CORPORATE FINANCE FOR LONG-TERM VALUE

Chapter 10: Valuing private equity

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The BIG Picture

- Private equity is becoming a viable alternative to public equity

Different dynamics

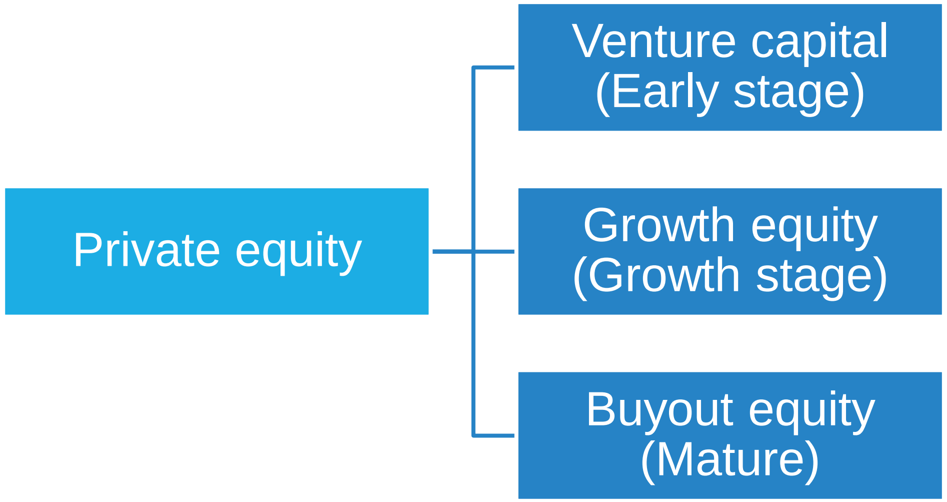
- Private equity is illiquid (no trading)
- But offers scope for involvement ‘as active owner’ with company management
- And integration of S & E into company strategy
- Yet, private equity is behind on S & E integration and disclosure

Basics of private equity

- Private equity (PE) funds invest in private companies…
  - By means of a non-traded equity stake for a multiyear period;
  - With the aim to make a return by improving the investee companies' performance; and
  - Exiting them at a profit
- Formal private equity: a fund structure that raises capital from other investors
- Informal private equity: invest their own money (angels, families, etc.)

