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Practical Corporate Financial Modeling

Advanced Financial Models

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Mergers and acquisitions (M&A) is a popular subject for academic research and requires special financial modeling methods.

- M&A involves a change of control.
  - Sometimes referred to as “the market for corporate control”.
  - Buyer: acquirer/bidder; seller: target firm.

- Two mechanisms for change of control:
  - Merger: two firms combine into a single entity.
  - Acquisition: a corporation or a group of individuals can acquire the target firm.

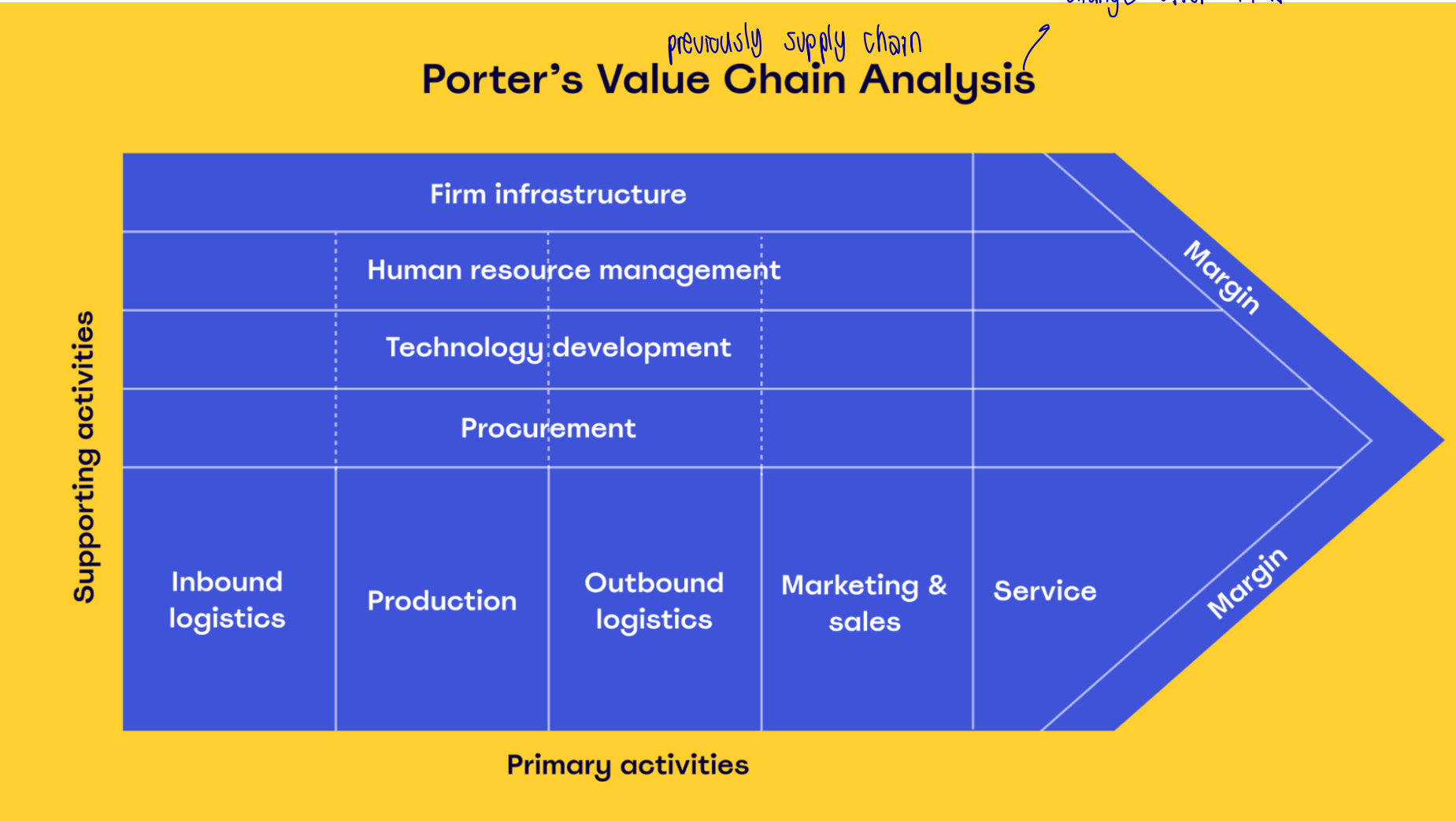
- Two methods of payments:
  - Cash payment (from excess cash or borrowing)
  - Stock swap (either bidder’s or newly-created entity’s)

M&A deals are often assessed in relation to the value chain.

Company position in the industry

Change after M&A

previously supply chain



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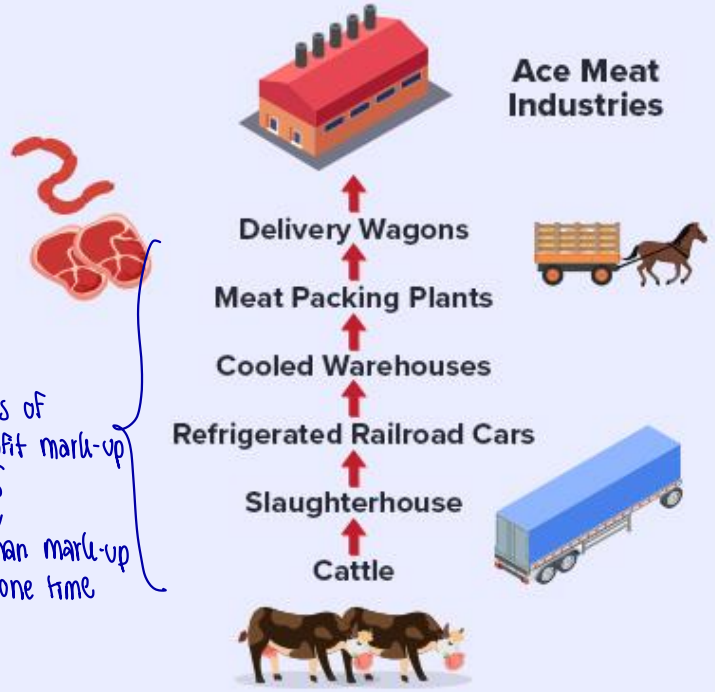
effect profitability of firm

e.g. CP food → farming & ingredient → distribution → cooking

Vertical Integration

Purchase of Companies at All Levels of Production



& more efficiency

sequences of profit mark-up

better than mark-up one time

o Conglomerate M&A

↳ different segments → different risks

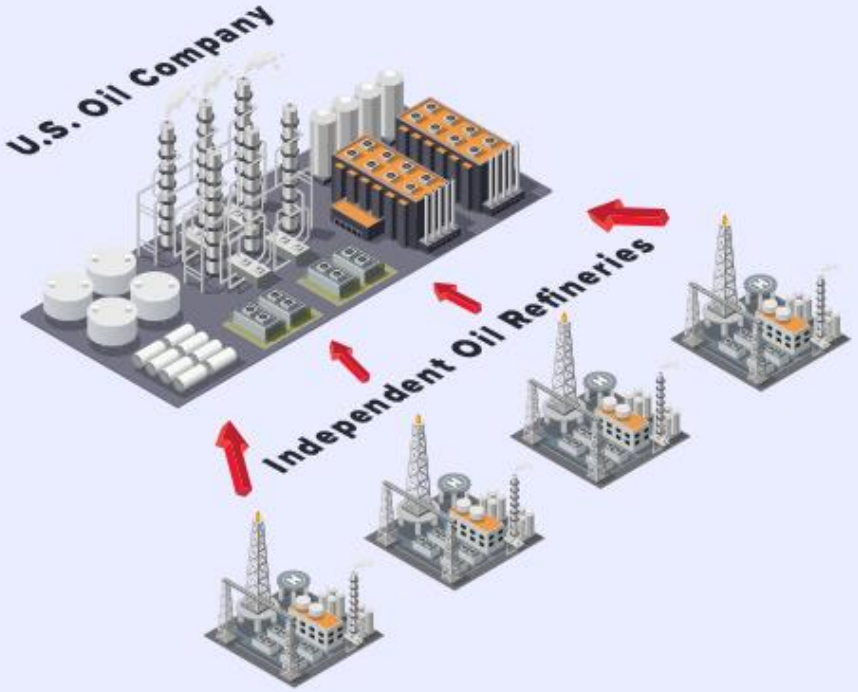
conglomerate discount & premium ?

E.g. Logistics in Thailand used to be fragmented mkt

Reduce # of players

Horizontal Integration

Purchase of Competing Companies in Same Industry



1973 : OPEC (operation of petrolium exporting countries)

cut production → oil price double!

oil Refinery

→ invest in other segment bcs they cannot buy other oil refinery

→ invest in sport team → big loss! bcs they don't know how to run sport operation & did not invest in oil refinery

⇓

Jensen CF → when firm has too much cash → it probably wastes it.

invest in operation that doesn't add value to shdr (value-destroy M&A deal)

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Table 2
Motives for M&As

This table shows the most important reasons that responding firms gave for their M&As during 1990-2001. Respondents could indicate more than one reason but this table reports only the top-ranked motive.

Motives	n	%
Take advantage of synergy	28	37.3
Diversify	22	29.3
Achieve a specific organizational form as part of an ongoing restructuring program	8	10.7
Acquire a company below its replacement cost	6	8.0
Use excess free cash	4	5.3
Reduce tax on the combined company due to tax losses of the acquired company	2	2.7
Other	5	6.7
Total	75	100.0

cash on hand → waste it
→ buy others as opportunity

E.g. Country garden → has debt to pay
Real estate in China → sell real estate to payoff their debt

Mukherjee, T. K., Kiymaz, H., & Baker, H. K. (2004). Merger motives and target valuation: A survey of evidence from CFOs. *Journal of Applied Finance*, *14*(2), 7-24.

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Figure 3

Merger synergies originate from three value creation areas

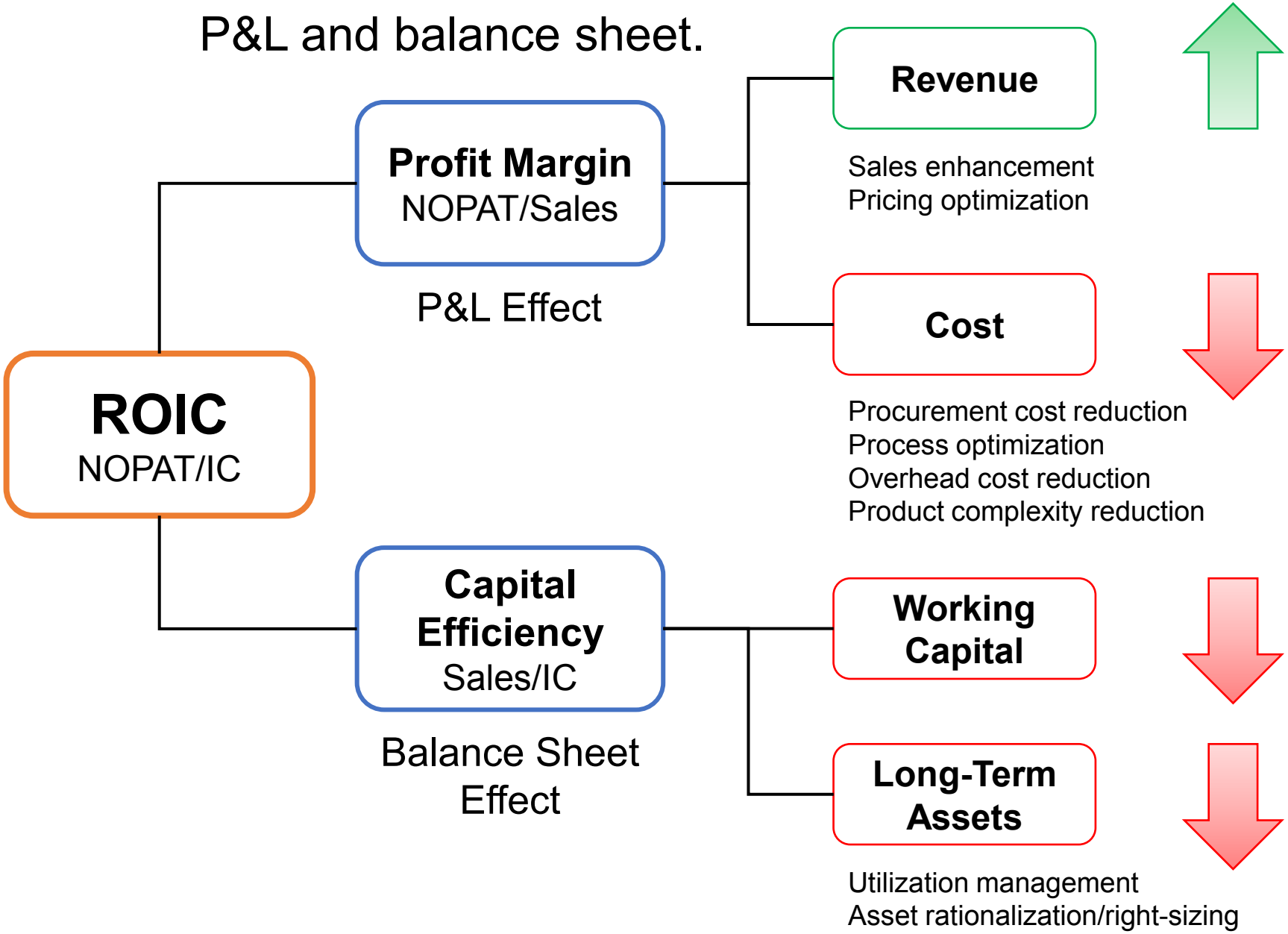
Synergy → combine ownership

→ keep only one team

Merger synergies	Typical opportunity areas	Typical synergy value
Top-line growth, commercial optimization	• Cross selling • Product development and innovation • Brand portfolio optimization • Price realization and service offer • Combined innovation pipeline • Leverage sales capabilities • (Negative synergies: customer retention)	**Net 2-3% of combined sales year one**
Operations productivity improvement	• Operations and supply chain — Manufacturing footprint — Warehouse and logistics footprint • Procurement — Price leveling — Volume consolidation — Strategic sourcing — Procurement transformation • SG&A — Office consolidation — Finance, HR, IT consolidation — Sales and marketing cost reduction — Leverage capabilities and best practice	**10-15% of combined cost base**
Asset and capital investment rationalization	• Capital investment rationalization • Working capital reduction • Sale of rationalised assets	**10-15% excluding asset sales**

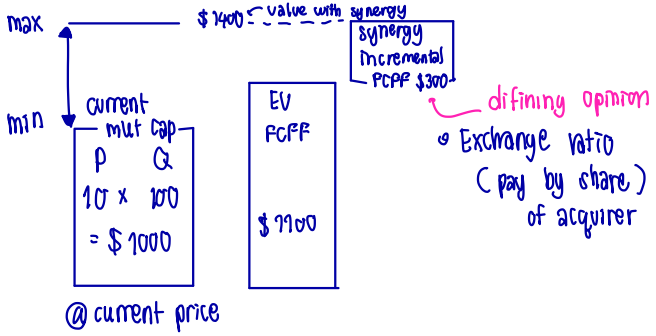
Source: A.T. Kearney Merger Integration Framework

Sources of value can come from P&L and balance sheet.



