

CORPORATE FINANCE



Universidad
de Navarra

MASTER'S DEGREE IN BANKING AND FINANCIAL REGULATION

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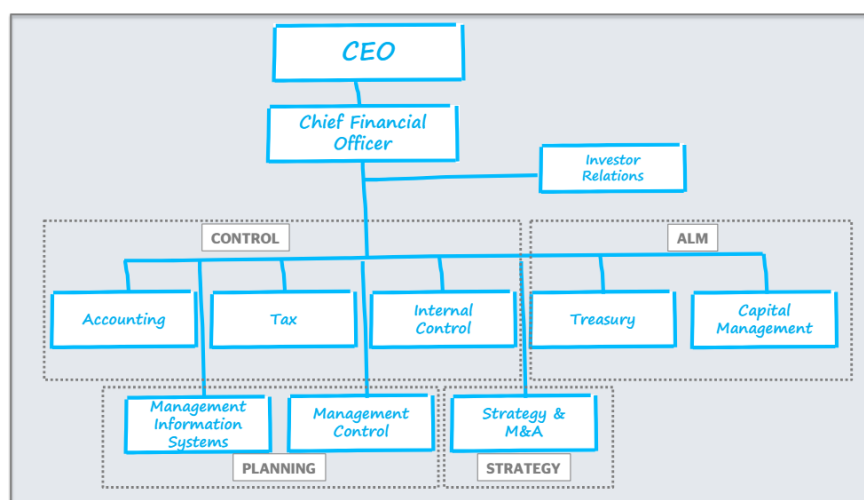
Capítulo 1

Finance department of a bank

1.1. Key roles of the Finance section in a bank

Control	Planning & Management Information	Asset & Liability Management	Strategy
Define and implement accounting criteria	Track execution and performance (profitability)	Manage interest risk at a bank level	Define strategy at a bank level
Define tax policies and procedures	Lines of business reporting	Manage liquidity risk	Define capital allocation guidelines
Liason with regulators and supervisory bodies	Financial planning and forecasting	Capital management	Analyze and propose M&A transactions
Set internal control standards	Budgeting	Pricing supervision of assets & liabilities	
	Capex and expense control	Earnings contributor to the Bank's P&L	

Figura 1.1: Example of a finance organization chart



A financial institution is a company engaged in the business of dealing with financial and monetary transactions such as deposits, loans, investments, and currency exchange.

Basic functions:

- Borrowing funds
 - Checking Accounts
 - Time deposits
 - CD's
 - Investment Funds
 - Retirement Funds
- Lending
 - Mortgages
 - Consumer Loans
 - Corporates
 - Public Institutions
 - SME's
- Rendering Financial Services
 - Payments
 - Advisory
 - Payroll
 - Receipts
 - FX
 - Equities
 - Capital Markets

Main Risks in banking:

- Credit Risk: Possibility of economic losses as a result of the breach of contractual obligations assumed by the counterparties of a contract

$$EL = EAD \times PD \times LGD$$

- Interest Risk: Bank's exposure to interest rate fluctuation

$$IRR = \text{Risk of Price} + \text{Reinvestment Risk}$$

- Liquidity Risk: Inability to have sufficient funds to deal with short-term and/or long-term obligations
 - Risk of not having sufficient funds (cash)
 - Risk of not having liquid assets

The main liquidity Risk Metrics are LCR and NSFR

- FX Risk: Potential losses as a result of the fluctuations of currencies different to those the financial statements of the bank are denominated in:
 - Conversion Risk: (Assets/Liabilities + Investments/FX Structural Risk)
 - Transactional Risk: (FX Operating Risk)
- Operational Risk: Losses due to human errors, inadequate or imperfect internal processes, systems failures, and external events. Includes the legal risk
- Reputational Risk: Risk linked to changes in the perception of the entity from stakeholders (customers, shareholders, employees, etc.)
- Strategic Risk: Impact in the P/L of the bank as a result of the strategy of the bank
- Other Risk: from Insurance activities, Asset Management, or Real Estate

Figura 1.2: Financial statements of a bank

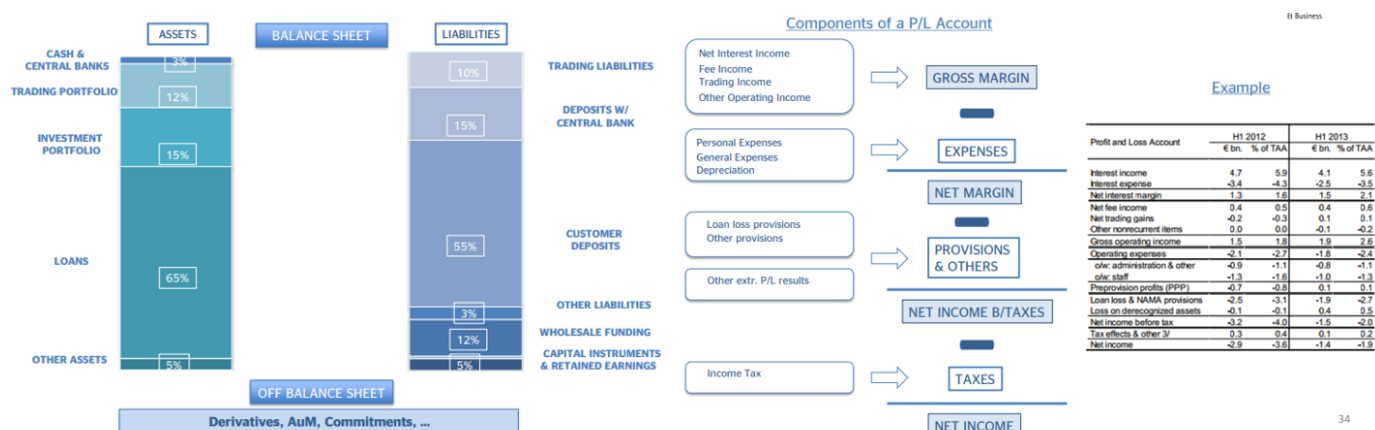


Figura 1.3: Financial statements of a bank from a management perspective

	Business areas							
	BBVA Group	Spain	Mexico	Turkey	South America	Rest of businesses	Σ Business areas	Corporate Center
2021								
Net interest income	14,686	3,502	5,836	2,370	2,859	281	14,849	(163)
Gross income	21,066	5,925	7,603	3,422	3,162	741	20,854	212
Operating income	11,536	2,895	4,944	2,414	1,661	291	12,204	(668)
Profit (loss) before tax	8,240	2,122	3,528	1,953	961	314	8,878	(638)
Net attributable profit (loss) excluding non-recurring impacts ⁽¹⁾	5,069	1,581	2,568	740	491	254	5,633	(564)

- Breakdown by line of business: Geographical or Business Segmentation as drivers of the breakdown
- Corporate Center: Includes assets and result not allocated to LoBs
- Management Adjustments: internal policies/procedures

1.2. Balance sheet of every line of business

From a management perspective you want a different balance sheet containing assets and liabilities related to the line of business activity.

Assets and liabilities may not be equal. For example retail is going to have much more liabilities than assets and corporate banking will have more assets than liabilities.

To match the balance sheet each line of business will have “Intercompany Positions” that go against the Finance department who will redistribute the Economic Capital. The distribution of the economic capital to the difference business lines is a function of the risk and the profitability. The CFO will require a minimum return on that capital (usually the same that investors or the market asks).

