



# **The Investment Club**

## **General Body Meeting #6**


**October 11th, 2023 | 1PM**  
**Harriman Hall 137**

Please Scan the QR code to sign in for today's GBM!



## Game Leaderboard

[Download Rankings](#) 

 Name	Net Worth	Today's Gains	Trades	Total Returns
1 <a href="#">Anthony Smith</a>	\$24,068,805.77	5.93%	394	\$23,068,805.77
2 <a href="#">Kevin Hansen</a>	\$22,054,881.74	5.35%	78	\$21,054,881.74
3 <a href="#">Yichen Lin</a>	\$3,195,533.57	-7.81%	195	\$2,195,533.57
4 <a href="#">Matthew Grimaldi</a>	\$1,076,823.64	0.00%	10	\$76,823.64
5 <a href="#">Alvin Santos</a>	\$1,066,808.01	3.54%	53	\$66,808.01
6 <a href="#">Noah Tover</a>	\$1,048,934.09	1.75%	13	\$48,934.09
7 <a href="#">Tony Zhao</a>	\$1,033,800.88	1.31%	12	\$33,800.88
8 <a href="#">Juan Delgado</a>	\$1,027,914.81	-2.02%	27	\$27,914.81
9 <a href="#">Dan Bin</a>	\$1,025,208.02	-4.77%	25	\$25,208.02
10 <a href="#">Nikhil Dhengle</a>	\$1,025,088.00	3.97%	13	\$25,088.00

## Guest Speaker: Dimitri Bianco (a.k.a. FancyQuant on YouTube)

- Guest Speaker: DIMITRI BIANCO, FRM
  - FancyQuant on YouTube
  - Financial Careers Educator
  - Head of Quant Risk & Research at Agora Data, Inc.
  - B.S. Finance, Washington State University
  - M.S. Applied Economics, University of Michigan
- Date/Time: Wednesday, November 1st, 1PM
- Location: Harriman 137 on Zoom



# Appointed E-Board Position Openings

## Requirements:

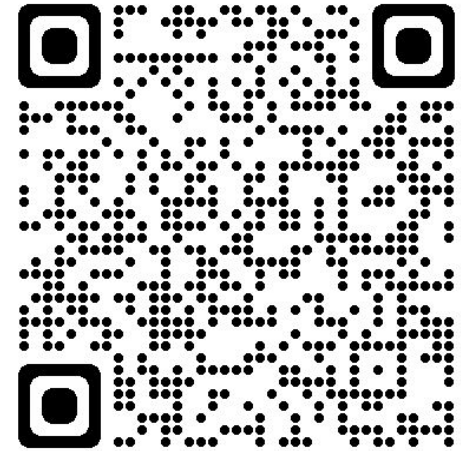
- A strong interest in finance (any major may apply)
- 3.3 Minimum GPA
- Active member (attend over half of meetings)

## Preferred:

- Past e-board experience in other clubs

## Openings:

- Social Media Manager (**portfolio heavily encouraged**)
- (**Potential**) Editor-In-Chief



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## **New Opportunity: Publishing Articles for the Investment club!**

- **Write finance-related editorials/articles/social media posts**
- **After proper editing and fact-checking, we will publish them on our website and/or our social media!**
- **Opportunity to get your name out there and boost your resume**

**This idea is still in the works, so we want your feedback!** Scan the QR code to fill out an interest form.



# Presentation on M&A, LBO, and DCF

## What we'll go over

- What M&A, LBOs (Leveraged Buyouts) and DCFs (Discounted Cash Flows) are.
- The wider scope of M&A.
- Why LBOs and DCFs are relevant to M&A.
- How Financial Firms use LBOs and DCFs.
- What kind of financial job positions use LBOs and DCFs.
- Why it's important for you to know what these two analyses are.
- Ending Thoughts + Q&A.