Important part of M&A model

Capturing Value in corporate M&A

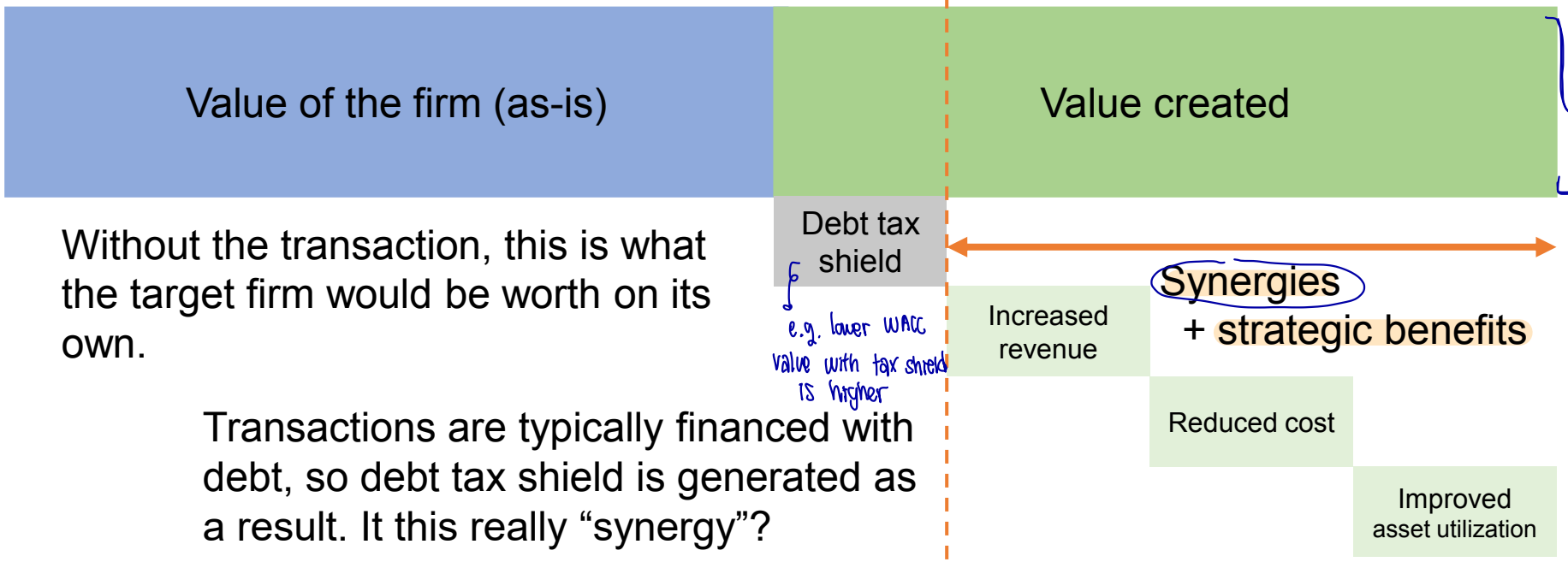


defining opinion
- Exchange ratio (pay by share) of acquirer

- Value in a M&A transactions can be decomposed in the following way.
- Start from the value of the target firm on an as-is basis, then layer on the values associated with each component of the transaction.
- Usually, the model uses FCFF and WACC.

↳ of company we buy

Gains from M&A, to be shared amount bidder and target.



incremental CF from cash flow

maximum willingness to pay

Without the transaction, this is what the target firm would be worth on its own.

e.g. lower WACC value with tax shield is higher

Transactions are typically financed with debt, so debt tax shield is generated as a result. It this really "synergy"?

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Exhibit 1
Comparison of Research Approaches Regarding the Profitability of M&A

	Market-based Returns to Shareholders ("Event Studies")	Accounting Studies: Returns estimated from reported financial statements	Surveys of Managers	Clinical Research (Case Studies)
Strengths	• A direct measure of value created for investors. • A *forward-looking* measure of value creation. In theory stock prices are the present value of expected future cash flows.	• Credibility. Statements have been certified. Accounts have been audited. • Used by investors in judging corporate performance. An indirect measure of economic value creation.	• Yields insights into value creation that may not be known in the stock market. • Benefits from the intimate familiarity with the actual success of the acquisition.	• Objectivity and depth in reconstructing an actual experience. • Inductive research. Ideal for discovering new patterns and behaviors
Weaknesses	• Requires significant assumptions about the functioning of stock markets: efficiency, rationality, and absence of restrictions on arbitrage. Research suggests that for most stocks these are not unreasonable assumptions, on average and over time. • Vulnerable to confounding events, which could skew the returns for specific companies at specific events. Care by the researcher and law of large numbers deal with this.	• Possibly non-comparable data for different years. Companies may change their reporting practices. Reporting principles and regulations change over time. • Backward looking. • Ignores value of intangible assets. • Sensitive to inflation and deflation because of historic cost approach. • Possibly inadequate disclosure by companies. Great latitude in reporting financial results. • Differences among companies in accounting policies adds noise • Differences in accounting principles from one country to the next make cross-border comparison difficult.	• Gives the perspectives of managers who may or may not be shareholders, and whose estimates of value creation may or may not be focused on *economic* value. • Recall of historical results can be hazy, or worse, slanted to present results in the best light. • Typically surveys have a low rate of participation (2-10%) that makes them vulnerable to criticisms of generalizability.	• Ill-suited to hypothesis testing because the small number of observations limits the researcher's ability to generalize from the case(s). • The research reports can be idiosyncratic making it difficult for the reader to abstract larger implications from one or several reports.

Bruner, R. F. (2002). Does M&A pay? A survey of evidence for the decision-maker. Journal of Applied Finance, 12(1), 48-68.

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Table 2
Classification of Measures of Merger Performance (Subjective Measures in Regular Type, Objective Measures in Italics)

	Time Horizon	
	Short-Term	Long-Term
Level of analysis Task	subjective • Integration process performance • Knowledge transfer • Systems conversion	• Customer retention • Employee retention
Acquisition Firm	objective • *Short-term financial performance (event study)*	• Overall acquisition performance • *Acquisition survival* • *Accounting performance* • *Long-term financial performance* • *Innovation performance* • *Variation in market share*

Zollo, M., & Meier, D. (2008). What is M&A performance?. Academy of Management Perspectives, 22(3), 55-77.

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Scandinavian Journal of Management (2011) 27, 418–433

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The (mis)measurement of M&A performance—A systematic narrative literature review

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KEYWORDS
M&As;
Performance;
Construct measurement;
Narrative literature review

Summary This paper seeks to further the understanding of the variety of meanings M&A scholars attach to the label "M&A performance" by providing an alternative way to interpret the claimed inconsistency of M&A research findings. While many scholars contend that the problem stems from the multiplicity of M&A performance measures, we believe the problem rests in trying to compare different measures as if they were measuring the same feature of the organization. Through our narrative review of empirical research we analyze factors shaping the M&A – as well as the organizational – performance measurement process. The conclusion is that it is not possible to talk about M&A performance as if it was a universal construct.
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‘Nothing ventured, nothing gained.’

Initial definition of venture capital in 1938:

“investment without definite assurance that the funds will produce at the outset income commensurate with the commitment.”

Father of venture capitalism?

↳ behind alot of innovation

General Georges Doriot

Harvard Business School Professor
Co-founder of HEC Paris
Founder of INSEAD

Founder of American Research and Development Corporation (ARDC)

↳ for companies doing high-tech research

"Someone, somewhere, is making a product that will make your product obsolete."

More: https://60.insead.edu/stories/georges-doriot

Arthur Rock

angle investor

later became advisor for tech fund

Davis & Rock

Helped create Semiconductor.
Investor in Intel, Apple, Scientific Data System, Teledyne

Funded HBS' Arthur Rock Center for Entrepreneurship

Thomas Perkins

Kleiner Perkins

Investor in AOL, Amazon, Compaq, EA, JD.com, Square, Genentech, Google, Netscape, Sun Microsystems, Snap, Twitter

