PMC

Portfolio Management Club

Learning Session I - Spring 2023

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NOVA SCHOOL OF BUSINESS & ECONOMICS

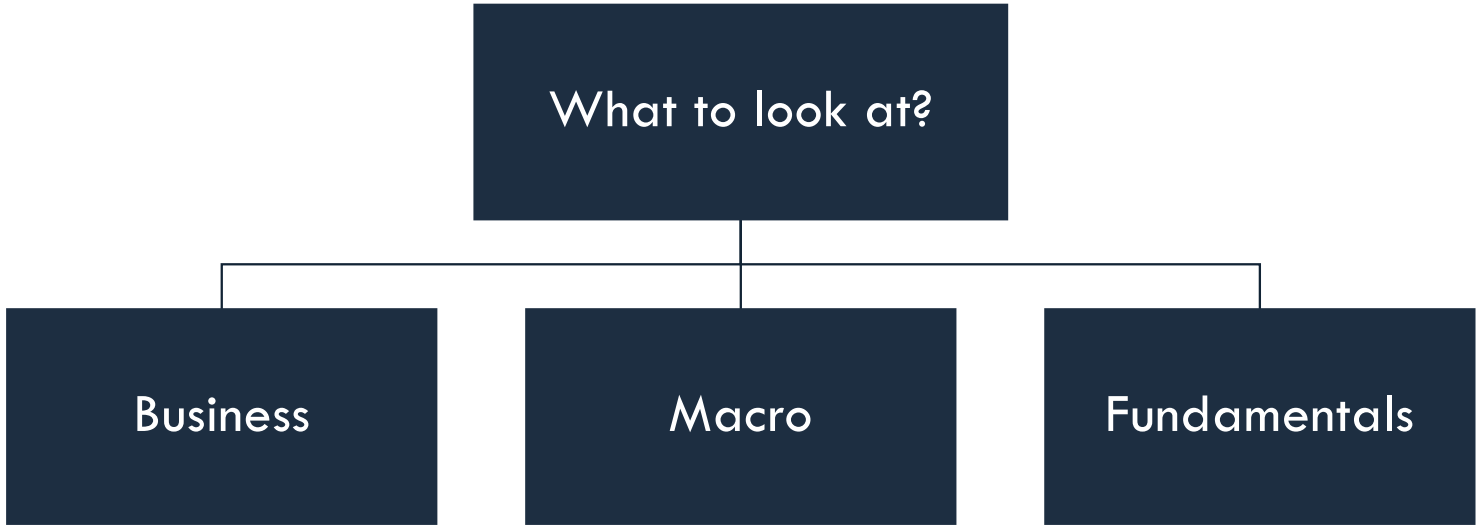
Agenda

What we are going to discuss

1. Information Sources
2. How to choose a firm?
3. Understanding the business
4. Understanding the macro context
5. Understanding the company
    - 5.1 Types of Company Analysis
    - 5.2 Types of Fundamental Analysis
    - 5.3 Financial Statements – the Balance Sheet
        - 5.3.1 Key Captions
        - 5.3.2 Key Ratios
    - 5.4 Financial Statements – the Income Statement
        - 5.4.1 Key Captions
        - 5.4.2 Key Ratios & Analysis
    - 5.5 Financial Statements – the Cash-Flow Statement
        - 5.5.1 Key Captions
6. Finding Risks and Mitigants
7. Putting it all together – The Valuation
    - 7.1 Absolute Valuation
    - 7.2 Relative Valuation
8. Making our Case – The Investment Thesis
9. Wrapping it up – The Recommendation
10. Collecting the Information – Bloomberg Codes

Where it all starts…

How to choose a firm?



Understanding the Business

Allows you to better capture a sense of how the firm works and what you might find in the Financial Statements

Key questions	Applied example – KB Home
Does it operate through a supply chain or is it just part of one?	Just delivers the house, not responsible for the construction material
Where does the firm operate?	Only in the United States, **dividing revenues** by US region
What kind of products/services does it provide?	Focuses on homebuilding and insurance for properties
What are the main segments, geographies or both?	Division of revenues per segment and geography
What has been new about the firm recently?	**Management Discussion** – re-sequencing construction
What has the firm done to stand out from competition?	Bargaining power to deal with suppliers, orders inventory in advance
What has been the current strategy of the firm?	The firm focuses on accelerating the delivery of houses due to Covid
Has the firm been paying any dividends or done stock buybacks?	The dividend yield of the firm is 1.7%
Does the firm have a good management team?	Some members have over 25 years of experience in the field
Has the firm completed recent Mergers or Acquisitions?	The last major acquisition occurred in 2003
What are the key shareholders of the firm?	Mostly institutional investors, including BlackRock, Vanguard, Fidelity

Understanding the Macro(economic) Environment

Allows you to understand what affects the business other than the business itself

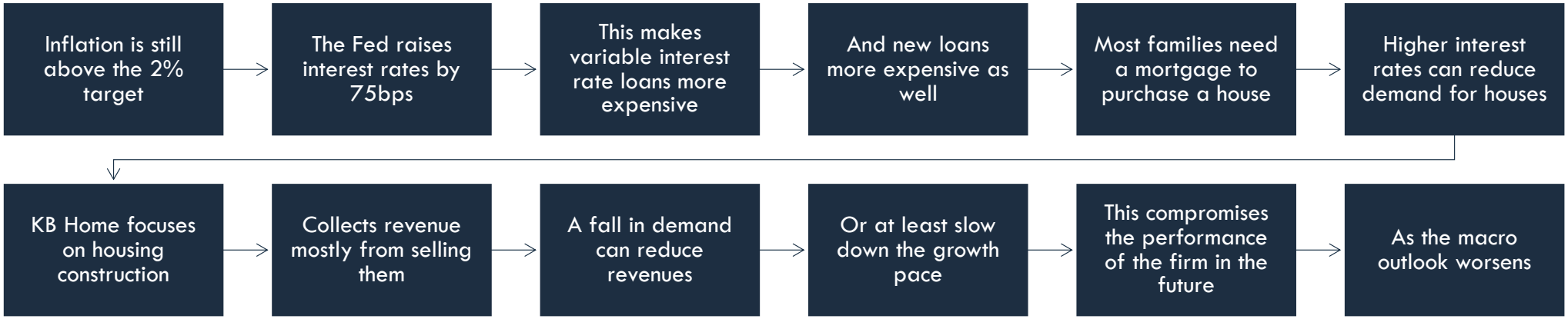
Why does macro matter?

