



BlackRock Infrastructure Solutions

Infrastructure secondaries: *Taking off*

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Key takeaways



Infrastructure secondaries are taking off.

Infrastructure primaries of today are the secondaries of tomorrow.

Following the rapid growth seen in the infrastructure primary market over the last decade, secondaries are now the fastest growing sub-segment within the infrastructure asset class, expected to reach new heights in the coming years.

01 Why secondaries? Secondaries can provide numerous portfolio benefits to investors including enhanced diversification (especially across GPs & vintage years), potential J-curve mitigation, and strong risk-adjusted returns, and can serve as a liquidity & portfolio management tool.

02 Why infrastructure secondaries? In addition to the traditional benefits of secondaries, infrastructure secondaries also offer additional distinct benefits including inflation hedging, downside-protection, resilient & recurring cash flows, and yield generation.

03 Why now? The infrastructure secondary market is considered undercapitalized with buyer-friendly dynamics, particularly for mid-size transactions which often fly under the radar. As these conditions persist, we anticipate secondary buyers will continue to be presented with attractive investments at compelling prices.

We see a broad, growing, and attractive opportunity set in infrastructure secondaries now.

Market insights contributors



Serge Lauper
Global Head & CIO,
Infrastructure Solutions



Jérôme Leyvigne
Head of Secondaries,
Co-Head of EMEA,
Infrastructure Solutions



Louis Grawehr
Senior Investment
Professional, Lead
Secondaries Underwriter,
Infrastructure Solutions

Editorial & design

Crystal Low, Lead Investor Relations & Solutions, APAC, Infrastructure Solutions

Lulu Yuan, Investor Relations & Solutions, AMRS, Infrastructure Solutions

The **anatomy** of a secondary

The secondary market first emerged within private equity during the 1980s, providing liquidity within a characteristically illiquid asset class. As private funds are typically structured as closed-end vehicles, secondary sales offer an avenue for existing investors to liquidate holdings early.

Infrastructure secondaries involve the transfer of interests in infrastructure funds & assets from one investor to another. The purchaser steps in as a “replacement investor,” typically acquiring interests in an existing fund’s assets and assuming the seller’s rights (e.g., to future distributions) and obligations (e.g., to fund future capital calls).

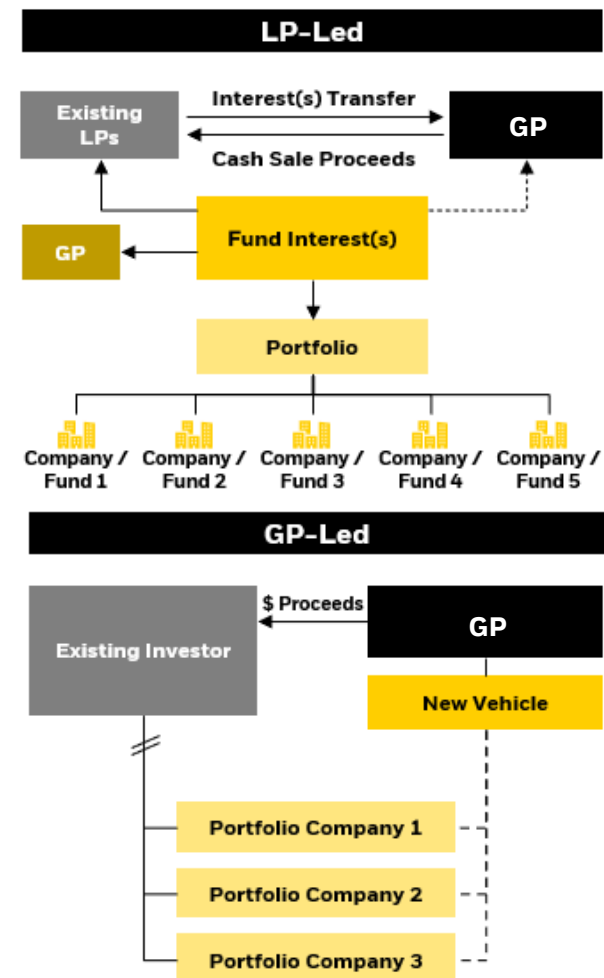
Historically, infrastructure secondaries involved the purchase & sale of limited partner (“LP”) interests in single funds or portfolios of funds, known as **LP-led secondaries**. The market then evolved to include non-traditional **GP-led secondaries**, in which general partners (“GPs”) play an active role in providing liquidity to existing investors in a fund or assets. In the past 10 years, LP-leds have accounted for approximately half of transactions, with GP-leds accounting for the other half.