Don Valentine

Sequoia Capital

Investor in Atari, Apple, Oracle, Cisco, EA, Google, YouTube

acquisition

VC → investing in significant %

↳ provide governance → add value

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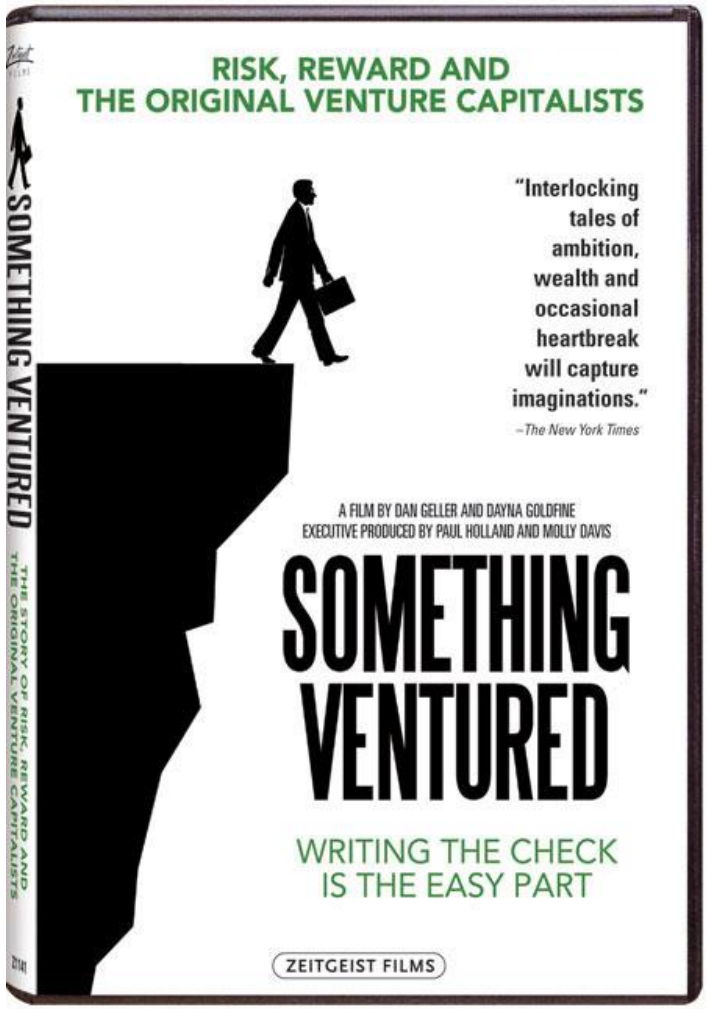
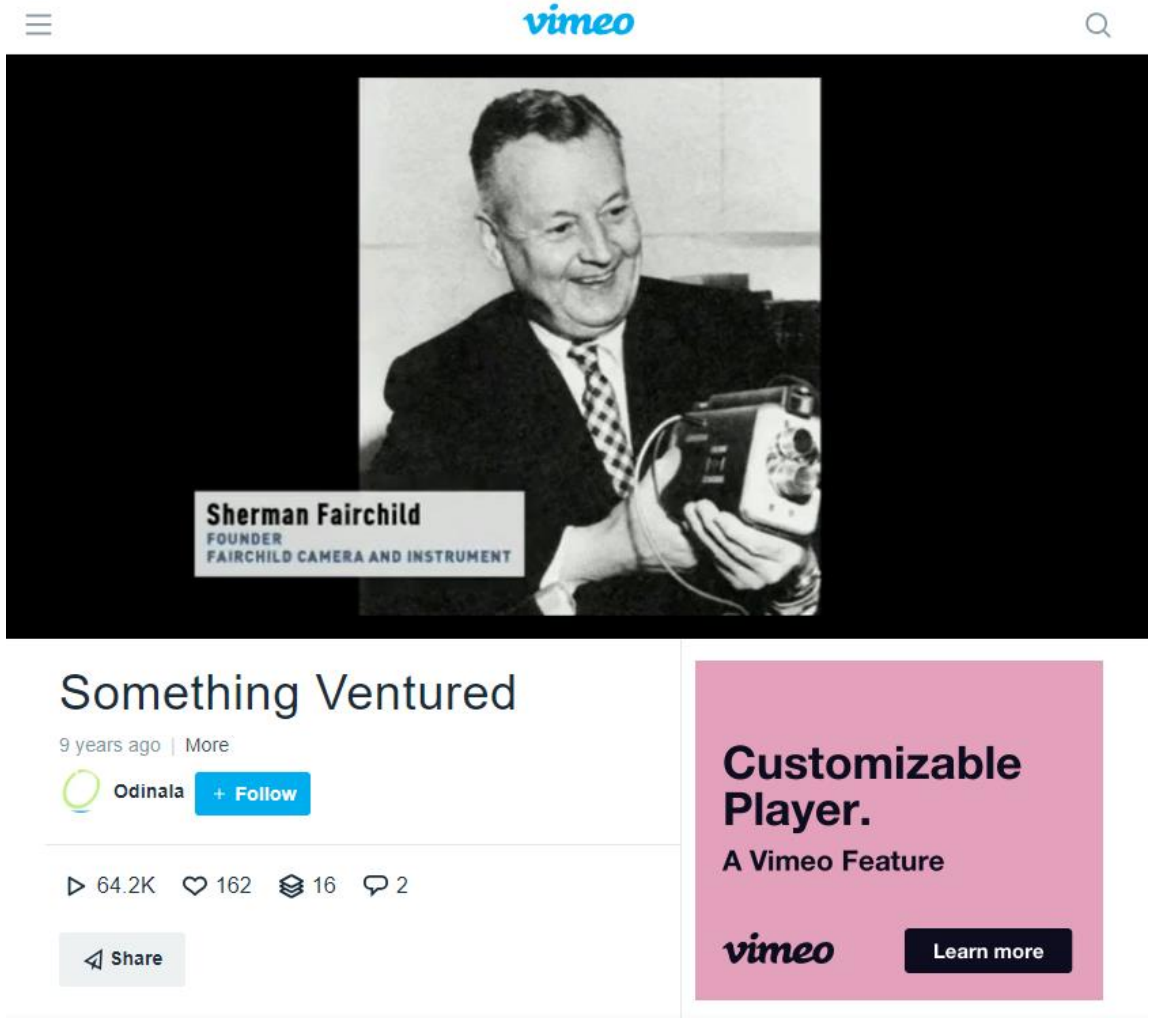
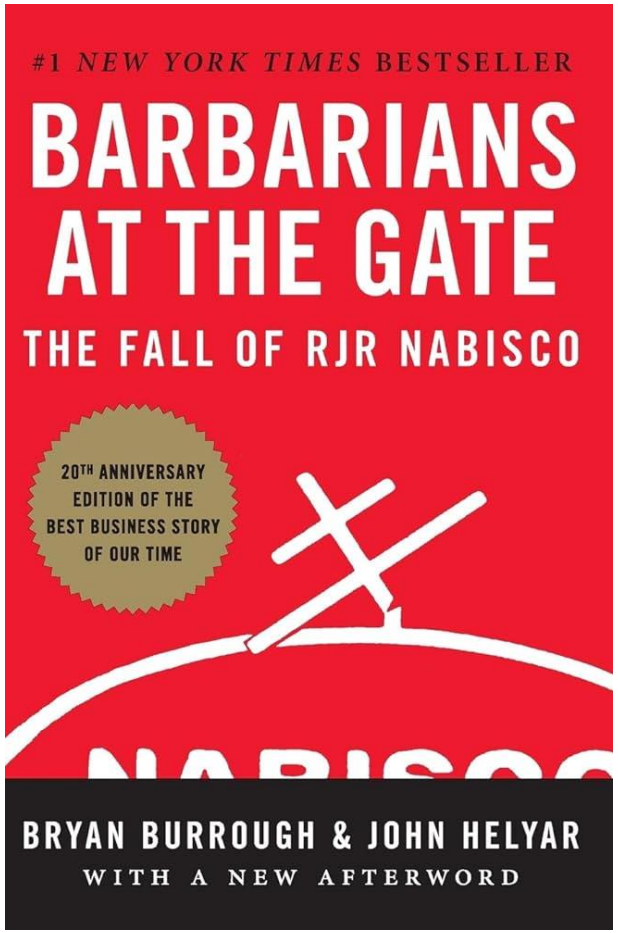
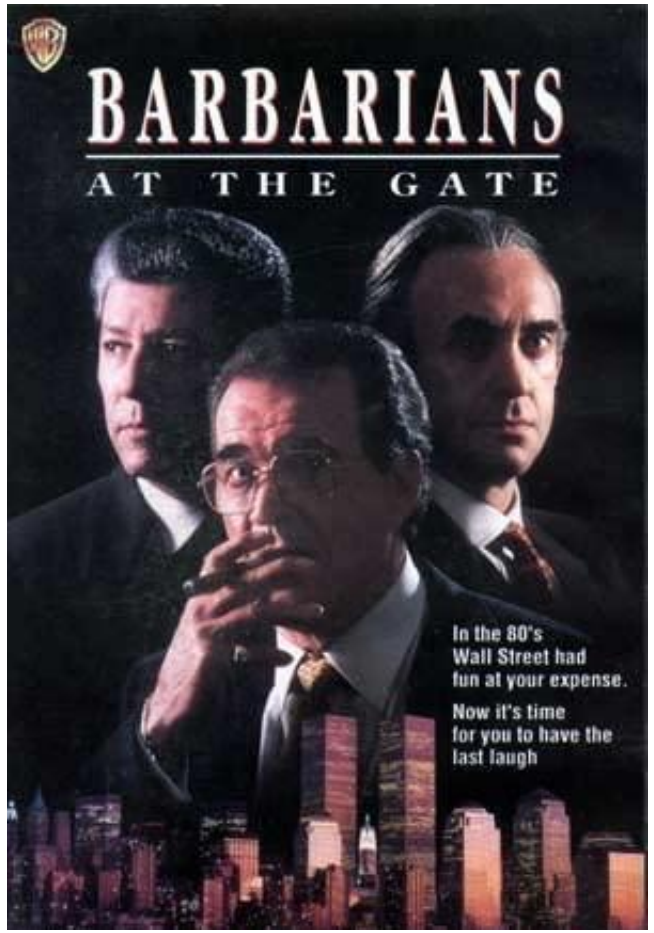
behind Silicon Valley

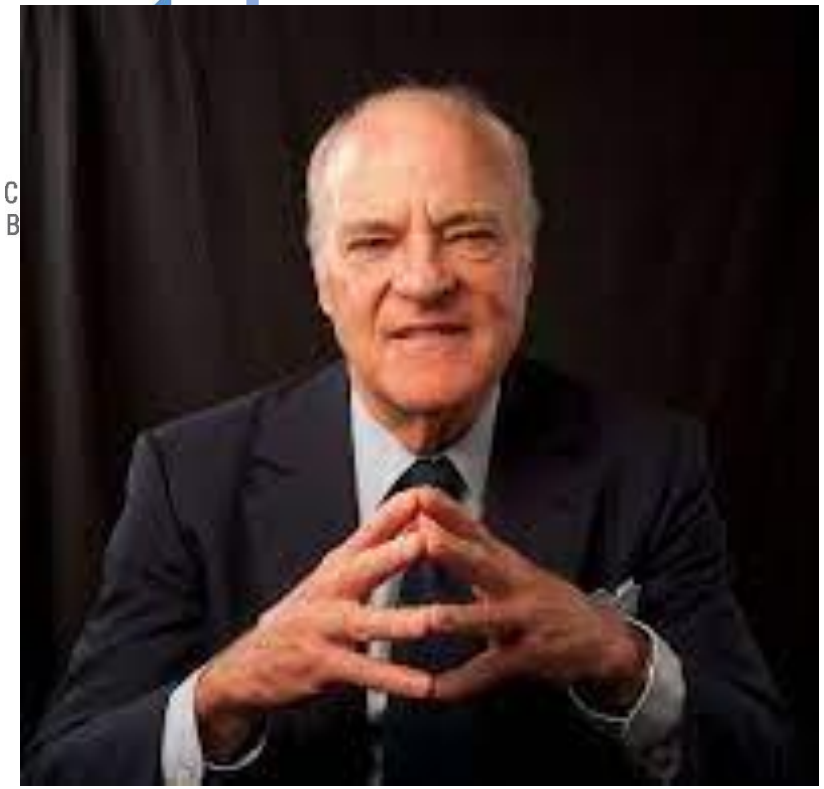




1980s leveraged buyouts led by private equity firms, financed by ‘junk’ bonds

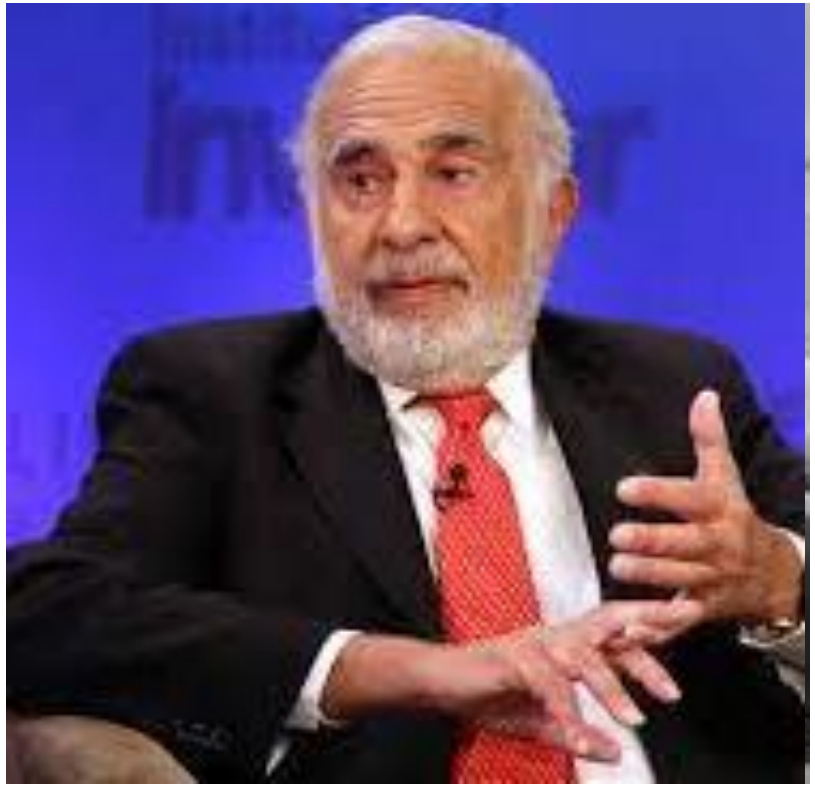






Henry Kravis
Kohlberg Kravis Roberts & Co.

Selected deals
RJR Nabisco, Toys "R" Us, Kodak, Dollar General, Del Monte Foods Company
Later gen: ByteDance



Carl Icahn
Icahn & Co. / Enterprises

Selected deals
Tappan/Electrolux, Trans World Airlines, US Steel (failed), RJR Nabisco (activist)
Later gen: Herbalife (activist)

Michael Milken
Drexel Burnham Lambert

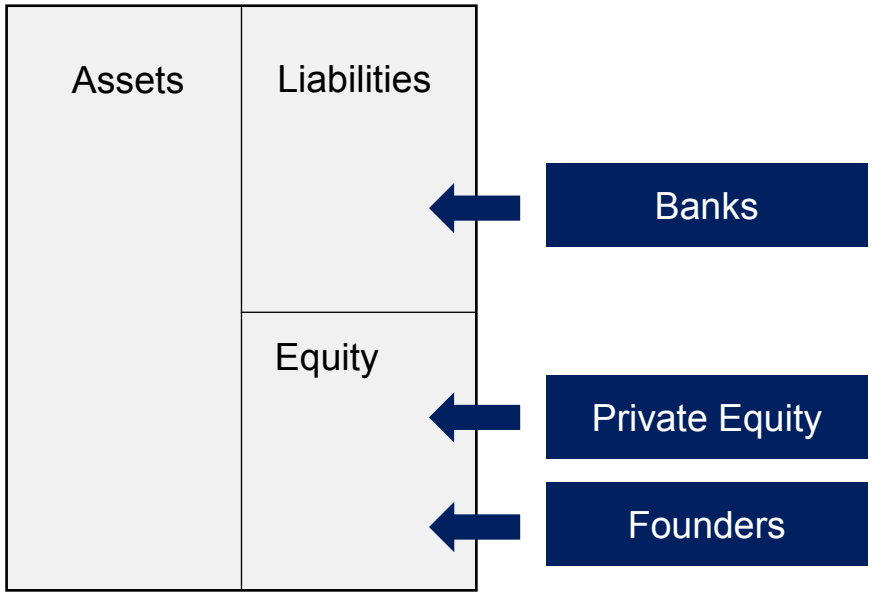
Junk bond king
“Junk” bonds are rated as non-investment grade by rating agencies.

