

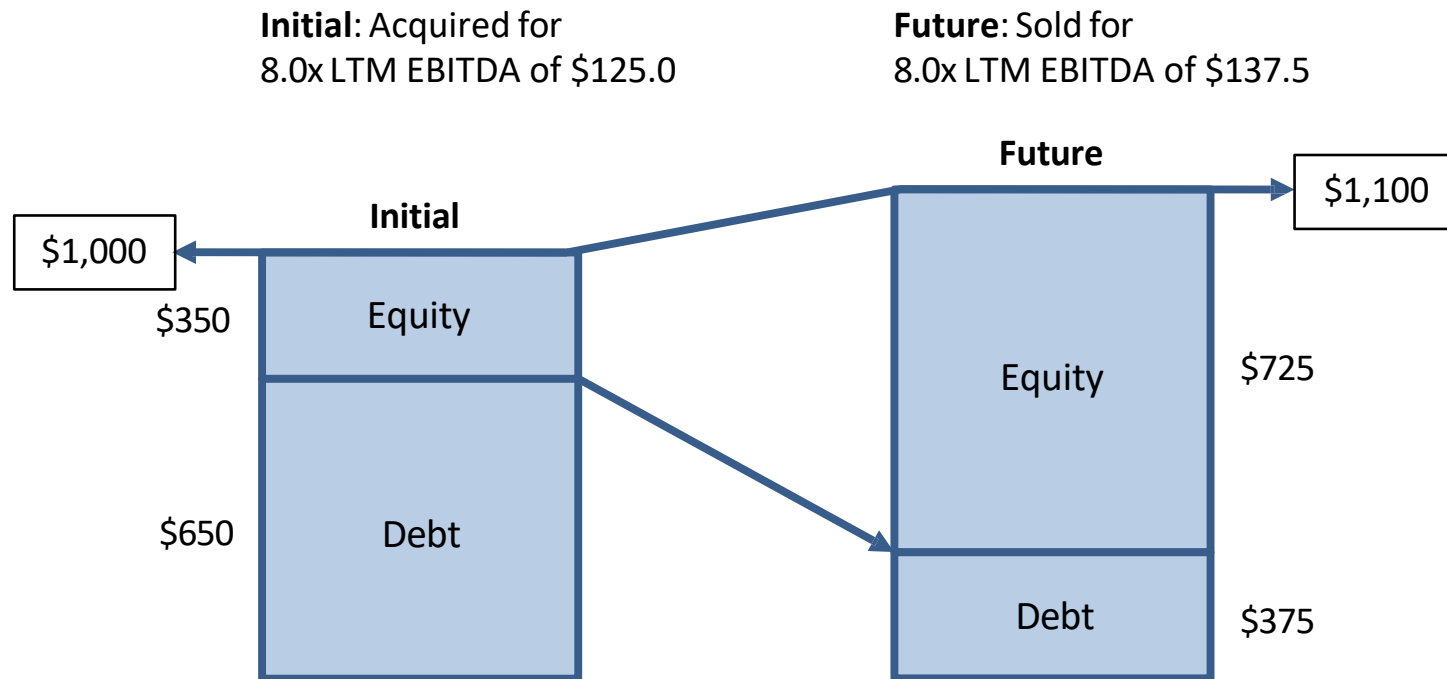
Private Equity Overview

What is Private Equity?

- Private Equity (PE) / Leveraged Buyouts (LBOs)
 - Finances mature companies: private, public, or subsidiaries of large organizations
 - PE fund usually takes majority control
 - Investment size varies widely from as low as \$5M to over \$5B
 - Ideally exit in 3-7 years through sale to a competing company (strategic acquirer), private equity firm (financial acquirer) or an initial public offering
 - Involves debt as a source of financing. Debt can be obtained based on two sources:
 - The expected future cash flows of the acquired company
 - The assets of the target company (mostly accounts receivable, inventory and / or PP&E)

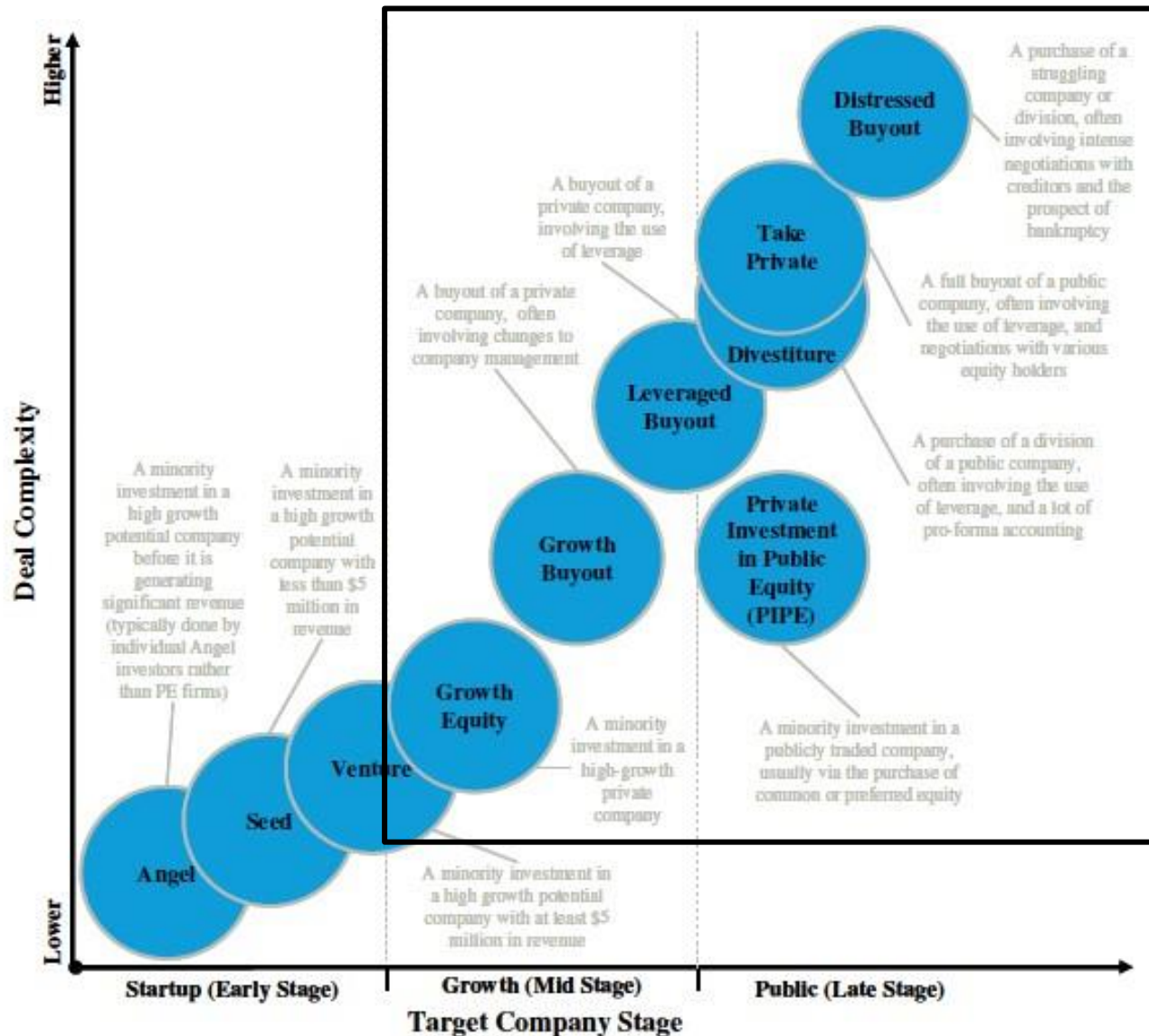
The Power of Leverage

LBO Objective: Pay Down Debt During Holding Period



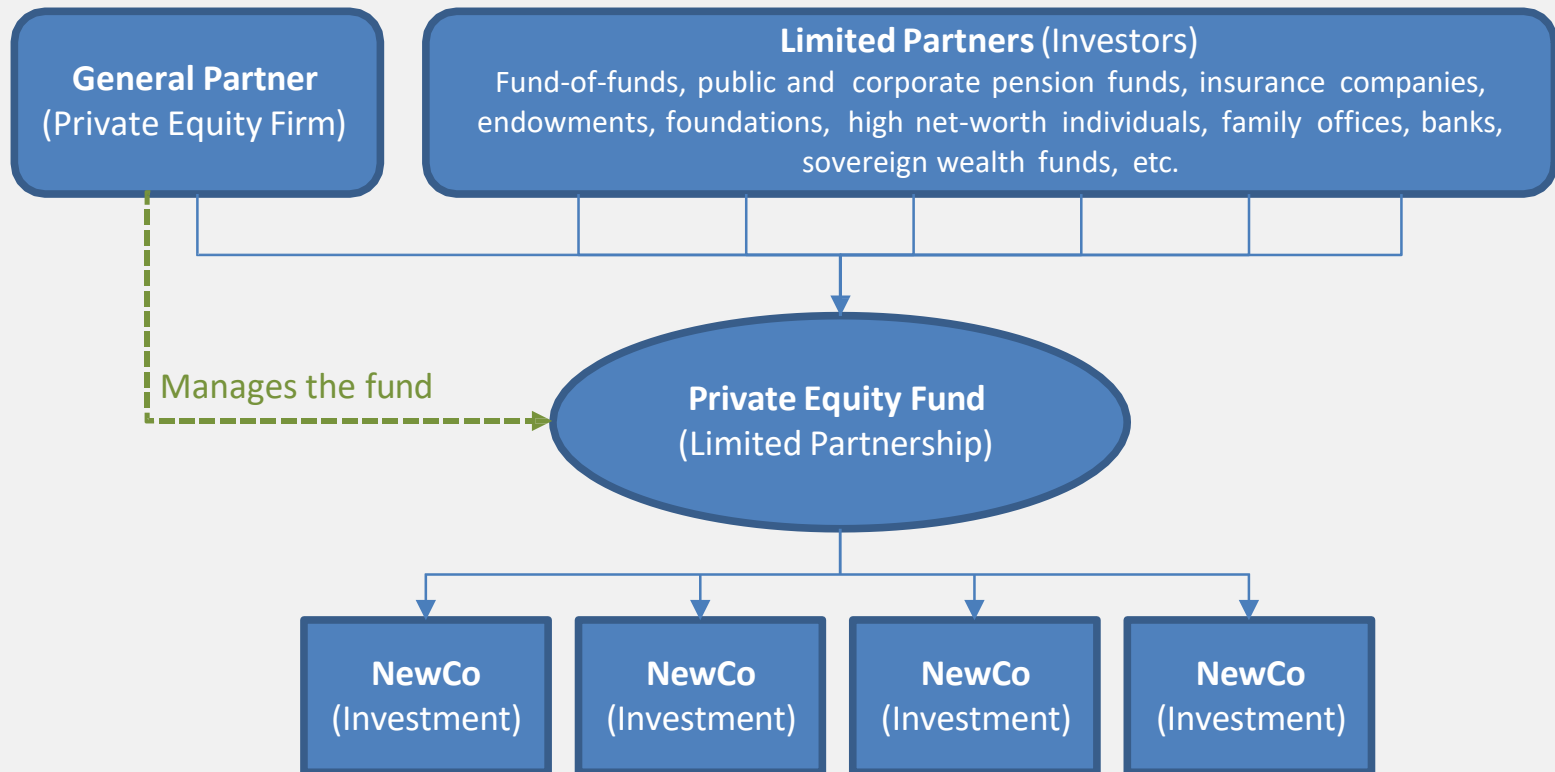
Source: Training the Street, Inc.

