CHARTA LEARNING · LESSON NOTES

Private capital: private equity, private debt, value creation and the J-curve

CFA Level I · Alternative Investments

You will learn: Describe the stages and exits of private equity, the main types of private debt, how to split a buyout's gain into its sources, and why a good private fund looks poor in its early years.

Running example: Worked examples follow Harlow Foods, a made-up frozen-meals company ($ millions), bought by a buyout fund for 160 (debt 100, equity 60) and sold five years later for 234. Other examples use made-up figures.

1. Private equity: stages, buyouts and the money multiple

- Private equity is owning shares in companies not listed on an exchange: no daily price, and selling means finding a buyer. Investors make a commitment (a promise of a total) and the manager calls the cash in instalments, called drawdowns.
- Venture capital runs from angel (a wealthy individual backing an idea), to seed (testing the concept), early stage and later stage (expansion). Money is usually taken as shares, as there is no cash flow to pay interest. The risk of total failure falls toward the mature end.
- A leveraged buyout (LBO) buys a mature firm with borrowed money, repaid from the firm's steady cash flow. In a management buyout the current managers buy; in a management buy-in an outside team takes over.
- The multiple of invested capital (MOIC) is total proceeds divided by capital invested. It ignores time, so the internal rate of return is also used. Venture returns are lopsided: most investments fail and a few winners pay for the lot.

MOIC = total proceeds ÷ capital invested

HARLOW FOODS BOUGHT AND SOLD ($ MILLIONS)

Price paid	debt 100 + equity 60	**160**
Debt still owed after 5 years	100 − 30 repaid	**70**
Equity paid out (sold at 234)	234 − 70	**164**
Multiple of equity	164 ÷ 60	**2.73x**
Venture portfolio: ten bets of 10	6 fail, 2 at cost (20), one 30, one 120	**170 back on 100 = 1.7x**

2. How private equity exits

- Exit is the whole point of buying; until then a gain exists only on paper.
- Routes: a trade sale (to another business), a public offering or IPO (shares listed for the first time), a secondary sale (to another private equity fund), or a recapitalisation (new debt pays the owners a large dividend). A failed company is written off.
- A public offering may bring the highest price but is slow and costly, has a lock-up for old owners, and needs an open market. A trade sale is faster and private, and a rival may pay for synergy. A secondary sale suits a company too big or young to list.

Watch out: A gain on the books is not a gain in the bank: until an exit happens, the profit is unrealised.

3. Private debt and the payment queue

- Private debt is loans made outside public bond markets and the traditional banks, negotiated one borrower at a time and hard to sell. The return is a spread over a safe rate that pays for credit risk (the borrower fails) and illiquidity.
- Payment queue, first to last: senior loans (paid first, often secured on assets, lower rate), direct loans, mezzanine (after senior, before owners, often with warrants, rights to buy shares cheaply), then equity (paid last). Moving down the queue, risk and expected return rise.
- Types: direct lending (straight from a fund to a mid-sized company, usually senior, floating rate); mezzanine; venture debt (to young venture-backed firms, with warrants); distressed debt (existing debt bought at a deep discount, hoping for gain on restructuring).
- A floating coupon resets, so the loan's price stays near face value and the lender has almost no duration risk. Credit risk remains, because the borrower's interest bill rises with rates.

Coupon = benchmark rate + spread; recovery rate = amount received ÷ amount owed

FLOATING LOAN, SENIORITY AND DISTRESSED DEBT

$100m loan at benchmark + 6%: coupon at 2% / 5%	2% + 6% / 5% + 6%	**8% / 11%**
Rise in the borrower's interest bill	3 ÷ 8	**37.5%**
Assets sell for 70; senior owed 60, mezzanine owed 30	senior 60 of 60; mezzanine 70 − 60 = 10 of 30	**100% / 33.3%**
Distressed: 100 face bought at 40, 52 recovered	(52 − 40) ÷ 40	**30%**
If only 30 recovered	(30 − 40) ÷ 40	**−25%**

Watch out: Mezzanine is not senior. Distressed debt is bought at a discount, not newly lent, and its return comes from recovery rather than interest.

4. Where a buyout's gain comes from

- Returns come from three levers: operational improvement (the firm earns more, including by add-on acquisitions), financial engineering (leverage magnifies the result) and multiple expansion (selling at a higher price relative to earnings). Attribution is how much came from each.
- Enterprise value is the whole business (lenders and owners). EBITDA is earnings before interest, taxes, depreciation and amortisation, a rough cash profit. Equity is enterprise value minus debt, so every dollar of change in the business lands on the equity.
- Operations are most clearly the manager's skill and repeatable. Leverage creates nothing alone. Multiple expansion depends largely on the market. Two funds with the same MOIC can have very different skill.