- Because the economic environment affects the way the firm performs
- Because macro also relates to other events such as geopolitical or pandemics, which also affects the market
- Because the firm operates in a geography or industry, affecting the outlook

Key things to look at

- The Macro Overview
- Central Bank decisions - local central bank, the ECB and the Fed
- Key macro data (consumer confidence, spending, government data, unemployment statistics, inflation reports, PMI, others)
- Key prices: housing market, commodities
- What you consider also depends on the industry/company

Applied example – KB Home



Understanding the Company

Types of Company Analysis

Types of Company Analysis

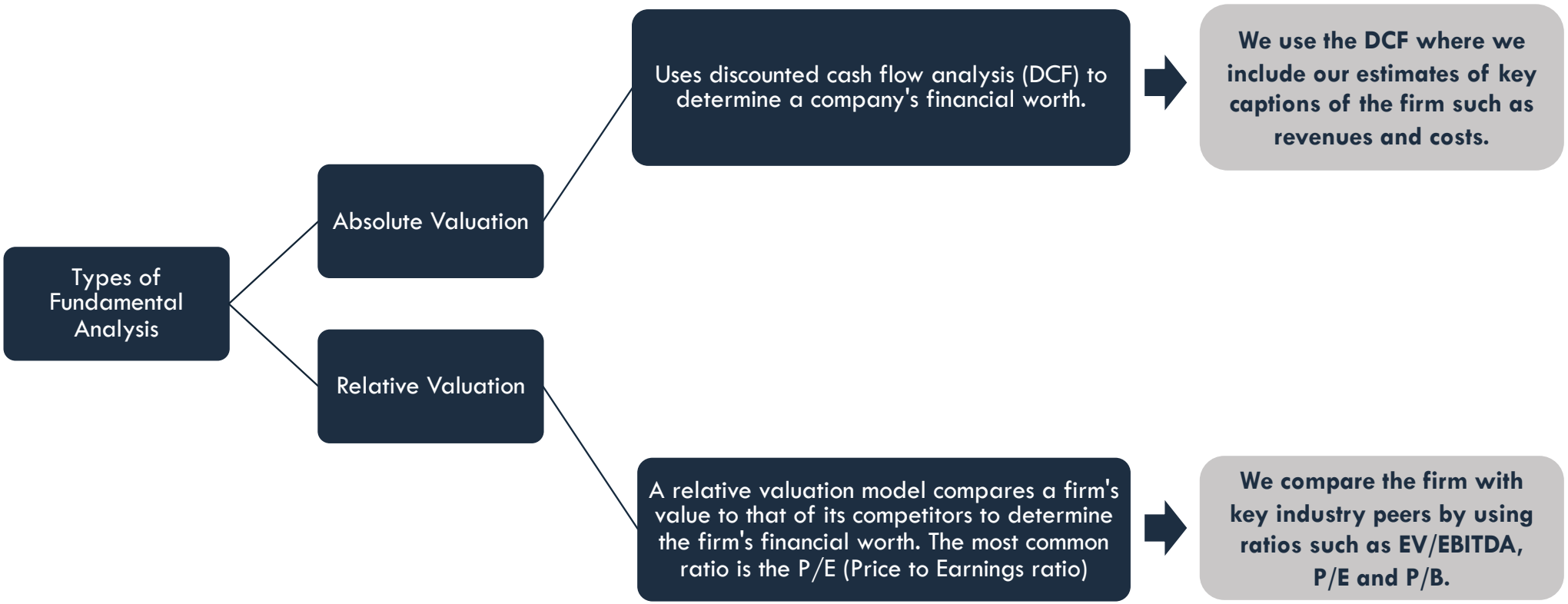
- Technical
  - Evaluates investments through price trends and patterns seen on charts. It assumes that past trading activity and price changes can be indicative of the security's future price movements.
- Fundamental
  - Seeks to determine a stock's real or "fair market" value. Looks at the business and the financial statement analysis.

What we focus on at PMC

Source: Investopedia

Understanding the Company

Types of Fundamental Analysis



Source: Investopedia

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Understanding the Company

Financial Statements – The Balance Sheet – Key Captions 1/2

Air Products provides industrial gases, related equipment, and applications expertise.