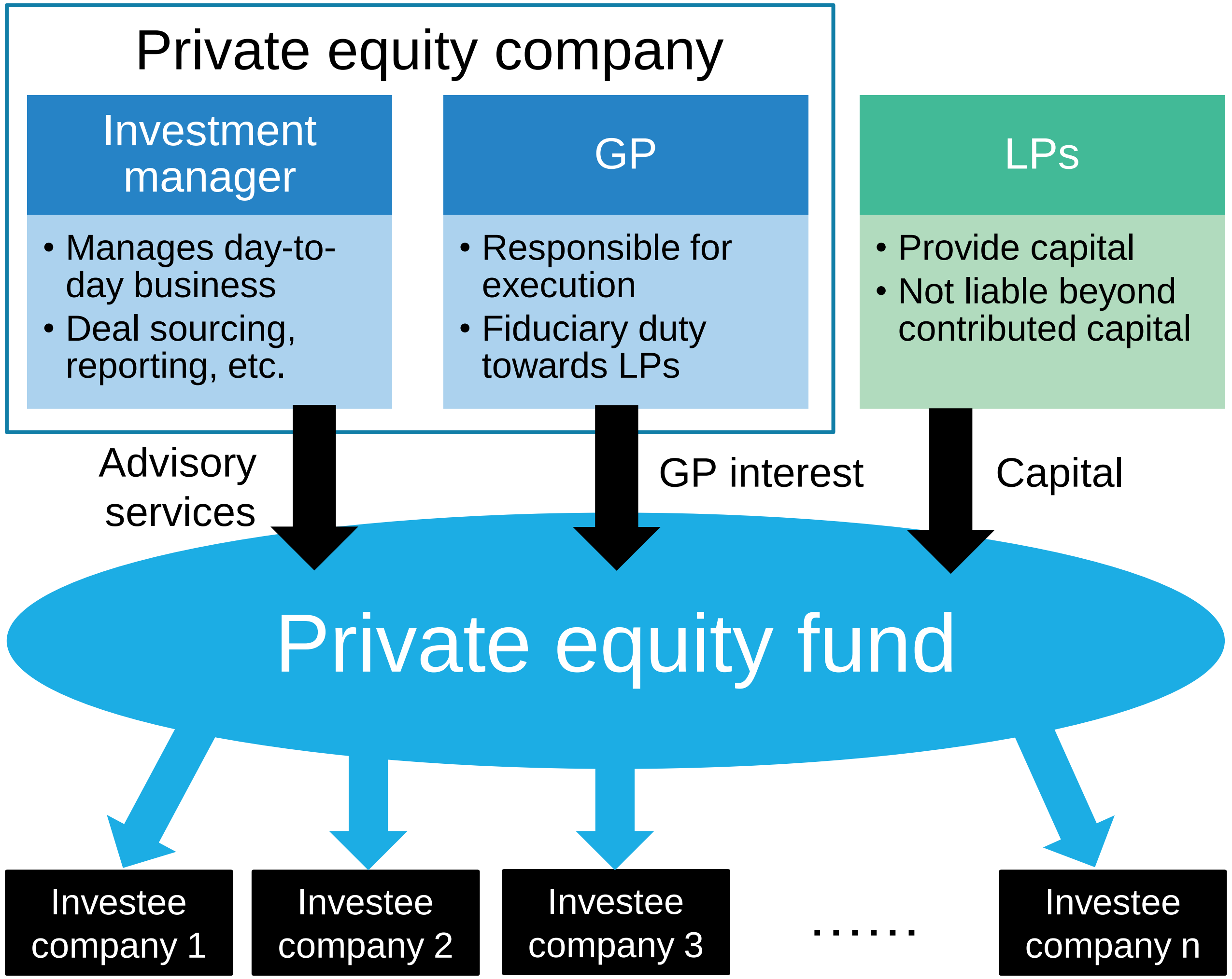
Formal types of private equity

- Three types of formal private equity:
  - Venture capital: invests in early stage (startup) companies with a great but unproven idea
    - Carry high risk and often negative cash flows
    - 2/3 of investments by VCs lose money, with high returns coming from a limited number of ‘home runs’
  - Growth equity: assists company in achieving high growth
    - Often with a minority stake, implying a lack of full control
  - Buyouts: takes a majority stake, funded with equity and loans, to change the company’s strategy and operations



Type of private equity	Outstanding (in $ billions)
Venture capital	1,829
Growth equity	988
Buyout equity	2,994
Other	484
Total private equity	6,295