Deal Type by Stage



Structure of PE Firms

Ownership of a Private Equity Fund



The PE Compensation Structure

There are three ways a Private Equity Firm makes money:

1. Fees paid by portfolio companies

- ▶ One-time transaction fee (2-3% of deal value)
- ▶ Ongoing monitoring / service fee (3-5% of EBITDA)

2. Fees paid by the Limited Partners

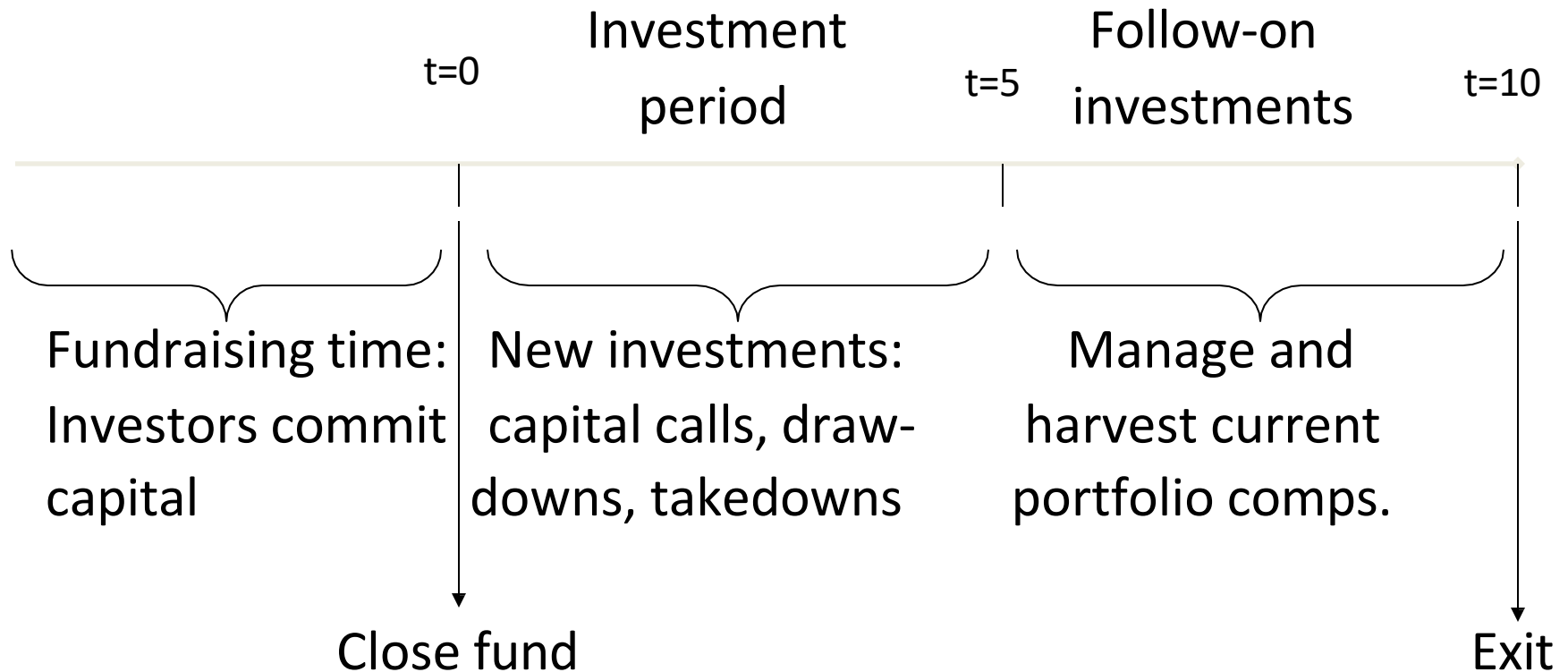
- ▶ Management fee (~2% of committed capital)

3. Carried Interest (Promoted Interest)

- ▶ GPs receive ~20% of deal profits after all invested capital has been returned to LPs
- ▶ Often subject to a minimum return threshold of 8% IRR

Typical Timeline of a Fund's Life

Example of timeline:



Org Structure of a PE Fund

Investment Team
Partners / Principals / Directors
Vice Presidents
Senior Associates
Associates

Support Team
Operating Partners
Portfolio Management
Investor Relations
Talent / HR
Finance
Administrative

Note: Not all companies have each of the positions listed above!

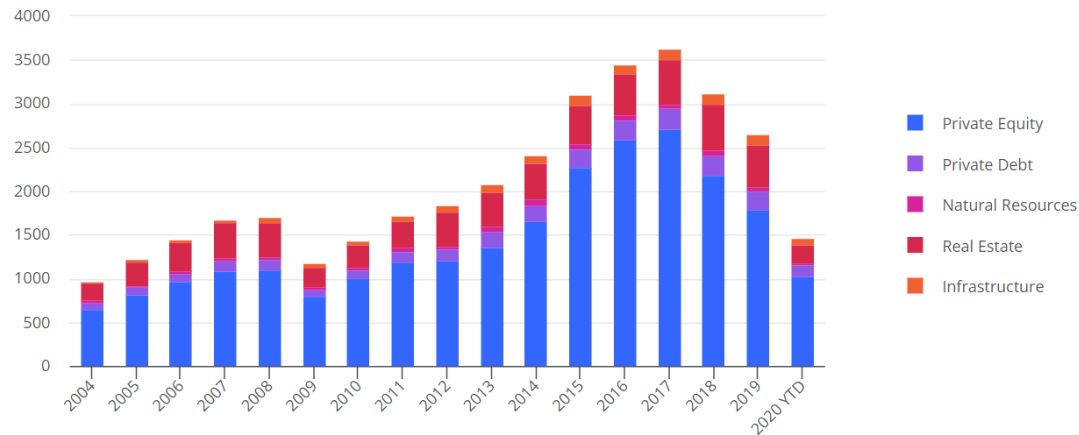
Common Strategies Firms Use

- Fund Stage: Growth Equity vs. LBO vs. Distressed
- Target Company Size
- Industry Focus
- Operational vs. Financial Focus
- Thesis Driven
- CEO First
- Proprietary vs. Banker Process
- Majority control or Minority investment

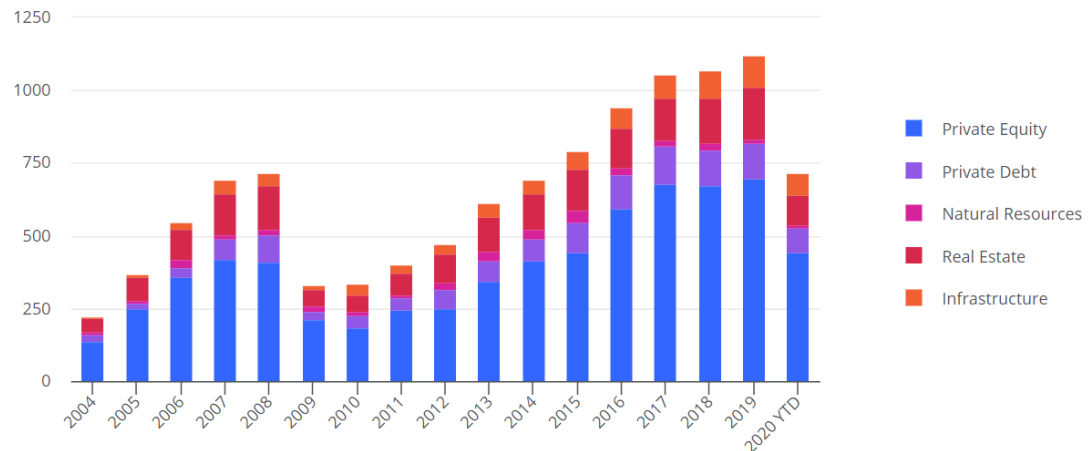
Size of the PE Market

- Latest estimates are that approximately 20,000 people work in PE and VC
- PE and VC firms currently manage nearly \$3.3 trillion dollars
- Annual revenues of the companies backed by PE & VC rival the revenue of the entire Fortune 500

Number of Active PE Firms



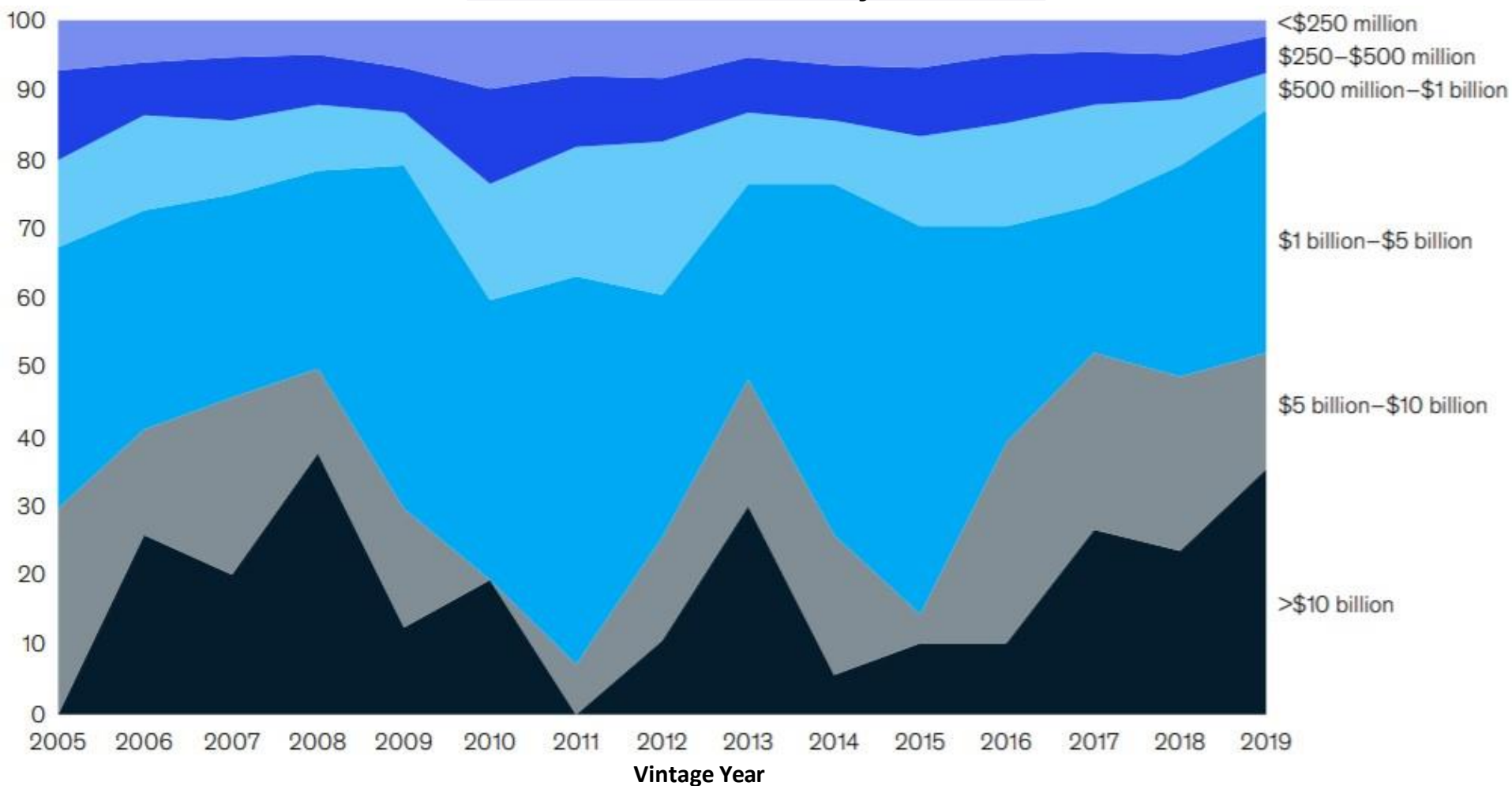
Funds Raised (\$ in billions)



