:00	● 061	● 1H 5150 Bratislava	10:00
● 058	● 1H 5150 Bucharest	10:00	● 062	● 1H 5200 Budapest	10:00
● 059	● 1H 5250 Cluj	10:00	● 063	● 1H 5250 Debrecen	10:00
● 060	● 1H 5300 Eindhoven	10:00	● 064	● 1H 5350 Gdansk	10:00
● 061	● 1H 5400 Hamburg	10:00	● 065	● 1H 5450 Katowice	10:00
● 062	● 1H 5500 Krakow	10:00	● 066	● 1H 5550 Legnica	10:00
● 063	● 1H 5600 Lodz	10:00	● 067	● 1H 5650 Lublin	10:00
● 064	● 1H 5700 Poznan	10:00	● 068	● 1H 5750 Rzeszów	10:00
● 065	● 1H 5800 Szczecin	10:00	● 069	● 1H 5850 Tarnobrzeg	10:00
● 066	● 1H 5900 Torun	10:00	● 070	● 1H 5950 Wroclaw	10:00
● 067	● 1H 6000 Warszawa	10:00	● 071	● 1H 6050 Zielona Gora	10:00
● 068	● 1H 6100 Wrocław	10:00	● 072	● 1H 6150 Zielona Gora	10:00
● 069	● 1H 6200 Zielona Gora	10:00	● 073	● 1H 6250 Zielona Gora	10:00
● 070	● 1H 6300 Zielona Gora	10:00	● 074	● 1H 6350 Zielona Gora	10:00
● 071	● 1H 6400 Zielona Gora	10:00	● 075	● 1H 6450 Zielona Gora	10:00
● 072	● 1H 6500 Zielona Gora	10:00	● 076	● 1H 6550 Zielona Gora	10:00
● 073	● 1H 6600 Zielona Gora	10:00	● 077	● 1H 6650 Zielona Gora	10:00
● 074	● 1H 6700 Zielona Gora	10:00	● 078	● 1H 6750 Zielona Gora	10:00
● 075	● 1H 6800 Zielona Gora	10:00	● 079	● 1H 6850 Zielona Gora	10:00
● 076	● 1H 6900 Zielona Gora	10:00	● 080	● 1H 6950 Zielona Gora	10:00
● 077	● 1H 7000 Zielona Gora	10:00	● 081	● 1H 7050 Zielona Gora	10:00
● 078	● 1H 7100 Zielona Gora	10:00	● 082	● 1H 7150 Zielona Gora	10:00
● 079	● 1H 7200 Zielona Gora	10:00	● 083	● 1H 7250 Zielona Gora	10:00
● 080	● 1H 7300 Zielona Gora	10:00	● 084	● 1H 7350 Zielona Gora	10:00
● 081	● 1H 7400 Zielona Gora	10:00	● 085	● 1H 7450 Zielona Gora	10:00
● 082	● 1H 7500 Zielona Gora	10:00	● 086	● 1H 7550 Zielona Gora	10:00
● 083	● 1H 7600 Zielona Gora	10:00	● 087	● 1H 7650 Zielona Gora	10:00
● 084	● 1H 7700 Zielona Gora	10:00	● 088	● 1H 7750 Zielona Gora	10:00
● 085	● 1H 7800 Zielona Gora	10:00	● 089	● 1H 7850 Zielona Gora	10:00
● 086	● 1H 7900 Zielona Gora	10:00	● 090	● 1H 7950 Zielona Gora	10:00
● 087	● 1H 8000 Zielona Gora	10:00	● 091	● 1H 8050 Zielona Gora	10:00
● 088	● 1H 8100 Zielona Gora	10:00	● 092	● 1H 8150 Zielona Gora	10:00
● 089	● 1H 8200 Zielona Gora	10:00	● 093	● 1H 8250 Zielona Gora	10:00
● 090	● 1H 8300 Zielona Gora	10:00	● 094	● 1H 8350 Zielona Gora	10:00
● 091	● 1H 8400 Zielona Gora	10:00	● 095	● 1H 8450 Zielona Gora	10:00
● 092	● 1H 8500 Zielona Gora	10:00	● 096	● 1H 8550 Zielona Gora	10:00
● 093	● 1H 8600 Zielona Gora	10:00	● 097	● 1H 8650 Zielona Gora	10:00
● 094	● 1H 8700 Zielona Gora	10:00	● 098	● 1H 8750 Zielona Gora	10:00
● 095	● 1H 8800 Zielona Gora	10:00	● 099	● 1H 8850 Zielona Gora	10:00
● 096	● 1H 8900 Zielona Gora	10:00	● 100	● 1H 8950 Zielona Gora	10:00