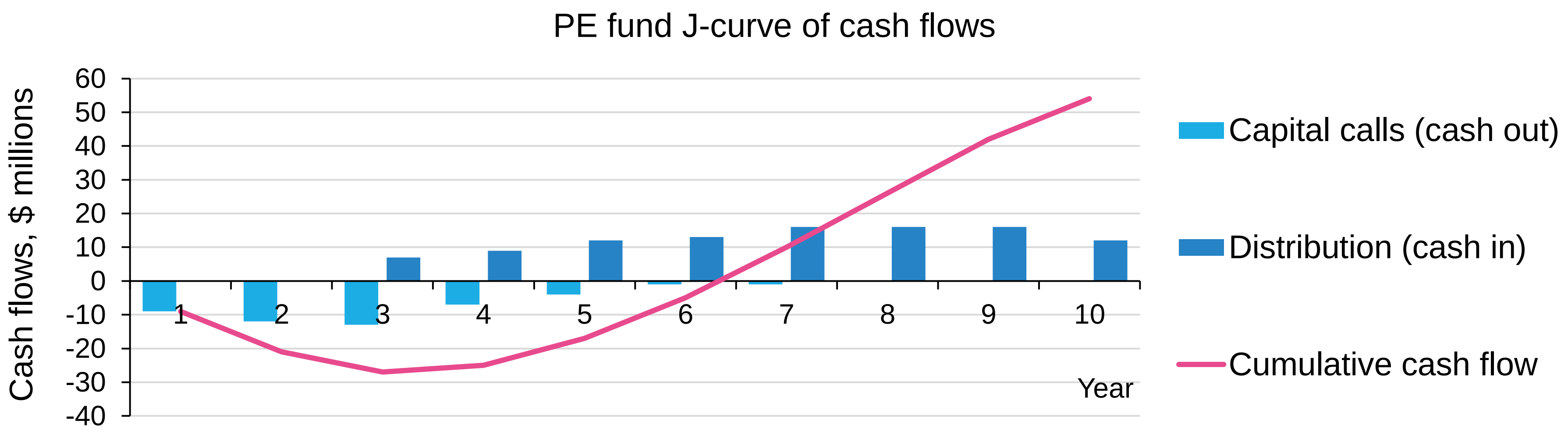
Private equity fund structure



- General Partner (GP)
  - Responsible for managing the PE fund
  - Issues capital and makes investments
  - Have a 1-10% stake
- Investment Manager
  - Executes daily operations (evaluating investments, reporting and auditing, advisory services)
- Limited Partners (LPs)
  - Purely financial role, providing capital and paying fees
- Limited Partnership Agreement (LPA)
  - Sets out the mandate of the fund
  - May delegate management functions to the investment manager