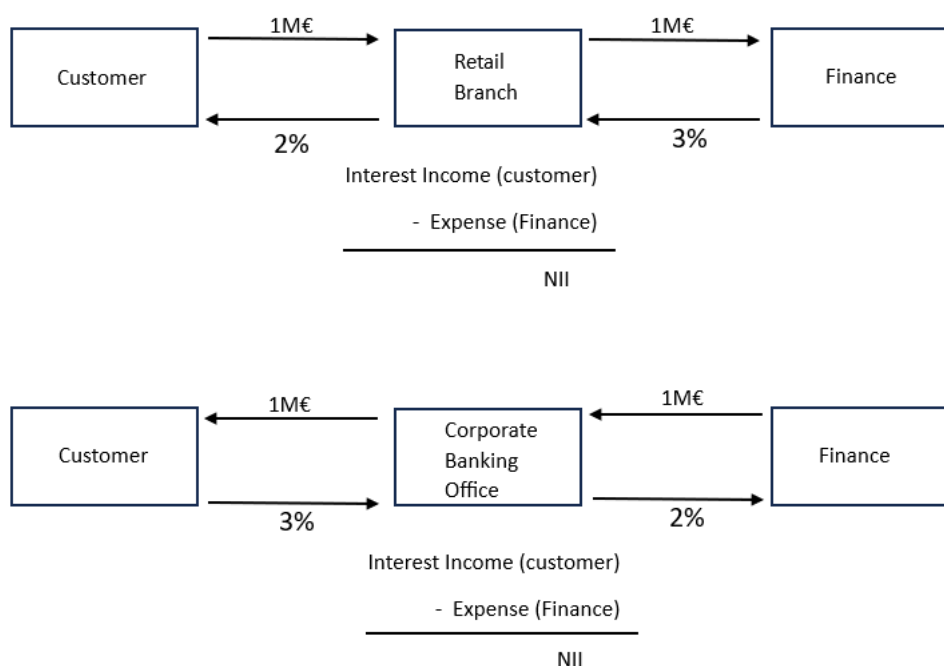


Figura 1.4: Finance implements an internal Funds Transfer Pricing (FTP) system that remunerates every asset and liability of the lines of business' Balance Sheet

What happens if the customer asks for a variable rate?

Let's imagine you want to fund a 5-year bond linked to Euribor 6 months. You would index the loan at euribor 6 months but the liquidity premium that you would ask is the 5 year swap liquidity premium because when you hedge that position you need the 5 year swap.

1.3. Funds Transfer Pricing

It is a mechanism that bank Treasuries use to transfer costs (liquidity, funding, operational. . .) to the business lines. Essentially, Treasury departments work as a bank within the bank, obtaining funding from liability business units and lending these funds to asset business units. What are the rates the bank should pay to obtain such funds.

FTP Rates

- For loans, we have to look at the term of the loan, the repricing characteristics, and the premium the bank has to pay over and above the swap curve to obtain funds for a given period of time.
- For example, for a 5Y loan, the spread to the LoB will be the difference between the yield on the loan (what a customer pays) minus the 5Y FTP Rate.
- For fixed assets, a long-term value is assumed, so typically the cost of funds is to the DDA life assumption.

Function of FTP

- Fixed Loan – Bullet 5 years: 2.384
- Floating Loan Euribor 3m 7 year: $0.230\% + 0.809\% = 1.039\%$
- Time Deposit 2 years: 1.142 %
- Customers ask for a 5-year loan revised and paid on Euribor 6 months.
- Finance takes: Euribor 6 months + Liquidity Premium 5y.
- Customer will pay: Euribor 6 months + Liquidity Premium 5y + Premium for bank.

Repricing Inter	Swap Curve	Liquidity Premium	FTP Rate
1M	0.152%	0.500%	0.652%
3M	0.230%	0.500%	0.730%
6M	0.323%	0.500%	0.823%
9M	0.432%	0.500%	0.932%
1Y	0.541%	0.500%	1.041%
18M Swap	0.557%	0.530%	1.087%
2Y Swap	0.572%	0.570%	1.142%
3Y Swap	0.609%	0.600%	1.599%
4Y Swap	1.401%	0.620%	2.021%
5Y Swap	1.734%	0.650%	2.384%
7Y Swap	2.228%	0.809%	3.037%
10Y Swap	2.681%	1.133%	3.814%
12Y Swap	2.895%	1.200%	4.095%
15Y Swap	3.087%	1.296%	4.383%
20Y Swap	3.305%	1.383%	4.648%
30Y Swap	3.424%	1.400%	4.800%

Remuneration of allocated capital

- A long-term rate + the liquidity premium should be used to remunerate the capital balance of each unit.
- Such rate might be used to price all assets and liabilities with no tenor (fixed assets, equity, and provisions).

Why an internal Funds Transfer Pricing System (FTP)?

- To take the interest rate and liquidity risks out of the line of business.
- To promote specific actions (borrowing/lending) taking into account the bank needs.
- Calculate the P/L and profitability the bank obtains in each transaction.

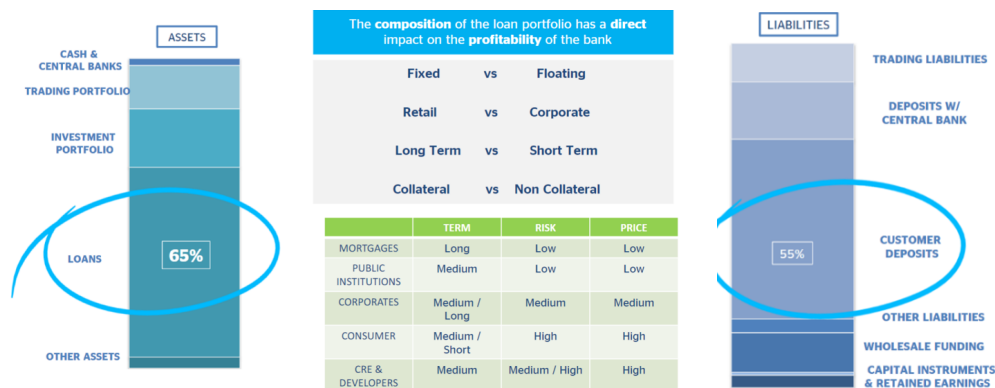
1.4. Key Performance Indicators (KPIs)

5 different categories:

Activity Metrics

- Growth
- New origination
- Front book
- Back book

Figura 1.5: Core business of a bank



The three key factors to price a loan: rates, term, and risk.

Customer Deposits

- Demand Deposits
 - Non-termed
 - Non-interest bearing
 - Checking accounts, saving accounts
- Time Deposits
 - Termed
 - Interest bearing
 - TDA's, Certified Deposits

1.4.1. Profit and Loss Metrics: NII Analysis

- Yield on Loans: Impacted by interest rates evolution (yield curve)
- Cost of Deposits: Decisive mix of loan portfolio and customer deposit base
- Customer Spread: Banks with variable rate assets and liabilities more sensitive to changes in interest rates
- Banks with liabilities that reprice more often or quicker than their assets will be more negatively affected by interest rate changes.

In summary, a good indicator to reflect how management prices their assets and liabilities and reacts to competition.

Other contributors to the Net Interest Income: INVESTMENT PORTFOLIO

- Comprised of Fixed Income Securities
 - Hold to maturity
 - Available for Sale

- Corporates
- Treasuries
- Fixed
- Swapped to floating
- Purpose
 - Manage interest rate risk
 - Manage liquidity risk
 - Contribute to the P/L of the bank by generating Net Interest or trading Income (result on sales)
- Securities portfolio, significant in size (10/20 % of total assets), managed by Finance; strategic decisions taken at the ALCO Committee

Other contributors to the Net Interest Income: WHOLESALE FUNDING

- Alternative funding means to Retail deposits
 - Covered Bonds
 - Brokered Deposits
 - Senior Debt
 - Commercial Paper
 - Fed Funds purchased
 - Repo's
- Purpose
 - Access to Capital Markets/Institutional
 - Manage Liquidity Risk
 - Fund certain activities of the bank
 - Some institutions do not have a customer base or access to retail deposits

Wholesale funding represents a way to increase sources to satisfy funding needs. Unlike retail deposits, investors are institutional, and cost depends on the creditworthiness of the issuer.