GP-led secondaries are most often structured as **fund continuation vehicles** (“FCVs”), in which one or more assets in a legacy fund are transferred into a new investment vehicle managed by the same GP at the end of a fund’s life. Continuation funds offer existing investors the option to take liquidity if desired or roll over their exposure into the new vehicle. In a capital-intensive asset class such as infrastructure, FCVs allow managers to raise incremental growth capital for their assets.

Other examples of GP-led secondaries include *asset strip sales* and *tender offers*. In a **strip sale**, a portion of a fund’s portfolio is sold to a new vehicle managed by the same GP, which is typically capitalized with additional follow-on capital. Strip sales are often used as a tool to raise additional dry powder for existing investments requiring growth capital.

In a **tender offer**, the GP runs a process to identify a buyer and establish a price to provide liquidity to existing LPs. Once an offer is made, existing LPs have the option to sell or remain in the fund.

In recent years, the secondary market has further expanded to include **structured solutions**, which entail custom liquidity solutions for LPs & GPs alike, typically altering the cash profile of an asset/portfolio to meet the liquidity and risk-return needs of the seller. In many cases, this involves providing preferred equity to a diversified asset portfolio.





Why **secondaries**?

Secondaries can provide numerous portfolio benefits.



Portfolio diversification



Potential for strong risk-adjusted returns



Potential J-curve mitigation



Active portfolio management

Portfolio diversification



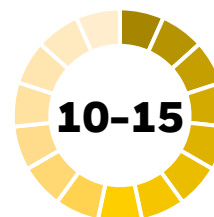
Secondaries can provide infrastructure investors with **diversified exposure across sponsors, sectors, geographies, business models, and vintage years**. A fund of secondaries can provide further diversification by investment types across LP-led, GP-led, and structured solution transactions.

Secondaries can allow investors to potentially **backfill prior vintage years** and acquire assets that are otherwise “not for sale,” reducing the risk in market timing. This is particularly attractive to investors seeking to **immediately ramp-up their infrastructure exposure** while diversifying away idiosyncratic risk.

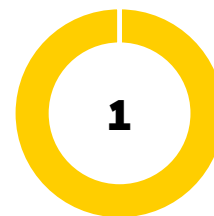
Illustrative comparison

Primaries portfolio

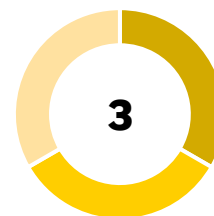
of assets...



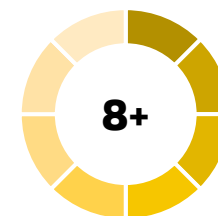
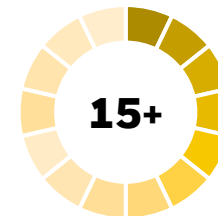
of GPs...



of vintage years...



Secondaries portfolio



Sources: BlackRock, as of August 2025. Data is provided for illustrative purposes only and does not necessarily reflect the future results of any specific infrastructure private equity fund. **Diversification does not assure a profit, nor does it protect against loss of principal.** Diversification among investment options and asset classes may help to reduce overall volatility.

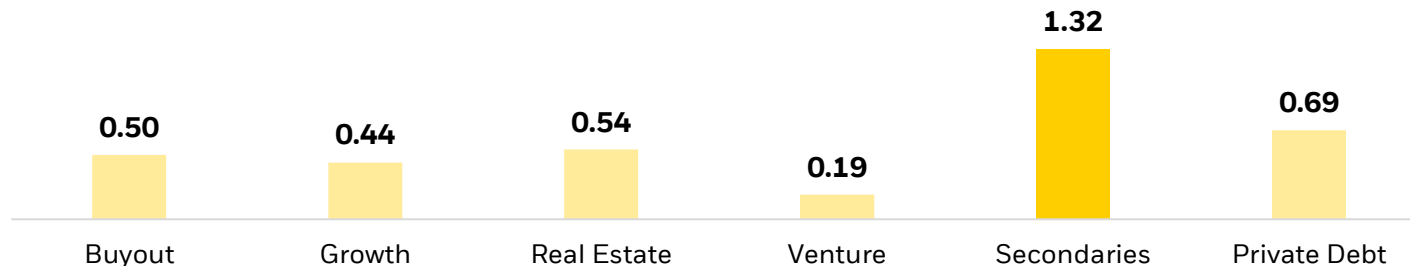
Potential for strong risk-adjusted returns