Private equity and venture capital (PE/VC)

subset of private equity

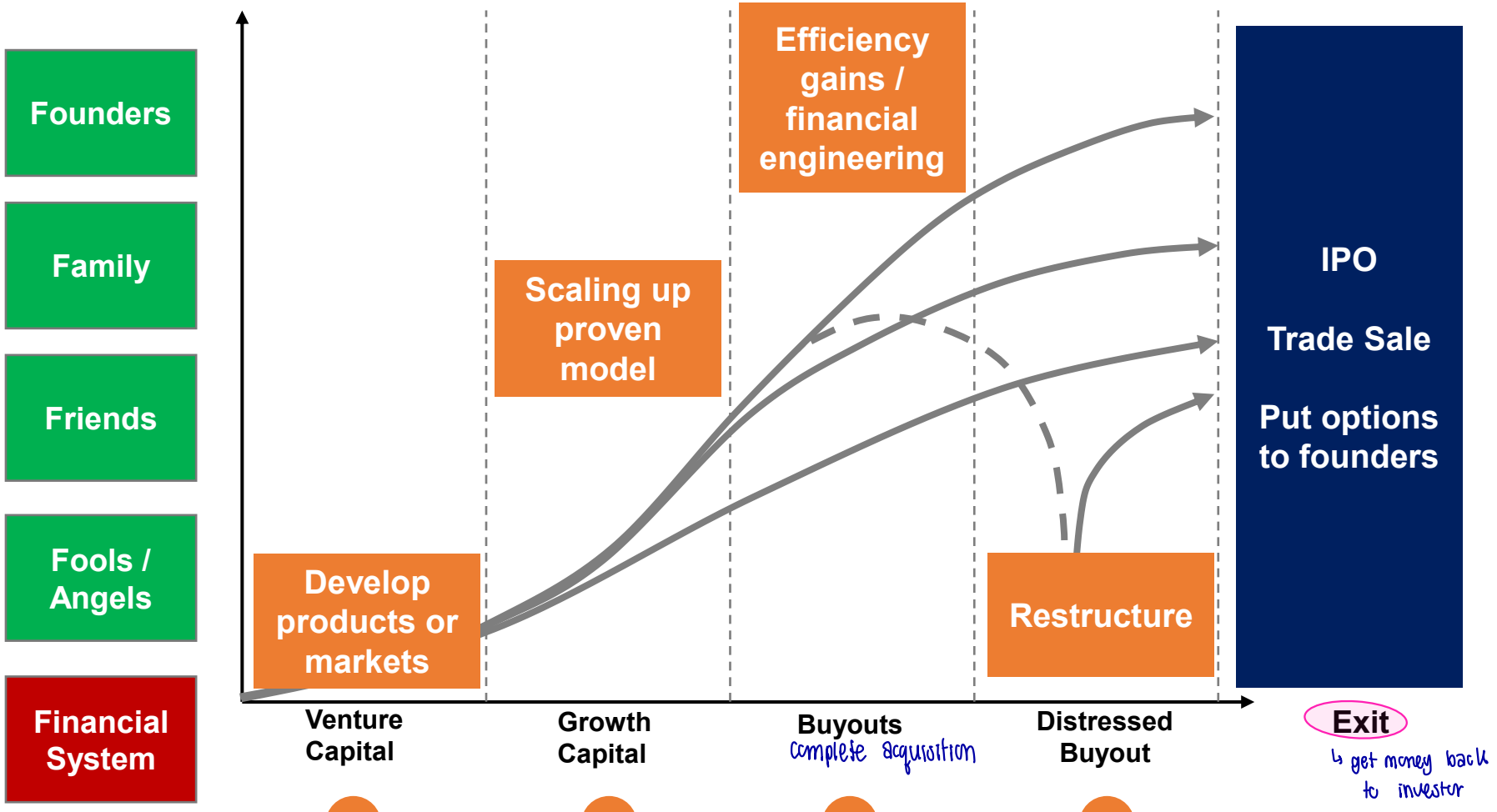
Private equity is more about investment structure than investment strategy. Venture capital is one class of private equity.

- Private source of capital
- Equity or equity-linked investments (e.g., convertible loan, mezzanine financing, leveraged loans, distressed debt)
- Usually in a private company (private investment in public equity / delisting) → **illiquidity**
- Privately negotiated deal (either bilateral or auction process) [**securities in illiquid secondary markets**]
- Minority or majority shareholding
- Typically, holding period of 3-5 years
- Provide "value adds"



→ find with maturity

PE investment strategies can be classified by life cycle stages of the investment target.



add investment in firm → owner get diluted

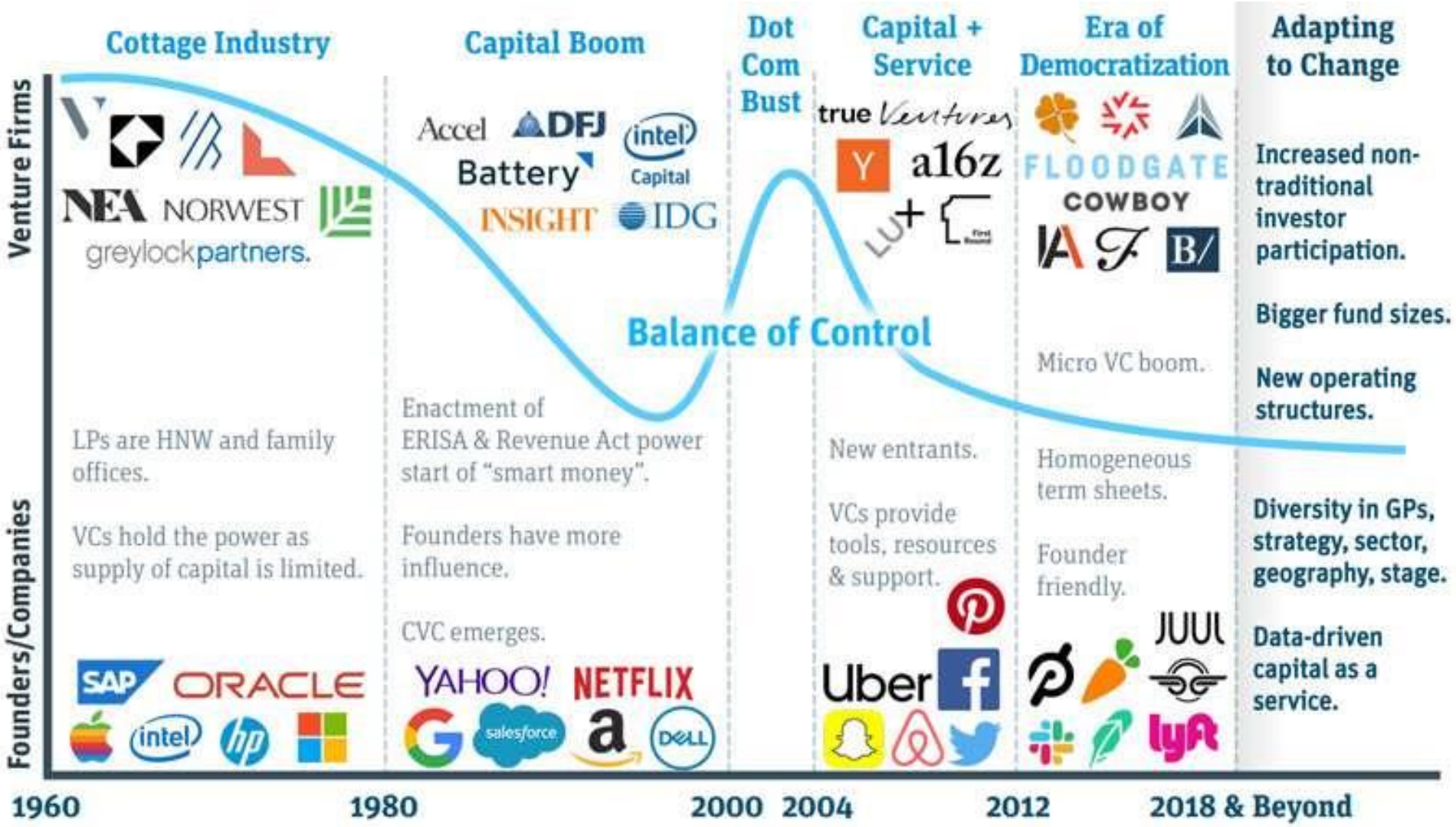
buy share from existing shdr

Sources of returns
- First-mover advantage
- Illiquidity premium
- Diversification
- Value adds
- Multiple expansion
- Fin. engineering

→ used for describe deal that was bought cheap and sell expensive

Key differences
- Risk
- Ownership stake
- Financing structure
- Ticket size
- Value creation strategies

Based on materials prepared by Siras Sombatsiri, Lakeshore Capital



Source: https://ventureforward.org/resources-for-emerging-vc/vc-history/

Share of U.S. IPOs backed by venture capital

52%

all IPOs

70%

Tech IPOs only

Source: Professor Jay R. Ritter

WhatsApp

WhatsApp is an end-to-end encrypted mobile messaging app that lets users send messages free of charge. Acquired by Facebook in 2014, more than 2 billion people in over 180 countries now use WhatsApp to stay in touch.

whatsapp.com

CONSUMER

MILESTONES

Founded 2009
Partnered 2011
Acquired 2014

TEAM

Brian Acton
Jan Koum

PARTNER

Jim Goetz

WHY WE INVESTED

We believed there was an opportunity for an independent, mobile-focused upstart to challenge the status quo of SMS messaging on the back of rising smartphone adoption. Jan and Brian had built WhatsApp to be a clean, no-nonsense messaging platform. Loved by those who adopted it, we were astonished by how rapidly it scaled with no marketing spend. It was simple and it worked.

→ SEQUOIA READ

Four Numbers That Explain Why Facebook Acquired WhatsApp.

by Jim Goetz

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Startups

Sequoia's A Big Winner In Facebook's WhatsApp Acquisition, With Its Stake Worth About $3 Billion.

Ryan Lawler @ryanlawler / 6:36 AM GMT+7 • February 20, 2014

Comment

While the only funding that WhatsApp had publicized was the $8 million Series A led by Sequoia, the company had raised two subsequent rounds of financing, including an unreported $50 million Series C round. Sequoia led both of those subsequent rounds, investing about $60 million in WhatsApp over the years, which added up to a total ownership stake in the high teens, I've been told.

The deal is the largest acquisition of a venture-backed company in history, which also clearly puts it in the early lead for the biggest single venture return this year.

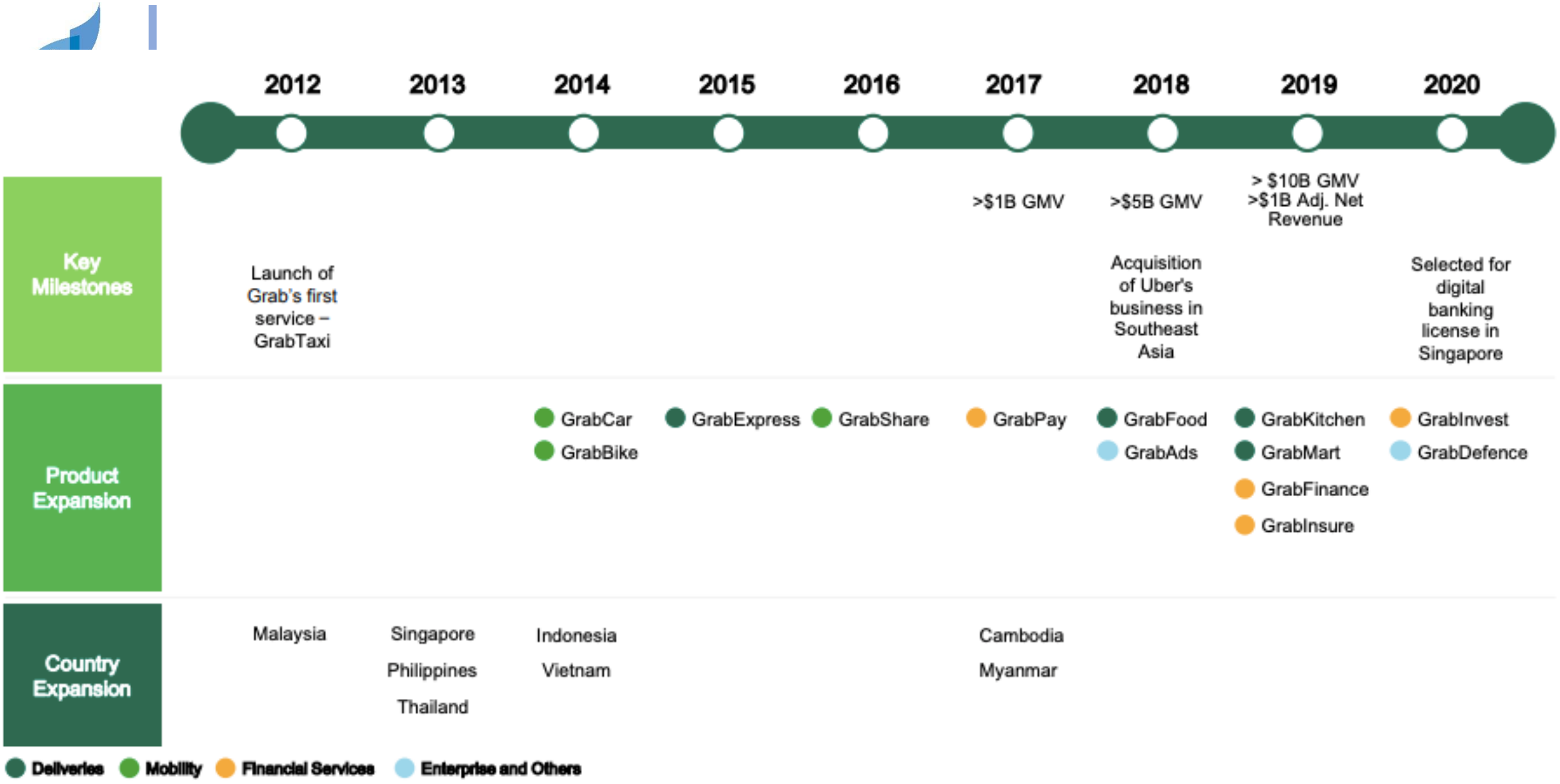
In a blog post today, Goetz said it's been a privilege to work with the WhatsApp founders. "It's been a remarkable journey, and we could not be happier for these talented underdogs whose unshakeable beliefs and maverick natures epitomize the spirit of Silicon Valley."