Net Interest Margin

$$\text{NIM} = \frac{\text{Interest Income} - \text{Interest Expense}}{\text{Average Earning Assets}}$$

$$\text{NIM over Assets} = \frac{\text{Interest Income} - \text{Interest Expense}}{\text{Total Earning Assets}}$$

When analyzing NIM it is important to consider:

- Loan portfolio and funding mix
- Front book and back book prices
- Pricing trends over several quarters

Non-Interest Income: FEE INCOME

- Revenue taken by financial institutions from:
 - Account related charges
 - Guarantees
 - Insurance
 - Assets under Management
 - Brokerage
 - Foreign Exchange Transactions
 - Credit and Debit Cards
 - Investment Banking transactions
 - Commitments

Fee Income reflects the ability and capacity of banks to deepen their relationships with their customers and to cross-sell products and services to them.

Non-Interest Income: TRADING INCOME

- Finance (ALCO) Activities
- Sales of Available for Sale Investment Portfolio
- Global Markets Activities
 - Market Making
 - Proprietary trading

Indicators that follow up on:

- The quality of the revenues
- The level of recurrence
- The profitability of the assets of the banks

It is key to analyze whether revenues are dependent on volatile results and/or the contribution of results other than the traditional borrowing/lending activities.

Non-Interest Expenses

- Salaries & Benefits
- General/administrative Expenses
- Depreciation

Non-Interest Expenses (NIE) refer to those expenses directly related to the ongoing operations of the bank.

$$\text{Efficiency ratio} = \frac{\text{Non-Interest Expenses}}{\text{Revenue}}$$

The bank's efficiency ratio is a measure of the bank's overhead (non-interest expenses) as a percent of its revenue

One of the key metrics, especially under tougher environments, as it shows the ability of banks to streamline their operations & processes and turn resources into revenues. The lower the ratio, the more efficient a bank is.

$$\frac{\text{Fee Income}}{\text{Non-Interest Expenses}}$$

$$\frac{\text{Non-Interest Income}}{\text{Non-Interest Expenses}}$$

This ratio is a measure of how much of the bank's overhead is covered by revenues other than those coming out of the traditional borrowing/lending activity of the bank. Banks with higher Non II / NIE are more resilient under low-interest rate periods; they are able to cover a higher % of expenses despite the difficulty of generating revenues. Goal: Non-Interest Income / NIE: 100 %.

1.4.2. Risk Metrics

- Non-Performing Loans: A loan that either is in default (90 days past due) or close to being in default (likely not to be repaid in full).
- Allowance for Loan and Lease Losses: An estimate of uncollectible amounts used to reduce the book value of loans and leases to the amount a bank can expect to collect.
- Net Charge Offs: Difference of gross charge offs (loans written off as considered uncollectible) and recoveries.
- Cost of Risk (Risk Premium): Provision expensed annually as a % of the loan portfolio.

Credit risk, if not the most, one of the most significant risks financial institutions need to manage. As such, many metrics are taken into account when tracking how effective the institution is when managing this type of risk.

- NPL's/Total Loans (%)
- Past due (30-89 days) / Total loans

These ratios help manage and anticipate the potential classification into NPLs, and are good indicators to evaluate the quality of the loan portfolio of a bank, as well as the risk appetite and the risk management practices of the institution.

- Allowance for Loan Losses/Total Loans (%)
- % of provisions to total loan portfolio

When cost of risk is also considered, it gives the number of years the provisions will last if such cost of risk maintains constant through time. Ideally, the ratio should be high enough so that the bank has enough

provisions to withstand the worst part of the cycle.

- Coverage NPL's
- Coverage Ratio: Amount of provisions allocated to cover potential losses of the NPL portfolio.
- Provision/Average Loans & Net Charge-Offs/Average Loans

Both metrics reflect the cost of risk (risk premium) of a bank (on an annualized basis); the second metric only considers actual charge-offs and recoveries, excluding accounting entries that might result in an increase or release the amount of provisions of the bank.

1.4.3. Profitability Metrics

- RoE: Indicates the profitability of a bank with respect to the capital amount of the entity.
- Three measures commonly used:
 - Return on Tangible Equity (Accounting)
 - Return on Regulatory Capital
 - Return on Economic Capital

One of the most relevant aspects for regulators and external agents (investors, rating agencies) is the level of capital and the use/profitability the entities obtain with it.

1.4.4. Non-Financial Metrics

- Number of customers - Attrition Rate
- Average age of Customer - Digital Sales/Total Sales
- Net Promoter Score - Employee satisfaction

Besides financial information, it is increasingly important to consider how banks relate to their clients, the degree of customer loyalty, customer satisfaction, age, and potential.

1.4.5. Capital Management and Profitability

The 2008 financial crisis path:

- House price bubble burst → bank failures → Bail Out → New Rules

After years of deregulation and excessive trading, the financial crisis led to a period of overregulation and higher standards of control and supervision. Under this environment, banks have significantly elevated capital levels:

- From Basel II = %CET1 BISII (2007) = 6 %
- To Basel III = %CET1 BISIII = 12 %-14 %

The financial crisis in 2008 also marked a new beginning in capital management. Integrated Stress Testing:

- Comprehensive systemic and Idiosyncratic scenarios
- Enterprise-wide consolidated stress testing

- Dynamic over the course of nine quarters (financial forecast)
- Linked to capital adequacy by expecting minimum capital ratios over the planning horizon

Capital management is key for financial institutions:

- Traditional approach
 - Growth
 - Volume / Size
 - Attributable Profit
- New approach
 - Return on Equity
 - Profitable growth
 - Sustainable solvency

Different concepts of capital:

- Economic Capital (Economic Capital Tier 1): Attempts to statistically explain the distribution of loss volatility and set capital levels to withstand a 1 in 1,000 probability event, or 99.9% confidence.
- Regulatory Capital (CET1, AT1, T2): Bank regulators set capital requirements designed to protect from bank insolvency: Depositors, Taxpayers (if bail out), FDIC/DGF.
- Shareholder's Equity (Shareholder's Equity + Retained Earnings): Accounting Concept.

Regulatory Capital

- World: Basel (BIS) International Regulatory Framework [Recommendations]
- EU: CRD IV/CRR [European Transposition]
- Spain: National Authorities [LOSS and BdE]

The 3 Pillars:

- Pillar 1: Minimum Capital Requirements
 - Eligible own funds should be sufficient to cover capital requirements for: Credit Risk, Operational Risk, Market Risk.
- Pillar 2: Supervisory Process
 - Review from regulators
 - Internal Capital Adequacy Assessment Process (ICAAP) to deal with all types of risk (not only Pillar I) including but not limited to: Concentration Risk, Strategic Risk, Reputational Risk, Legal Risk.
- Pillar 3: Market Discipline
 - To enhance transparency

- Public reporting/information: Capital structure, Capital adequacy, Risk profile, Remuneration, Others.