Secondaries can provide **immediate deployment into a visible portfolio, reducing blind pool risk**. This allows buyers to evaluate existing portfolio companies, including historical performance, financials, valuations, and value creation plans for those investments. Entering at a later stage in an investment's life cycle is **particularly beneficial for greenfield projects & value-add infrastructure assets**, as they are typically more de-risked at the secondary entry point. Coupled with attractive pricing dynamics, we believe secondaries offer the potential for outperformance.

The graphic below shows the historical risk/return profiles of various private capital strategies, including private market secondaries (due to the unavailability of data on *infrastructure* secondaries funds). Private market secondaries have historically generated higher returns per unit of risk, as measured by the standard deviation of net IRR. This favorable risk-return ratio positions secondaries as an **excellent investment type for investors seeking to enhance their returns without proportionately increasing their risk exposure**.

Return per unit of risk (Net IRR since inception / standard deviation of net IRR)¹



Sources: BlackRock, Preqin, as of August 2025. 1) Net IRR reflects median since 31 March 2000 net IRR across all funds (i.e. all vintage years and geographic regions for each strategy noted) in the Preqin database. Net IRR represents the net IRR earned by an LP to date, after fees and carry. The internal rate of return (IRR) is based upon the realized cash flows and the valuation of the remaining interest in the partnership. IRR is an estimated figure, given that it relies upon not only cash flows but also the valuation of unrealized assets. The IRR estimates shown are both those as reported by the LP and/or GP and those that Preqin has calculated internally, based upon cash flows and valuations, provided for individual partnerships. The figures shown are not representative of future returns. **Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.**

Potential J-curve mitigation



The J-curve refers to the expected trajectory of returns for private market funds over time. In the initial years, returns can be negative due to the drag effect of management fees & expenses charged as the portfolio is built up. As investments mature and begin to generate returns, the curve turns positive. Secondaries offer a strategic avenue to mitigate the J-curve's initial drag. By acquiring stakes in established funds & assets, investors **enter at a more mature phase of the investment lifecycle**, while also potentially saving on fees & expenses charged in the early stages of a fund's life. Given the shorter duration exposure, investors can also benefit from the **earlier return of capital**. Secondaries **may also show strong early performance** due to the typical acquisition of assets at discounts to net asset value (NAV), providing further potential to generate high early IRRs.

By mitigating the J-curve effect, secondaries demonstrate an **efficient cash flow profile**, enabling expedited distribution of returns to investors. More mature secondaries have the potential to enhance a portfolio given the **shorter remaining hold periods** of the investments. The strategic inclusion of secondaries can serve as a powerful portfolio construction tool, optimizing the overall cash flow of an investor's portfolio.

Active portfolio management



Secondaries represent a technology for private market investors to manage their portfolio. An LP may opt to sell their positions for a number of reasons, including:

Portfolio management

An LP may seek to optimize their infrastructure portfolio by reallocating legacy funds, de-risking maturing programs, consolidating GP relationships, reducing unfunded commitments, among other reasons.