(Millions of U.S. Dollars, except for share and per share data)	2022	2021
Assets		
Current Assets		
Cash and cash items	**$2,711.0**	$4,468.9
Short-term investments	**590.7**	1,331.9
Trade receivables, net	**1,794.4**	1,451.3
Inventories	**514.2**	453.9
Prepaid expenses	**156.8**	119.4
Other receivables and current assets	**515.8**	550.9
Total Current Assets	**6,282.9**	8,376.3
Investment in net assets of and advances to equity affiliates	**3,353.8**	1,649.3
Plant and equipment, net	**14,160.5**	13,254.6
Goodwill, net	**823.0**	911.5
Intangible assets, net	**347.5**	420.7
Noncurrent lease receivables	**583.1**	740.3
Other noncurrent assets	**1,641.8**	1,506.5
Total Noncurrent Assets	**20,909.7**	18,482.9
Total Assets	**$27,192.6**	$26,859.2

These are generally the most liquid assets in the balance sheet, generally ordered from the most liquid to the least

These are the least liquid assets, which means that attempting to sell them in exchange for cash would be more difficult

Cash and Cash items	Very liquid and useful for business operations, but more is not necessarily best
Trade Receivables	The balance of outstanding debts from clients to the company
Inventories	Includes raw materials, finished products and others for the operations
Plant & Equipment	Fixed assets to be used in the operations and deliver goods and services
Intangible assets	Includes copyrights, patents and licenses to produce and sell products or others

Source: 2022 Air Products Annual Report

Understanding the Company

Financial Statements – The Balance Sheet – Key Captions 2/2

Air Products provides industrial gases, related equipment, and applications expertise.

Liabilities and Equity		
Current Liabilities		
Payables and accrued liabilities	**$2,771.6**	$2,218.3
Accrued income taxes	**135.2**	93.9
Short-term borrowings	**10.7**	2.4
Current portion of long-term debt	**548.3**	484.5
Total Current Liabilities	**3,465.8**	2,799.1
Long-term debt	**6,433.8**	6,875.7
Long-term debt – related party	**652.0**	274.6
Other noncurrent liabilities	**1,691.2**	1,640.9
Deferred income taxes	**1,247.4**	1,180.9
Total Noncurrent Liabilities	**10,024.4**	9,972.1
Total Liabilities	**13,490.2**	12,771.2
Commitments and Contingencies - See Note 16		
Air Products Shareholders' Equity		
Common stock (par value $1 per share; issued 2022 and 2021 - 249,455,584 shares)	**249.4**	249.4
Capital in excess of par value	**1,141.4**	1,115.8
Retained earnings	**16,520.3**	15,678.3
Accumulated other comprehensive loss	**(2,786.1)**	(1,515.9)
Treasury stock, at cost (2022 - 27,616,888 shares; 2021 - 28,058,829 shares)	**(1,981.0)**	(1,987.9)
Total Air Products Shareholders' Equity	**13,144.0**	13,539.7
Noncontrolling Interests	**558.4**	548.3
Total Equity	**13,702.4**	14,088.0
Total Liabilities and Equity	**$27,192.6**	$26,859.2

The accompanying notes are an integral part of these statements.

Payables	Debts mostly to suppliers and other non-financial creditors
Borrowings	Financial debt issued by banks, can be short or long-term
Lease Liabilities	Debt related with leasing contracts of property, for instance

The current liabilities are those who are set to be paid under a period until 12 months.

The non-current liabilities are those who are set to be paid under a period of more than 12 months.

It is the "residual balance" of the Balance Sheet. The most important components are generally Retained Earnings and Share Capital (Common Stock in this case).

In Summary:
The Balance Sheet provides an overview of the assets and commitments of the firm both in the short term and in the long term. It is informative of the financial position.

Source: 2022 Air Products Annual Report

Understanding the Company

Financial Statements – The Balance Sheet – Key Ratios (1/3)

It is important to understand the ability to meet its short-term obligations – Liquidity Analysis

(Millions of U.S. Dollars, except for share and per share data)	2022	2021
Assets		
Current Assets		
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Current Ratio

Firm's ability to pay all current liabilities with existing current assets

$$\frac{Current\ Assets}{Current\ Liabilities} = \frac{6\,282.9}{3\,465.8} = 1.81$$

Quick Ratio

Firm's ability to pay all current liabilities without selling inventory

$$\frac{Current\ Assets - Inventories}{Current\ Liabilities} = \frac{6\,282.9 - 514.2}{3\,465.8} = 1.66$$

Cash Ratio

Firm's ability to pay all current liabilities using cash only

$$\frac{Cash\ and\ cash\ items}{Current\ Liabilities} = \frac{2\,711}{3\,465.8} = 0.78$$

Key Notes

Current Ratio	Should be above 1 as a rule of thumb, but one needs to compare with peers to get a better perception
Quick Ratio	More demanding and more relevant for firms that depend on selling inventory
Cash Ratio	More interesting to compare with the industry, but no general rule. The most demanding of all ratios

Net Working Capital

What would be the amount of capital available after meeting all short-term obligations and transforming all current assets into cash

Current assets – Current liabilities =

= 6 282.9 – 3 465.8 = **2 817.1 million dollars**

Source: 2022 Air Products Annual Report

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Understanding the Company

Financial Statements – The Balance Sheet – Key Ratios (2/3)

While the firm can have liquidity, it might struggle to generate cash flows in the future – Cash-Flow Management Analysis

(Millions of U.S. Dollars, except for share and per share data)	2022	2021
Assets		
Current Assets		
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Total Current Liabilities	**3,465.8**	2,799.1

(Millions of U.S. Dollars, except for share and per share data)	2022	2021	2020
Sales	**$12,698.6**	$10,323.0	$8,856.3
Cost of sales	**9,338.5**	7,186.1	5,858.1

Average Collection Period

How long it takes for the firm to get paid after selling the product

$$\frac{Trade\ Receivables}{Sales} * 365 = \frac{1\,794.4}{12\,698.6} * 365 = 52 \text{ days}$$

Average Holding Period

How long it takes for the firm to get rid of its inventory

$$\frac{Inventories}{Cost\ of\ sales} * 365 = \frac{514.2}{9\,338.5} * 365 = 20 \text{ days}$$

Average Payable Period

How long it takes for the firm to pay to the suppliers

$$\frac{Payables}{Cost\ of\ Sales} * 365 = \frac{2\,771.6}{9\,338.5} * 365 = 108 \text{ days}$$