Sources: Private Equity International; Fortune; Buyouts Magazine; Bain & Company Private Equity Report, Preqin

Buyout Funds are Stratified

Share of Funds Raised by Fund Size



Source: McKinsey Global Private Markets Review 2019; Prequin

Largest Firms*

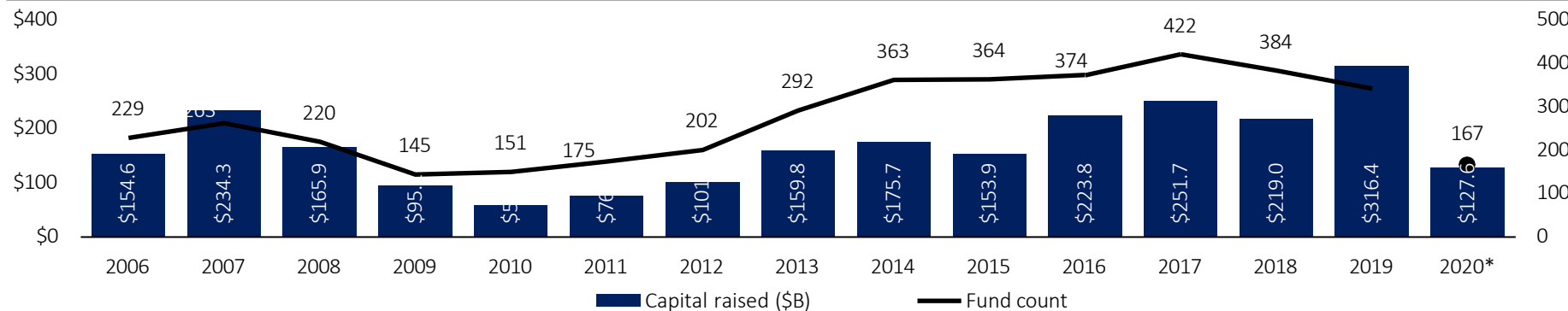
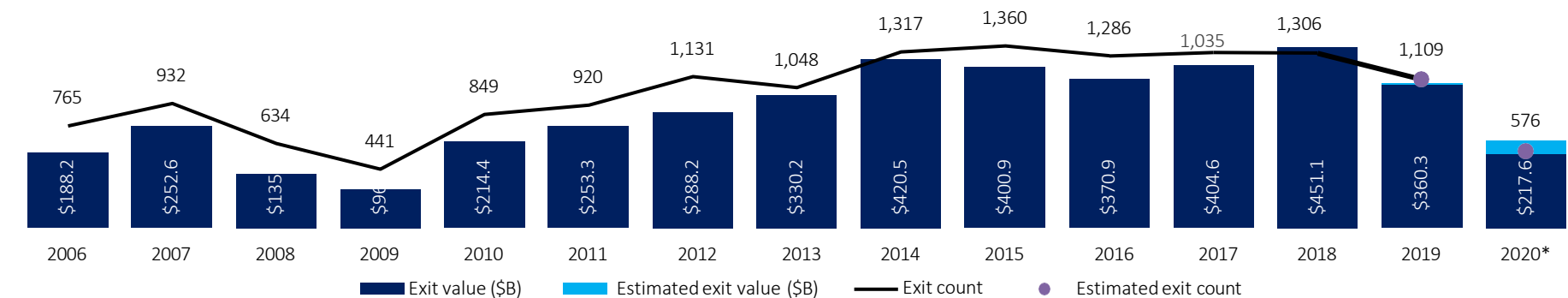
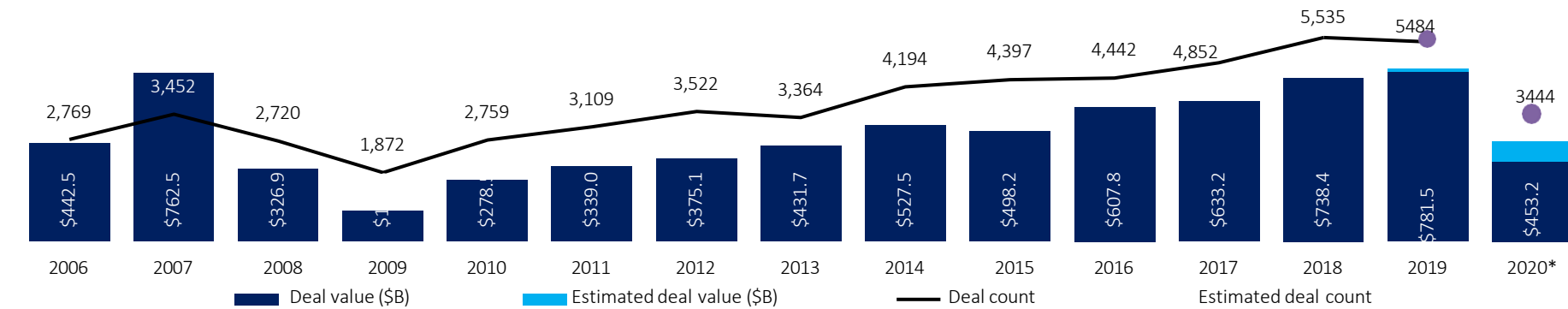
2019		2018	Firm	Five-year fundraising total (\$m)	Headquarters
1	▲	2	Blackstone	82,851	New York
2	▼	1	The Carlyle Group	63,802	Washington DC
3	◁▷	3	KKR	47,977	New York
4	▲	5	CVC Capital Partners	47,413	London
5	▲	6	Warburg Pincus	36,557	New York
6	▲	12	Bain Capital	35,554	Boston
7	◁▷	7	EQT	30,054	Stockholm
8	▲	17	Thoma Bravo	29,880	Chicago
9	▼	4	Apollo Global Management	29,001	New York
10	▼	8	Neuberger Berman Group	28,884	New York

Selected Chicago Names:



*Source: PEI 300; excludes SoftBank Vision Fund

Fundraising is Cyclical

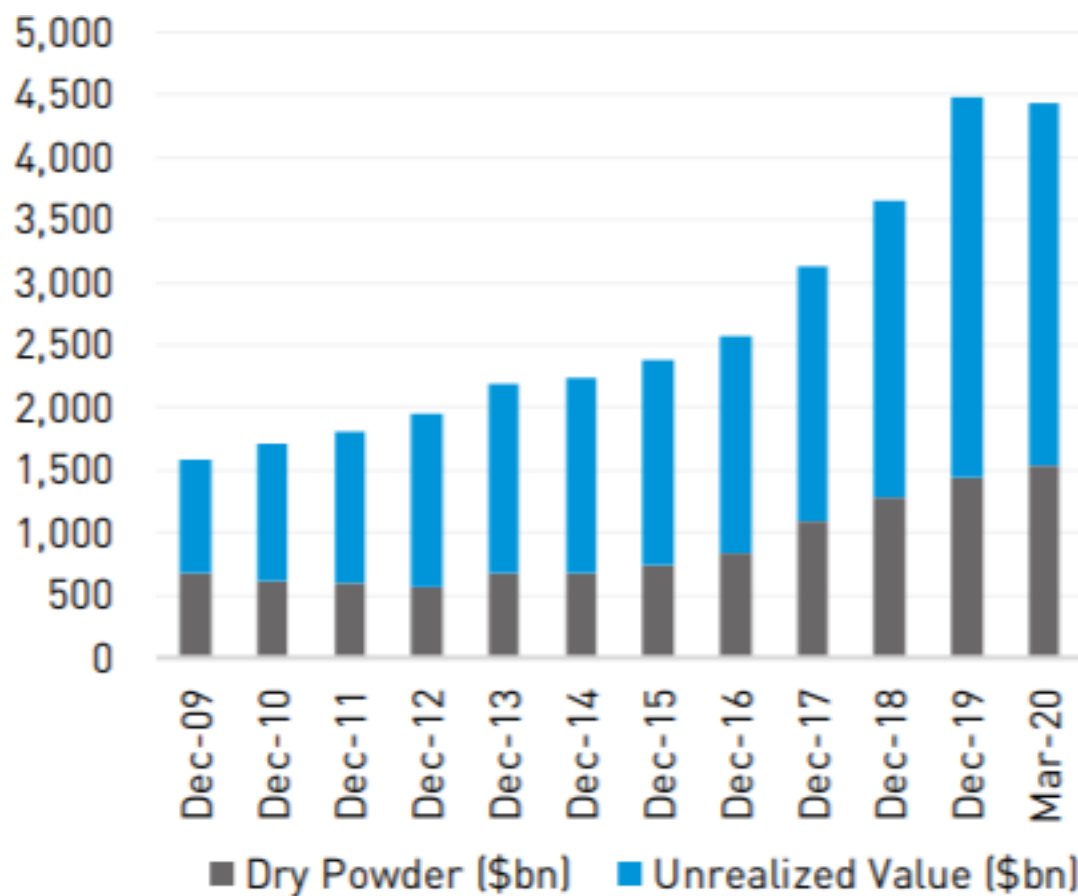


Fundraising typically increases following successful periods of liquidity

*Source: PitchBook

PE Assets Under Management

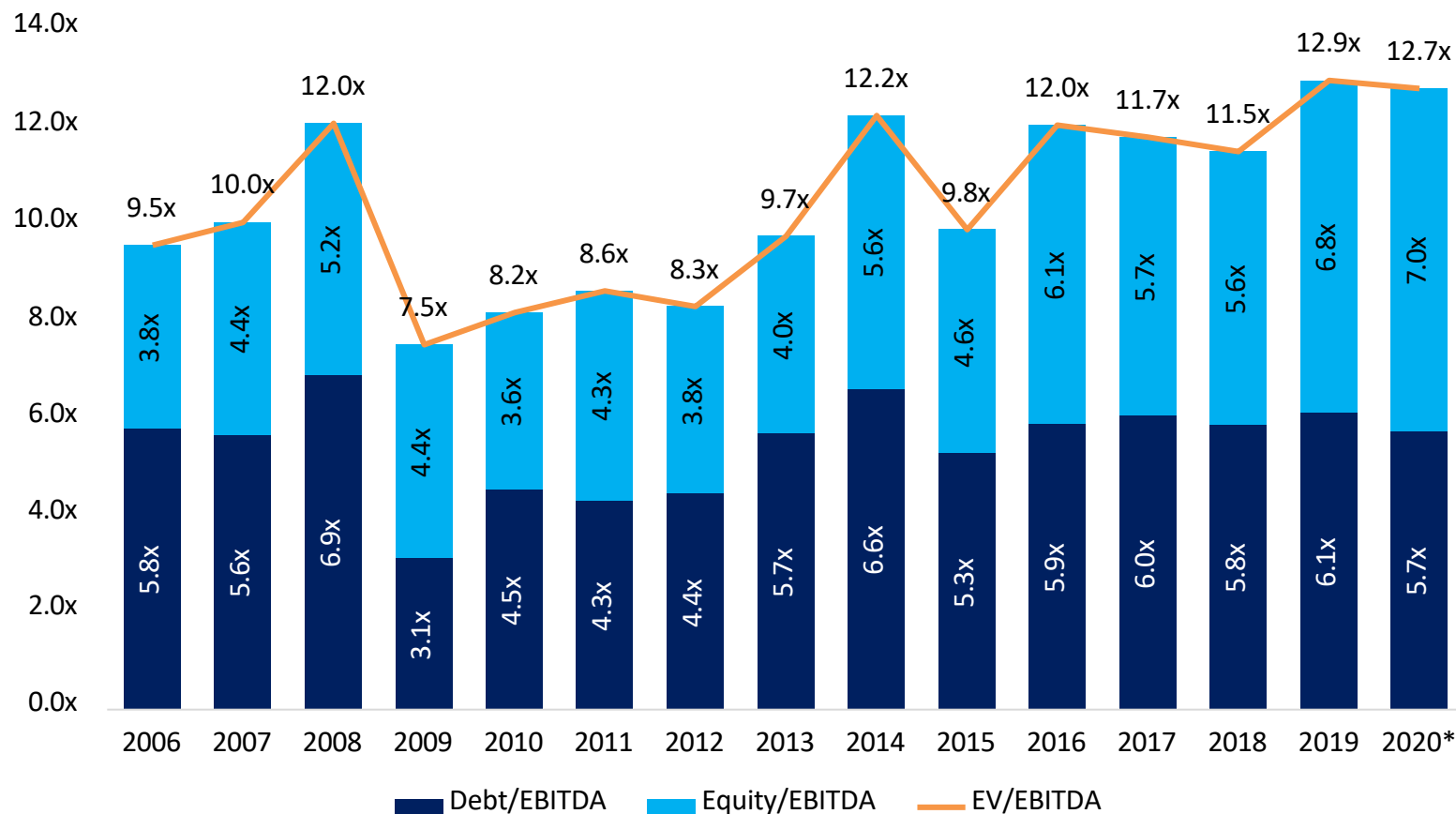
AUM in Billions



Source: Preqin

Purchase Price and Leverage Multiples

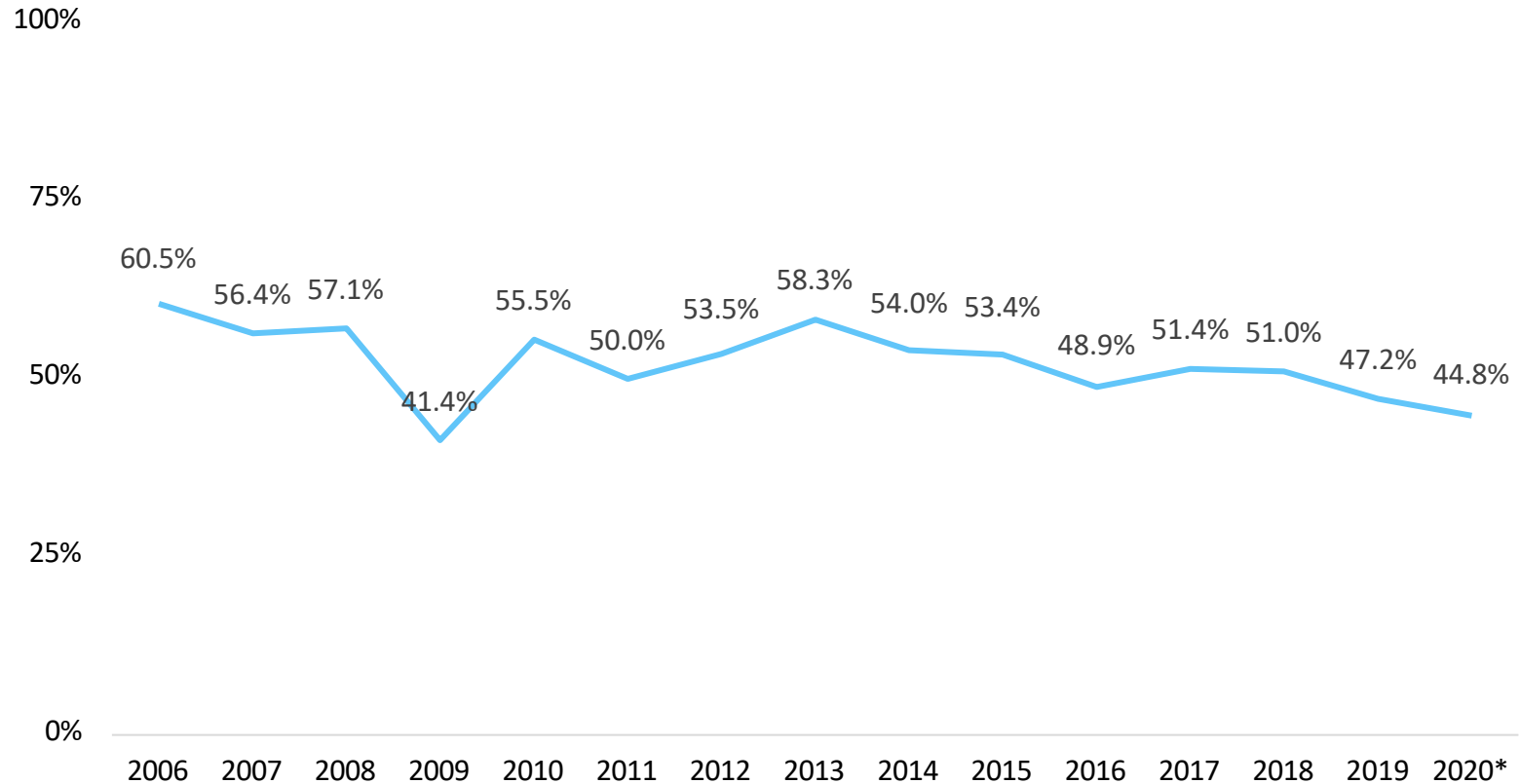
US PE Buyout Median EV / EBITDA Multiples



Source: Pitchbook Annual 2020 US PE Breakdown

Debt / Cap Ratios Have Trended Down

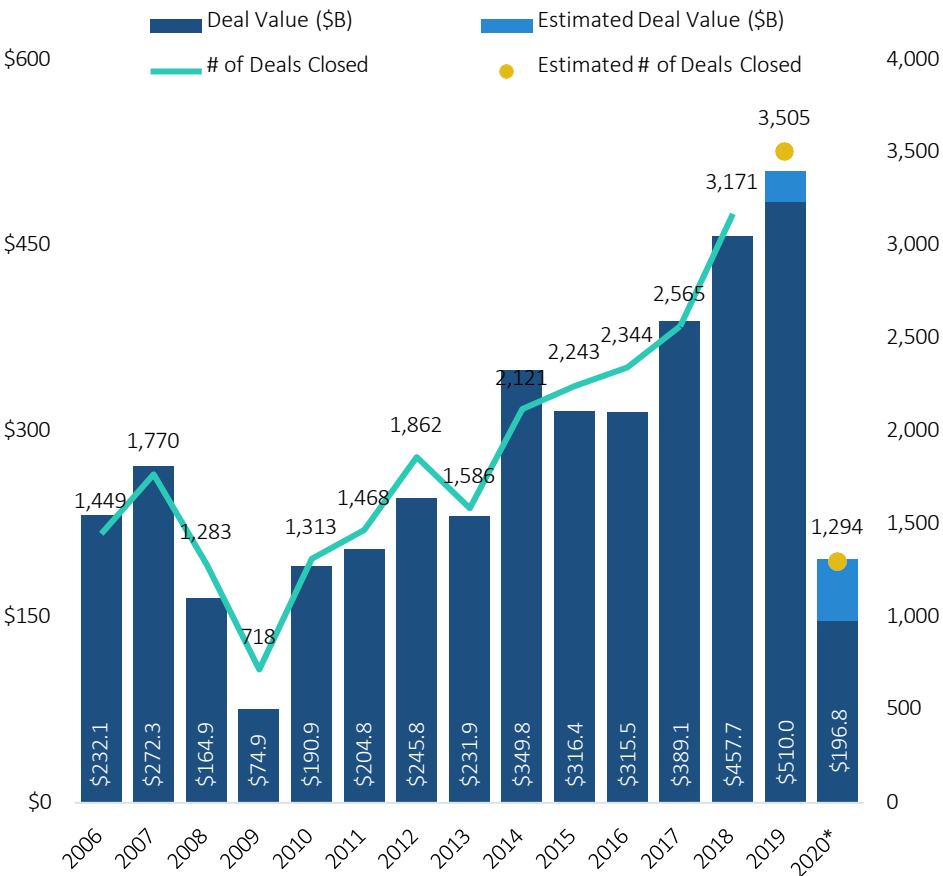
US PE Buyout Median Debt Percentages



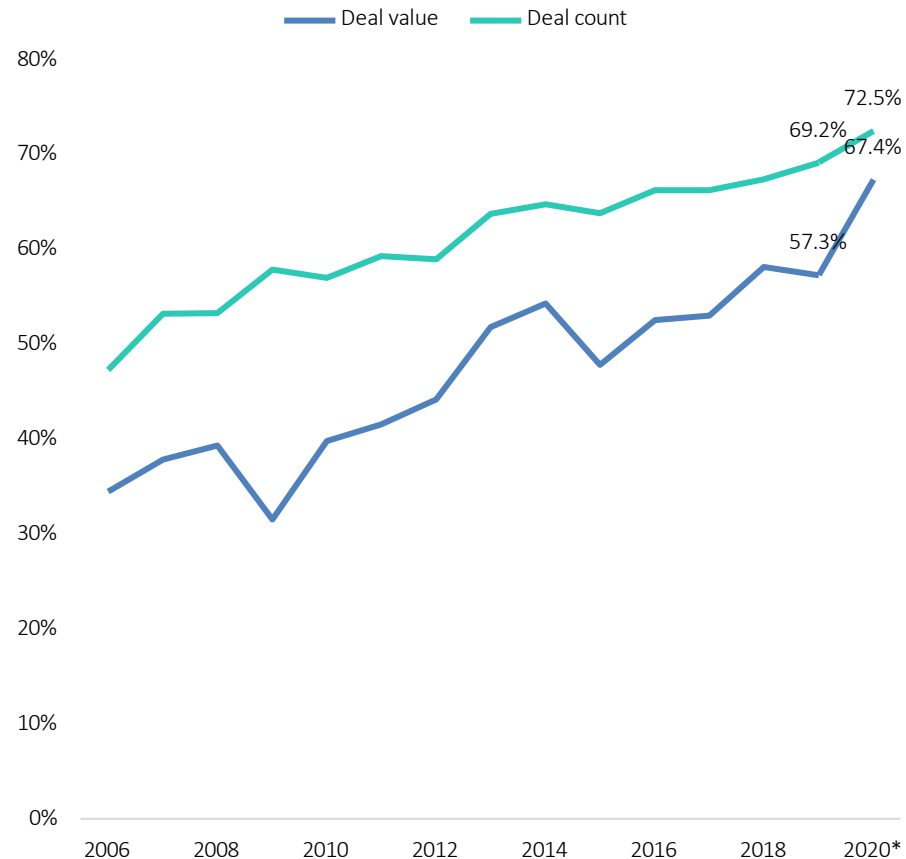
Source: Pitchbook Annual 2020 US PE Breakdown

Middle Market Snapshot

US PE MM Deal Activity



Add-ons % of Overall PE MM Deals



Source: PitchBook US PE Middle Market Report – 2Q 2020

Similar Career Options to Traditional PE

- Limited Partner (asset management) / Co-investor
- Fund of funds
- Debt / mezzanine investors
- Commercial lenders
- Operator at a PE portfolio company
- Investment Banking
- Search Funds
- Fundless sponsors
- Family Office
- Impact Investing
- Corporate Development
- Consulting / Due Diligence Providers

How to Choose the Right Fund

Primary Factors

- Investment type (growth equity/LBO/distressed) and fund strategy
- Fund size (bigger is not always better)
- Fundraising
- Culture fit

Other Factors:

- Location
- Sector focus
- Firm lifecycle
- Backgrounds of senior management

DEAL PROCESS OVERVIEW

Illustrative Deal Funnel: Middle Market PE

Teaser – 500

- **Description:** Blinded overview of the target company.
- **Decision Point(s):** Does this opportunity fit our investment criteria?
- **If yes,** execute Confidentiality Agreement (“CA”; also known as a Non-Disclosure Agreement, or “NDA”).