Liquidity needs

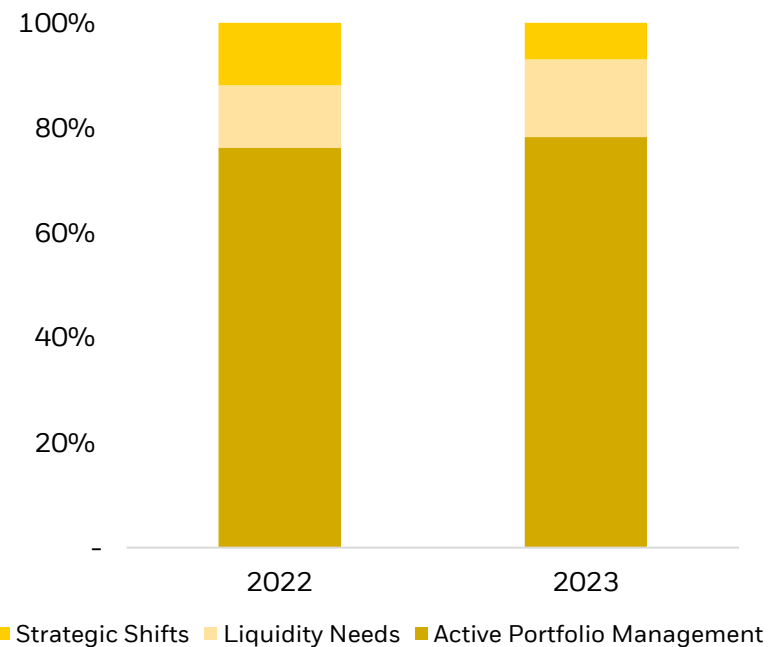
Selling positions can provide LPs with immediate access to capital, which is particularly critical during periods of market volatility when liquidity and numerator or denominator effects may be challenging.

Strategic shifts

LPs may sell their stakes as part of a strategic shift in investment focus, for example due to CIO/portfolio management roles changes, regulatory pressures, ESG considerations, among other reasons.

Main reasons for LP-led secondary sales

Active portfolio & liquidity management remain key drivers for secondary activity.

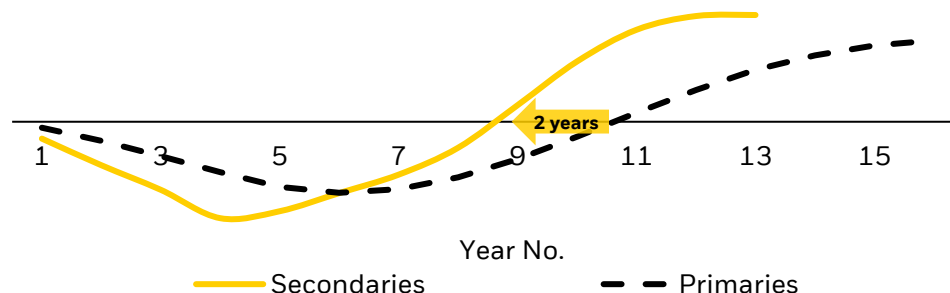


Source: BlackRock, Evercore FY 2024 Secondary Market Survey Results, February 2024.

Spotlight: Enhanced portfolio benefits

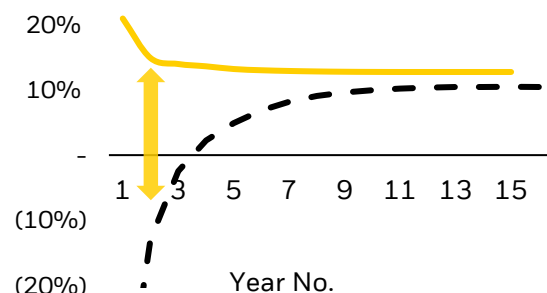
Infrastructure secondaries provide investors with attractive and unique portfolio benefits, including **1) accelerated ramp-up of exposure** through deployment into existing portfolios, **2) J-curve effect mitigation**, and **3) earlier access to distributions** through entry into more mature portfolios with near-term yield & liquidity potential.

Illustrative cumulative cash flow profile



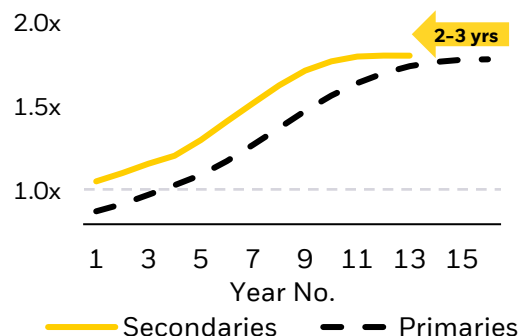
A portfolio of secondaries is expected to generate positive net cash flows and positive cumulative net cash flows several years ahead of a portfolio of primaries