J.P.Morgan



Deutsche Bank

Morgan  
Stanley

Goldman  
Sachs

## Why you should know about these topics!

- **If you want to work in IB or PE you'll need this knowledge!**
- **In an interview for an IB or PE related role - questions about LBOs, DCFs, what equity and debt is etc. will more than likely come up.**
- **It's good to sound like you know what you're talking about. - Even if the only thing you take away from this presentation is the definitions of some financial jargon, that still will look good in an interview!**
- **Having this knowledge now will better prepare you for when you finally get into that IB or PE role.**

## Exploring Investment Banking: Mergers and Acquisitions

**M&A (Mergers and Acquisitions)** - M&A refers to the incorporation of companies or assets through financial transactions. Examples of these transactions include mergers, acquisitions, takeovers (sometimes hostile takeovers), divestitures, and joint ventures.

- Mergers - When two companies combine to form a new entity.
- Acquisitions - When one company buys another.
- Takeovers - When one company purchases the majority of another company.
- Divestitures - Selling of select parts of a business.
- Joint Ventures - When a company collaborates with another one to form a partnership.



## What M&A does in the corporate world.

- M&A plays a vital role in the corporate world.
- It allows companies to expand, diversify, and gain strategic advantages.
- In ideal cases, M&A helps companies achieve growth and higher efficiency levels.



## The M&A Process

The M&A Process is complex, so these steps below are an attempt to simplify that process.

- **Strategic planning** - The process begins with a clear understanding of why the merger or acquisition is being considered. In most cases, companies want to expand their market share, diversify their offerings, access new technologies, or achieve a strategic goal.
- **Target Identification** - The “acquiring company” or company that is initiating the merger or acquisition begins identifying target companies that align with its objectives.
- **Due Diligence** - An assessment is performed of the target company’s financial, operational, and legal status. A second, even deeper assessment, is also performed which examines the target company’s books, contracts, intellectual property, liabilities, and other aspects. The point of due diligence is to see if there are any risks or opportunities to be uncovered.

## The M&A Process (Continued)

- **Valuation** - A Financial analysis is completed that aims to determine the fair market value of the target company. This often involves a model such as a DCF (Discounted cash flow) analysis.
- **Negotiation and Agreement** - a LOI (Letter of Intent) is sent from the acquiring to the target company. This LOI is typically non-binding and just outlines the key terms and conditions of the merger. Later down the road, a legally binding purchase agreement is sent and signed by both parties which includes the specific terms of the transaction and any special conditions.
- **Regulatory Approvals** - This step ensures the merger adheres to antitrust and regulatory laws.
- **Shareholder approval** - Both parties hold shareholder meetings to seek approval for the merger or acquisition.

## The M&A Process (Continued)

- **Financing** - The acquiring company determines how the acquisition will be financed. This can be done many of ways, but typically involves a combination of debt and equity.
- **Closing the deal** - On a predetermined date, the legal transfer, or combination, of ownership occurs. Assets and liabilities are also transferred from the target to acquiring company.
- **Integration, Monitoring, and Reporting** - The two companies' operations, systems, and cultures are blended. This phase can take some time. Lastly, an ongoing assessment is done. This assessment tracks financial and operational performance.

# Hostile Takeovers

- **When management or board of directors opposes an acquisition, but it proceeds anyway**
- **Strategy**
  - **Tender Offer - Buy out the shareholders & vote out higher ups**
  - **Proxy Fight - Rally shareholders to vote out higher ups**
  - **Creeping Tender- Gradually buy up shares before disclosing acquisition intent**



# Defenses Against Hostile Takeovers

- Being acquired can be disadvantageous
  - Undervalued
  - Loss of control
  - Debt burden
- Strategies used to defend
  - White knight - 3rd party acquires at a more favorable price.
  - Poison pill - Company instills new rights dependent on being acquired
  - Pac man defense - Attempt to acquire the acquirer to divert their attention



# The DCF

**The DCF is a valuation method used to determine the present value of future cash flows of a company or asset.**

- This can be confusing - “method used to determine present value of future cash flows”
- Put simply, a DCF is used to determine how well a company will perform given current financial data.
- With this information, companies determine a “fair value” of the investment or, in this case, the fair value of the company.