Key Notes

Average Collection Period (ACP)	The higher, the longer it takes for the firm to get paid by its costumers, putting pressure on its liquidity position
Average Holding Period (AHP)	The higher, the longer it takes for the firm to get rid of its inventory, putting pressure on its liquidity position
Average Payable Period (APP)	The higher, the longer it takes for the firm to pay to its suppliers, reducing pressure on its liquidity position

The Cash Conversion Cycle

How long it takes for the firm to generate cash out of its operations:

ACP + AHP – APP = 52 + 20 – 108 = **- 36 days**

Suppliers are financing the firm's operations

Source: 2022 Air Products Annual Report

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Understanding the Company

Financial Statements – The Balance Sheet – Key Ratios (3/3)

We need to understand what financing sources support the operations – Capital Structure and Debt Structure Analysis

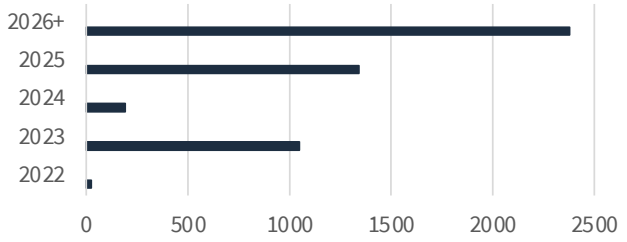
Net Debt/EBITDA	Determines how long it would take to repay the debt if EBITDA could be used as cash to fully repay it	$\frac{Net\ Debt}{EBITDA}$
EBITDA/Interest Expense	Analyses how does the operational result cover for the costs from the financial liabilities	$\frac{EBITDA}{Interest\ Expense}$
Debt/Equity	Evaluates the relative proportion of debt and equity as financing sources for the company	$\frac{Debt}{Equity}$
Solvency Ratio	Registers how much the assets exceed the liabilities, stating the ability of the firm to meet its commitment	$\frac{Assets}{Liabilities}$
Financial Autonomy Ratio	Determines the percentage of assets which are financed by equity	$\frac{Equity}{Assets}$
Altman's Z-Score	It's a measure of solvency. If below 1.8, the company might be headed for bankruptcy; if closer to 3, tends to be a solid company	*Please check the notes

Applied Example – Leidos Holdings

Leidos Holdings is a US provider of services and solutions in the defense, intelligence, civil and health markets.

	2021
Net Debt/EBITDA	3.09
EBITDA/Interest Expense	8.87
Debt/Equity	133.63
Solvency Ratio	1.49
Financial Autonomy Ratio	0.33
Altman's Z-Score	4.7

On the left, some examples of key financial stats applied to Leidos Holdings. On the right, the debt schedule of the firm for the coming years (2022-onwards)



Source: Bloomberg, Leidos Holdings Inc. 2021 Annual Report | Altman's Z-Score Formula: $\frac{1.2 * Working\ Capital + 1.4 * Retained\ Earnings + 3.3 * EBIT + 06 * Sales}{Assets} + \frac{Market\ Cap}{Liabilities}$

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Understanding the Company

Financial Statements – The Income Statement – Key Captions

Walt Disney is a diversified entertainment company in the field of film making, themed parks and other media content.

	2021	2020	2019
Revenues:			
Services	$ 61,768	$ 59,265	$ 60,579
Products	5,650	6,123	9,028
Total revenues	67,418	65,388	69,607
Costs and expenses:			
Cost of services (exclusive of depreciation and amortization)	(41,129)	(39,406)	(36,493)
Cost of products (exclusive of depreciation and amortization)	(4,002)	(4,474)	(5,568)
Selling, general, administrative and other	(13,517)	(12,369)	(11,549)
Depreciation and amortization	(5,111)	(5,345)	(4,167)
Total costs and expenses	(63,759)	(61,594)	(57,777)
Restructuring and impairment charges	(654)	(5,735)	(1,183)
Other income, net	201	1,038	4,357
Interest expense, net	(1,406)	(1,491)	(978)
Equity in the income (loss) of investees	761	651	(103)
Income (loss) from continuing operations before income taxes	2,561	(1,743)	13,923
Income taxes on continuing operations	(25)	(699)	(3,026)
Net income (loss) from continuing operations	2,536	(2,442)	10,897
Income (loss) from discontinued operations, net of income tax benefit (expense) of $9, $10 and ($39), respectively	(29)	(32)	687
Net income (loss)	2,507	(2,474)	11,584
Net income from continuing operations attributable to noncontrolling and redeemable noncontrolling interests	(512)	(390)	(472)
Net income from discontinued operations attributable to noncontrolling interests	—	—	(58)
Net income (loss) attributable to The Walt Disney Company (Disney)	$ 1,995	$ (2,864)	$ 11,054

The presentation of revenues can be broken down also by geography and specific products/services

The cost structure depends on the industry and the also on the way the company is organized (SG&A). Some costs are just for accounting purposes (D&A)

Some additional items can be relevant depending on the amount and frequency. Here we have restructuring costs and income from subsidiaries

In Summary:

The Income Statement includes the compilation of all revenues and costs of the firm. It is mostly and indicator of profitability of the firm.

