Overview of the Banking and Investment Industry

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I have recently completed the first year of my undergraduate degree in Biology at Pembroke College. I cannot claim to have any experience in finance or investment, but I was eager to find out about the sector and explore opportunities for learning. This document is aimed at people considering a career in financial services. Its purpose is to demystify the industry, to explain the different areas within it and the skills required, to clarify some of the terminology and to recommend resources for further research.

Investment banks and other providers of financial services providers vary in their structures and the services they offer. The attached diagram gives an overview of the key areas and their functions. It explains the differences between front office (revenue generating), middle office (supporting front office, often with regulatory roles) and back office (general functions common to all firms). Most Oxford graduates tend to work in front office, although some end up in middle and back office, often in IT or in legal and accounting roles.

Throughout the document I have highlighted complex financial terms in blue and in the Key Terms section below, I explain this financial jargon used in banking in plain English. For terms that are not included use the online financial dictionary, Investopedia's dictionary is a useful tool.

Front Office - Customer-facing function, responsible for revenue generation

Investment Banking/Corporate Finance - ADVISORY

Clients are mainly companies and private equity firms seeking advice on specific transactions (mainly M&A or capital raisings). Roles include writing pitches, research, building financial models, executing transactions, liaising with clients, lawyers and accountants.

Bankers usually specialise in certain products (M&A/Advisory or Capital Markets) or client coverage (by industry of geographical location).

M&A/Advisory – advise on acquisitions (buying companies), divestitures (selling businesses or divisions) and financial restructurings.

Capital Markets – advise on raising money in the public markets, either the equity markets (selling shares in an IPO or follow-on offering) or via the fixed-income market (by issuing bonds.)

Client Coverage – work with clients in a particular sector (e.g. healthcare, oil and gas, UK), bringing in product specialists as needed.

Markets - SECURITIES

Sales and Trading

Clients are mainly institutional investors (i.e. fund managers) looking to buy and sell securities and other assets either listed on stock markets or traded over the counter (OTC).

- **Equities** (dealing in shares traded on global stock markets)
- **Fixed income** (dealing in different types of debt instruments e.g. corporate and government bonds)
- **Commodities** (e.g. gold, oil)
- **Foreign exchange** (dealing in global currency markets)
- **Derivatives** (dealing in e.g. options, futures, interest rate and currency swaps, structured products)

Sales teams pitch ideas to institutional clients. Traders either execute orders (mostly done electronically) or engage in proprietary trading (investing the bank's own money).

Research

Research analysts write research reports for institutional investors. Research can either be macro-economic, credit research (supporting fixed-income markets) or equity research on specific stocks. They use financial modelling to forecast companies' earnings and determine buy, hold or sell recommendations.

Fund/Asset/Investment Management - INVESTING

Fund managers design and implement investment strategies (choosing markets, combining equities, bonds etc), undertake research and make investments by buying and selling securities. They seek to attract money from investors for their funds. The amount of money they manage is known as Assets Under Management (AUM).

Private equity

Private equity, sometimes called merchant banking, buys businesses, usually unlisted companies. They often become heavily involved in running the business, aiming to add value by improving operations, profitability and attractiveness with a view to then selling the business.

Private banking

Private bankers manage wealth for high net worth individuals (HNWI). They advise on investment strategies, select funds for their clients to invest in based on the clients' risk profile and financial needs.

Middle Office

Middle office functions are closely integrated into the front office functions but are generally not client-facing and directly revenue-generating.

Operations and settlements – ensures all the trades with clients are processed and that money and securities change hands.

Risk management – monitors exposure to individual clients, markets, interest rates etc, set limits, ensure capital adequacy requirements are met.

Legal, **Compliance**, **Internal Audit**, **Financial Controllers** – ensures all the front office functions are operating in compliance with multiple regulations.

Back Office

IT – The more complex IT and programming roles are integrated into front and middles office functions, particularly in sales, trading and risk management, often with 'quants'.

Other central functions such as **human resources, finance, tax.**

More in-depth analysis of each field

Advisory

It is often referred to as Investment Banking. The work is pressurised and involves long hours and tight deadlines. Transactions are mainly M&A or financing in either debt or equity markets. Debt financing tends to be through the bond markets. Equity financing might involve arranging an IPO (listing a company on a stock market and selling shares). This requires skills in financial modelling, understanding financial statements and company valuation models.

Securities

The **sales and trading** functions are often referred to as the 'sell side' as they sell to institutional investors (the 'buy side'). Trading involves working in a high-stress, fast-moving environment.

The **equity** side requires skills in following stock market performance, understanding what moves stock prices (including macro-economic effects) and using basic stock market valuation tools.