Of course, WhatsApp isn't the first company Sequoia had invested in before being acquired by Facebook — it led a $50 million round of financing in Instagram just days before the photo-sharing app was acquired. But it's by far the biggest.

Assuming Sequoia owns almost 20 percent of WhatsApp, its stake is now worth about $3 billion in cash and stock. The deal by itself could provide more than a 2x return on the $1.3 billion fund the initial WhatsApp investment came from, and represents a 50x return on its investment in the company.

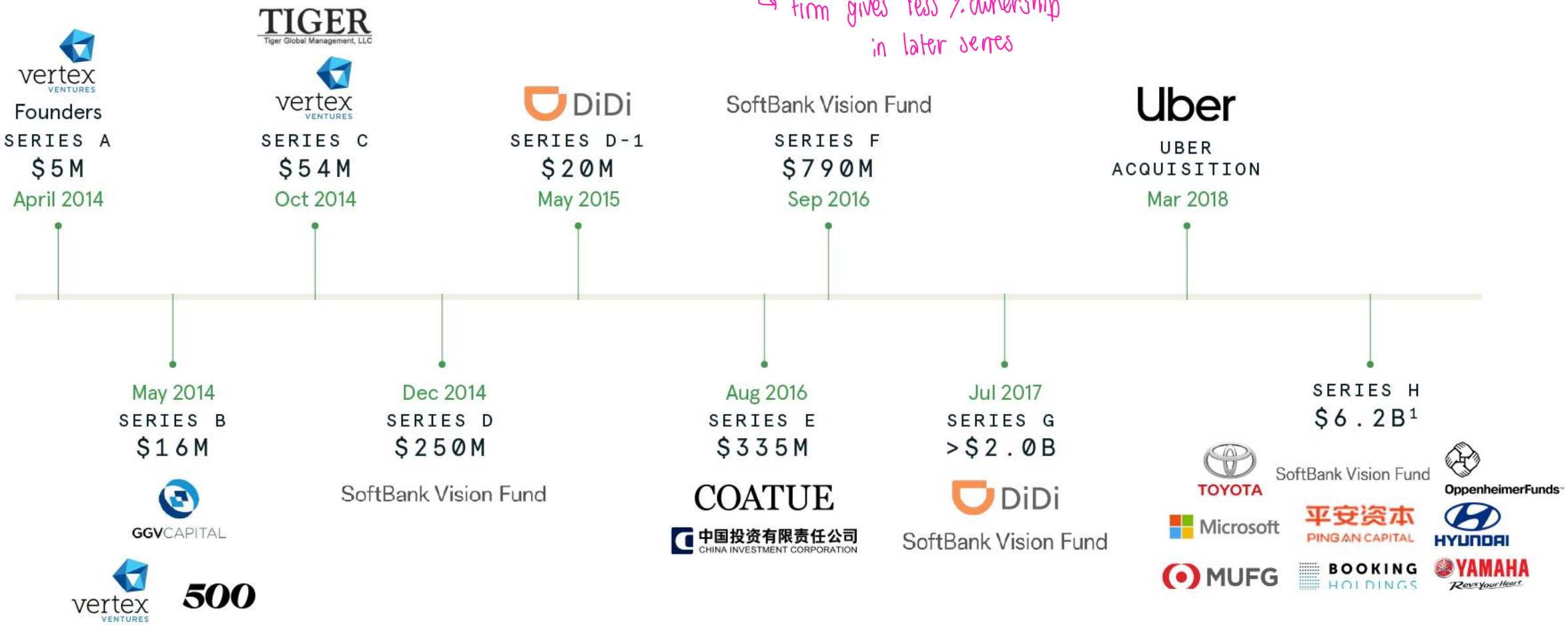
Source: TechCrunch

Grab
Looking for something?
Order with GrabMart
Browse Mart
Fresh Produce
Food Essentials
Keep discovering
Send a GrabGifts card to your loved ones
Cakes in 30min



Source: 500 Global

shown that firm achieve milestone
↳ less risky, perform well
↳ firm gives less % ownership in later series



Source: 500 Global

SPAC listed on Nasdaq 2022

PE/VCs are professional money managers.

endowment fund for Yale
⇓
early supporter of
private equity

You can find assets “at meaningful discounts to fair value” in less efficient, even illiquid, asset classes.

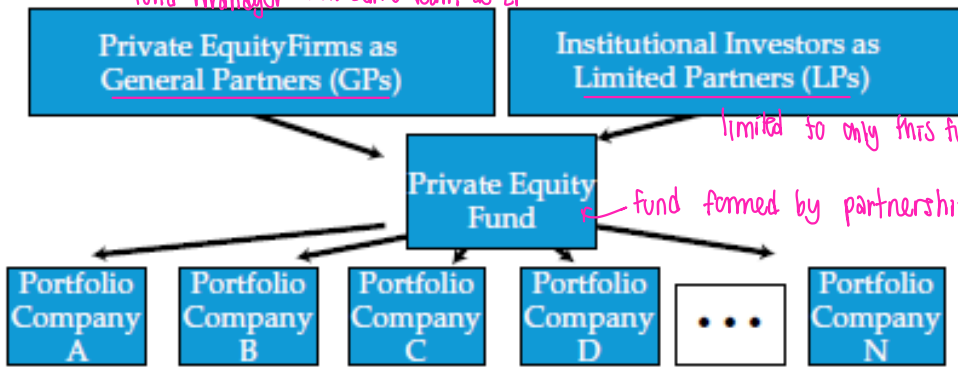
Private equity investments are structured as funds, typically a limited partnership.

- General partners (GPs) with “skin in the game” and limited partners (LPs) as main investors
- Illiquid secondary markets
- Difficult monitoring of “portcos”

need to offer return back to investors

Figure 9.1. Common Institutional Access to Private Equity Investments

fund manager → on same team as LP



limited to only this fund

fund formed by partnership → to pay lower tax

“align incentive”

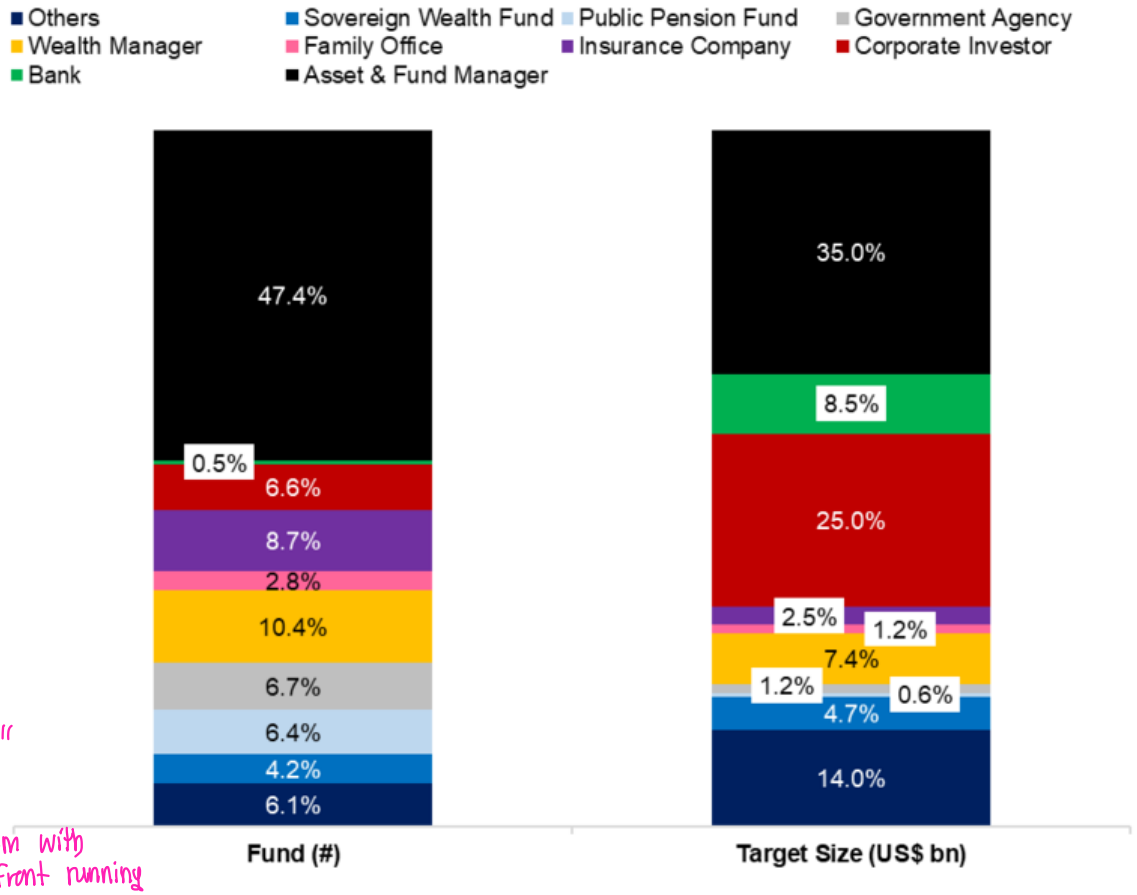
PE is not liquid

↳ no problem with front running

Source: Alternative Investments: A Primer for Investment Professionals

Distribution of private equity worldwide by investor type

Proportion of total (%)



