Tokenization in Private Markets - Convergence of TradFi and DeFi.

Multi-Asset Fund – U.S.-Based Alternative Investment Manager

OVERVIEW

A U.S.-based multi-asset investment manager overseeing private funds across infrastructure and private equity is currently facing portfolio-related and operational challenges. The firm manages multiple closed-end funds, two of which are nearing the end of their lifecycle but face structural and compliance hurdles that require immediate intervention. At the same time, the investment manager has also been struggling with operational issues attributed to the legacy systems.

CURRENT SITUATION & CHALLENGES

Operational Inefficiencies:

- Legacy processes have resulted in disorganized operations and unreliable data, creating transparency issues.
- Lack of real-time portfolio monitoring and inaccurate NAV calculations have caused reporting delays.
- The disparate legacy data systems require going to different portals to consolidate the information. The deal, underlying asset and borrower information is manually maintained in excel workbooks. The calculations are done therein to determine KPI and covenant adherence. The asset data is further hydrated with data from data providers like Bloomberg. This data then flows to accounting systems. However, the entire process lacks any data validity or normalization. Moreover, the process is error prone because of no centralized cross-referencing and lack of an overall audit trail.

Liquidity Concerns:

- Illiquidity risk for Limited Partners (LPs) as fund terms approach expiry.
- General Partners (GPs) are under pressure to provide exit strategies in a challenging market environment.

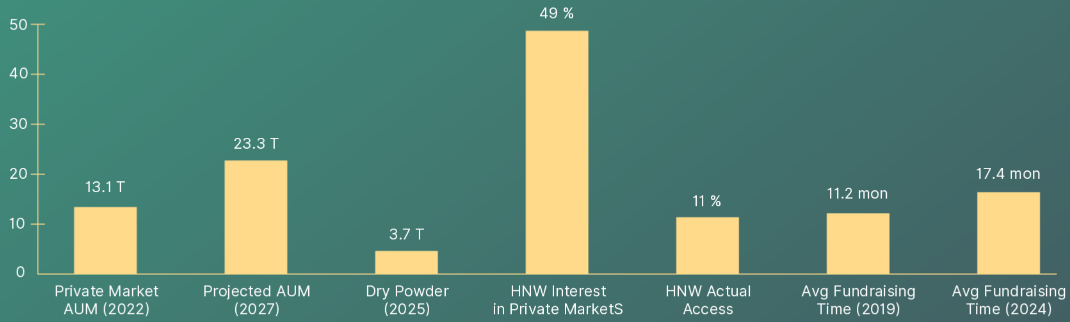
Supply-Demand Mismatch :

- There are institutional capital constraints and a drop in capital raised. Traditional LPs (pensions, endowments, etc.) are slowing allocations due to:
    - Capital recycling pressure (DPI = 0.6x): LPs are short on re-deployable capital creating a slowdown in commitments to new funds.
    - Over-allocation to illiquid post public-market drawdowns (the denominator effect): Institutions are overweighted in illiquid assets even if they haven't increased their absolute commitment.
    - Regulatory exposure limits (for banks, insurers, pension funds).

Meanwhile, private capital demand has surged to $3.3T (in mid-2025), but institutional supply is only approx. $1T, creating a $2.3T gap.

Metric	Value	Insight
Private capital fundraising ask	$3.3T	Driven by infra, PE, private credit
Institutional LP availability	~$1.0T	Covers less than 33% of demand
2024 fundraising (YoY drop)	↓24% to $589B	3rd straight year of decline

The Capital Access Gap in Private Markets



FUNDS IN FOCUS

1. **Fund ABC (Vintage Infrastructure Fund)**

- Age: ~10 years (approaching term end) Portfolio: 2 infrastructure
- assets with 3–5 years to reach optimal value.

Concerns:

- Reasonable performance but below target for top-quartile infra funds (typically >12%) indicating moderate growth so far.
- The hurdle rate is 8% and the LPs haven't fully achieved expected returns.
- LPs have only received half their invested capital back.
- Realized returns are low, yet to reach potential.
- While capital has appreciated, significant value is still embedded in the assets and is likely to increase in future.

A very high unrealized value presents a strong case for a GP-led continuation fund. Early liquidation would destroy value, but extension requires LP consent and operational clarity.

The following numbers represent the current health, and future forecasts of the fund

	T = 0	T+3	T + 5	T + 7
Metric	**Value (10 Year)**	**Value (10 +3 Year)**	**Value (10 +5 Year)**	**Value (10 +7 Year)**
Gross IRR	9.50%	10.10%	11.20%	12.30%
Net IRR	7.20%	7.90%	8.50%	9.00%
TVPI (DPI + RVPI)	1.4	1.56	1.7	1.86
DPI	0.5	0.75	1.3	1.55
RVPI	0.9	0.81	0.4	0.31
NAV at T	$400M	496M	$566M	622M
Unrealized Value %	64.29%	52%	24%	17%

2. Fund XYZ (Private Equity Fund)

- **Portfolio:** Holds a portfolio company (portCo) planned for IPO exit.
- **Challenge:** Stalled IPO market is delaying exit, creating LP concerns about illiquidity.
- **Concerns:** GPs considering tokenization of stakes to offer secondary liquidity options to LPs.

3. Launching a new fund

- **Challenge:** Supply-Demand mismatch
- **Concerns:** Tokenization is being contemplated as one of the answers.

Q1. For Fund ABC Considering the forecasts for T+5 to be the base, and with the following assumptions :

LPs Rolling Forward	**70%**
LPs Exiting	**30%**

Present a comparative analysis across various carry models such as ‘Reset Carry’, ‘Catchup Carry Only’, and ‘Blended Carry + Catchup + GP Rollover’ towards achieving GP Interests and LP Proceeds

Q2. Recommend how the tokenization of the Fund XYZ can be achieved. Compare multiple tokenization frameworks (such as ‘Public Blockchain’, ‘Private Blockchain’, ‘Hybrid’ and ‘Off-Chain Registry + On-Chain Proof’) keeping in mind liquidity options for rolled over LPs, New LPs and GP and produce an empirical analysis.

Q3. Suggest how the challenge of launching a new fund can be solved. Include what can be tokenized (Feeder Funds, vs NAV Based Fund Tokens vs Single-Asset Tokens vs Multi-Asset Token Baskets) and what are the comparative advantages.

Q4. Simulate a pitch to the fund’s Operating Committee (Ops, Tech, Risk, Compliance): focusing on ROI, risk mitigation, implementation complexity, and compliance ease for onboarding a new centralized data management system.

Q5. What reporting dashboards, transparency asks and other AI features would make a certain product great.