Source: 2021 Walt Disney Company Annual Report

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Understanding the Company

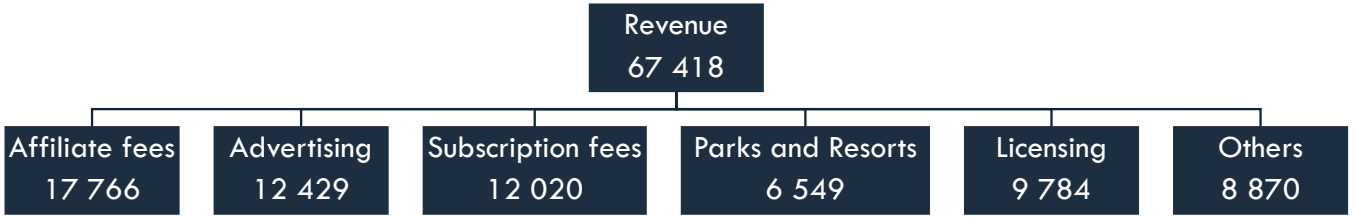
Financial Statements – The Income Statement – Key Ratios & Analysis

We need to understand how profitable the firm is – Profitability Analysis

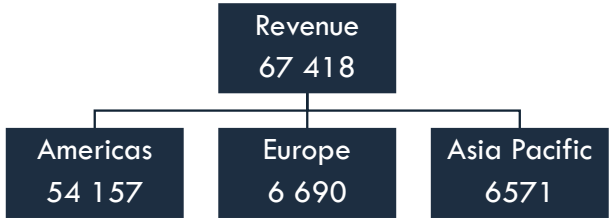
Return on Assets	Determines how much the firm profits per dollar unit of assets	$\frac{Net\ Income}{Assets}$
Return on Equity	Determines how much the firm profits per dollar unit of equity	$\frac{Net\ income}{Equity}$
Asset Turnover	Determines how much revenue the firm collects per dollar unit of assets	$\frac{Sales}{Assets}$
EBITDA Margin	It determines the percentage of sales which is convertible into the operational result	$\frac{EBITDA}{Sales}$
Net Profit Margin	It determines the percentage of sales which is convertible into a profit	$\frac{Net\ Income}{Sales}$
ROIC vs WACC	**The ROIC should be above the WACC for the firm to be creating value**	

Whenever possible, one should have an idea of the evolution and segmentation of revenues and costs

Revenue, by segment, in millions



Revenue, by geography, in millions



Source: 2021 Walt Disney Company Annual Report

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Understanding the Company

Financial Statements – The Cash-Flow Statement – Key Captions

Metro do Porto is a public sector enterprise and the subway of the city of Porto, in Portugal.

Item	Note:	2021	2020
Cash Flows from Operating Activities			
Received from clients		48 786 412	40 577 675
Payments to suppliers		(57 461 931)	(55 395 199)
Payments to staff		(4 530 315)	(5 025 794)
Payments of transfers and subsidies		0	(72 500)
Cash generated by Operations		(13 205 834)	(19 915 818)
Other receivables/payables	4	10 697 673	10 902 235
Cash Flows from Operating Activities (a)		(2 508 161)	(9 013 583)
Cash Flows from Investments			
Payments referring to:			
Tangible Fixed Assets		(93 262)	(268 935)
Intangible Assets		(49 219 235)	(5 138 175)
Financial investments		(14 305 674)	(469 567)
Receivables from:			
Tangible Fixed Assets		0	0
Intangible Assets		81 121	11 736
Investment grants		111 965 934	42 021 903
Cash Flows from Investments (b)		48 428 884	36 156 962
Cash Flows from Financing:			
Receivables from:			
Loans obtained	18.7	541 163 114	165 460 630
Capital increases and other equity instruments		1 017 540	0
Payments referring to:			
Loans obtained	18.7	(422 850 360)	(73 186 614)
Interest and similar expenses	7	(122 638 499)	(95 011 855)
Cash Flows from Financing Activities (c)		(3 308 205)	(2 737 838)
Variation in cash and cash equivalents (a + b + c)		42 612 518	24 405 540
Cash and cash equivalents at beginning of period	4	63 760 475	39 354 934
Cash and cash equivalents at end of period	1.6	106 372 993	63 760 475

The Operating Cash-Flows include all cash-flows which are a direct result of the operations of the firm. In this case, the firm generates a negative OCF.

The Investing Cash-Flows relate with investments or sale of assets/investments in the firm. They can include financial products, property, plant or equipment. In this case, the firm uses the sale of assets to finance its operations.

The Financing Cash-Flows relate to financing sources of the firm, either through equity or debt. It also includes repayment of debt or issuance of debt or equity.

The balance of the statement is the variation of the cash position of the firm.