Fixed income markets offer a huge range of products. Bonds come in many different forms and can be quite technical. Fundamentally, bonds carry an interest rate paid annually or semi-annually. They usually carry a rating issued by an agency (e.g. Moody's, Standard & Poor's) giving an indication of its credit worthiness, with higher-rated bonds trading at 'lower yields' for comparable maturities.

Derivative products include options, swaps, futures etc. They are quite specialised and demand strong mathematical skills.

Research work requires skills in financial modelling, understanding financial statements and knowing how to value companies e.g. the DCF and the CAPM model.

Investing

The investing side of the business is divided into three distinct areas.

Fund/asset or investment management represents institutional investors (the buy side). Most are independent companies, but some are housed within a bank. The required skills include accounting, company valuation, portfolio management theory and different investment strategies.

Private Equity is effectively an M&A business housed within investment banking. It involves investing the bank's own capital in businesses with a view to turning them around for sale. The requisite skills are similar to those for investment banking, such as valuation techniques and cash flow modelling.

Private Banking is effectively a 'financial advisor'. It targets HNWIs (high net worth individuals) with assets to invest. A private banker works with clients to construct and manage portfolios, determining the optimal combination of equity, debt, cash and other assets to manage the risk and return.

Career Planning

Investment banking jobs are highly sought-after, and competition is fierce. Below are some of the qualities and interests needed that are common to most roles.

1. Have an interest in the sector. Follow financial markets and news by reading up on stock markets, acquisitions etc in publications such as the Financial Times and the Economist.
2. Gain a basic understanding of macro-economic issues and understand what drives markets, e.g. GDP growth, inflation and interest rates.
3. Have strong numeracy and IT skills, be able to use Excel to build spreadsheets and analyse data.

There are many courses and websites available (some free) to develop the necessary skills for a career in financial services. Try the courses offered by LinkedIn Learning (access using Oxford SSO), the Corporate Finance Institute (CFI), eFinancialCareers and EdX.

Useful sources for learning only:

1. Goldman Sachs' divisions webpage provides a useful description of roles in investment banking, investment management and securities services:
   https://www.goldmansachs.com/careers/divisions/

2. Beginners course to understand financial basics (1h15):
   https://www.linkedin.com/learning/financial-basics-everyone-should-know/getting-a-handle-on-your-finances?u=76177458

3. Finance modelling foundations course (3hrs):
   https://www.linkedin.com/learning/financial-modeling-foundations/what-is-financial-modeling?u=76177458

4. Website defining the different types and uses of bonds:
   https://www.cfainstitute.org/en/membership/professional-development/refresher-readings/2020/fixed-income-markets-issuance-trading-funding

5. Website explaining fixed-income markets:
   https://www.cfainstitute.org/en/membership/professional-development/refresher-readings/2020/fixed-income-markets-issuance-trading-funding

6. Course in understanding the economics of Capital Markets (2h30):
   https://www.linkedin.com/learning/understanding-capital-markets/disclaimer?u=76177458

7. Webpage explaining portfolio management:
   https://www.investopedia.com/terms/p/portfoliomanagement.asp

8. Webpage explaining equity investing strategies:
   https://www.cfainstitute.org/en/membership/professional-development/refresher-readings/2020/active-equity-investing-strategies

9. Introductory course to valuation (1h50):

https://www.linkedin.com/learning/finance-foundations-business-valuation/welcome?u=76177458

10. Course in financial accounting fundamentals (≈13hrs): https://www.coursera.org/learn/uva-darden-financial-accounting

11. CFI and LinkedIn Learning offer free courses in a wide variety of fields, such as accounting fundamentals, reading financial statements and Excel crash courses
https://courses.corporatefinanceinstitute.com/collections/free - for courses
https://corporatefinanceinstitute.com/resources/knowledge/ - for understanding
https://www.linkedin.com/learning/me?u=76177458

Useful sources for learning offline

- The Financial Times (free access using your SSO).
- "Banking: A Very Short Introduction" by John Goddard - available online on Solo, gives a brief overview of the key fields in banking.
- "The Intelligent Investor" - available online on Solo, suitable for asset management/research
- "Barbarians at the Gate" by Bryan Burrough – available on Solo, not online, also a film, suitable for private equity, LBOs + investment bankers
- "The Alchemy of Finance "by George Soros – on Solo, not online, covers innovative investment strategies and the theory of reflexivity

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Excel

Excel skills are valued in all careers. For basic skills there are tutorials built into Excel in, e.g. formula and pivot tables. The CFI also provides courses with an excellent overview of tools used in financial analysis.