Illustrative IRR development



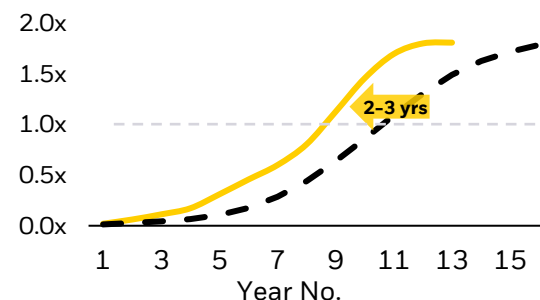
J-curve mitigation with a secondaries portfolio

Illustrative TVPI development



Target TVPI expected to be achieved 2-3 years earlier

Illustrative DPI development



DPI of 1.0x is expected to be achieved 2-3 years earlier

Sources: BlackRock, as of August 2025. Data is provided for illustrative purposes only and does not necessarily reflect the future results of any specific infrastructure private equity fund. Outputs above do not reflect actual data. Infrastructure private equity funds are long-term investments and, although they seek to appreciate in value, there is no guarantee that investors will recover all or a part of their capital contributions or that the investment will deliver these returns. The results of an infrastructure private equity investment may differ materially from the results shown above. Charts represent the expected cash flow, IRR, TVPI & DPI profile of an illustrative model portfolio of infrastructure secondaries vs. an illustrative model portfolio of infrastructure primaries (both with risk profile assumptions across Core+ / Value Add) that invest over a 5-year period.



Why infrastructure secondaries?

Infrastructure secondaries not only provide the traditional benefits of secondary investments, but also offer additional distinct benefits specific to the infrastructure asset class.



Infrastructure characteristics



Undercapitalized market



Yield enhancement



Infrastructure characteristics



Infrastructure is favored for its ability to **hedge against inflation** and offer **downside mitigation**, given its inherently defensive and low-volatility nature. These assets typically have inflation-linked revenues and pricing power, along with **stable, recurring cash flows** from providing essential services, further reinforced by high barriers to entry. As shown below, this has resulted in **stable risk-adjusted returns**, even amidst market downturns, with consistently positive returns for the past 15 years.

Undercapitalized market



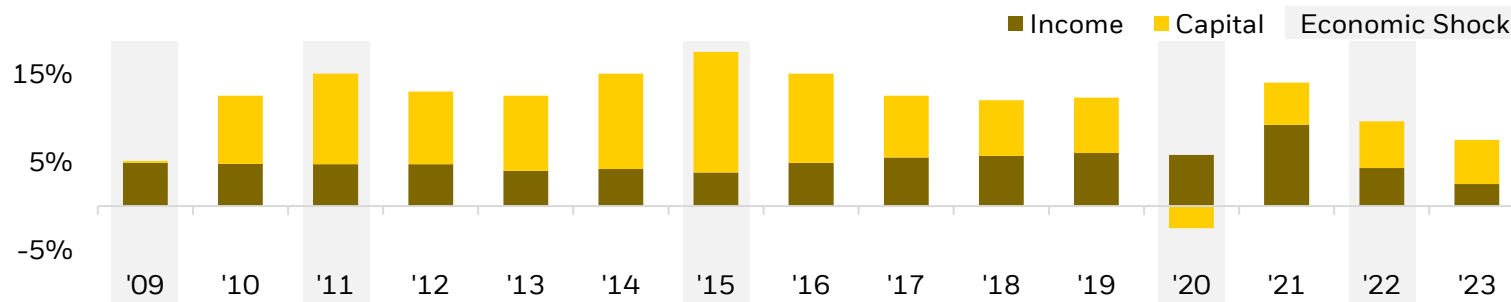
Given the infrastructure market is still at a relatively nascent phase compared to other private markets, infrastructure secondaries remain a relatively niche market despite growing volumes. Consequently, dedicated infrastructure secondary buyers are limited, resulting in a **buyer-friendly gap**. Because the market is concentrated with a handful of players targeting larger-scale transactions, **small- and mid-sized transactions tend to fly under the radar**, offering the potential to be selective.

Yield enhancement



Infrastructure investments are sought after for their stable and predictable cash flows, which provide a steady yield. While primary funds may take 3-5 years to achieve targeted yields, **secondary transactions offer immediate yield from as early as day one**, since they involve investing in more mature portfolios. Moreover, the chance to buy assets at a discount or opt for a deferred payment structure can **mechanically boost yield**.