Source: 2021 Metro do Porto Annual Report

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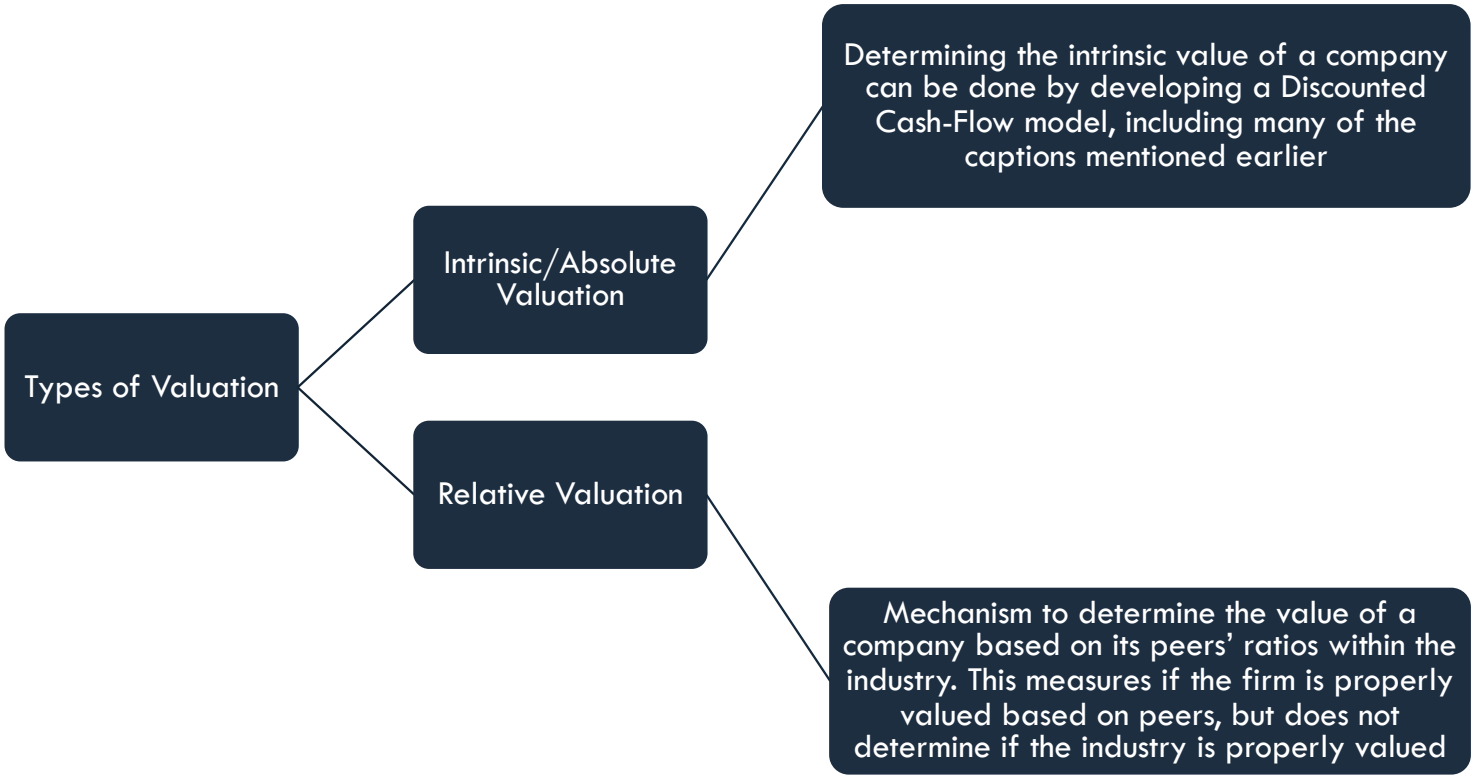
Finding Risks & Mitigants

It is always important to put our analysis in context

Fact	Risk	Company	Mitigant
Current ratio is 1.41 but inventories account for 79% of all current assets	The firm might not be able to meet obligations as easily as one thought	JCPenney	No mitigant, it went bankrupt
Current ratio is 0.88, below the reference value of 1	The firm might not be able to meet its short-term obligations		The firm has a solid market position and easy access to financing
Shareholders' Equity is negative	Assets are not enough to meet the obligations of the firm		Relates to their franchise business and the way the company finances itself
D/E is 5.64 and most of the debt is variable interest debt	The company is excessively indebted and expose to a downturn	Albertsons	Sales have managed to recover fast after the pandemic, near 2019 levels
The TV segment has lost revenue and the Parks' revenue have stagnated	The firm might be headed for a path of stagnation	Disney	There has been a change in the business, focusing on Disney+
There has been a sharp increase in litigation-related costs	The firm's profitability has been severely affected	PG&E	The firm has managed to successfully reduce its losses through restructuring
The investing cash flows of the firm are positive	This signals that the firm does not have capital and needs to sell assets		The firm might simply going through a restructuring process

Putting it all together – The Valuation

Types of Valuation



Source: Investopedia

Putting it all together – The Valuation

Absolute Valuation

Fundamentals	Cash-Flows and Methodology	Risk	Sensitivity
• Collect data on the financial statements, preferably over a period of at least 5 years. • Project the future key captions such as costs, revenues, CAPEX and Net Working Capital.	• Assess the cash-flows generated by the company, in particular the Free Cash Flow (includes operational cash-flow, Net Working Capital and Capex). • One can use the perpetuity method to evaluate future growth of cash-flow based on a specific terminal value (common growth rate of 2% assumed, just as the long-term modern growth rate of the economy). • Can also used EBITDA exit multiple through the EV/EBITDA ratio of the industry, for example, for value the company.	• The Cash-Flows should be discounted under the appropriate discount rate, one often considered is the Weighted Average Cost of Capital (WACC) .	• The valuation techniques should be tested according to different changes in key variables such as interest rates, for instance, in order to assess how credible the final valuation is.

Putting it all together – The Valuation

Relative Valuation

The Relative Valuation uses industry median/average ratios of key metrics to assess the valuation of the company.

Public Storage is a REIT that primarily acquires, develops, owns and operates self-storage facilities.