Confidential Information Memorandum (“CIM”) – 250

- **Description:** Detailed marketing document from the investment bank describing the company, industry, and transaction opportunity. Generally includes management financial projections.
- **Decision Point(s):** Would this be an attractive investment? Can our firm unlock special value?
- **If yes,** deal team builds preliminary model and investment pitch. Opportunity presented at 1st Investment Committee (“IC”). Develop initial valuation range.

Indication of Interest (“IOI”) – 40

- **Description:** Letter outlining preliminary valuation range and deal structure with a description of the private equity firm.
- **Decision Point(s):** Does the IC support pursuing this deal? Does the firm have the resources to diligence this deal?
- **If yes,** submit IOI to company’s investment banker.

Management Presentation – 30

- **Description:** Investment bank and client select attractive bidders based on IOI terms and firm reputation. Chosen parties meet with company management and potentially tour facilities.
- **Decision Point(s):** Does our investment thesis still hold? Was the company accurately portrayed in the CIM? Can we underwrite the financial projections or develop our own assumptions?
- **If yes,** commence more detailed business due diligence. Create full financial model and investment pitch materials. Begin educating potential sources of debt or co-equity financing. Deal team pitches opportunity at 2nd IC.

Letter of Intent (“LOI”) – 12

- **Description:** Letter with point valuation and detailed description of proposed transaction terms & conditions. Non-binding (with the exception of certain legal clauses), but represents best faith proposal from PE firm. If this deal is won, the firm is expected to use its best efforts to close the transaction.
- **Decision Point(s):** Does the IC support pursuing this deal? Does the firm have the resources to diligence?
- **If yes,** submit LOI to company’s investment banker.

Exclusivity – 6

- **Description:** The firm is selected by the investment banker and client as the chosen buyer. The LOI is executed and typically grants the firm 30-60 days to complete confirmatory due diligence without threat of entry from another suitor. The firm hires consultants (or uses internal resources) to investigate key risk areas throughout the company.
- **Decision Point(s):** Have we completed due diligence without identifying any major risks? If no, can we structure around these risks and/or adjust the economics of the deal to reflect these risks?
- **If yes,** complete legal documentation, secure 3rd party financing, and call capital.

Close – 3

- **Description:** Collect and disburse cash according to funds flow document to complete transaction.

Note: Funnel amounts and investment process are loosely based on an industry-focused lower middle market PE firm with 9 investment professionals participating in brokered deal processes.

Investment Process Overview

Sourcing

- Auction processes
- Inbound deals from intermediaries (lenders, bankers, lawyers, etc.)
- Cold Calling
- Proprietary deals
- Industry conferences / trade shows

Due Diligence and Valuation

- Market Size
- Market Trends
- Market Opportunity
- Competition
- Management Team
- Financials (Historical and Projected)
- Returns Analysis / Valuation

Closing

- Financing (debt and equity)
- Legal documentation
- Regulatory approvals
- Investment committee approval
- Timeline varies depending on type of target/buyer (public vs. private, strategic vs. financial, international vs. domestic)

Portfolio Management

- 100-day plan
- Board of Directors meetings
- Implement monthly/quarterly reporting and valuation framework
- Introductions to strategic partners
- Allocate follow-on funds for add-on acquisitions
- Build out management team
- Share best practices and pattern recognition
- Exit analysis & sale process

Deal Sourcing – Inbound and Outbound

Inbound

- Investment Banks / Deal Brokers
- Intermediaries
 - Lawyers
 - Consultants / Accountants
 - Lenders
- Portfolio Companies' Management
- Personal Networks
- Other Funds (syndicate deals)
- Fundless Sponsors

Outbound

- Direct Calling Efforts (management teams and brokers)
- Conferences & Tradeshow
- Industry Associations
- Alumni Organizations
- Social Media (LinkedIn)

Deal Sourcing – Top-Down vs. Bottoms-Up



Top-Down

- Deals sourced through senior professionals' networks
- Junior professionals focus on evaluation, execution, and support
 - Juniors may join at early stages (review initial materials / put together bids) or once deal has been locked up under LOI

Bottom-Up

- Junior professionals spend significant portion of time sourcing
- Cold calling ("dialing for dollars")
- Opportunities to own and manage relationships

Do's and Don'ts of Deal Sourcing

Do's

- Learn your industry inside and out – domain expertise
 - Establish your industry credibility
 - Show management teams you understand what they are doing
- Add value through your contacts
 - how can you help them?
- Make a map of target companies
- Sourcing is a contact sport – talk to everyone
- Leverage common connections (e.g., Kellogg alums)

Don'ts

- Violate the confidence of your contacts
- Assume you're the only one talking to a company
- Wait to talk to a company
- Go to meetings unprepared
- Inundate people
- Ever give up!

Due Diligence

Legal Definition:

- A measure of prudence, activity, or assiduity, as is properly to be expected from, and ordinarily exercised by, a reasonable and prudent person under the particular circumstances; not measured by any absolute standard but depends on relative facts of the case

Basic Definition:

- An investigation or audit of a potential investment. Due diligence serves to confirm all material facts in regards to a sale. Goal is to answer the questions “Do we want to own/invest in this company, and if so, how much should we pay?”
- Generally, due diligence refers to the care a reasonable person should take before entering into an agreement or a transaction with another party

Representative due diligence workstreams include:

Legal**Financial****Quality of
Earnings****Tax****Regulatory****Financing
Process****Exec
Interviews****HR****Operations****IT/
Systems****Market****Customer
Calls**

Due Diligence Process Overview

Evaluate Company

- Financials
- Positioning
- Management
- Risks and mitigants
- Value
- Investment thesis – anything unique your firm brings to the equation?

Analyze Market

- Market Size
 - Data from company
 - Outside research
 - Growth forecasts
- Market Trends
 - Sales cycles
 - Industry developments
 - Macroeconomic trends
- Market Opportunity
 - What drives sales?
 - Channels of distribution
 - What is reasonable market share
- Regulation
 - Anything near-term that poses a risk / opportunity?
- Competition
 - RMS
 - Product offerings

Financial Analysis

- Projections with performance scenarios, capital structure alternatives and returns
- Current and historic trading multiples, operating metrics
- Comparable company analysis (“Comps”)
- Capitalization table

Legal Issues

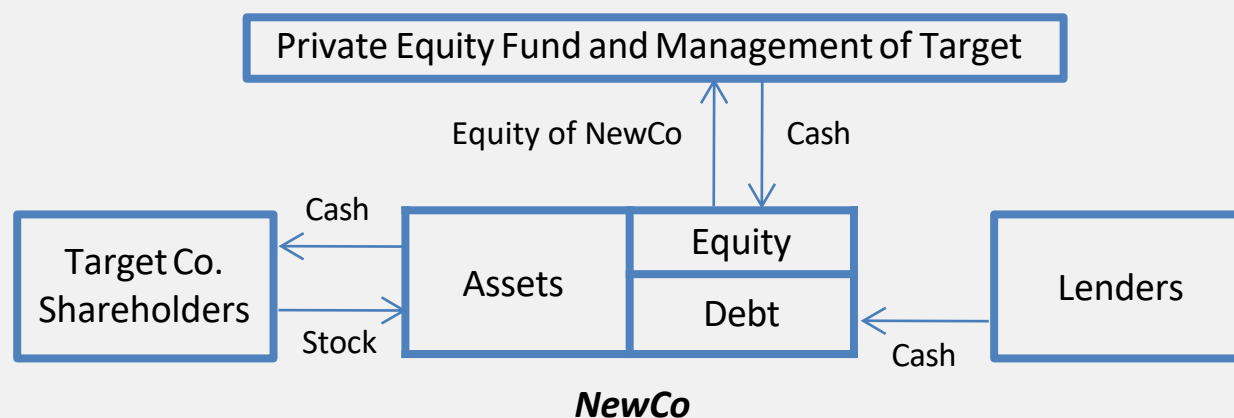
- Patents and proprietary information
- Lawsuits
- Regulatory & environmental issues
- General legal
- Capital structure
 - Terms of prior financings
 - Management stock ownership
 - Option pools
- Board of directors

Closing the Deal

- There are a lot of issues that have to be addressed to get a deal over the finish line
 - Financing (including loan documents, funds flow, working capital adjustments)
 - Documentation (purchase agreement, employment agreements, shareholder agreements, management equity incentives)
 - Regulatory approvals (e.g. HSR)
- Your job is to manage the process
 - Serve as a “general contractor for all service providers (Accountants, Lawyers, Consultants, etc.)
 - You are completely responsible for all outcomes
 - Therefore, attention to detail is crucial (one word could save/cost millions)
- Timing and activities are dependent upon the deal
 - 3 hours (Angel) to 12+ months (e.g. Harrah’s)
 - Structure (all-equity vs. leverage/debt; minority vs. majority ownership; earn-outs vs. all-cash; management rollover)
 - Industry (regulations, insurance, ownership restrictions, etc.)

Structuring an Acquisition

NewCo Funding and Investing



- Target company shareholders sell shares (or assets of target) for cash
 - Potential for some shareholders to “rollover” and participate in upside
- Cash paid by NewCo is funded by lenders and private equity fund (and management investments)
 - Cash flow from NewCo/Target Co. is used to service debt payments

Source: Training the Street, Inc.

Post-Investment

- The group of companies a PE firm invests in is called its “Portfolio”
- How a firm constructs and manages its portfolio depends on strategy
 - Sector focus or stage focus
 - Functional focus (operations, human capital)
- Managing and supporting the Portfolio is a full-time job
 - Board governance / business strategy
 - Recruiting and compensating management
 - Budgeting and financial reporting
 - Capital markets
 - How?
 - Board involvement and continuous communication with executive team
 - Value Add:
 - Best practices
 - Network
 - Experience
 - Liquidity

Portfolio Management

- Portfolio Monitoring
 - Manage risk within portfolio (diversification; liquidity needs)
 - Determine (potential) follow-on funding
 - Develop strategy for (potential) add-on investments and eventual exit
 - Contact point for outside interest (potential acquirers)
- Investor/LP Relations
 - Annual LP presentation on the health of the fund
 - Quarterly reports describing portfolio company health and fund aggregate performance
 - Annual audited financial statements
 - Tax distributions
 - Preparation for next fundraise

Investment Exits

PE Firms must monetize investments to return capital to investors

- Vast majority of value is captured at exit and not during hold period through dividends, distributions, etc.