Solvency is defined as the level of equity (capital) needed to face unexpected losses due to inherent risks of banking activities. It is measured as follows:

$$\frac{\text{Own Funds (Total Capital Base)}}{\text{RWAs}}$$

Challenge: Define the Base of Capital as well as RWAs. This is done by The Solvency Regulation (CRR). Minimum capital level requested by the regulator is designed to protect from banking insolvency to:

- Customers
- Taxpayers
- GDF

Setting Capital Target (CET1)

- Tier 1 Common Capital Ratio: Tier 1 Common Capital / Net RWA
- Tier 1 Capital Ratio: Tier 1 Capital / Net RWA
- Total Risk-Based Capital Ratio: Total Risk-Based Capital / Net RWA

Regardless of minimum regulatory requirements (Pillar 1), either management or regulators (Pillar 2) usually request higher levels of capital (capital target/goal). Capital targets will always be present when assessing the profitability of the business.

Why is the capital adequacy process important?

- Cornerstone of the decision-making process of the bank
- Business-as-Usual process within the organization

Functions:

- Strategic Planning
- Risk appetite
- Risk Assessment
- Business Plans
- Financial Results

Seven Principles of an effective capital planning process:

- Sound foundational risk management
- Effective loss-estimation methodologies
- Solid resource-estimation methodologies
- Sufficient capital adequacy impact assessment
- Comprehensive capital policy and capital planning

- Robust internal controls
- Effective governance

Good Practices in Capital Management

- Governance
- Capital Management Processes
- Capital Management Methodologies
- Reporting and Infrastructure
- Internal Control

Capital & Profitability, KPIs

- RoA (Return on Average Assets)

$$\text{RoA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

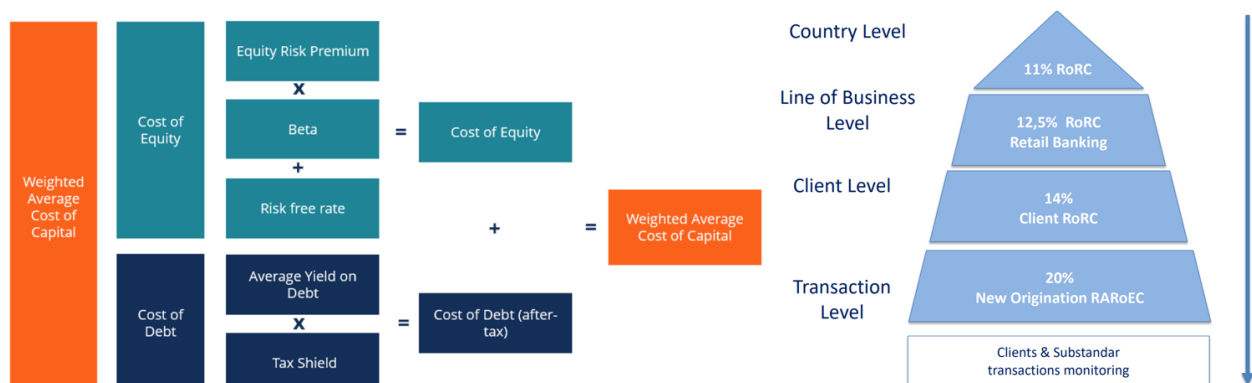
An indicator of how profitable a bank is relative to its total assets; it gives an idea as to how efficient management is at using its assets to generate earnings.

- RoRWA (Return on RWA)

$$\text{RoRWA} = \frac{\text{Net Income}}{\text{Total Risk Weighted Assets}}$$

An indicator on the profitability of a bank relative to the capital required from an economic perspective. It takes into account the capital required according to the their risk adjusted assets

Figura 1.6: WACC and minimum required profitability



1.5. Liquidity importance in Northern Rock

Northern Rock collapsed in 2007. Northern Rock did not collapse due to a creditworthiness issue of their portfolio. When the wholesale market dried up, Northern Rock was incapable of attending their short term borrowing. Their reliance on wholesale funding was so high, that once the markets shut down, the bank had to ask Bank of England for help: the bank did not have enough liquidity to fund their assets.

When Bank of England's assistance was known, that provoked the panic of thousands of customers that eventually resulted in the bank's run

1.5.1. Conclusions

- Northern Rock grew their assets in a manner not sustainable on an ongoing basis
- Their dependance on wholesale funding was excessive
- The bank was able to maintain their business model while funding was available and cheap
- The bank was not prepared to cope with a liquidity crunch
- Neither management, nor regulators or external agents were able to assess the liquidity risk

1.5.2. Objectives of the funding and liquidity risk management

- SHORT TERM: Prevent the bank from having problems of attending its short term payment commitments in time and form, or from getting funding to attend such commitments in such a burdensome conditions that might deteriorate the image or reputation of the bank
- MEDIUM / LONG TERM: To ensure an adequate financial structure of the entity and its evolution in accordance with the macro economic situation, the markets and the regulatory changes

1.5.3. ALCO

It is responsible for overseeing the management of a company or bank's assets and liabilities. The Liquidity Risk Management model is based on:

- Balance Sheet variance
- Financial Markets: Money Markets, Fixed Income, Equity

By:

- Monitoring of the Lines of Business
- Specific Actions Plan if needed

Responsibilities

- Approve the risk management strategy of the bank (Risk appetite, metrics, Limits etc) and Risk Policies
- Implement the risk framework and the bank policies in each Liquidity Management Unit
- Monitor metrics from a risk management perspective

Funding Source

- Retail
 - DDAs & TDAs
 - Promissory Notes
 - CDs

- Wholesale
 - Short Term
 - Unsecured (DDAs, TDAs, Transactionals)
 - Stability Analysis
 - ◇ Balances sensitive to crisis / rating drops
 - ◇ Very short terms
 - Secured (Exchcanges, Bilaterals)
 - ◇ Transactions based on high quality collaterals
 - ◇ During crisis higher colateral requeriments
 - ECB/Treasuries
 - Medium and Long Term
 - Covered
 - ABSs
 - Senior
 - Subordinated/Preferred
 - Others
 - Equity

Extra on Funding Source

- Senior/Subordinated
 - Bonds
 - Strong Demand/Higher Price
- Covered Bonds
 - Covered Bonds
 - Strong demand, low cost
 - Immediate execution
 - Friendly regulatory treatment (liquidity purpose)
 - Limit products
- ABS
 - Asset sale (SPV) → (ABS)
 - Capital release
 - Variety of product

- Stigma
- Regulatory treatment

1.6. Internal and Regulatory Metrics

■ Internal Limits/metrics

- Minimum level of loan portfolio funded with stable customer deposits = Loan to Stable Deposits Ratio
- Maximum level of credit gap funded with short term wholesale funds = Short Term Wholesale F. to Total Wholesale F.
- Minimum basic capacity to cover withdrawals for the following 30 days = 30 days Basic Capacity

■ Regulatory metrics

• **Liquidity Coverage Ratio (LCR):**

$$\text{LCR} = \frac{\text{Liquidity Buffer (Asset Level 1 + Asset Level 2)}}{\text{Total net liquidity outflows over the next 30 days}} > 100\%$$

• **Net Stable Funding Ratio (NSFR):**

$$\text{NSFR} = \frac{\text{Available stable funding}}{\text{Required stable funding}} > 100\%$$