CFI course (3.5hrs): https://courses.corporatefinanceinstitute.com/courses/free-excel-crash-course-for-finance

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Other useful skills

If you are from a STEM background and are interested in areas such as quantitative analysis, learning to code may be advantageous. Some of the more useful languages for finance include Java, Python, C++ and Ruby. CodeAcademy, Udemy, Coursera and edX are popular sites with a mixture of paid and free courses. JPMorgan also provides a training course well targeted to analysts and traders.

Python (12hrs): https://www.coursera.org/learn/python-basics

JPMorgan: https://news.efinancialcareers.com/uk-en/3004043/jpmorgan-python-training-analysts-and-traders

Key Terms

Below are plain-English explanations of some of the more common but often quite bewildering terms used in financial services.

Assets → A resource with economic value owned by a business or an economic entity that can be owned or controlled to produce value. There are five main types of assets: tangible (assets with a physical presence e.g. cash, stocks, property), intangible (no physical presence e.g. patents, copyrights), financial (its value is based on a contract e.g. cash, stock, bonds, derivatives), fixed (long-invested assets that cannot easily be converted into cash e.g. property, furniture) and current assets (cash and assets that are expected to be converted into cash, consumed or used in the current operating period).

Balance sheet → A statement of the assets, liabilities and capital of a business or other organisation at a particular point in time, detailing the balance of income and expenditure

Bonds → A fixed income product that represents a loan made by an investor to a borrower. Bonds can be issued by companies or governments and generally pay a stated interest rate. The market value of a bond changes over time as it becomes more or less attractive to potential buyers. Bonds of higher quality (more likely to be paid on time) typically offer a lower interest rate. **Gilts** are bonds issued specifically by the British government.

Cash flow → The net flow of cash that includes all proceedings gained from issuing debt and equity as well as payments made by the company.

Capital raising → The acquisition of money for a company or individual to help it grow and create wealth.

Commercial paper → Unsecured, short-term security issued by large corporations to obtain funds to meet short-term debt obligations, such as payroll. It is based on a promise to pay the face amount on the maturity date specified on the note.

Current assets → Cash and all commodities expected to be converted into cash within 12 months of the balance sheet date.

Current ratio → The relationship between current assets and current liabilities. It indicates the liquidity of a business.

Current liabilities → Money owed by the business that is to be paid back to creditors within 12 months of the balance sheet date.

Derivative → A financial contract with the value defined by the value of the underlying asset. The buyer agrees to purchase the asset on a specific date at a specific price. Derivates are typically used for commodities, such as oil or gold. The most common types of derivatives are futures, options, forwards and swaps.

Dividend → The distribution of a company's profits to its shareholders. When a company earns a profit, it is able to pay a proportion of the profit as a dividend to shareholders. Any amount not distributed is re-invested in the business.

Equity → The value of the shares issued by a company.

Institutional investors → A company or organisation that invests money on behalf of clients or members.

IPO/Offering (Initial Public Offering) → The process by which a privately held company begins selling stocks to external investors, thereby becoming a public company.

LBOs (Leveraged Buyout) → The acquisition of another company primarily with borrowed funds to meet the cost of an acquisition. The assets of the company being acquired are often used as collateral for the loans, along with the assets of the acquired company.

Liability → Something a person or company owes, usually a sum of money. Over time liabilities are settled through the transfer of economic benefits, such as money, goods or services.

Liquidity → A measure of how quickly assets (such as cash, savings accounts, checkable accounts) are able to turn into money when needed.

Loans: Bilateral → A form of loan where funds are provided to a borrower by one lender. As bilateral loans are only between one lender and one borrower, the risk the lender assumes is much higher than when loans are syndicated loans.

Loans: Syndicated → A form of loan business in which two or more lenders jointly provide loans for one or more borrowers on the same loan terms. They adopt different duties but sign the same loan agreement.

Macro-economics → The branch of economics concerned with large-scale or general economic factors, such as interest rates and national productivity.

Micro-economics → The study of individuals, households and firm's behaviour in decision making and allocation of resources. It typically applies to markets of goods and services and deals with the individual and economic issues.

Pivot Tables → They are a data summarisation tool that is used in processing. It can be used to summarise, sort, reorganise, group, count, total or average data stored in a database and it is used by financial analysis around the world.

Quants (abbreviation of quantitative analysis) → The use of mathematical and statistical methods in finance. They typically work with traders, providing them with pricing or trading tools.

Restructuring → Changes to the financial, operational, legal or other structures of a business with the purpose of increasing efficiency.

Securities → Tradable financial assets such as debt securities (e.g. banknotes, bonds and debentures), equity securities (e.g. common stocks) and derivatives (e.g. forwards, futures, options and swaps).

Valuation → The process of determining the economic value of a business (either a single unit within the company or the whole business). It can be used for a variety of reasons, e.g. for sale, taxation or establishing partner ownership.