IPO

M&A

What?	■ Initial Public Offering	■ Mergers & Acquisitions
Who?	■ “Public” buying % of shares ■ Institutional investors	■ Strategic <u>or</u> Financial Buyers ■ Buying a controlling interest
Where?	■ NASDAQ, NYSE, etc.	■ Strategic and cultural fit
Why?	■ Premium valuation ■ Control ■ Status	■ \$1 today > \$1 tomorrow ■ More likely to occur! ■ Synergies? (1+1=3)
Why Not?	■ Financial & other milestones ■ SARBOX ■ Complexity	■ Potential lack of bidders ■ Discount to public market? (illiquid) ■ Earn-outs?
How?	■ S-1 prep & roadshow ■ Investment banks	■ Bidding & Merger Agreement ■ Solicited? Auction? Hostile? ■ Consideration ■ 100% Cash, 100% Stock or Mixed

PE Value Add at Exit

- “Broker”—think MORS 430 & *Tipping Point*
- Grease the rails for an exit
 - M&A: Introductions to potential strategic and financial buyers
 - IPO: Creating excitement, intros with I-Banks & additional bidders
- Outside perspective from deal experience
 - “Deal Professionals”
 - What does a “public company” look like?
 - What is a “fair” value?
 - Who is the right investment banker for this company?
- An extra set of hands
 - Minimize management distraction
 - Running point on sale or IPO process
 - Assisting in due diligence, auction, IPO roadshow processes
 - Interviewing and vetting management candidates

ETA & OPERATIONS OVERVIEW

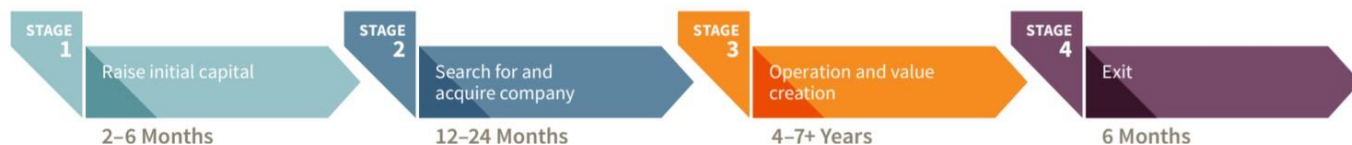
What is Entrepreneurship Through Acquisition (ETA)?

Entrepreneurship Through Acquisition (ETA) is the process of purchasing an existing business and running it as the CEO.

- Fast track path to owning and operating your own business
- Attractive alternative for entrepreneurs who want to own and operate a company, but do not want to pursue a startup

Search Funds: An investment vehicle that enables one or two entrepreneurs to search for, acquire, manage and grow a company.

Stages of the Search Fund Lifecycle



Common ETA Paths

Traditional

- Original search fund structure developed in the 80s.
- 10-18 Investors
- ~\$450k of capital raised (covers ~24 months of living and business expenses during search)
- Solo or Partner Search
- Once company is targeted, original investors decide to opt-in or opt-out.
- **Pros:** Flexibility, less geographic constraints, investor power is dispersed
- **Cons:** Fundraising, searcher must set up all processes

Incubated

- Entrepreneur partners with one investor (incubator or accelerator)
- Examples: NextGen Growth Partners, Search Fund Accelerator
- Firm provides search capital, infrastructure, support
- **Pros:** Resources for search and operations, institutional support, surety of funding
- **Cons:** less autonomy, geographically agnostic, single investor structure concentrates influence

Self-Funded

- Entrepreneur funds search costs
- Once target is identified, searcher may engage investors and lenders to provide acquisition capital
- **Pros:** Highest degree of freedom, largest equity % in acquired company, favorable debt financing via SBA 7A loans.
- **Cons:** Lack of institutional support, acquisitions tend to be smaller in size, debt may require personal guarantee

Overview of Search Fund Economics

1. During the Search

While searching for a business to buy, a searcher will typically take a modest salary (median \$110k / year) to cover rent, living expenses, travel, and business expenses. This stage takes on average 2 years.

- **Traditional or Self-Funded Search:** The salary you take is flexible and can be adjusted to meet your needs or budget.
- **Incubated Search:** Salaries are typically less negotiable

2. After the Acquisition

The new CEO's total wealth is comprised of two parts, equity and an annual salary. Both of which vary depending on the size and success of the business purchased and the type of search fund.

1. **Equity** – expect 20-30% equity in the purchased business (*Traditional / Incubated*)
 1. 1/3rd at close of transaction
 2. 1/3rd equity vests over time (4-5 years) if CEO stays with the business
 3. 1/3rd equity vests when performance hurdle is achieved. Typically a 20-35% net investor IRR
2. **Annual Salary** – Varies and is flexible, rough average of \$150K

Searchers – By the Numbers

New Funds
(2019)

51

Median Age

32

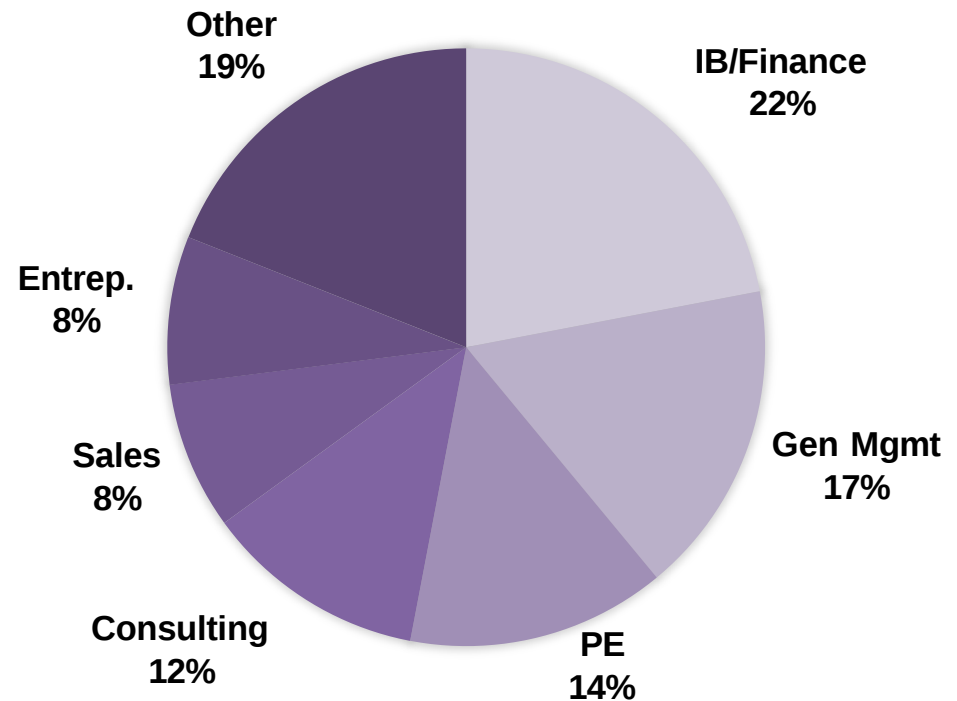
% Women

7%

Solo vs. Partner

80% / 20%

SEARCHER INDUSTRY BACKGROUND



Acquired Companies – By the Numbers

% of SF Funds that Acquire a Company

67%

Median Acquisition
Price

\$10mm

Average
Headcount

32

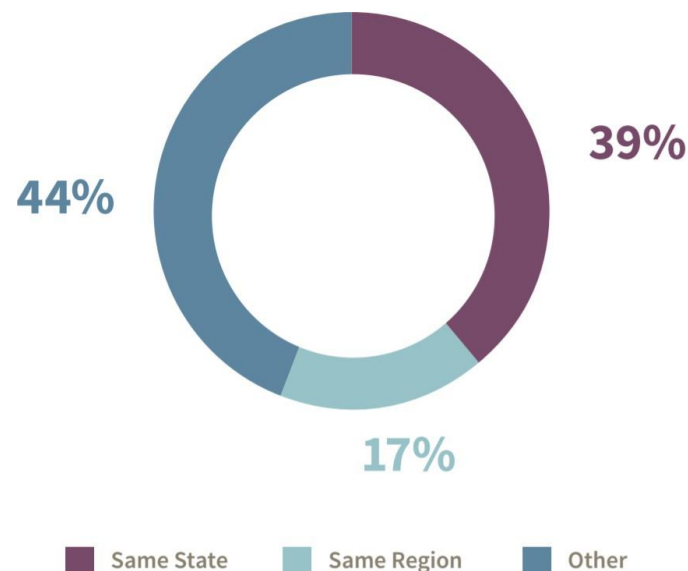
Median EBITDA / Rev Multiple

6.0x / 1.4x

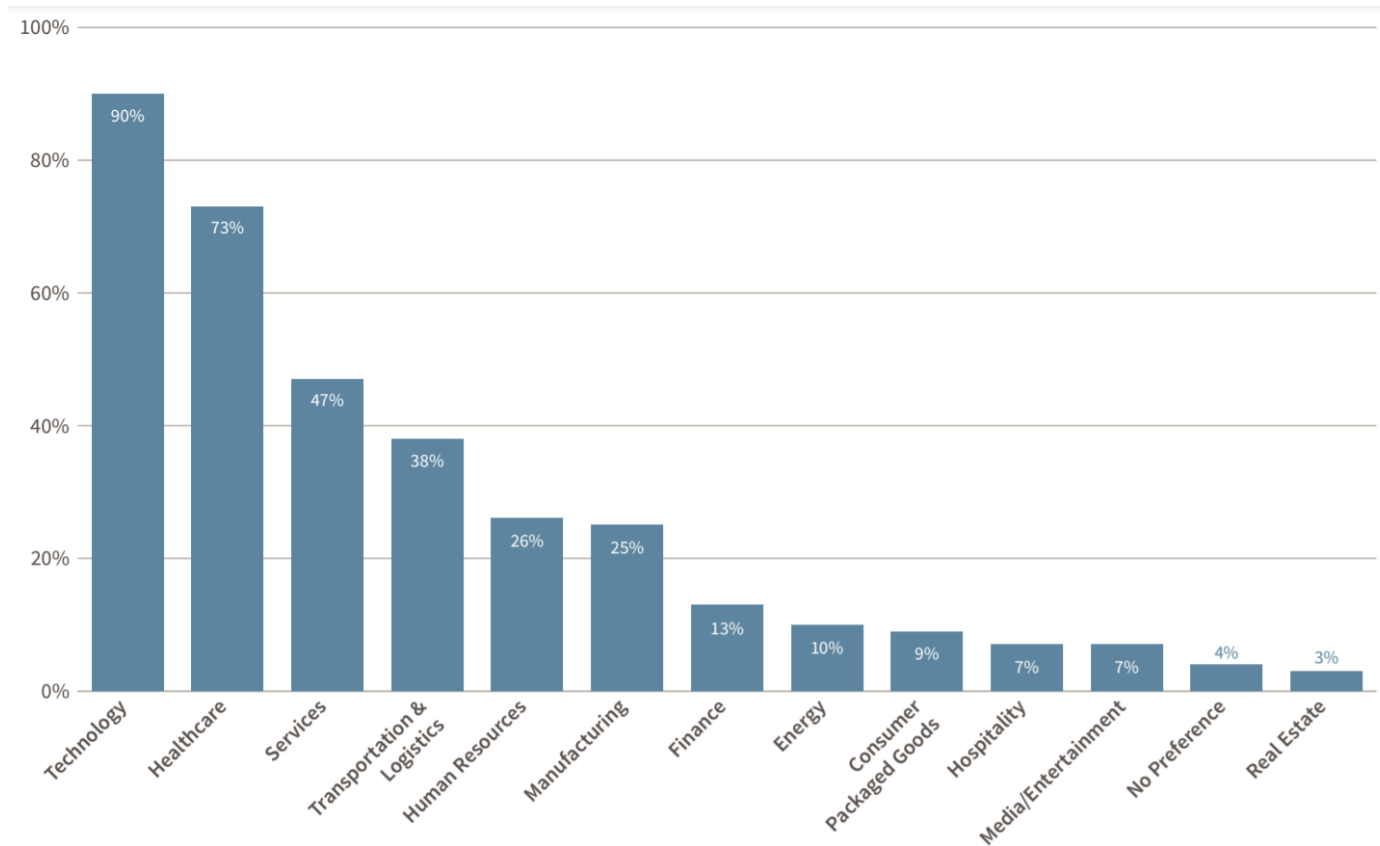
Median EBITDA
Margin / Growth Rate

21% / 15%

LOCATION OF SEARCH FUNDS VS. THE COMPANIES THEY ACQUIRE



Target Companies - Industries



Source: 2020 Stanford GSB Search Fund Study

Outcomes – By the Numbers

**Aggregate Pre-Tax
IRR / ROIC
32.6% / 5.5x**



Relevant Readings and Other Resources

Readings

- [Stanford 2020 Search Fund Primer](#) (PDF)
- [Stanford 2020 Search Fund Study: Select Observations](#) (PDF)
- [HBR Guide to Buying a Small Business](#) (Book)
- Yale: The Arc of a 10x Outcome: <https://som.yale.edu/sites/default/files/The-Evolution-of-a-Search-Fund-CEO-and-Company.pdf>
- [Axial Complete Guide to LBOs](#) (PDF)
- [Axial Guide to Private Company Valuation](#) (PDF)
- [Axial Due Diligence Checklist](#) (PDF)
- [Paul Thomson Search Fund Manifesto](#) (PDF)