• **Asset Encumbrance (recommendation):**

$$\text{Asset encumbrance} < 30\%$$

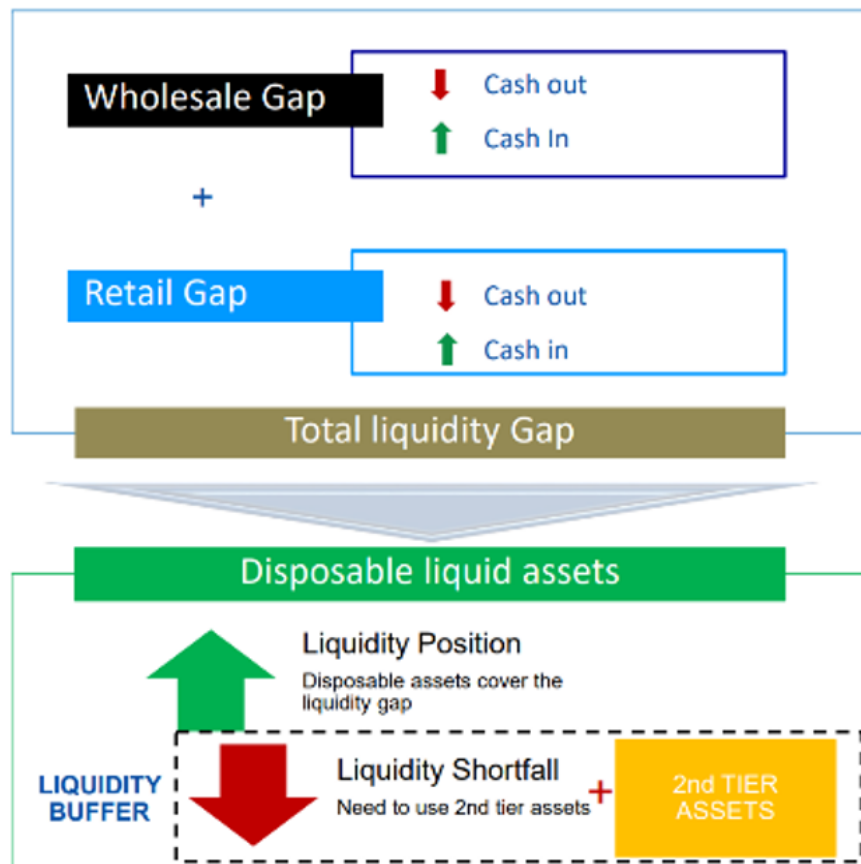
■ Liquidity Stress Test

- Base Scenario:
 - Systemic Crisis
 - Entity Crisis
 - Entity + Systemic Crisis (Worst case)

1.6.1. Takeaways

- Challenges in the banking industry
 - Profitability (Low rates and Fee Income)
 - Efficiency (Cost Control)
 - Regulation (Higher compliance costs)
 - Balance Diversification (Risk profile)

- Capital and Liquidity
- Transformation (Customer exp., IT, Distribution model, digitalization)



Capítulo 2

Underwriting and IPO

What is Investment banking?

Definition: A bank to corporations that assists in issuing debt and equities securities, facilitates mergers and acquisitions and in general terms provides high-end financial advisory services

Engineering	Finance
Asset Management	Corporate & Workplace Solutions
Legal	Global Markets
Internal Audit	Corporate Treasury
Risk	Human Capital Management
Controllars	Tax
Global Compliance	Firmwide Strategy
Investment Banking	Operations
Global Investment Research	Executive Office
Conflicts Resolution Group	Consumer and Wealth Management

Tabla 2.1: Investment Banking Divisions

2.0.1. Core divisions

- Global Markets: Enables our clients to buy and sell financial products, raise funding and manage risk
- Asset management: Provides investment management solutions across al major asset classes to a diverse set of institutional and individual clients
- Investment Banking: Provides a broad range of investment banking services to a diverse group of client, including corporation, financial institutions, entrepreneurs, asset managers, and governments.
- Global investment banking: Delivers client-focused research in the equity, fixed income, currency and commodities markets.
- Consumer and Wealth management: We empower our clients and customer around the world to reach their financial goals

2.0.2. Complexity of Credit Suisse

- Chairman resigns for breaking Covid rules.
- Tuna bonds scandal: The swiss bank was fined nearly \$350m by global regulators in Oct 2021 after pleading guilty to wire fraud in a long running scandal that pushed the country of Mozambique “into financial crisis”
- Default of Archegos hedge fund: The bank loss \$5.5 bn when it collapse in early 2021
- Greensill Capital collapse: The bank was forced to suspend \$10bn of investor funds in march 2021 when the British supply-chain lender collapse
- Corporate spying: Credit Suisse CEO was forced to leave in March 2020 after an investigation found it had spied on two of its employees.
- US sanction breaches: Was fined \$36m in 2009 for violating US sactions against Iran and others
- Covering for dictators: In 1995 they hold nearly \$0.5bn for Philippine dictator Ferdinan Marcos.

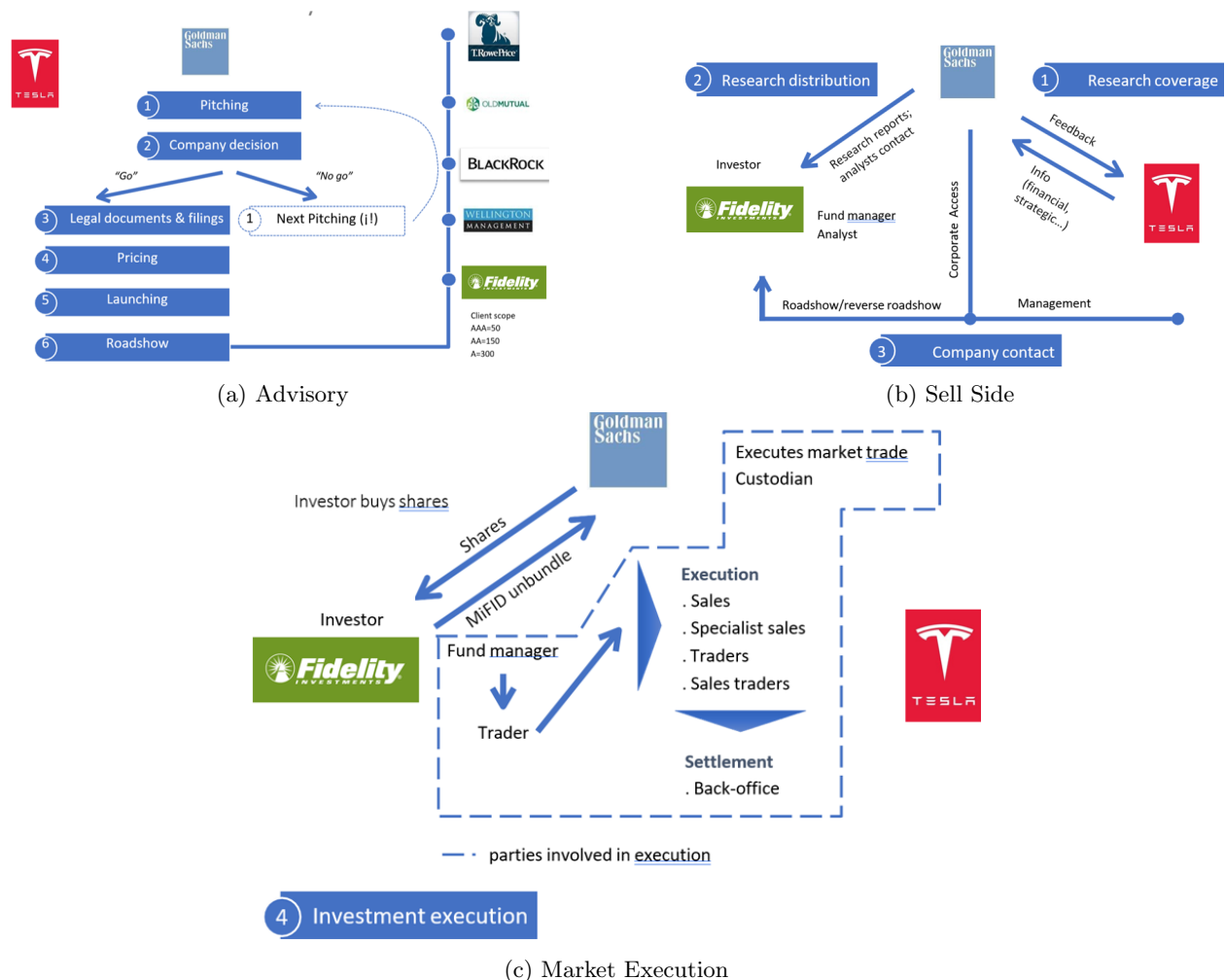


Figura 2.1: Investment Banking transactions

2.1. Underwriting

The term “underwriter” means any person who has purchased from an issuer with a view to, or offers or sells for an issuer in connection with, the distribution of any security, or participates or has a direct or indirect participation in any such undertaking, or participates or has a participation in the direct or indirect underwriting of any such undertaking.