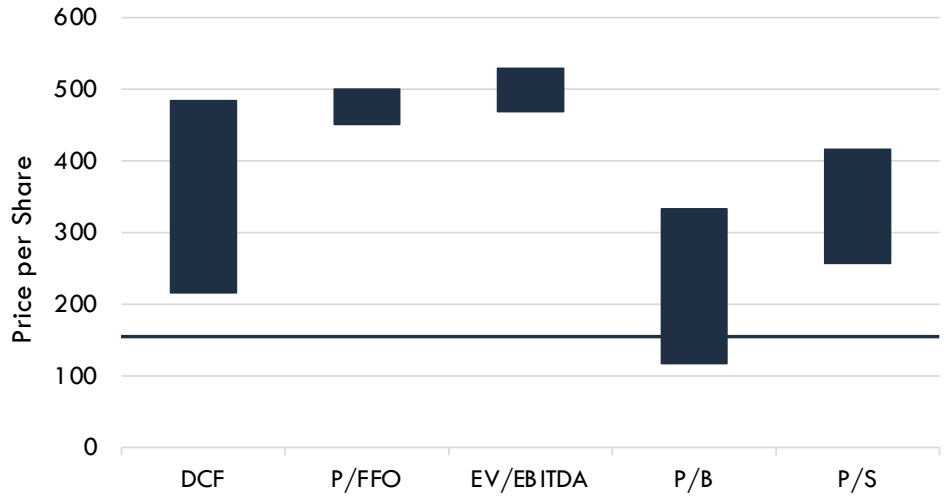
Key Peer Comparison Metrics

Company Name	Market Cap	FFO/Share	P/FFO	EV/EBITDA	P/B	P/E	P/S
Median	***9.1B***	***5.08***	***30.15***	***32.16***	***4.44***	***48.32***	***15.23***
Public Storage	**51.95B**	**13.36**	**28.04**	**32.15**	**12.53**	**38.25**	**19.17**
National Storage Affiliates	4.85B	2.24	30.89	26.88	4.05	70.61	9.59
Extra Space Storage	20.90B	6.91	32.81	33.58	9.74	44.02	19.17
CubeSmart	9.14B	1.93	29.49	32.16	4.44	55.27	14.10
Life Storage Inc	9.03B	5.08	30.15	32.50	3.79	48.32	15.23

Relative Valuation

Relative Valuation	P/FFO	EV/EBITDA	P/B	P/E	P/S
1st Quartile	451.32	469.07	117.17	613.32	256.92
2nd Quartile	473.05	514.15	132.71	720.45	330.34
3rd Quartile	499.73	529.15	332.83	938.44	415.80

Football Field



Applied example – Public storage and P/S

1) Find the median industry value of the ratio (P/S = 15.23) → 2) Determine the company sales (21.69 billion) → 3) Multiply the Sales by the industry median value of the ratio → 4) Get the price P=15.23*21.69=3 330.34 → 5) Compare with the current stock price ($PSA = 289.10) → 6) Conclude the company is undervalued under this scenario

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Making our Case – The Investment Thesis

Explains why a certain security is a good investment opportunity

Some aspects to consider when developing the Investment Thesis

- Why should we invest in this security?
- Why is this security special, why does it stand out from the crowd?
- What are key strengthens that the firm has?
- What is the role the security can play in the PMC's portfolio?
- How does the security fit into the club's goals?
- What are the macro conditions that are particularly favoring the company at the moment?
- What is the value added that the stock can create and how does that compare with the other securities of the existing portfolio?
- What are any particular events that are influencing the outlook of the company (political, economical, social, etc.)?
- Is the valuation relevant for this pitch, or is there a greater focus on the macro context?
- Any other factors which might be relevant to convince the audience

Wrapping it up – The Recommendation

It provides a more specific detail on what we should do

Some aspects to consider when developing the Recommendation

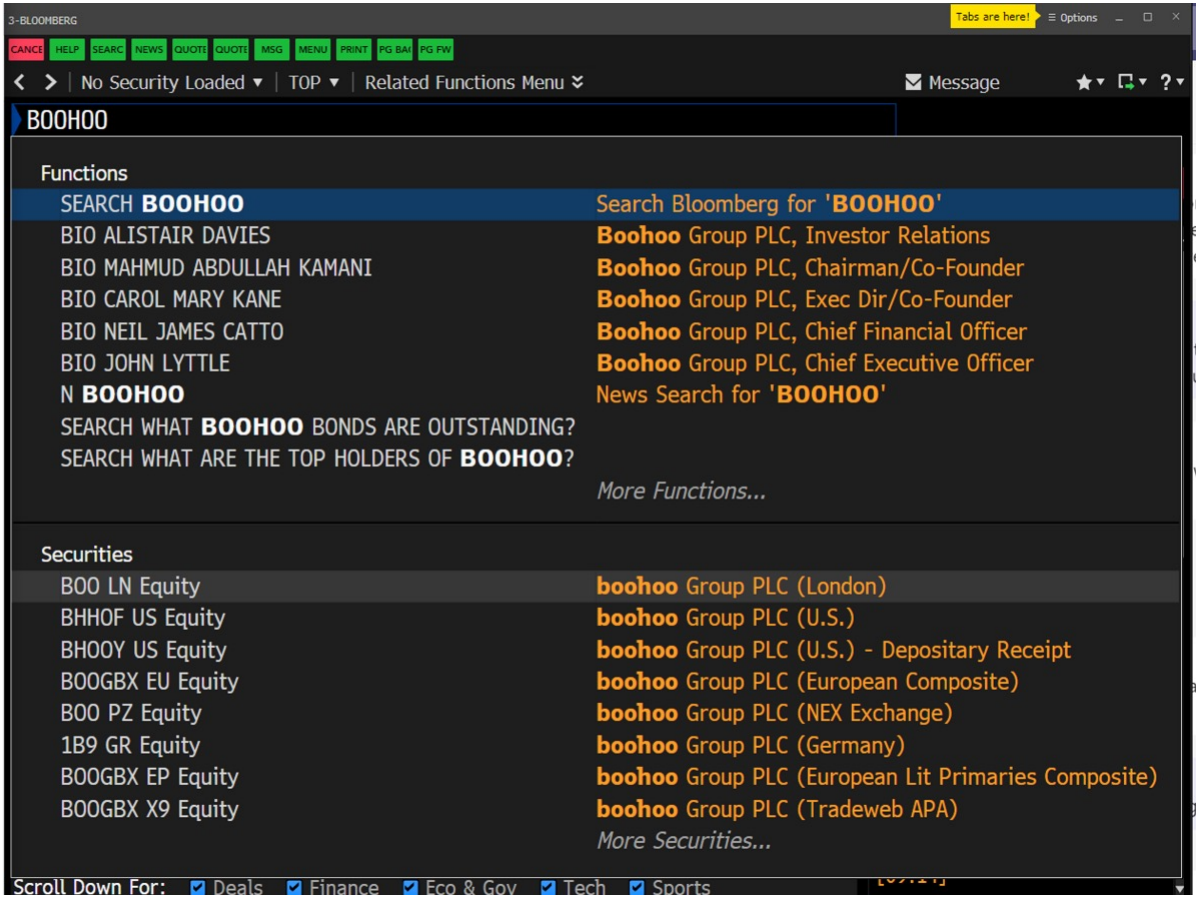
- What should we buy?
- How much should we buy (in percentage of the overall portfolio)?
- What are the funding sources (sell from other securities, use cash, a mix of both)?
- What is the price range that we see fit (stop-losses and take profit)?
- What is the potential upside/downside?
- When should we enact the transaction in the case of approval?
- What information should we be aware of that might force us to act quickly?
- Any another relevant information for the audience.