Videos

- ▶ Intro to ETA [Intro to ETA Intro to ETA - part 2](#)
- ▶ Insights from a Search Fund Entrepreneur: <https://www.youtube.com/watch?v=KJcn614kgul&list=WL&index=2&t=0s>
- ▶ Navigating the CEO Journey: <https://www.youtube.com/watch?v=43r-Ae1-zUw&list=WL&index=3&t=3s>
- ▶ Perspectives from the Search Fund Investor: <https://www.youtube.com/watch?v=MF-faLDyvY0&list=WL&index=10>
- ▶ Raising Search Capital: <https://www.youtube.com/watch?v=OePCISl1YU&list=WL&index=12>
- ▶ IESE International Search Fund webinar 2020: <https://www.youtube.com/watch?v=SQmpkPe2gcU&feature=youtu.be>

Others

- ▶ Blog: Learning about ETA: <https://jimsteinsharpe.com/contemplating/learning-about-search/>
- ▶ searchfunder.com: Online community: <https://www.searchfunder.com/>
- ▶ Book: Buy Then Build: How Acquisition Entrepreneurs Outsmart the Startup Game: <https://www.amazon.com/-/es/Walker-Deibel-ebook/dp/B07JKM2F5Q>
- ▶ Podcast: <https://www.stitcher.com/podcast/chicago-booth-entrepreneurship-through-acquisition-series>
- ▶ Kellogg slack channels: #pe_club, #eta_searchfunds

List of Major Search Fund Investors

- ▶ Pacific Lake Partners: <https://www.pacificlake.com/>
- ▶ Anacapa Partners: https://anacapapartners.com/site/global/home/p_home.gsp
- ▶ Relay Investments: <https://www.relayinvestments.com/>
- ▶ NextGen Growth Partners (NGP): <https://nextgengp.com/>
- ▶ WSC & Company: <https://wscandcompany.com/>
- ▶ Kinderhook Partners: <https://www.kinderhookpartners.com/>
- ▶ Vonzeo Capital: <https://www.vonzeocapital.com/>
- ▶ Alza Capital Partners: <https://www.alzacp.com/home>
- ▶ Peterson Partners: <https://www.petersonpartners.com/>
- ▶ Miramar Search Partners: <https://miramarequity.com/search-partners.php>
- ▶ Newbury Franklin: <https://www.newburyfranklin.com/>
- ▶ Footbridge Partners: <https://www.footbridgepartners.com/>
- ▶ Cerralvo Capital: <https://www.cerralvocapital.com/>
- ▶ Endurance Search Partners: <http://endurancesearchpartners.com/>
- ▶ Saltoun Capital: <https://www.saltouncapital.com/>
- ▶ JB46 Investment Partners: <http://jb46.es/>
- ▶ Search Fund Partners: <https://searchfunds.net/>
- ▶ Search Fund Accelerator (SFA): <https://www.searchfundaccelerator.com/>
- ▶ TTCER
- ▶ Gerald Risk: <https://www.linkedin.com/in/gerald-risk-64a85a3/>
- ▶ David Dodson (Futaleufu Partners): <https://futaleufu-partners.com/>
- ▶ Cambria Group: <http://www.cambriagroup.com/>
- ▶ Graham Weaver: <https://www.linkedin.com/in/graham-weaver-2b79/>

VALUATION 101

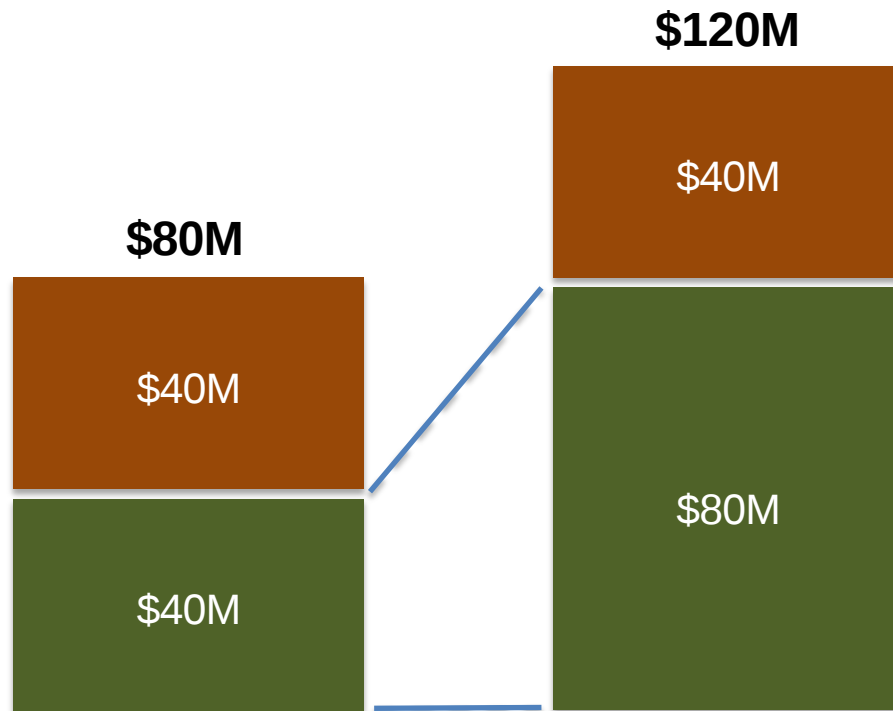
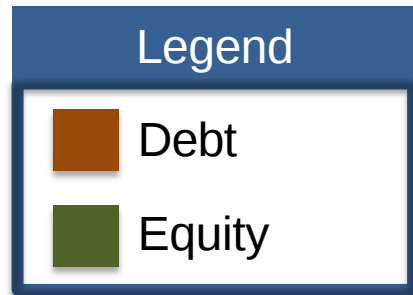
Drivers of Equity Value

- The goal of any Leveraged Buyout (“LBO”) is to increase the value of the invested equity
- There are three ways to increase equity value:

Value Driver	Impact	Model Input
“Grow the Earnings”	Increase the earnings of the business	Projection of future EBITDA
“Multiple Expansion”	Command a higher valuation at exit	Exit Multiple assumption
“Debt Paydown”	Pay down debt using the Company’s cash flow	Projection of future free cash flow

Illustrative Value Drivers

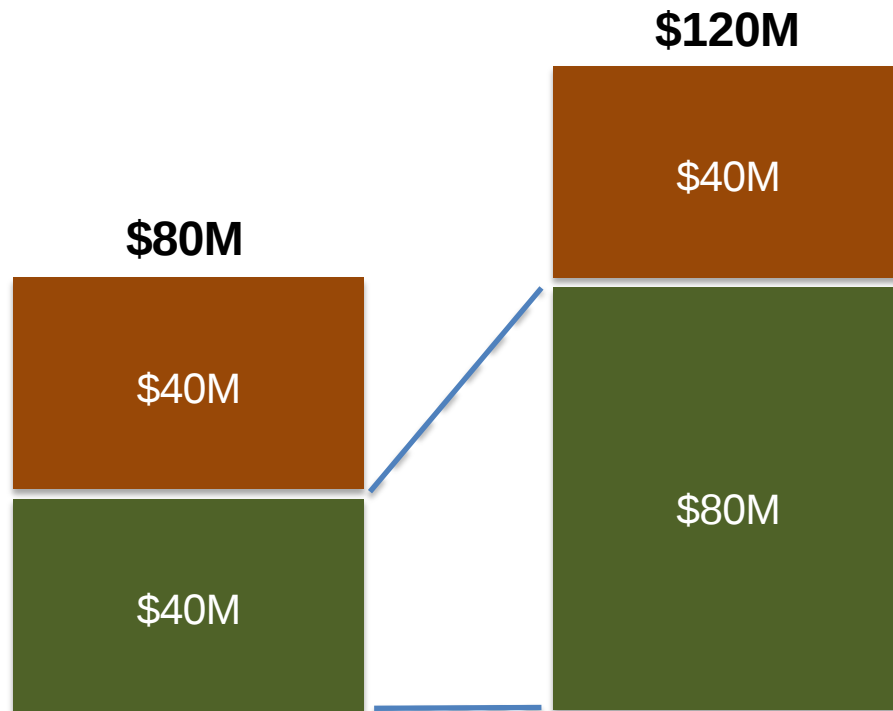
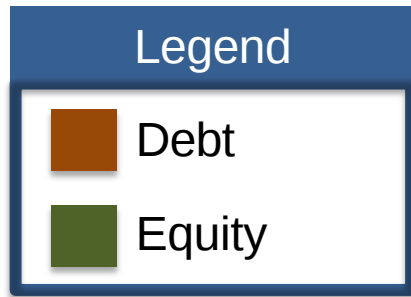
Grow the Earnings



Metric	Entry	Exit
EBITDA	\$10 million	\$15 million
Purchase Multiple	8x	8x
Purchase Price	\$80 million	\$120 million
Debt	\$40 million	\$40 million
Equity	\$40 million	\$80 million
Money Multiple	----	2.0x

Illustrative Value Drivers

Multiple Expansion



Metric	Entry	Exit
EBITDA	\$10 million	\$10 million
Purchase Multiple	8x	12x
Purchase Price	\$80 million	\$120 million
Debt	\$40 million	\$40 million
Equity	\$40 million	\$80 million
Money Multiple	----	2.0x