Source: ICMR using 2018 Preqin Data

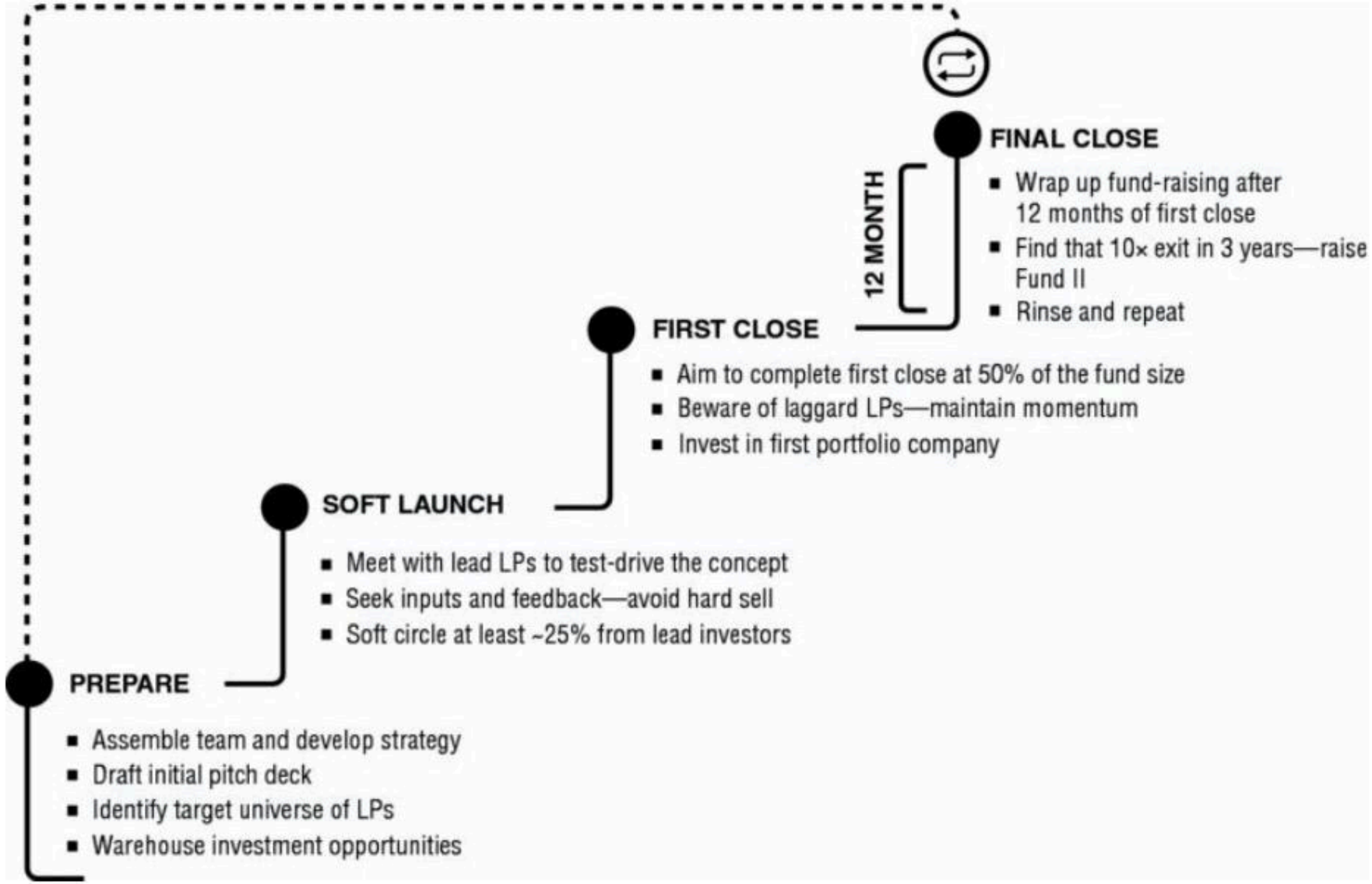


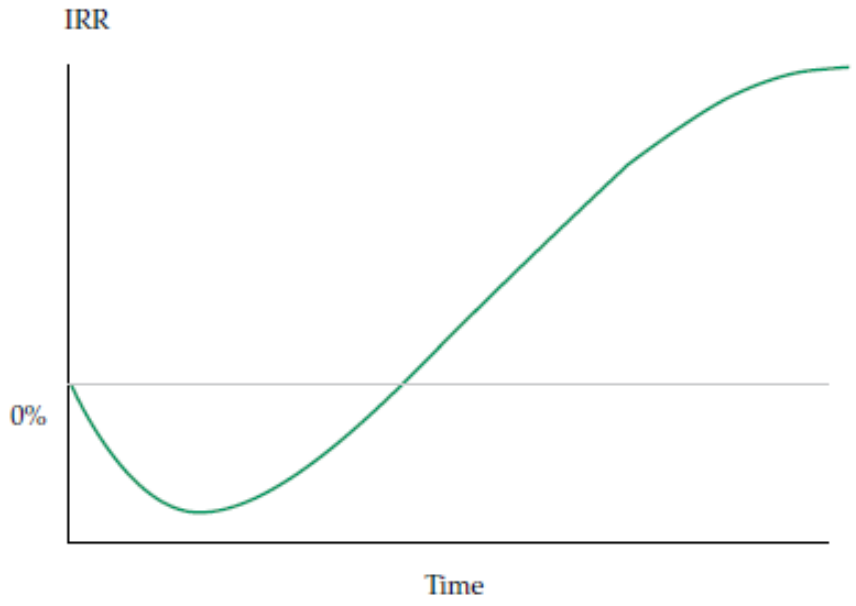
FIGURE 12.1 Steps to fund closing.

Source; The Business of Venture Capital, Wiley Finance) 2nd Edition

Invest-harvest: the life cycle of a PE fund

$$\text{Return}_{0,1} = \frac{P_1 + \text{Distribution}_{0,1} - P_0}{P_0}.$$

Figure 9.2. The J-Curve of Private Equity



Source: Alternative Investments: A Primer for Investment Professionals

Early phase

- Write-offs of the fund's organizational and management expenses
- Write-offs of investments that have perceived to have declined in value or gone bankrupt

Late phase

- Exit (uncertain)

J-curve is a manifestation of conservative accounting.

→ Fund IRR varies over the life cycle

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- Personal networks
- FAs
- Banks

- Evaluate industry and company attractiveness
- Valuation and modeling
- Deal structuring
- Non-binding offer

- Commercial, accounting, tax and legal due diligence
- Share purchase agreement and shareholders agreements

- 100 days plan
- Attend Board meetings
- Monitor performance

- Prepare IPO
- Trade sale

Based on materials prepared by
Siras Sombatsiri, Lakeshore Capital

Growth capital and venture capital are similar. The fund **invests** in the TargetCo, while LBO completely **changes ownership**.

LBO	Growth Capital
• What's the **Enterprise Value**?	• What's the **Equity Value**?

• How much debt can we use?
  • Do cash flow waterfall
  • Check debt covenants
	• Don't use debt financing generally, but assume existing debt

• Do proforma balance sheet of New Co. • Assume new capital structure	• No proforma – use Target Co's balance sheet for projections
• Pay down debt to get returns	• Grow business to get returns

Based on materials prepared by Siras Sombatsiri, Lakeshore Capital

Investment selection criteria

What makes a good **growth capital** target?

① Look for growth opportunity

What makes a good **buyout** target?

① Stable CF

② Assets those can be liquidated easily

Based on materials prepared by
Siras Sombatsiri, Lakeshore Capital

Steps to growth capital modeling

1. Determine if it's an attractive investment
   - What are potential growth areas?
   - What values can the PE firm add?

2. Determine entry value
   - Multiples approach
   - Returns approach

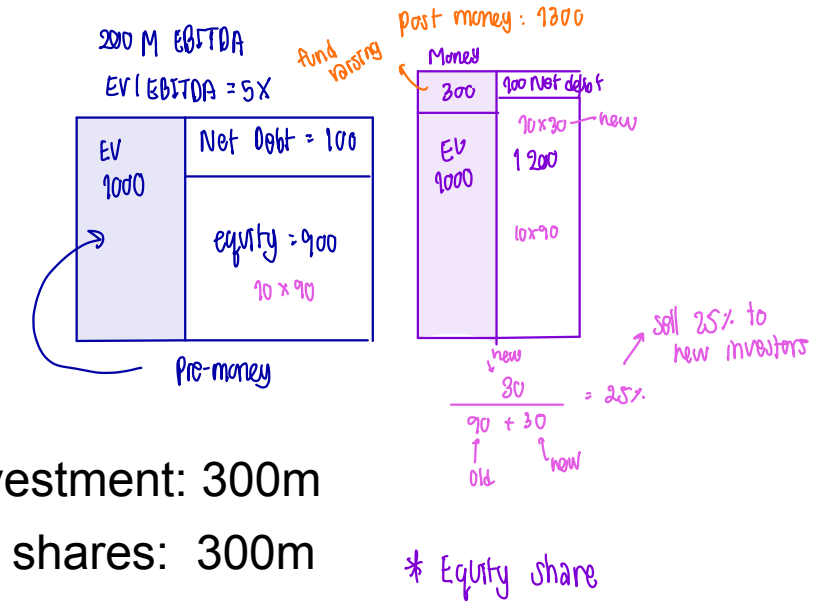
3. Build cash flow model

4. Determine exit value

5. Calculate returns

Based on materials prepared by
Siras Sombatsiri, Lakeshore Capital

Example: growth capital



Company valuation

- EBITDA 200m
- EV/EBITDA 5x
- **EV** **1,000m**
- Net debt 100m
- **Equity value** **900m**

CASE 1

- Total investment: 300m
  - Old shares: 150m
  - New shares: 150m

CASE 2

- Total investment: 300m
  - Old shares: 300m
  - New shares: None

* Equity share

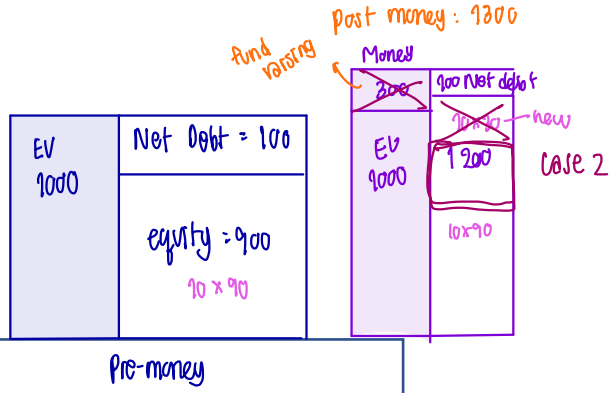
CASE 3

- Total investment: 300m
  - Old shares: None
  - New shares: 300m

Calculate investor's shareholding

Based on materials prepared by
Siras Sombatsiri, Lakeshore Capital

Calculate investor's shareholding



- CASE 1
- Total investment: 300m
  - Old shares: 150m
  - New shares: 150m
- Pre-money equity value: 900m
- Post-money equity value: 1,050m
- **Investor's shares: 29%**
- **Founder's shares: 71%**

- CASE 2 ↳ buy from existing shdr
- Total investment: 300m
  - Old shares: 300m
  - New shares: None
- Pre-money equity value: 900m
- Post-money equity value: 900m
- **Investor's shares: 33%**
- **Founder's shares: 67%**

- CASE 3 new share → cash goes to the firm
- Total investment: 300m
  - Old shares: None
  - New shares: 300m
- Pre-money equity value: 900m
- Post-money equity value: 1,200m
- **Investor's shares: 25%**
- **Founder's shares: 75%**

For growth VC :
• How much invest ?
What is % ownership by exit?
IRR?

provide technical resource but not financial capital
↓
role case 2

As an PE manager, which case would you prefer?

↳ case 3 : need company that has vision to grow, not to exit
↳ put capital for company to grow

but less % ownership || VC - case 3
IKN - case 2

Based on materials prepared by Siras Sombatsiri, Lakeshore Capital

Calculate returns

Returns Analysis	2019E	2020E	2021E	2022E	2023E
EBITDA	220	242	266	293	322
Exit EV/EBITDA multiple	5.0x	5.0x	5.0x	5.0x	5.0x
Enterprise value	1,100	1,210	1,331	1,464	1,611
Net debt/(cash)	(10)	(10)	(10)	(10)	(10)
Equity value	**1,110**	**1,220**	**1,341**	**1,474**	**1,621**

Transaction closing date	31-Dec-18
Holding period (years)	5

Investment cash flows

	year	0	1	2	3	4	5
	date	*31-Dec-18*	*31-Dec-19*	*31-Dec-21*	*31-Dec-22*	*31-Dec-23*	*31-Dec-24*
Investment		(300)	0	0	0	0	0
Dividends			23	40	44	48	0
Exit proceeds			0	0	0	0	409
Total cash flow to equity		(300)	23	40	44	48	409

conventional

IRR (exit year 5)	**15.9%**
Money Multiple	**1.9x**

sum of this and compare with beginning investment (not account by TVM)

Tech company → buy for other than operation

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The investment often involves addition terms and conditions.

Term Sheet

Share Purchase Agreement

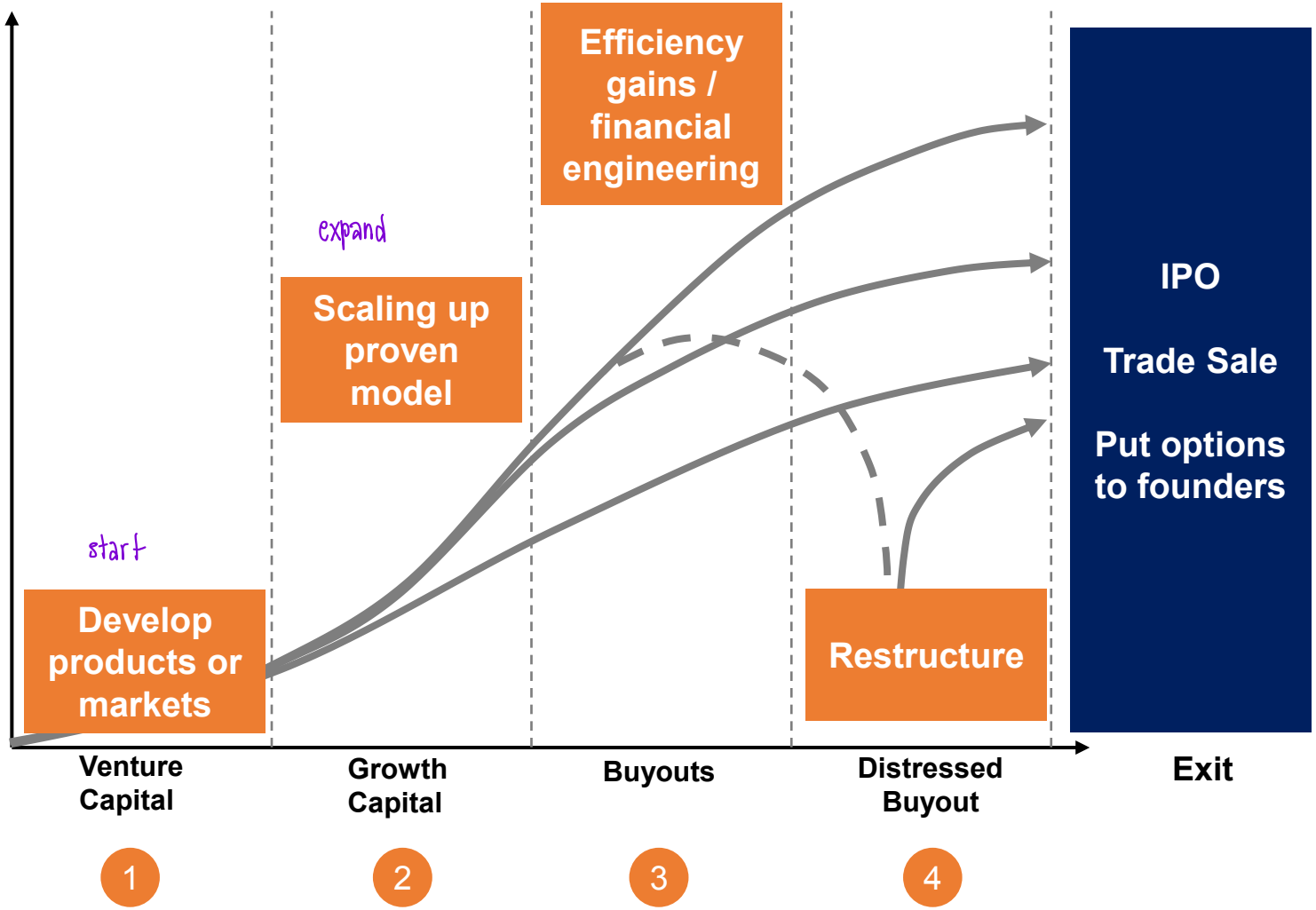
- Investment amount and ownership
- Valuation approach
  - Multiples (LTM or NTM)
  - Earnout
  - Ratchet
- Tranches
- Purchase price assumptions (e.g., normal net working capital, no significant changes to business)

Shareholder's Agreement

- Board of directors
- Reserved matters
- Restrictions on share transfers
  - Share lock-up
  - Right of First Refusal
- Exit rights
  - Drag along right
  - Tag along right

Based on materials prepared by Siras Sombatsiri, Lakeshore Capital

As the fund nears maturity, PE/VC managers need to consider possible exit strategies.