	A	B	C	D	E	F	G	H	I	J	K
1	© Corporate Finance Institute. All rights reserved.										Termin
2					2016	2017	2018	2019	2020	2021	2022
3	Balance Sheet Check OK OK OK OK OK OK OK OK OK OK OK										
107	<b>Income Statement</b>										
109	110 Gross Revenue				5,478,000	7,704,000	11,778,000	17,724,000	23,940,000	32,735,000	38,862,000
111	111 Discounts, Promotions, Markdowns				(1,943,400)	(2,157,120)	(2,944,500)	(3,899,280)	(4,788,000)	(5,892,480)	(6,995,160)
112	112 Net Revenue				3,534,600	5,546,880	8,833,500	13,824,720	19,152,000	26,842,520	31,866,840
113	113 Cost of Goods Sold				2,739,000	3,852,000	5,869,000	8,862,000	11,970,000	16,368,000	19,431,000
114	114 Gross Profit				1,095,600	1,694,880	2,964,500	4,962,720	7,182,000	10,474,520	12,435,840
115	115 Variable Operating Expenses										
116	116 Advertising				2,280,000	1,380,000	690,000	720,000	720,000	750,000	720,000
117	117 Sales Comm				338,940	385,200	507,360	798,960	829,920	1,063,920	1,567,260
118	118 Total Variable Costs				2,618,940	1,765,200	1,197,360	1,428,960	1,549,920	1,813,920	1,877,260
119	119 Contribution Margin				(1,523,040)	(70,320)	1,747,140	3,533,760	5,632,080	8,661,600	10,558,560
120	120 Fixed Operating Expenses										
121	121 Fulfillment				150,000	150,000	150,000	250,000	250,000	500,000	500,000
122	122 General & Administrative				800,000	1,000,000	1,400,000	1,800,000	2,300,000	2,800,000	3,800,000
123	123 Total				950,000	1,150,000	1,550,000	2,050,000	2,550,000	3,300,000	4,300,000
124	124 EBITDA				(2,473,040)	(1,220,320)	197,140	1,483,760	3,082,080	5,361,600	6,258,560
125	125 Depreciation				100,000	120,000	140,000	250,000	300,000	420,000	520,000
126	126 Interest				0	0	0	0	0	0	0
127	127 Earnings Before Tax				(2,573,040)	(1,340,320)	57,140	1,233,760	2,782,080	4,941,600	5,738,560
128	128 Taxes				0	0	14,285	398,440	696,520	1,235,400	1,434,640
129	129 Net Income				(2,573,040)	(1,340,320)	42,855	925,320	2,085,560	3,706,200	4,303,920



	A	B	C	D	E	F	G	H	I	J	K
1	© Corporate Finance Institute. All rights reserved.				Startup year						Terminal year
2					2016	2017	2018	2019	2020	2021	2022
3	Balance Sheet Check				OK	OK	OK	OK	OK	OK	OK
107											
108	Income Statement										
109											
110	Gross Revenue				5,478,000	7,704,000	11,778,000	17,724,000	23,940,000	32,736,000	38,862,000
111	Discounts, Promotions, Markdowns				(1,643,400)	(2,157,120)	(2,944,500)	(3,899,280)	(4,788,000)	(5,892,480)	(6,995,160)
112	Net Revenue				3,834,600	5,546,880	8,833,500	13,824,720	19,152,000	26,843,520	31,866,840
113											
114	Cost of Goods Sold				2,739,000	3,852,000	5,889,000	8,862,000	11,970,000	16,368,000	19,431,000
115	Gross Profit				1,095,600	1,694,880	2,944,500	4,962,720	7,182,000	10,475,520	12,435,840
117											
118	Variable Operating Expenses										
119	Marketing				2,280,000	1,380,000	690,000	720,000	720,000	750,000	720,000
120	Fulfillment				338,640	385,200	507,360	708,960	829,920	1,063,920	1,097,280
121	Total Variable Costs				2,618,640	1,765,200	1,197,360	1,428,960	1,549,920	1,813,920	1,877,280
122	Contribution Margin				(1,523,040)	(70,320)	1,747,140	3,533,760	5,632,080	8,661,600	10,558,560
124											
125	Fixed Operating Expenses										
126	Fulfillment				150,000	150,000	150,000	250,000	250,000	500,000	500,000
127	General & Administrative				800,000	1,000,000	1,400,000	1,800,000	2,300,000	2,800,000	3,800,000
128	Total				950,000	1,150,000	1,550,000	2,050,000	2,550,000	3,300,000	4,300,000
129	EBITDA				(2,473,040)	(1,220,320)	197,140	1,483,760	3,082,080	5,361,600	6,258,560
131											
132	Depreciation				100,000	120,000	140,000	250,000	300,000	420,000	520,000
133	Interest				0	0	0	0	0	0	0
134	Earnings Before Tax				(2,573,040)	(1,340,320)	57,140	1,233,760	2,782,080	4,941,600	5,738,560
136	Taxes				0	0	14,285	308,440	695,520	1,235,400	1,434,640
137	Net Income				(2,573,040)	(1,340,320)	42,855	925,320	2,086,560	3,706,200	4,303,920