2.1.1. Risk Corporate Governance

- **Identify:** Pinpoint potential risks that could impact the organization, considering both internal and external factors.
- **Measure:** Quantify the identified risks to understand their potential impact and likelihood, employing statistical models and historical data.
- **Manage:** Implement strategies to mitigate, transfer, accept, or avoid risks, tailored to the organization’s risk appetite and objectives.
- **Monitor:** Continuously observe and assess risk exposure, ensuring management strategies remain effective and adapting to new risks as they arise.
- **Report:** Regularly communicate risk assessments, management strategies, and monitoring outcomes to stakeholders, fostering transparency and informed decision-making.

Tasks:

- Competitive/economic risks
- Commercial risks/ (underwriting risk)
- IT risks
- Operational risks
- Conduct risks
- Compliance risk

2.2. IPO process – basic of IB

2.2.1. Functions

- Underwriter
- Balance sheet provider Risk taker
- Advisor – strategic and tactical
- Sales/ marketing
- Relationship manager

2.2.2. Team members

- Managing Director FIG
- Managing Director ECM
- VPs
- Associates
- Analysts

2.3. Underwriting a Capital Increase

2.3.1. Invitation to Participate

Why raising capital

- Right fundamentals
- An appealing equity story
- Shareholder friendly mindset
- Right corporate governance

IB League

Team Assembly

2.3.2. RFP (Request for Proposal)

Underwriting Commitment Letters

The problem with these is that it looks like a beauty contest, due to all IBs will make an offer on it based on:

- Market analysis
- Transaction Rationale
- Equity story draft
- Credentials (lead tables)
- Commitment Letter

And the main problem with commitment letters is that there is no price in those.

What will investment bankers consider in order to commit and IPO?

- Underwriting appetite
- Lead table
- Fees to be made
- Relationship with the company

- Company governance
- Environmental record

2.3.3. Syndicate/Fees

- Global coordinators: 'Run' the transaction. Underwrite the largest amount. Strongest relationship with the issuer
- Joint book runners: Underwrite. Take orders for the book. Help in roadshow. Coordinate with Global
- Lead managers: Underwrite. Reserved for small and boutique investment banks

Underwriting covers subscription risk only

2.3.4. NDAs

- Syndicate Member Pulls Out (abandons transaction)
- Proprietary Information (financial models)
- Commercial Secrecy (intellectual property)
- Transaction Leaks (could lead to cancellation)
- Conflicts Of Interest (but Chinese walls are effective)

2.3.5. Kick-off Meeting/Calendar

week	1	2	3	4	5	6	7
Business financial	Structural and technical analysis						
	Legal and financial DD						
Docu mentation	Hire legal counsel						
	Drafting sessions /underwriting						
Mkting	Develop equity story						
Offering / Pricing	Initial discussions on price and structure						
week	8	9	10	11	12	13	14
Business financial						DD update	Launch
							Launch
Docu mentation						Prospectus	Launch
	Present filing to regulators						Launch
Mkting	Equity story			Investor targeting		Pricing	Launch
Offering / Pricing					Syndicate		Launch
							Launch

2.3.6. Due Diligence

1. The aim of the due diligence is to provide comfort to the banks ahead of the underwriting
2. It consists of (hundreds of!) questions about all aspects of the company. Strategy, sector, tactical, finance...

3. It is rare that the syndicate outsmarts the company in the due diligence. It is, however, an internal and legal safety net for the underwriting banks
4. The VDR (Virtual Data Room) is the electronic repository of documentation for the Due Diligence

2.3.7. Document Drafting

Drafting Session

1. Sessions to discuss the contents of the prospectus, which are key to marketing the deal and fulfilling the legal requirements
2. There is no set number of drafting sessions but normally there are 2/3 with top management involved. The senior leader teams invest many hours in the prospectus
3. In IPOs the drafting sessions are more complex because there is not so much available public data for the legal counsel to rely on and hence they require more company interaction (equity story creation)

Underwriting Agreement (UA)

1. Establishes the conditions for the underwriting by the investment banks
2. Most delicate document from the transaction legal perspective (safety net for the banks risking their balance sheet)
3. An underwritten deal is normally a boost of confidence for the transaction

Company Presentation

1. Portrays the equity story of the company and is a very important selling tool for the transaction
2. Ought to be punchy and to the point. Most likely the only document most investors will look at!
3. Subject to legal restrictions, for example that it cannot be left behind with investors
4. The company holds the pen!

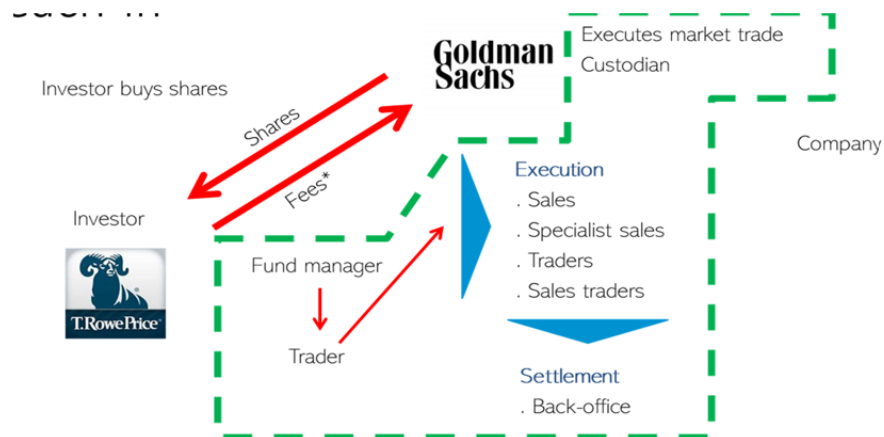
Legal/Audit Opinion

1. The aim of the audit opinion is to provide legal comfort to the relevant parties in the deal that the prospectus has been drafted according to law and accounting principles (“comfort letter”)
2. The audit opinion shapes the information in the prospectus and therefore also in the presentation
3. If data cannot be traced back to specific documents, the auditor will not approve it, risking the transaction

2.3.8. Roadshow

Example: 5 days in US, 5 days in UK, 1 day in EU / 65 investors / 2 teams

2.3.9. Teach-ins



2.3.10. Bookbuilding

1. This is a very delicate part of the deal and requires careful management. Already in execution mode, sales desks take orders and provide feedback to investors, influencing momentum. It's a price discovery process.
2. Banks collect the orders for the books. Sometimes with a price indication (if the price is open, otherwise a closed bid)
3. Customer lists are split amongst investment banks, often not an easy process as the market is rather concentrated
4. Several updates are sent to the company during the transaction and about 300-400 institutional investors are typically contacted