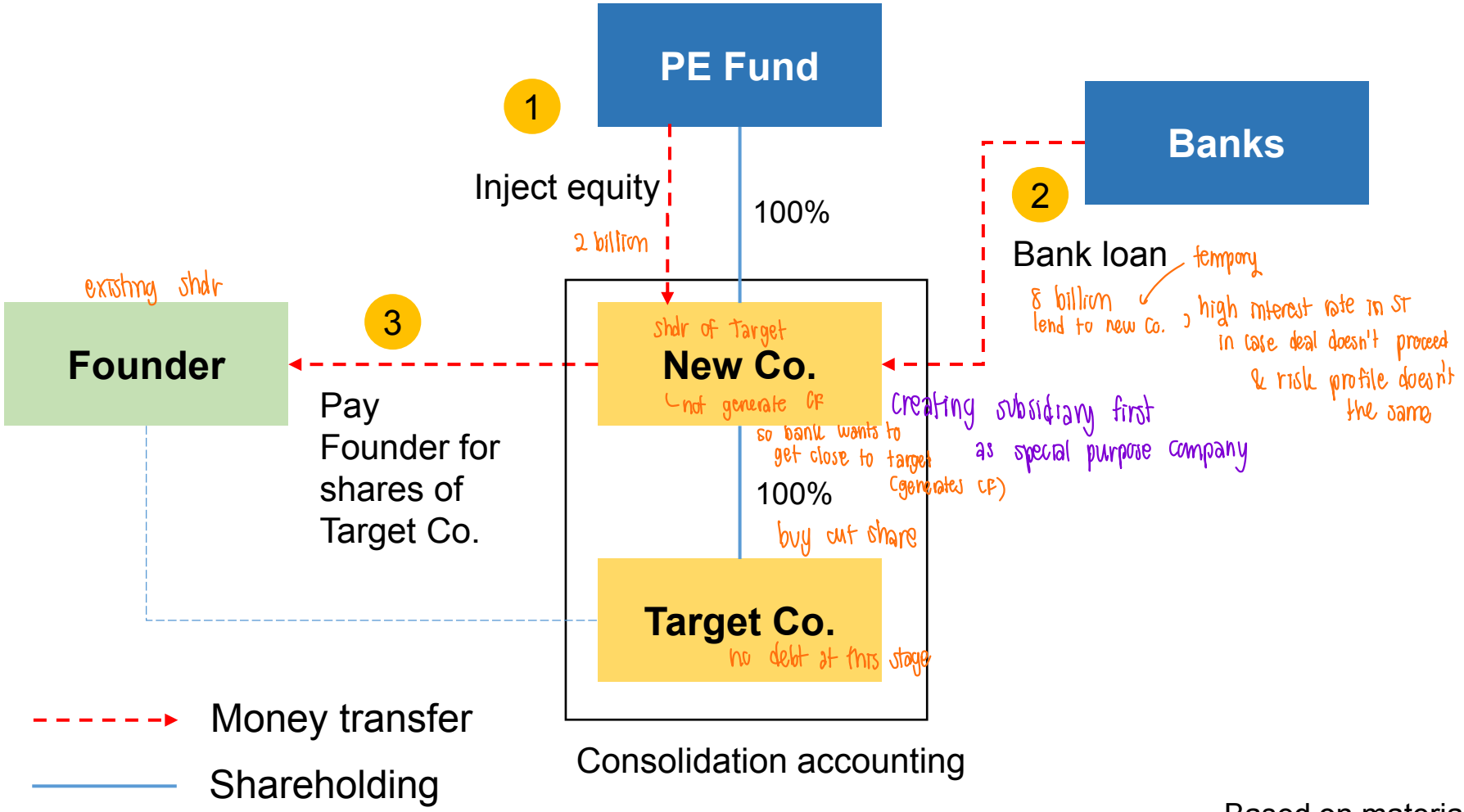
IPO alternatives
- Direct listing
- SPAC

Secondaries

Choice of exit may depend on LPs as well.

A more detailed look into deal structuring, illustrated by an LBO transaction.

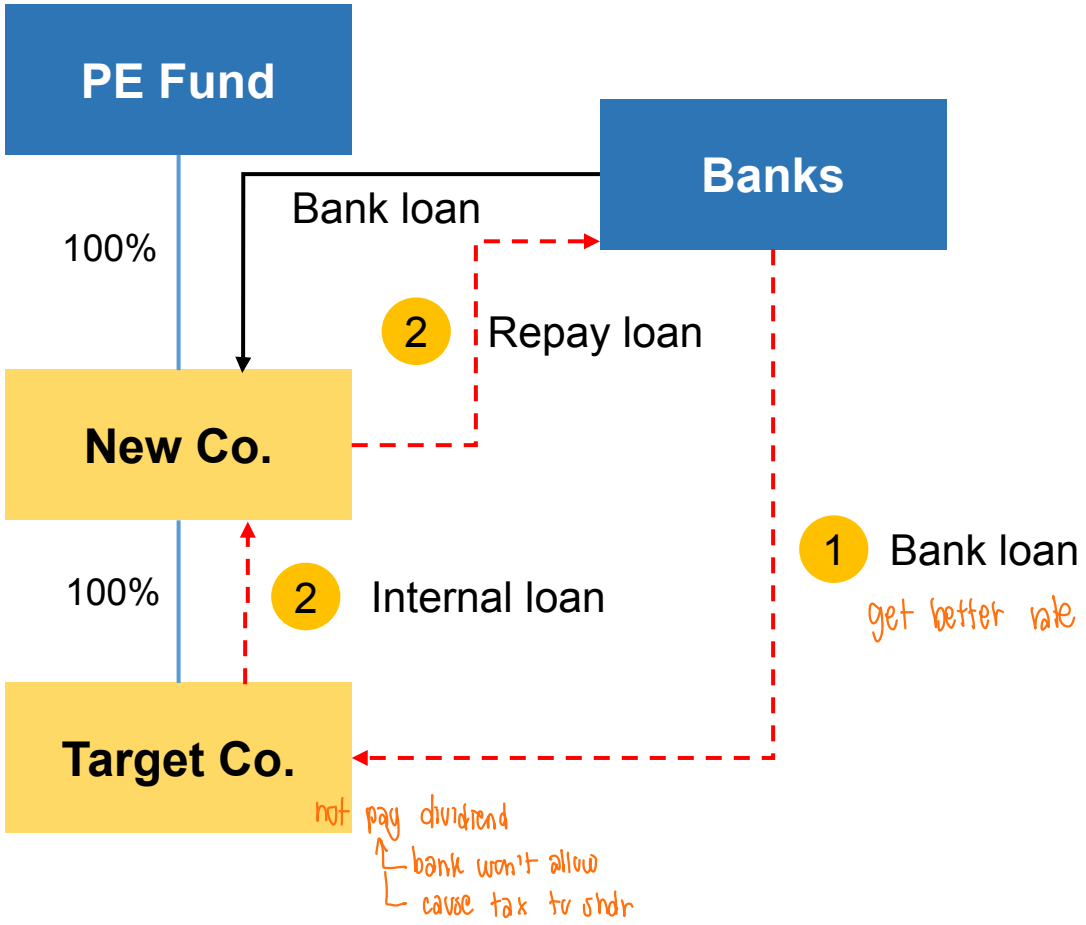
buyout company completely



Based on materials prepared by Siras Sombatsiri, Lakeshore Capital

CHULALONGKORN BUSINESS SCHOOL
FLAGSHIP FOR LIFE

Debt push down



Money transfer

Shareholding

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Steps to LBO modeling

What you're going to buy at

1. Determine entry value
   - Multiples approach
   - Returns approach

2. Determine financing structure (debt versus equity)

   How much debt could be hold?

3. Build cash flow model to determine debt balance at exit

4. Determine exit value

5. Calculate returns

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Step 1: determine entry value

Target Co.

Cash 100	A/P 100
A/R 100	**L**
Inv 100	Debt 200
A	not matter that much Book Equity 400 (Market Equity 900)
PP&E 400	**E**
700	700

EV 1,000

Value of Company

EBITDA	200
EV/EBITDA	5.0x after due diligence
EV	1,000
Net debt	100 (200 - 100)
Equity value	900

what is required to buy firm

Enterprise Value (EV)

EV = Equity value + Net Debt

Net Debt = Interest bearing debt – cash & cash equivalents

Equity value = EV – Net Debt

Based on materials prepared by Siras Sombatsiri, Lakeshore Capital

Step 2: determine financing structure

Target Co.

Cash 100	A/P 100
A/R 100	**L**
Inv 100	Debt 200
A	Market Equity 900
PP&E 400	**E**
700	

EV 1,000

New Co. (At investment)

Cash 0	
	could afford that Debt 600
	New Equity 400

EV 1,000

How much debt financing?

Banks

PE Fund

book present

Cash
NOWC
NLA

worst case, can pay debt

what company can deliver in the future

ability to pay

market own today

pay

does firm own anything can be liquidated and pay debt

$\sum \frac{FCFF_t}{(1+r)^t}$

Cash	Debt
debt EV	Equity

FCFD

net debt

FCFE

payment priority

multi type of debt waterfall of who we need to pay first

- forward looking
- ability to generate CF

Twitter case

Good CF stability, liquidable assets

collateral

less liquid, cannot be used to pay immediately like cash

Value of Company

EBITDA	200
EV/EBITDA	5.0x
EV	1,000
Net debt	100
Equity value	900

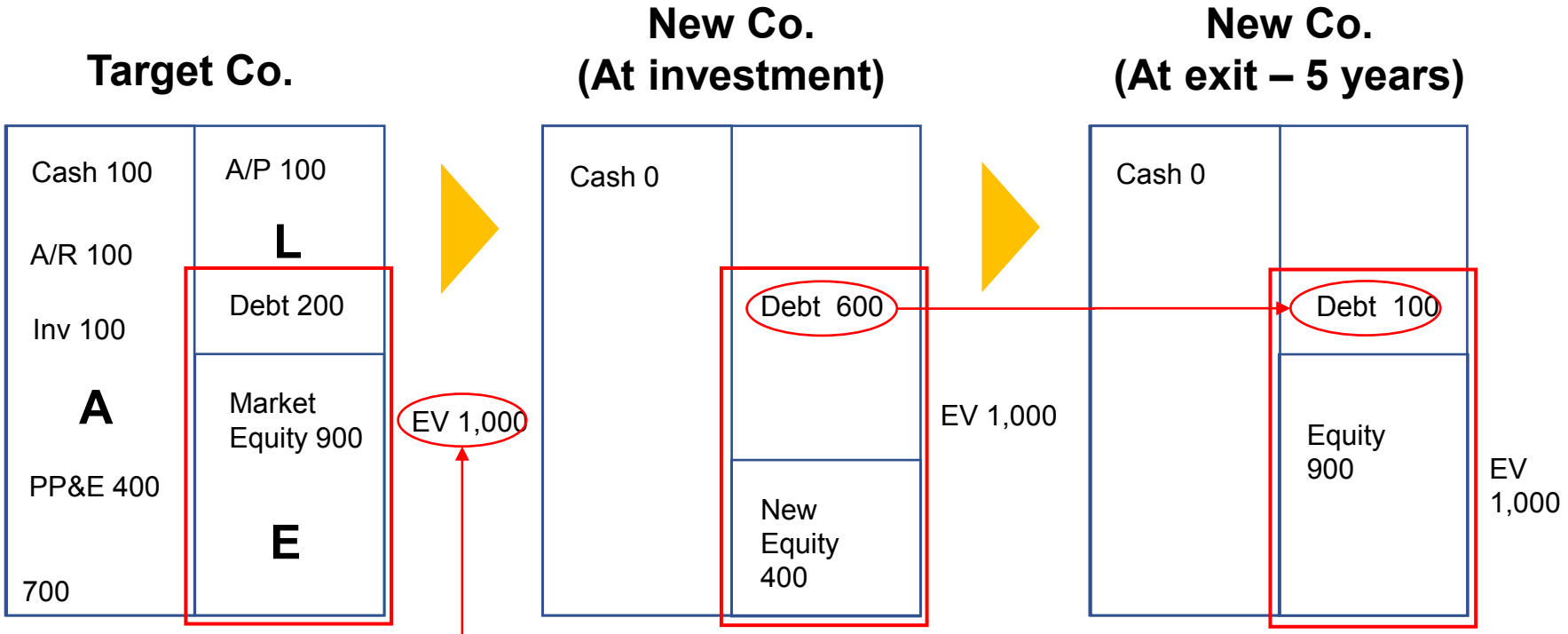
pay to existing shdr

Value of Company

EBITDA	200
EV/EBITDA	5.0x
EV	1,000
Net debt	600
Equity value	400

Based on materials prepared by Siras Sombatsiri, Lakeshore Capital

Step 4: determine exit value



Value of Company

EBITDA	200
EV/EBITDA	5.0x
EV	1,000
Net debt	100
Equity value	900

Value of Company

EBITDA	200
EV/EBITDA	5.0x
EV	1,000
Net debt	600
Equity value	400

Value of Company

EBITDA	200
EV/EBITDA	5.0x
EV	1,000
Net debt	100
Equity value	900

What's the return?