# The LBO

- **An LBO is a financial transaction in which a company or group of investors acquire another company using a large amount of debt to finance the purchase.**
- **LBOs are frequently used to buy an existing company, make them private, improve their performance and efficiency and then sell them for a profit in the future.**



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LBO Model for Retail Co.

DCF & Rates of Return

DCF Analysis

	Entry	2018F	2019F	2020F	2021F	2022F	2023F	2024F	Exit
	3/31/2018	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2024
		0.75	1.00	1.00	1.00	1.00	1.00	1.00	
Enterprise Value									
EBIT		24,369	25,387	26,355	27,455	29,089	29,799	31,102	
Less: Taxes		7,311	7,616	7,906	8,236	8,727	8,937	9,331	
Less: Capex		6,979	7,189	6,969	7,178	7,393	7,139	7,353	
Plus: D&A		6,400	6,516	6,650	6,714	6,807	6,924	6,967	
Less: Changes in WC		1,172	196	142	144	147	215	221	
Unlevered Free Cash Flow (Free Cash Flow to the Firm)		15,307	16,902	17,988	18,610	19,629	20,423	21,165	
DCF Values	-	11,533	16,902	18,037	18,610	19,629	20,423	21,223	228,416
IRR Values	(150,000)	11,533	16,902	18,037	18,610	19,629	20,423	21,223	228,416
Equity Value									
Cash from Operations		21,698	23,503	24,369	25,200	26,434	26,974	27,930	
Less: Capex		6,979	7,189	6,969	7,178	7,393	7,139	7,353	
Less: Debt Repayment		14,719	16,314	17,400	18,022	19,041	19,835	17,166	
Levered Free Cash Flow (Free Cash Flow to Equity)		(0)	(0)	(0)	(0)	(0)	(0)	8,431	
DCF Values	-	(0)	(0)	(0)	(0)	(0)	(0)	8,455	246,824
IRR Values	(46,495)	(0)	(0)	(0)	(0)	(0)	(0)	8,455	246,824
Terminal Value									
Ext Year EBITDA	38,069								
Ext Multiple	6.0x								
Terminal Enterprise Value	228,416								