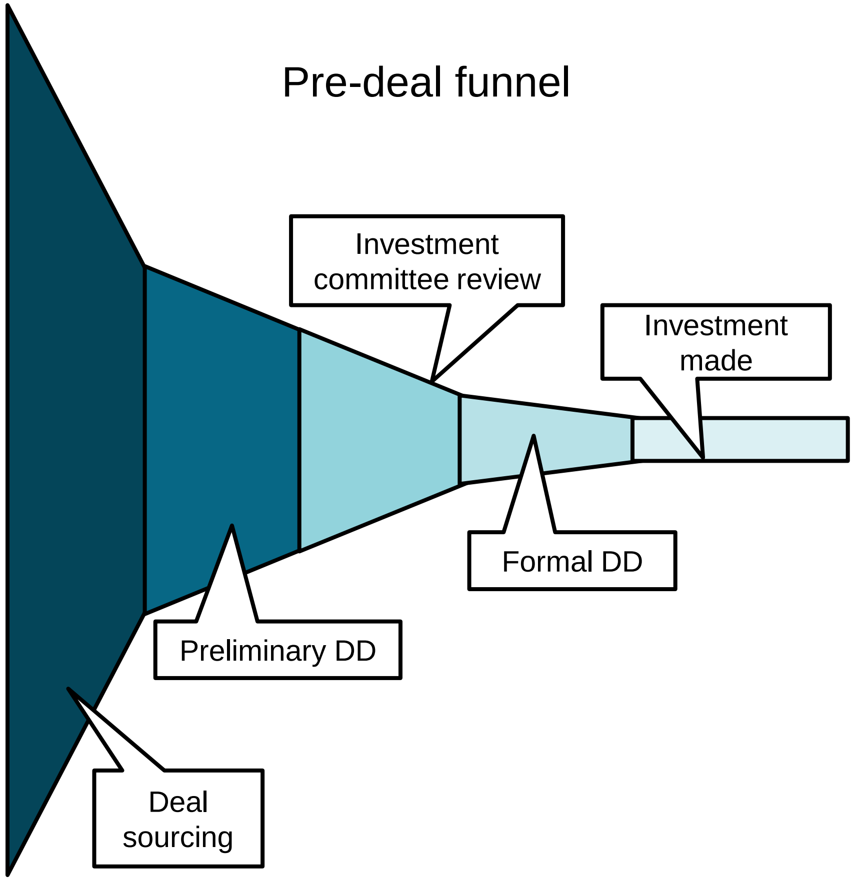
Private equity J-curve

- From the LPs' perspective, the cash flows stream starts with cash outflows, and later on – if successful – cash inflows, resulting in a J-curve
- Problematic for institutional investors, since they need to commit to capital calls that are hard to estimate, resulting in potential liquidity problems



PE investment process

- Pre-deal phase: lots of time and effort in finding and selective prospective companies to invest in
  1. Filtering on several criteria (industry, business model, technology, etc.)
  2. Preliminary and formal due diligence (DD)
  3. Investment decision is made



Leveraged buyouts (LBOs)

- Leveraged buyouts (LBOs) use debt to take a majority stake in an investee company
- LBO PE portfolio companies are found to enhance innovation
- Kaplan and Strömberg (2009) distinguish three sources of value creation for LBOs:
  - **Financial engineering:** debt-financing increases leverage and thereby disciplines managers
  - **Governance engineering:** controlling the boards of their investee companies; management gets a larger stake to align their interests with the company
  - **Operational engineering:** the ratio of operating income to sales increases, but the ratio of capital expenditures to sales declines at LBOs

Exits

- There are several exit routes in PE LBOs:
  - Most common exit is sale to a strategic (nonfinancial) buyer, typically another company
  - A trade to another PE fund is a secondary leveraged buyout (SLB)
  - Initial public offerings (IPOs) occur when the company is listed on the stock market and 'goes public'

Type of exit	Percentage (1970-2007 period)
Sold to strategic buyer	38%
Secondary buyout	24%
IPO	14%
Other	24%
Total exits	100%

Valuation of PE

- Similar to public equity, the discounted cash flow (DCF) model is best for PE valuation
- Valuing PE is harder for two reasons:
  - Concerns small, not (yet) profitable companies, making normalised projections difficult
  - No market price or beta, and often lacking for comparable companies as well
- Example: cultured meat producer
  - Initial focus on optimising the process: First few years with hardly any sales and significant costs, hence negative cash flows
  - From year 4 onwards: positive but uncertain cash flows, hence high WACC (25%)

Perspective in year 1											
Year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**TV**
Sales	0	2	50	200	400	520	624	749	824	890	890
Costs	-15	-28	-53	-183	-340	-432	-505	-607	-667	-738	-738
Cash flow	-15	-26	-3	17	60	88	119	142	156	151	151
CF margin		-1300%	-6%	9%	15%	17%	19%	19%	19%	17%	17%
WACC	**25%**									TV	658
Discount factor	0.80	0.64	0.51	0.41	0.33	0.26	0.21	0.17	0.13	0.11	0.11
PV of cash flow	-12	-17	-2	7	20	23	25	24	21	16	71
NPV	**176**										

Valuation of PE

- After initial valuation, numbers are updated as milestones are met (or not) and expectations change, milestones may include:
  - Reaching product cost levels
  - Obtaining regulatory approval
  - Launching a production line at scale
- The expectations for the cultured meat producer have been met exactly, so:
  - Lower WACC (20%)
- Result: NPV has tripled in year 3

Perspective in year 3											
Year	1	2	3	4	5	6	7	8	9	10	TV
Sales	0	2	50	200	400	520	624	749	824	890	890
Costs	-15	-28	-53	-183	-340	-432	-505	-607	-667	-738	-738
Cash flow	-15	-26	-3	17	60	88	119	142	156	151	151
CF margin		-1300%	-6%	9%	15%	17%	19%	19%	19%	17%	17%
WACC			**20%**							TV	840
Discount factor			0.83	0.69	0.58	0.48	0.40	0.33	0.28	0.23	0.23
PV of cash flow			-3	12	35	43	48	48	44	35	195
NPV			**456**								