2.3.11. Investor Allocation

1. The company has contractual discretion in the assignment of the book to investors
2. This is a point of conflict for investment banks where companies are the weakest link
3. If management has no capital markets experience, an advisor can help define the starting company investor profile

Fit & Finish (F&F)

1. Also called “directed share program”, sits outside of the bookbuilding allocation
2. It’s a way to reward employees, friends, and associates in the IPO process
3. Typically it is less than 5 % of the total NOSH

2.3.12. Pricing

1. Listen to the feedback from the bookbuild
2. Listen to the feedback from the roadshow

3. Trust the experience of the syndicate, within reason
4. Add a good dose of common sense
5. Remove excess greed

Green Shoe

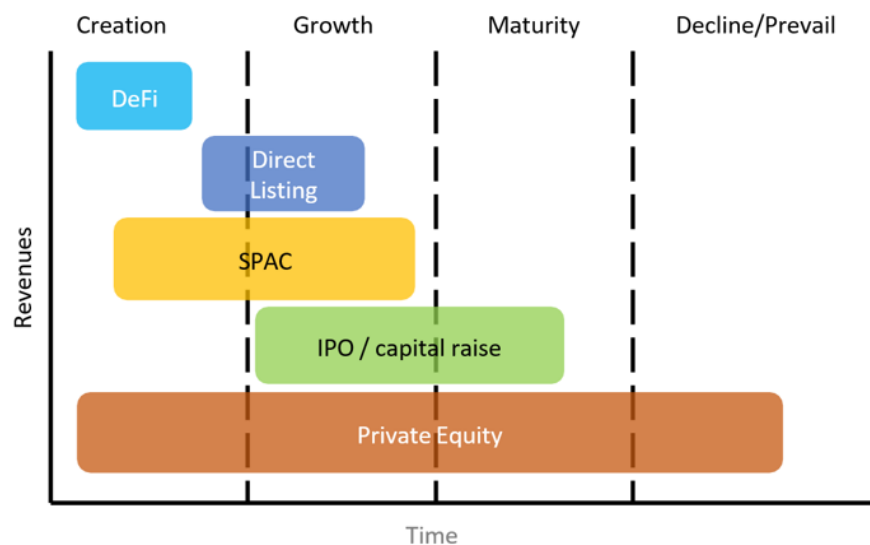
This grants the underwriter the right to sell more shares than originally planned if the demand for a security issue proves higher than expected. It is also called an over-allotment option.

- Stabilizing mechanism
- Up to 15 % additional stock
- Green shoe / rev. green shoe

2.3.13. Go/No Go Call

2.3.14. Shares Go Live

2.3.15. Underwriting Competitors



IPO vs Direct Listing

IPO

process

- 1 Decision to List
- 2 Beauty contest
- 3 Syndicate / fees
- 4 NDAs
- 5 Kick-off meeting / Calendar
- 6 Due diligence
- 7 Document drafting:
- 8 Investor day Roadshow
- 9 Teach-ins
- 10 Bookbuilding
- 11 Investor allocation
- 12 Price reference / Pricing
- 13 Go / no go call
- 14 Shares go live

direct listing

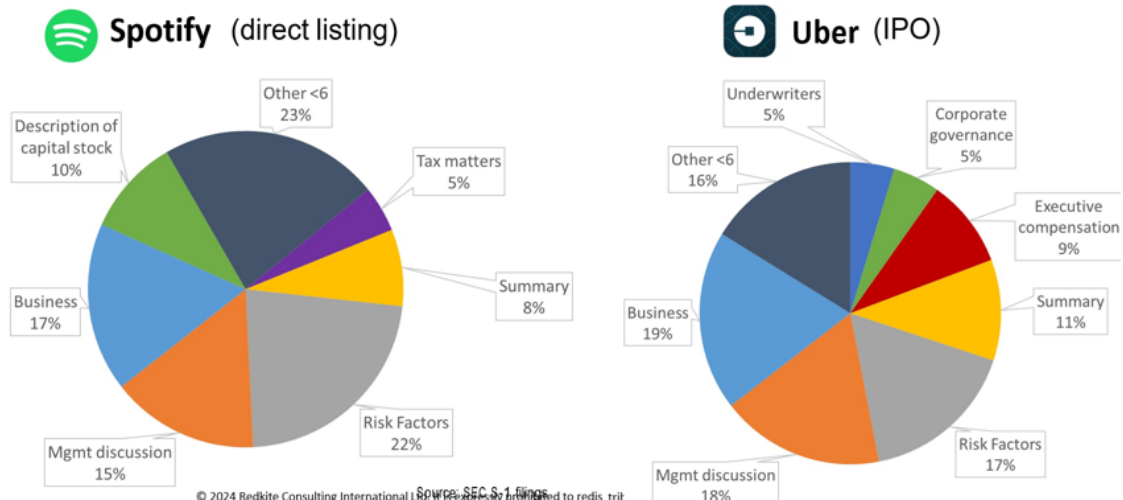
process

- 1 Decision to List
- 2 Beauty contest
- 3 Syndicate / fees
- 4 NDAs
- 5 Kick-off meeting / Calendar
- 6 Due diligence
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- 8 Investor day Roadshow
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- 11 Investor allocation
- 12 Price reference Pricing
- 13 Go / no go call
- 14 Shares go live

If direct listing, there are some must:

- SEC Form S-1 (prospectus) lens

- No need to raise capital
- No need to educate investors
- No 180-day lockup period
- Easier to retain voting power (class B shares)
- Higher retail participation vs institutional



2.3.16. Primary Direct Listing

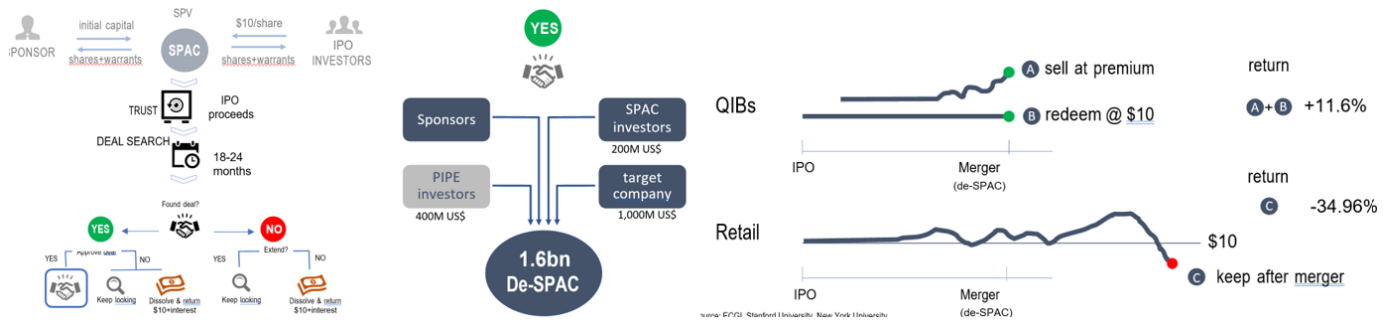
It is prospective purchasers of shares are able to place orders with their broker-dealer of choice at whatever price they believe is appropriate, but will have priority for purchases at the minimum offering price specified in the related prospectus.