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	© Corporate Finance Institute. All rights reserved.												
2	LBO Model for Retail Co.												
290													
291	DCF & Rates of Return												
292													
293	DCF Analysis												
294		Entry	2018F	2019F	2020F	2021F	2022F	2023F	2024F	Exit			
295		3/31/2018	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2024			
296			0.75	1.00	1.00	1.00	1.00	1.00	1.00				
297	Enterprise Value												
298	EBIT		24,369	25,387	26,355	27,455	29,089	29,789	31,102				
299	Less: Taxes		7,311	7,616	7,906	8,236	8,727	8,937	9,331				
300	Less: Capex		6,979	7,189	6,969	7,178	7,393	7,139	7,353				
301	Plus: D&A		6,400	6,516	6,650	6,714	6,807	6,924	6,967				
302	Less: Changes in WC		1,172	196	142	144	147	215	221				
303	Unlevered Free Cash Flow (Free Cash Flow to the Firm)		15,307	16,902	17,988	18,610	19,629	20,423	21,165				
304													
305	DCF Values	-	11,533	16,902	18,037	18,610	19,629	20,423	21,223	228,416			
306	IRR Values	(150,000)	11,533	16,902	18,037	18,610	19,629	20,423	21,223	228,416			
307													
308	Equity Value												
309	Cash from Operations		21,698	23,503	24,369	25,200	26,434	26,974	27,930				
310	Less: Capex		6,979	7,189	6,969	7,178	7,393	7,139	7,353				
311	Less: Debt Repayment		14,719	16,314	17,400	18,022	19,041	19,835	12,168				
312	Levered Free Cash Flow (Free Cash Flow to Equity)		(0)	(0)	(0)	(0)	(0)	(0)	8,431				
313													
314	DCF Values	-	(0)	(0)	(0)	(0)	(0)	(0)	8,455	246,824			
315	IRR Values	(46,495)	(0)	(0)	(0)	(0)	(0)	(0)	8,455	246,824			
316													
317													
318	Terminal Value		DCF Value				Internal Rate of Return						
319	Exit Year EBITDA	38,069			Discount Rate	NPV							
320	Exit Multiple	6.0x			Enterprise Value	16.9%	150,000	Unlevered		16.9%			
321	Terminal Enterprise Value	228,416			Equity Value	28.7%	46,495	Levered		28.7%			

## Why use Debt?

- Debt is less risky than equity because if an investment doesn't pan out, investors don't lose a large sum of equity all at one time.
- Debt owners are also paid first before equity owners. This means that in the event of financial distress or bankruptcy, debt holders have priority in accessing the company's assets.
- Owning debt in a company allows you to have limited liability in that same company. In other words, you don't have voting rights or a say in the company's management. This is good for the debt holder because it relieves you of a level of responsibility and allows you to dodge blame if the company goes into financial or legal trouble.

## What kind of Jobs use M&A, DCFs, and LBOS?

- **M&A**
  - Investment banking
  - Associate
  - Attorney
  - Managing Directors
- **DCFs**
  - Analysts
  - Real Estate
  - Most jobs that require valuation
- **LBOs**
  - Leveraged Market Analyst



## Pay Ranges in the Investment Banking Industry

	Mean Total Compensation, 2023	Mean Total Compensation, 2022	Median Total Compensation, 2023	Median Total Compensation, 2022
Sales and Trading	\$318,600	\$406,847	\$286,000	\$280,400
Investment Banking Division	\$274,313	\$273,028	\$214,100	\$194,779
Equity Research	\$218,642	\$195,219	\$167,400	\$165,200
Quant	\$179,133		\$198,000	
Technology	\$164,300	\$196,796	\$136,670	\$195,000
Risk	\$158,631	\$197,352	\$170,564	\$189,300
Finance	\$149,504	\$180,282	\$122,150	\$126,143
Compliance	\$132,952	\$169,950	\$102,403	\$126,143
Operations	\$131,139	\$130,347	\$124,150	\$111,650

SOURCE: [eFinancialCareers](#)

## The Role Hierarchy in Investment Banking and Pay Jumps

Job Title	Salary	Bonus	Total Compensation
Analyst	\$95,846	\$43,703	\$139,549
Associate	\$151,723	\$99,100	\$250,823
Vice President	\$201,490	\$145,581	\$347,071
Director	\$212,697	\$203,267	\$415,964
Managing Director	\$359,589	\$281,983	\$641,571

SOURCE: eFinancialCareers



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## Today's QR Codes

Attendance



Interest Form for  
Publishing articles/posts



Appointed E-Board Positions