Based on materials prepared by
Siras Sombatsiri, Lakeshore Capital

Step 5: calculate returns

growth firm → no debt
LBO → cannot pay dividend → pay debt as much as posible
Focus on FCFE

Returns Analysis

	Years		1.0	2.0	3.0	4.0	5.0
	30-Jun-19	*31-Dec-19*	*31-Dec-20*	*31-Dec-21*	*31-Dec-22*	*31-Dec-23*	*30-Jun-24*
Investment	(400)						
Dividends		0	0	0	0	0	0
Exit							900
Total cash flow to equity	(400)						900

IRR (exit year 5)	**17.6%**
Return on invested capital	**2.3x**

* About pricing not valuation
use multiple to access exit

- Calculate the IRR – does this achieve our return target?
  - No WACC
  - No terminal value

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How much debt can we use? (Back to 2)

1 What's the company valuation?

EBITDA	200m
EV/EBITDA	5x
EV	1,000m
EV/EBITDA	5x (1,000m)
- Debt/EBITDA	3x (600m)
- Equity/EBITDA	2x (400m)

2 How much debt can we use?

Year	0	1	2	3	4	5
Debt	600	500	400	300	200	100
Equity	400	500	600	700	800	900
EBITDA	200	200	200	200	200	200
Interest		40	32	25	18	11
Debt/EBITDA	3.0x	2.5x	2.0x	1.5x	1.0x	0.5x
D/E	1.5x	1.0x	0.7x	0.4x	0.3x	0.1x
EBITDA/Interest		5.0x	6.3x	8.0x	11x	18x

debt covenants

coverage ratio

can increase debt? → can still in covenant → IRR↑

3 The remaining is equity financing required

EV = 1,000m

Debt = 600m → Can we increase debt?

* paydown overtime

Therefore, Equity = 400m → Does this achieve our IRR target?

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Hedge fund and PE/VC fee structures

asset under management

net asset value

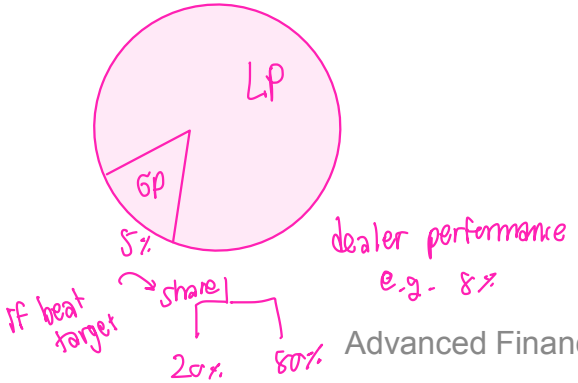
- Management fees: 2% of AUM / NAV
- Incentive fees: performance fee / carried interest ~20% of “profit”

→ **2 and 20**

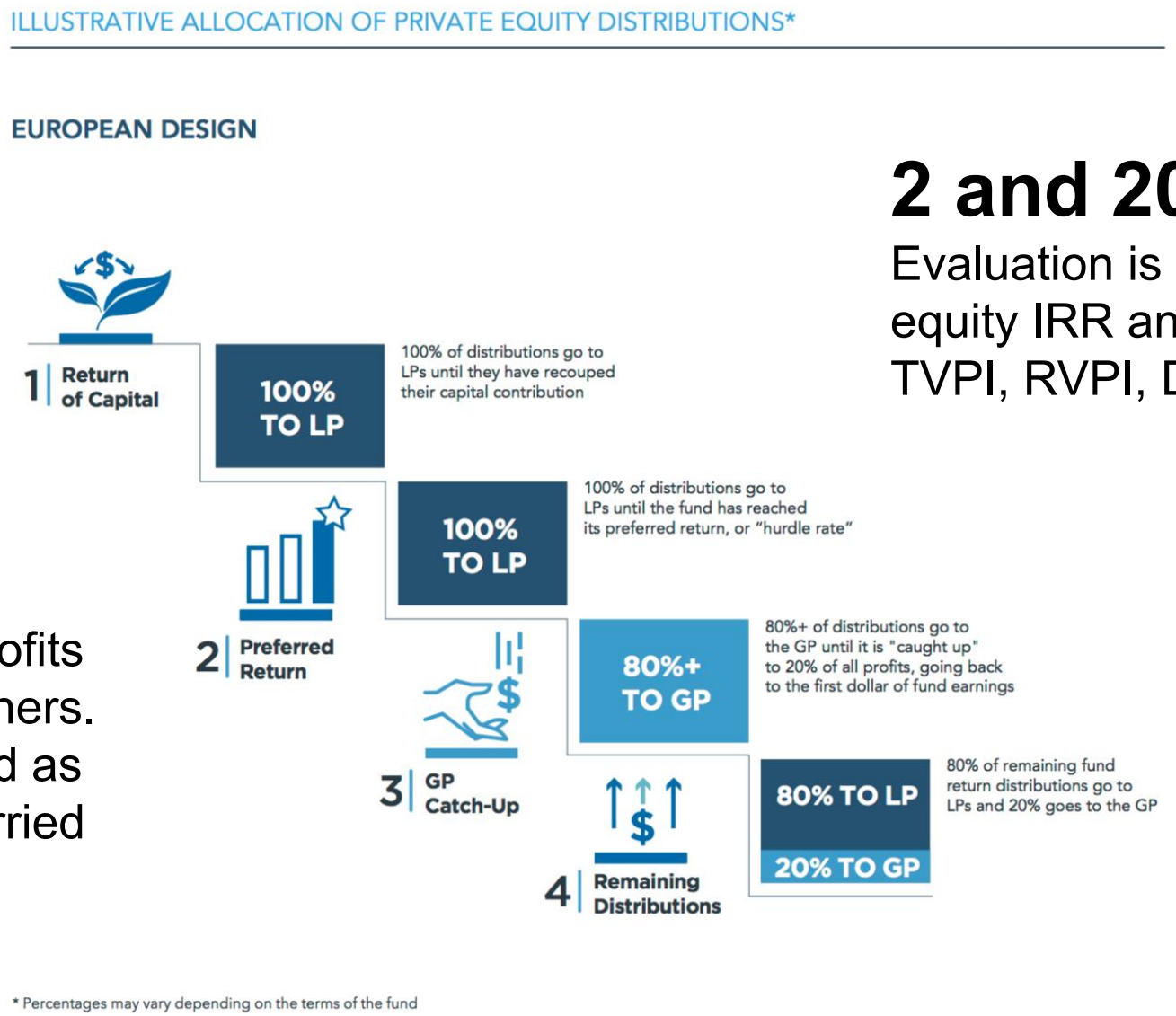
fund-as-a-whole basis versus investment-by-investment basis

hurdle rates / preferred returns: 6-12% (common 8%)

catchups and claw backs



Phases of distribution waterfall



2 and 20

Evaluation is focused on equity IRR and equity multiple. TVPI, RVPI, DPI

Carried Interest

(carry/promote): a share of profits from a PE/VC to general partners. Limited partnerships are taxed as pass-through entities, and carried interest is taxed as long-term capital gains

Source: ValueWalk Premium

Performance fee and potential incentive distortion

Valuing Private Equity

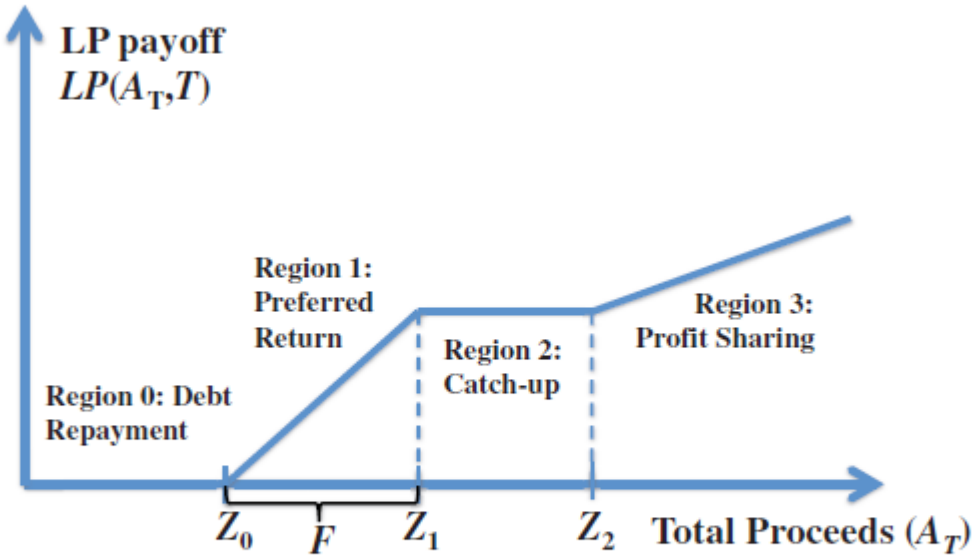
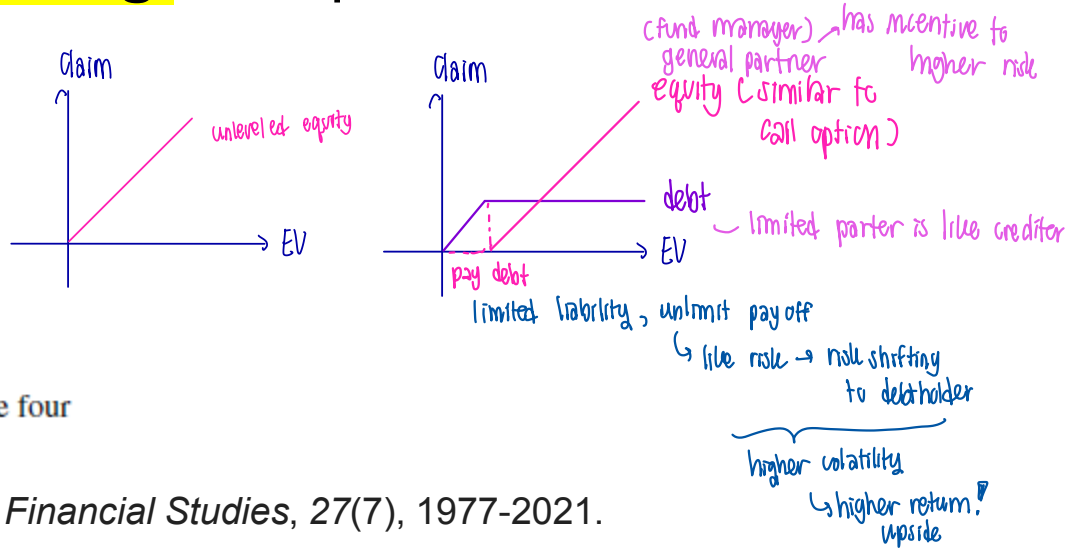


Figure 1
The LP's payoff diagram
This figure illustrates the LP's final payoff, $LP(A_T, T)$, as a function of the total proceeds, A_T, across the four regions of the waterfall structure.

Option valuation principle implies that call option increases in value with uncertainty.

This is the essence behind **risk shifting** in corporate finance.



Sorensen, M., Wang, N., & Yang, J. (2014). Valuing private equity. *The Review of Financial Studies*, *27*(7), 1977-2021.

There are various types of debt that could be used

- Term loan (3, 5 years) → collateralized, bullet payment
- Subordinated/unsecured loan → no collateral, high yield
- Mezzanine financing → often high yield notes/debentures
- Revolver / Overdraft (OD) → collateralized

- Some financing may be convertible to equity.

Based on materials prepared by
Siras Sombatsiri, Lakeshore Capital

LBO Case Study: Twitter

CNBC

Elon Musk offers to buy Twitter for $43 billion, so it can be 'transformed as private company'

PUBLISHED THU, APR 14 2022•6:20 AM EDT | UPDATED THU, APR 14 2022•8:58 PM EDT

Samantha Subin
@SAMANTHA_SUBIN

Elon Musk offered to buy Twitter for $54.20 a share in a filing published Thursday, saying the social media company needs to be transformed privately, a little over a week after revealing a 9.1% stake in the company. Musk's offer values Twitter at about $43 billion.

KEY POINTS

- Elon Musk offered to buy Twitter for $54.20 a share, or about $43 billion.
- "I invested in Twitter as I believe in its potential to be the platform for free speech around the globe, and I believe free speech is a societal imperative for a functioning democracy," Musk wrote in a letter sent to Twitter Chairman Bret Taylor.