Illustrative Value Drivers

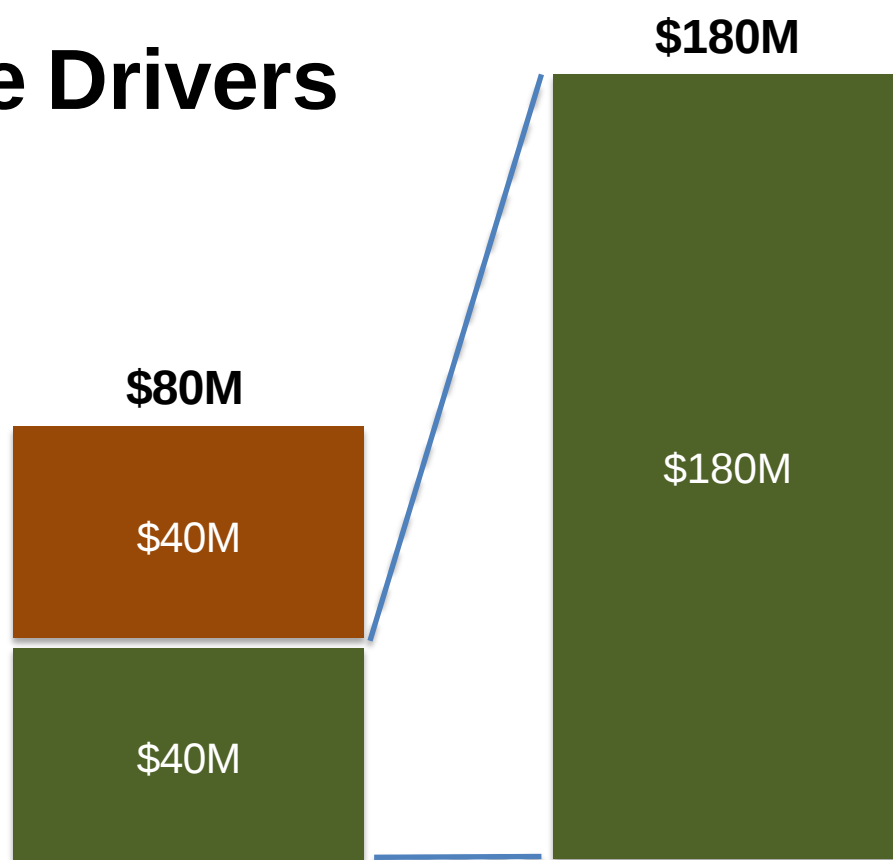
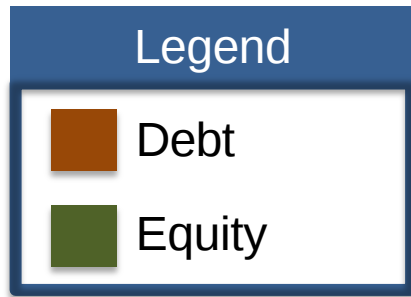
Debt Paydown



Metric	Entry	Exit
EBITDA	\$10 million	\$10 million
Purchase Multiple	8x	8x
Purchase Price	\$80 million	\$80 million
Debt	\$40 million	\$0 million
Equity	\$40 million	\$80 million
Money Multiple	----	2.0x

Illustrative Value Drivers

All Growth Drivers



Metric	Entry	Exit
EBITDA	\$10 million	\$15 million
Purchase Multiple	8x	12x
Purchase Price	\$80 million	\$180 million
Debt	\$40 million	\$0 million
Equity	\$40 million	\$180 million
Money Multiple	----	4.5x

LBO Model Benefits

- An LBO model lets you sensitize each of the three drivers to compute a range of return scenarios
- The key inputs to the model include financial (earnings and free cash flow) projections, exit multiple assumptions, and capital structure (i.e. leverage)
- The output from the model allows you to:
 - Estimate how much to pay for a company
 - Determine an appropriate capital structure
 - Total leverage
 - Debt tranches (senior vs. mezzanine)
 - Equity

**IT IS YOUR JOB TO IDENTIFY THE CORRECT INPUTS
TO THE MODEL**

Transaction Structure – Sources & Uses

Hypothetical Company I/S and Purchase Price

	Income Statement					Illustrative Purchase Price Calculation (\$mm)
	2012A	2013A	2014A	2015A	2016E	
Revenue	\$60.0	\$65.0	\$70.0	\$75.0	\$80.0	Estimated 2016E EBITDA \$20.0
% Growth	NA	8.3%	7.7%	7.1%	6.7%	x Multiple of 2016E EBITDA 8.0x
Gross Profit	\$25.8	\$27.3	\$30.8	\$33.8	\$36.0	Enterprise Value \$160.0
% Margin	43.0%	42.0%	44.0%	45.0%	45.0%	
EBITDA	\$12.0	\$11.7	\$13.3	\$16.5	\$20.0	
% Margin	20.0%	18.0%	19.0%	22.0%	25.0%	

- Pro forma sources and uses presents high-level summary of deal
 - Where the capital is coming from, and
 - What is it used for?

Sources and Uses

Sources	(\$mm)	Cumulative xEBITDA
Senior Debt	\$90.0	4.5x
Sponsor Equity	74.0	8.2x
Total Sources	\$164.0	8.2x

Uses	(\$mm)	Cumulative xEBITDA
Purchase Price	\$160.0	8.0x
Fees & Expenses	4.0	8.2x
Total Uses	\$164.0	8.2x

Projecting Equity Value – Exit Multiple

- $\text{Exit EBITDA} \times \text{Exit Multiple} = \text{Estimated Sale Value (Enterprise Value)}$
(Note: EBITDA is a typical metric, but cash flow is often used also)

Selected portion of the LBO Model:

Exit Enterprise Value Calculation (\$mm)			
Year 5 EBITDA	\$30	\$30	\$30
Assumed Exit Multiple	7.0x	8.0x	9.0x
Enterprise Value	\$210	\$240	\$270

- What is a “Valuation Multiple”?
 - Valuation: what I am willing to pay today for a future stream of cash flows
 - $\text{EBITDA Multiple} = \text{Valuation} / \text{EBITDA}$
- How do I think in terms of “Multiples”?
 - Low Risk And/Or High Return = High Multiple (8.0-10.0x Multiple: High growth defense company with long-term guaranteed contracts)
 - High Risk And/Or Low Return = Low Multiple (4-5x Multiple: Slow growth tier-2 supplier of a commodity product with customer concentration)
- Multiple expansion is driven by a fundamental change in the way a company competes
 - Example: Acquisition creates industry leader – multiple expansion as risk to business may be permanently lowered

Appendix A

Model Details

Projecting Equity Value – Exit EBITDA

- Exit EBITDA times the exit multiple estimates the enterprise value of the company at exit

(\$mm)	2012A	2013A	2014A	2015A	Income S 2016E	Statement	
						2017E	2018E
Revenue	\$60.0	\$65.0	\$70.0	\$75.0	\$80.0	\$86.4	\$92.4
% Growth	NA	8.3%	7.7%	7.1%	6.7%	8.0%	7.0%
Gross Profit	\$25.8	\$27.3	\$30.8	\$33.8	\$36.0	\$39.3	\$42.5
% Margin	43.0%	42.0%	44.0%	45.0%	45.0%	45.5%	46.0%
EBITDA	\$12.0	\$11.7	\$13.3	\$16.5	\$20.0	\$22.0	\$24.0
% Margin	20.0%	18.0%	19.0%	22.0%	25.0%	25.5%	26.0%

- How do we forecast EBITDA?
 - Start with fundamental business analysis: project revenue growth, forecast margin trends, add in potential cost savings, etc.
 - Synthesize all inputs: industry growth, competitive dynamics, regulatory trends, business cycles, acquisition opportunities
- How confident are we with these EBITDA projections?
 - Use multiple scenarios to create a range of outcomes
 - Example: management case, baseline forecasts, downside risk, “lender” case

Projecting Equity Value – FCF/Debt Paydown

Selected Portion of LBO Model:

(\$mm)	2017E	2018E	2019E	2020E	2021E	TOTAL
EBITDA	\$22	\$24	\$26	\$28	\$30	
Less: Interest	(5)	(5)	(4)	(4)	(3)	
Less: Taxes (40%)	(5)	(6)	(7)	(8)	(9)	
Less: Capex	(3)	(3)	(3)	(3)	(3)	
Less: Δ NWC	(1)	(1)	(1)	(1)	(1)	
FCF Available to Pay Debt	\$8	\$9	\$11	\$12	\$14	\$55
Beginning Debt Balance	\$90	\$82	\$73	\$62	\$49	<i>Change</i>
Less: FCF	(\$8)	(\$9)	(\$11)	(\$12)	(\$14)	<i>in Debt</i>
Ending Debt Balance	\$82	\$73	\$62	\$49	\$35	(\$55)

- Pretty Simple: Generate Free Cash Flow → Pay Down Debt → Generate Equity
 - When debt is paid down, equity value increases
 - Reduce net interest expense
 - **Leverage magnifies losses & gains: CASH IS KING / MAINTAIN LIQUIDITY!**

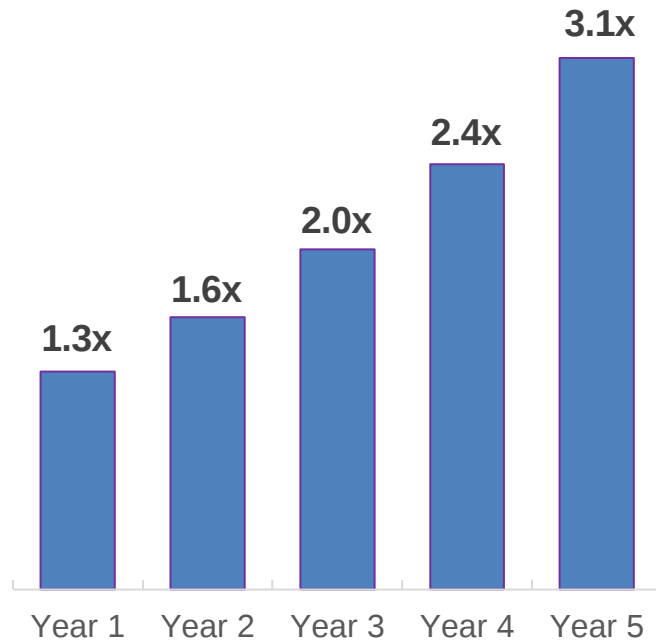
Successful Deals Maximize MOI / IRR

- Multiple of Investment Equation = Exit Equity / Invested Equity
- IRR is equivalent, but takes time value into account
 - Equity invested may vary with acquisitions, restructuring, etc.

5-Year Return Calculation at Various Exit Multiples			
EBITDA	\$30	\$30	\$30
Exit Multiple	7.0x	8.0x	9.0x
Ent. Value	\$210	\$240	\$270
Less: Net Debt	(35)	(35)	(35)
Equity Value	\$175	\$205	\$235
IRR	18.7%	22.6%	26.0%
Mult. of Money	2.4x	2.8x	3.2x

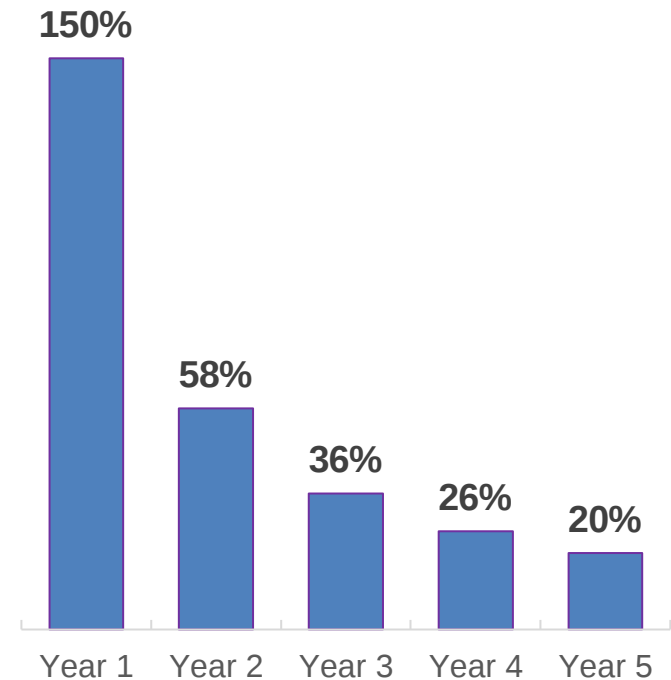
Private Equity Funds Look for a Balance of IRR and Money Multiple Returns

Money Multiple Trends –
Holding IRR Constant



IRR	25%	25%	25%	25%	25%
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IRR Trends –
Holding Money Multiple Constant



Cash Multiple	2.5x	2.5x	2.5x	2.5x	2.5x
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