Valuation using multiples

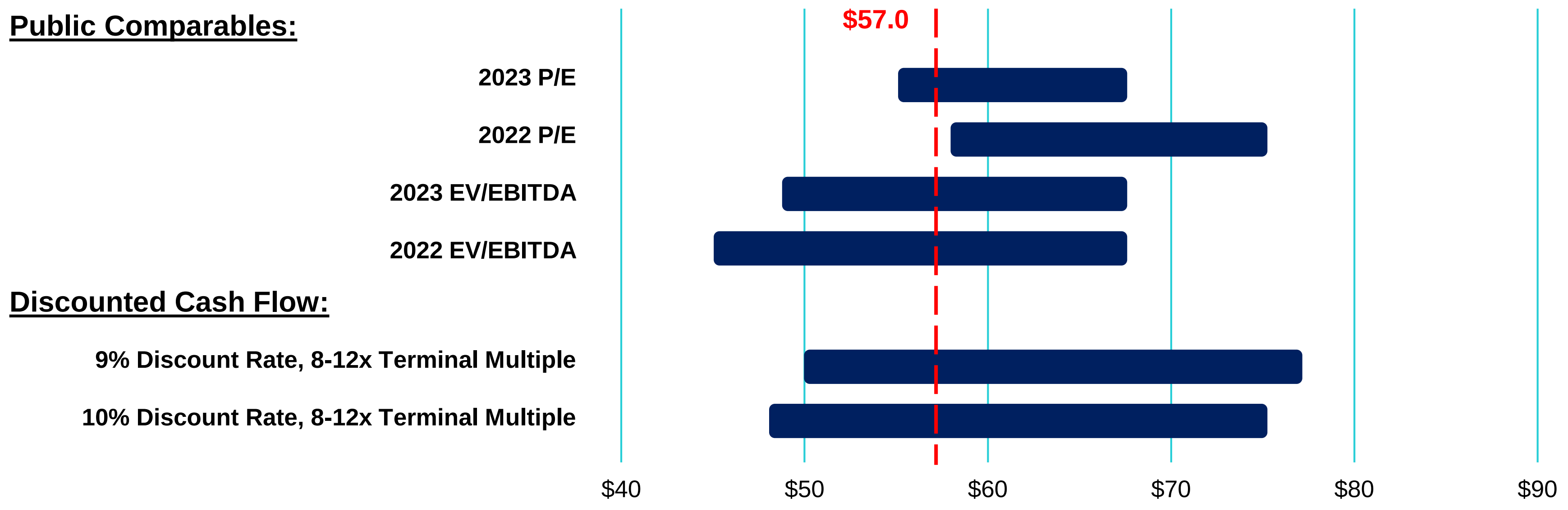
- Multiples valuation uses a multiple of a financial statement metric such as profitability or book value to determine company value
- Example: PE buys a company in 2023 (600 equity and 730 debt)
  - Expects a rise in EPV from 1330 to 1980
    - Improved profitability (EBITDA from 160 to 210)
    - Improved multiple (EPV/EBITDA from 8.3 to 9.4)
  - Paying back 350 in debt leaves 380 in 2028, which means equity rises from 600 to 1600

	2023	2028E	Change
Net debt	730	380	-350
Equity	600	1,600	1,000
Enterprise Value (EPV)	1,330	1,980	650
EBITDA	160	210	50
EPV/EBITDA multiple	8.3	9.4	1.1
Net debt/EBITDA	4.6	1.8	-2.8

Value drivers	Change	Calculation	Explanation
Net debt impact	350		net debt reduction
EBITDA impact	416	50 * 8.3	change in EBITDA * original multiple
Multiple impact	234	1.1 * 210	multiple expansion * new EBITDA
Value creation	**1,000**		
Check: rise in equity	**1,000**		

