

# Private Equity Fund Performance Metrics: TVPI vs. MOIC vs. DPI and Gross vs. Net IRR



The “Alphabet Soup” Method of  
Evaluating PE Funds

# PE Fund Performance Metrics

You can easily find the **basic definitions** of these terms online, but I want to go a step beyond that and explain the **Excel setup and interpretation.**

People like to debate the “best” metric, but that misses the point.

# PE Fund Performance Metrics

**Real Questions:** What **stage** is the fund at, what **strategies** is it using, and what **assumptions** back up these metrics?

The “alphabet soup” of metrics means something only if you can **verify** this information.

# PE Fund Performance Metrics

For the files and resources, go to:

<https://breakingintowallstreet.com/kb/financial-sponsors/private-equity-fund-performance-metrics/>

(This is a **summary** from our full [PE Funds of Funds and Secondaries](#) course.)

# PE Fund Performance Metrics 101

- **The One Table to Rule Them All:**



Name:	Basis:	Calculation / Meaning:
<b>Gross Value</b>		Fair Market Value of Remaining Portfolio Companies + Previous Realizations
<b>Net Value</b>		Gross Value – Realized Carry – Accrued Carry
<b>Net Asset Value (NAV)</b>		Fair Market Value of Remaining Portfolio Companies – Accrued Carry
<b>Invested Capital</b>		Total Amount Invested in Portfolio Companies
<b>Called Capital</b>		Invested Capital + Total Management Fees
<b>Gross Multiple of Invested Capital (MOIC)</b>	Gross	Gross Value / Invested Capital
<b>Gross Internal Rate of Return (IRR)</b>	Gross	Annualized Return <b>BEFORE</b> Fees and Carry
<b>Total Value to Paid-In Capital (TVPI)</b>	Net	Net Value / Called Capital
<b>Net IRR</b>	Net	Annualized Return <b>AFTER</b> Fees and Carry
<b>Distributions to Paid-In Capital (DPI)</b>	Net	(Previous Realizations – Realized Carry) / Called Capital
<b>Residual Value to Paid-In Capital (RVPI)</b>	Net	NAV / Called Capital, or TVPI – DPI

# PE Fund Performance Metrics 101

- **Gross IRR and Gross MOIC:** Straightforward – compare the realized amounts + unrealized values to the capital invested in portfolio companies; annualized return or multiple of inv. capital
- **Fees:** Extremely high in PE, so these complicate everything
- **Management Fees:** 2.0% of “fund size” or committed capital in investment period and 1.0 – 1.5% of remaining cost basis after
- **Carry:** Normally, 20% of investment profits and paid to the PE professionals, but subject to minimum return requirements (“hurdle rates” or “preferred returns”)



# PE Fund Performance Metrics 101

- **Fee Calculations:** Once you've estimated these, you can calculate the "Net" metrics
- **TVPI:** Net Value / Called Capital, so you subtract the Carry in the numerator and the Mgmt Fees in the denominator
- **Net IRR:** Annualized returns after fees and carry; always use Net Cash Flows, so numerator vs. denominator doesn't matter
- **DPI:** (Previous Realizations – Realized Carry) / Called Capital, so it's solely "cash in vs. cash out" *as of the fund's current date*



# PE Fund Performance Metrics 101

- **Meaning:** Hard to say much because we don't know the exact strategy or assumptions for the “Unrealized Values”
- **But:** The low DPI (0.2x) is **not** necessarily concerning because this is Year 6 of a 10-year fund; should ramp up in the last few years
- **Red Flag:** 0.2x DPI in Year 10 of the fund
- **Others:** Gross – Net gap is normal (6 – 7%), and the fund has been a solid but unspectacular performer (beat the historical S&P returns, but not by a huge margin, and much is unrealized)



# Plan for This Tutorial

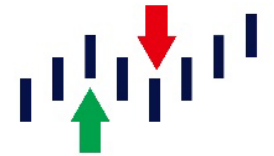
- **Part 1:** Fee Calculations and Formulas **7:57**
- **Part 2:** The “Net” Metrics (TVPI, DPI, and Net IRR) **12:05**
- **Part 3:** Valuations, Waterfalls, and Recycling **14:18**

# Part 1: Fee Calculations and Formulas

- **Management Fees:** Calculation is simple (2% or 1% of an easily trackable number), but the **allocation to specific co's** is tricky



- **One Method:** Take a “weighted average” of each company’s contribution to the total cost basis over the fund’s life so far



- **Carried Interest:** Based on 20% of (Realizations + Unrealized Values – Invested Capital – Allocated Management Fees), subject to hurdle rate check (ignoring here)

**20%**

- **Carry:** Need to calculate it for realized co's separately; can group unrealized together (but depends on fund structure)



# Part 2: The “Net” Metrics (TVPI, DPI, and Net IRR)

- **Setup:** Normally, you want to sum up the Invested Capital, Called Capital, Unrealized Values, Realized Values, and Carried Interest at the bottom
- **Gross and Net Cash Flows:** Gross is just Gross Values minus Invested Capital; Net is Net Values minus Called Capital
- **TVPI:** Sum up the Net Value row and divide by the sum of the Called Capital row; **no “recycling” for now**
- **DPI:** Similar, but ignore Unrealized Values and Accrued Carry; focus is “cash in, cash out”



# Part 3: Valuations, Waterfalls, and Recycling

- **Complexity #1:** You must challenge the fund's valuation assumptions (is that HVAC company really worth 20x EBITDA?)
- **Complexity #2:** Hurdle rates, preferred returns, and catch-up returns (and waterfall schedules to support these); can get complex, especially with "American waterfalls" (per-company)
- **Complexity #3:** More complex fund terms and policies, such as "recycling" (taking earlier distributions and re-investing them); claw-backs and other penalties may also complicate things



# Recap and Summary

- **Part 1:** Fee Calculations and Formulas
- **Part 2:** The “Net” Metrics (TVPI, DPI, and Net IRR)
- **Part 3:** Valuations, Waterfalls, and Recycling