SEC Commission Criticism to Primary Direct Listing:

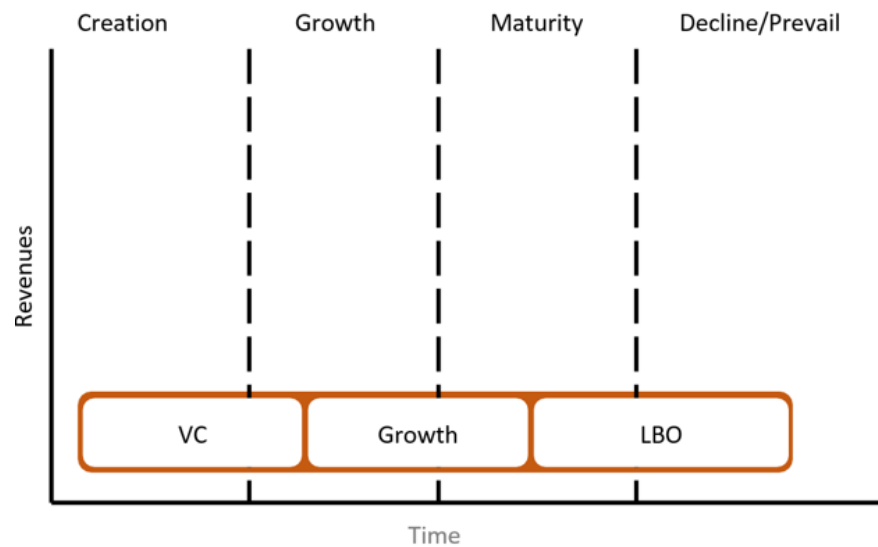
- No gatekeeper
- Underwriter Due Diligence
- Investor safety
- Section 11 liability “traceability”

2.3.17. SPACs

Are formed to raise money through an initial public offering (IPO) to buy another company.



2.3.18. Private Equity



Capítulo 3

Creating value in a merger

There are many ways to create value in a merger.

Every Private Equity in the world use the formula:

$$EV = MV + Debt - Cash$$

Goodwill

question for the exam: difference between book value and market value when generating goodwill.

Every year the goodwill must undergo an impairment test, where the goodwill is reevaluated and if the auditors determine that the goodwill does not have value anymore you need to write it off.

A reverse triangular merger is when a company trying to acquire another company does not buy the company directly but it does it through a subsidiary.

American banks have been able to survive the great financial crisis and are delivering ok ROE (around 18 %). However European banks are very behind, delivering ROEs of 8 %-9 %.

Mergers: Paying cash vs paying shares

When a bank acquires another bank paying with cash, it will obtain all the assets of the acquiree and thus its RWAs will significantly increase. This is the main reason why banks issue capital to do this types of transactions.

When a bank issues equity to buy another company, this transaction can be diluting or accretive. Accretion occurs when the EPS after the merger is larger than before. For example if you pay a premium with respect to the book value (let's say the book value is 100 and you pay 120 for the company).

3.1. Merger Market Value - paper example

** Considerations from merger model **

When you compute the ROE, you should take the average of this year and last year because P&L and BS have to be homogenized.

Exam question

If you are able to do an accretive transaction and prove to the market that is accretive in the next 3 years you are good. If it is diluted you will have to justify synergies.

- At best you will be able to cut 50% in cost synergies and a minimum required will be 15-20%. Cost synergies are measured as a percentage of the target and revenue synergies are measured as a percentage of the combined -

-

What is value?

- Market Value: Number of shares x share price
- Enterprise value (EV): $EV = \text{Market value} + \text{Net Debt (Debt - Cash)}$
- EV / EBITDA
- Fair Value: 'the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date'
- Estimating fair value requires judgment

Fair value and goodwill impairments

- Goodwill arises when an asset is acquired above its book value
- Auditors carry out impairment tests to ensure assets are carried at fair value
- Companies impair their assets to ensure book value is not above fair value
- Badwill (bargain purchase) arises when an asset is acquired below its book value

Book Value

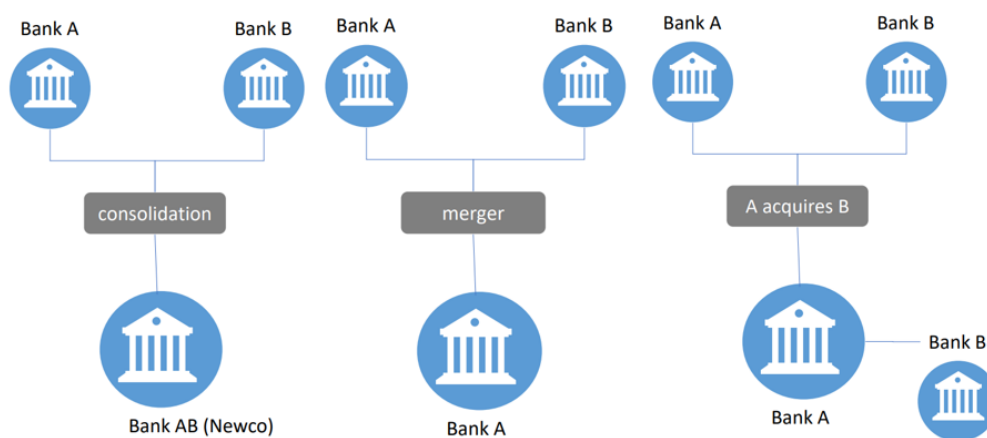
- 'the monetary amount at which an asset is registered in the accounting ledger'
- 'the original purchase cost minus depreciation and impairments'

Shareholder Value

- Fundamentals (Recurrent Earning, Reputation, business acumen, reactive performance)
- Investment Value
- Going Concern Value
- Gone Concern Value
- Liquidation value
- Firesale value
- Break-up value
- Resolution value

Type of Mergers

Figura 3.1: Merger vs Acquisition



- Horizontal: Same sector expand offering. e.g., bank buys another bank
- Vertical: Same sector improve efficiency. e.g., bank buys credit card business
- Conglomerate: Cross-sector service expansion new customer base. e.g., bank buys fintech company
- Concentric: Cross-sector service expansion same customer base. e.g., bank buys insurance company
- Reverse Triangular Merger: Acquiror, target, and subsidiary. Connected.

Bank Profitability Equation

$$\frac{\text{Net Interest Income (revenues)}}{\text{Capital}} = \text{Return on Equity (ROE)}$$

Figura 3.2: To value or not to value

Goldman Sachs			Bank of America		
	2000	2023		2000	2023
Net income (US\$bn)	3.06	7.9	Net income (US\$bn)	7.86	24.8
Total Assets (US\$bn)	290	1,641	Total Assets (US\$bn)	642	3,180
Total Equity (US\$bn)	16.53	117	Total Equity (US\$bn)	47.6	291
ROE (%)	18.5%	6.7%	ROE (%)	16.5%	8%
ROA (%)	1.1%	0.4%	ROA (%)	1.2%	0.7%
Cost income ratio	47%	74%	Cost income ratio	54%	67%
EPS (US\$)	6.33	23.0	EPS (US\$)	4.87	3.10
NOSH (M)	484	346	NOSH (M)	1,614	8,028

Figura 3.3: Accretion example

Company A		Company B	
Net profit	200	Net profit	100
Shares	10	Shares	10
EPS	20	EPS	10
Company A+B			
Net profit	300		
Shares	20		
EPS	15.0		
Accretion	-25%		

Figura 3.4: Goodwill example

Target company				Consideration	150		
Cash	50	Trade payables	50	Ledger entry			
Stock	50	Debt	50	Assets	200	Liabilities	100
Fixed Assets	100	Capital	100	Goodwill	50	Cash (payment)	150
Total Assets	200	Total liabilities	200	Total Debit	250	Total debit	250
				Consideration	80		
Book value				Ledger entry			
Total assets	200			Assets	200	Liabilities	100
Total liabilities	100					Cash (payment)	80
Net assets	100					Income (badwill)	20
				Total Debit	200	Total Credit	200