Football field graph of valuation methods

- PE companies also use other multiples:
  - Revenue multiples: EPV / Revenue
  - Earnings multiples: price-earnings (P/E) ratio
- PE companies employ several valuation methods, visualing the outcome using football field graphs



Cost of capital

- Since non-listed companies do not have past stock returns and no observable beta, the betas of comparable companies or industry betas can be used
- However, such betas don’t reflect the extra risk of early-stage companies
  - Different approach: take high default cost of capital of 20% to 60%
- Phalippou (2020) found that PE has not been as financially successful as often claimed: PE funds have generated returns (after fees for PE managers) that are similar to public equity indexes since at least 2006, although with higher risk
  - Conclusion: PE is particularly financially attractive for the PE managers

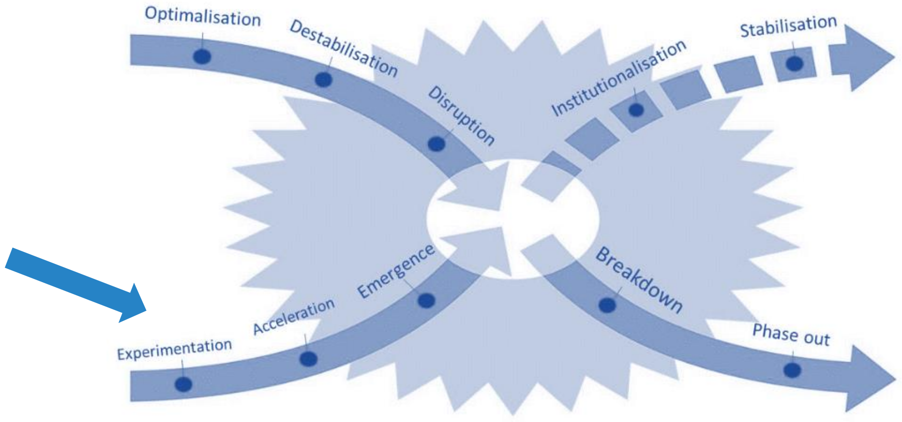
ESG integration in PE

- The practice of ESG integration in PE seems to be lagging compared to ESG integration in public equity investing
  - Mostly driven by the desire to comply with regulations and standards
  - ESG due diligence is typically performed by external advisors
  - Most PE companies do not have standardised ESG procedures

- PE companies should integrate the analysis of S and E during due diligence:

Financials	Management	Business model	Impact	Competitive position	Operations
• historical financials • forecast / management projections • risk-return assessment • future financing rounds • responsible exit scenarios	• organisation chart • management team CVs & track record • company culture	• customer value proposition • profit model • key resources & processes • scalability	• **historical impact value creation data** • **theory of change**	• SWOT analysis • intellectual property • markets • client base (existing, pipeline, target, future opportunities), • competition	• supply chain • products / services

Valuation of S & E in PE



- Early-stage PE tends to invest in newly emerging companies on the bottom left of the x-curve of transition
- Impact PE explicitly aims to create value for society
- For impact investments, financial returns are not the main objective, but just one of the objectives
- Impact PE companies can develop their own frameworks to deal with limited data availability
  - For example, BlueOrchard developed an impact framework based on the principles of intentionality, contribution, measurement and governance
- Venture philanthropy is in between impact PE and charity:
  - Unlike charity, it wants to maintain capital for future investments;
  - Unlike impact PE it does not require a significantly positive financial return

Conclusions

- Private equity funds are set up to invest in private companies for a predefined multiyear period, aiming to make a return by improving their investee companies' performance and exiting them at a profit
- Despite being well suited for sustainable investing, private equity lags the public equity space in the application of sustainability considerations
- Given the active ownership role that private equity takes, value creation on E and S is potentially greater in private equity than in public equity
- Value creation on E and S is more likely if private equity fund actually steers on impact