EV = EBITDA × multiple; equity = EV − debt

HARLOW'S EQUITY GAIN OF 104, SPLIT ($ MILLIONS; EBITDA 20 TO 26, MULTIPLE 8 TO 9)

Value at entry / exit	20 × 8 / 26 × 9	**160 / 234**
Equity at entry / exit	160 − 100 / 234 − 70	**60 / 164**
Earnings growth	(26 − 20) × 8	**48**
Higher multiple	(9 − 8) × 26	**26**
Debt paid down	100 − 70	**30**
Total equity gain	48 + 26 + 30	**104**

5. Leverage cuts both ways

- Borrowing multiplies results in both directions. If the business earns more than the loan costs, each borrowed dollar adds to the owners' return; if less, it subtracts. Leverage adds nothing if the business earns exactly the cost of debt.
- Leverage did not create value. It only stretched the outcome.

Equity return ≈ asset return + (debt ÷ equity) × (asset return − cost of debt)

BUY AT 100: DEBT 60 AT 6%, EQUITY 40

Debt ÷ equity	60 ÷ 40	**1.5**
Value up 10%	10 + 1.5 × (10 − 6)	**+16%**
Value down 10%	−10 + 1.5 × (−10 − 6)	**−34%**
No debt, value down 10%		**−10%**

6. The J-curve, IRR and vintage years

- Paid-in capital is drawdowns so far; distributions are money returned, usually later. Money goes out first (calls and fees from day one) and comes back when companies are sold, so cumulative net cash dips, bottoms out when everything is called, crosses zero at break-even, then rises: a J.
- The IRR is the single yearly rate that makes the discounted cash flows sum to zero. The curriculum uses it for private capital and real estate funds because the manager, not the investor, decides the timing of cash flows.
- The early dip comes from timing, not talent: fees are charged on committed capital, holdings are carried at cost, and weak holdings are written down before strong ones are marked up. Do not judge a fund on its early IRR.
- Compare a fund only with funds of the same vintage year (the year of its first investments) at the same age. Reported values are appraisals, so measured volatility looks lower than true risk.

$0 = CF_0 + CF_1 \div (1 + IRR) + CF_2 \div (1 + IRR)^2 + \ldots + CF_n \div (1 + IRR)^n$

A TEN-YEAR FUND, COMMITMENT 100 (CALLS 25, 25, 25, 15, 10; DISTRIBUTIONS 20, 35, 45, 50, 30)

Total paid in (fees 2% × 100 × 5 = 10)	25+25+25+15+10	**100**
Total distributed; multiple	20+35+45+50+30; 180 ÷ 100	**180; 1.8x**
Cumulative cash: lowest / break-even / end	year 4 / year 7 / year 9	**−100 / 0 / +80**
Two years in: paid in 50, fees 4, one write-down 6	50 − 4 = 46; 46 − 6	**reported value 40**
IRR two years in vs whole life	−25, −25, then 40 vs ten years	**−14.0% vs 11.1%**

Key takeaways

- Private equity runs from angel and seed to mature leveraged buyouts, and gains are real only at an exit.
- Venture returns are lopsided: a few winners pay for many failures.
- Private debt is ranked by the payment queue: senior, direct, mezzanine, equity. Floating loans carry little duration risk but still carry credit risk.
- Buyout gain = earnings growth + multiple change + debt paid down; only the first is clearly the manager's skill.
- Leverage magnifies gains and losses and creates no value by itself.
- A young fund's negative IRR is the J-curve: judge it against same-vintage peers at the same age.

Quick check

1. 10 venture bets of 10 each: 6 lose all, 2 return 10, one 30, one 120. MOIC?
   Answer: 170 ÷ 100 = 1.7x. One bet gave most of it.
2. Assets sell for 70; senior owed 60, mezzanine owed 30. Mezzanine recovery?
   Answer: 10 ÷ 30 = 33.3%. Senior is paid in full first.
3. A fund's IRR is −14% two years in. Is it a poor fund?
   Answer: Not necessarily: the J-curve. Compare same-vintage peers.

Summary notes for the Charta whiteboard lesson. Examples use made-up figures. Watch the full lesson at charta-learning.com.