Collecting the Information – Bloomberg Codes

This is an index of codes that can facilitate the research of a security on Bloomberg (1/9)

This is the search bar at the Bloomberg Terminal. You can either write the function or the security. If you write the security first, all function code will apply to the security you have chosen.

While you may write the code of a function, there is also a section for the securities similar to that code in case you are searching for a security and not a code.



Collecting the Information – Bloomberg Codes

This is an index of codes that can facilitate the research of a security on Bloomberg (2/9)

Economic Indicators

Code	Description
ECO	Economic Calendar
ECSU	Economic Surprise Monitor
CRP	Country's risk premium
WIRP	Interest rates incorporate in the market valuation
IFMO	Inflation monitor
FDTR Index	Fed Interest Rates historical data
FXFC	Forex Forecasts
GEW	Major economic aggregates
ECFC	Economic data for each country
FOMC	FOMC meetings result
GC3D	3D Graph of the Yield Curve
BYFC	Yields Forecast

Collecting the Information – Bloomberg Codes

This is an index of codes that can facilitate the research of a security on Bloomberg (3/9)

Company Data

Code	Description
DES	Description of the company
RSKC	Description of the company and risk analysis
MGMT	Management team of the company
AGGD	Major creditors of the company
DRSK	Bloomberg default risk of the company
DRAM	Evolution of DRSK
PIB	Bloomberg company report
BICO	Analysis on the industry and the company
BRC	Major company headlines
KI	Key company insights
ESG	ESG information of the company
EVT	Calendar Events for the company
SPLC	Company's supply chain and clients

Collecting the Information – Bloomberg Codes

This is an index of codes that can facilitate the research of a security on Bloomberg (4/9)

Company Data (cont.)

Code	Description
DVD	Dividends and Splits information
CF	Company Fillings
DDIS	Debt Distribution of the firm
CAST	Detailed Capital Structure of the company
CRPR	Credit Ratings of the company
CL	Company's litigations
ANR	Analyst Recommendations
TRA	Total Return of the Stock with dividends
OWN	Ownership summary

Collecting the Information – Bloomberg Codes

This is an index of codes that can facilitate the research of a security on Bloomberg (5/9)

Absolute Valuation Tools

Code	Description
EEG	Price versus EPS performance
WACC	WACC of the company
FA	Financial Analysis with data on balance sheet, income statement, cash-flows and ratios
EM	Earnings Trends of the company (past and future)
CCB	Revenue breakdown

Relative Valuation Tools

Code	Description
PEBD	Price and EPS bands
RV	Relative Valuation
RVC	Graphical comparison of RV
EQRV	Equity Relative Valuation
WEI	World Equity Indicators

Collecting the Information – Bloomberg Codes

This is an index of codes that can facilitate the research of a security on Bloomberg (6/9)

Relative Valuation Tools (cont.)

Code	Description
HS	Spread analysis vs S&P500
PBAR	Relative valuation of companies
COMP	Comparative performance of securities and the S&P500
RVRD	Relative debt analysis

Technical Analysis Tools

Code	Description
TECH	Technical analysis
BTST	Back testing tool
BT	Optimization platform for back testing

Collecting the Information – Bloomberg Codes

This is an index of codes that can facilitate the research of a security on Bloomberg (7/9)

Directories

Code	Description
WATC	Stock directory based on criteria
ICS	Stock by sector
MEMB	Stocks in an index
MRR	Stocks by returns
EQS	Equity research based on criteria
SRCH	Bond directory
WB	Sovereign bond directory
GLCO	Commodities directory

General Information

Code	Description
BI	Bloomberg Intelligence

Collecting the Information – Bloomberg Codes

This is an index of codes that can facilitate the research of a security on Bloomberg (8/9)

Currencies

Code	Description
FXCA	Currency converter
FXC	Currency matrix
WCRS MAC	*Valuation* of currency

Bonds

Code	Description
DEBT	Sovereign debt ownership
YAS	Computation of bond yield
WCDM	Outstanding government debt
CSDR	Sovereign bond rates
SOVR	Risk of default in CDS terms for sovereigns

Collecting the Information – Bloomberg Codes

This is an index of codes that can facilitate the research of a security on Bloomberg (9/9)

Portfolio Management

Code	Description
PRTU	Creates a portfolio in the Bloomberg platform
PORT	Manages the portfolio created in PRTU
EQBT	Equity back testing tool

Commodities

Code	Description
OPEC	Monthly oil production
NTBK	Profitability of the refining business

ETFs and Options

Code	Description
FFLO	ETF outflows and inflows
OMON	Options for a specific firm
OVME	Specific data on the options

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