Historical infrastructure performance¹ (gross total return, LCY)



Return
11.7%¹

Volatility
10.9%¹

Sources: BlackRock. 1) MSCI Global Private Infrastructure Index, January 2024. The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.

Why **now**?

Since its institutionalization in the early 2000s, infrastructure has emerged as one of the **fastest-growing asset classes**. Infrastructure primary funds have amassed over \$1tn¹ in the last decade. By 2026, infrastructure AUM is forecasted to reach nearly \$2tn².

The maturation of primary funds forms the basis for a robust landscape of potential secondaries, as liquidity becomes increasingly important to investors in an otherwise illiquid asset class. Historical infrastructure secondary transaction volumes have expanded by nearly 10x from ~\$1bn in 2011 to ~\$14bn in 2023, growing at a nearly 25% CAGR from 2015-2023 alone. **Infrastructure secondary volumes are expected to soar to \$29bn¹ by 2029.**

The primaries of today are the secondaries of tomorrow.

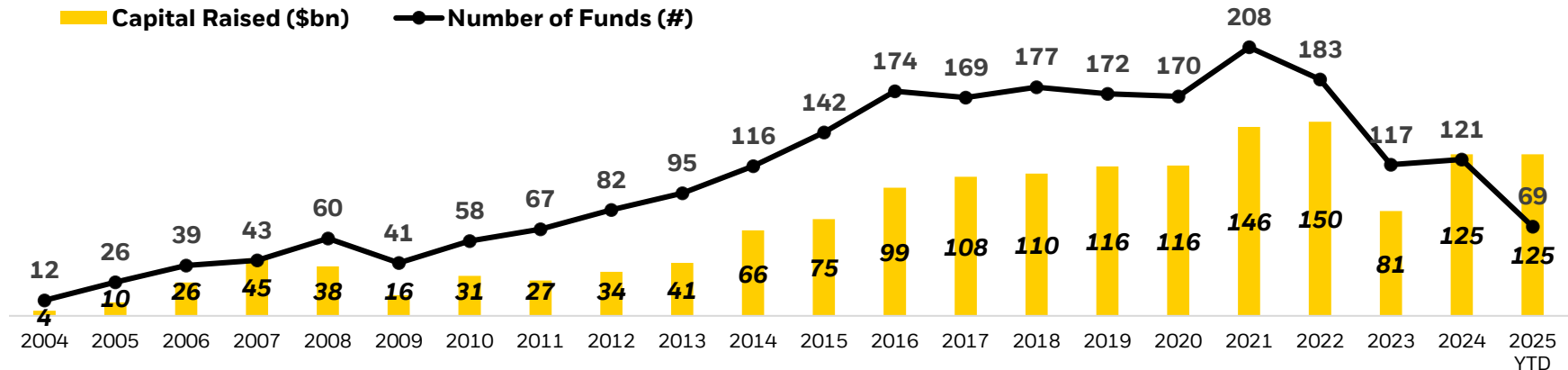
Sources: BlackRock, as of August 2025. 1) Campbell Lutyens Secondary Market Overview H1 2025, CBRE, 2023. 2) Inframation – Infrastructure M&A transaction; Campbell Lutyens – Infrastructure Secondary Volume. All figures in USD unless otherwise stated.

The growth in the infrastructure market is largely driven by the **widening public financing gap**, which has created a need for private capital to fund and manage critical infrastructure assets. Long-term structural growth drivers accelerate this growth, with megaforces such as **decarbonization**, **digitalization**, **decentralization**, **demographics**, and **disintermediation** demanding more sophisticated and capital-intensive projects to meet ambitious targets. This growth is also fueled by **continued and rising demand from investors** for the unique benefits that infrastructure offers, such as steady yields, inflation protection, and portfolio diversification, all of which contribute to a robust and resilient portfolio.

Despite strong historical growth, **infrastructure secondary volumes only account for 1-2% of infrastructure AUM**. This penetration is similar to that of private equity in the early 2000s and to real estate in 2015-17. Today, private equity secondaries volumes account for ~5% of private equity AUM, and real estate secondary volumes account for ~3% of AUM.¹

Infrastructure is just beginning to catch up.

Private infrastructure fundraising (USD billions)¹

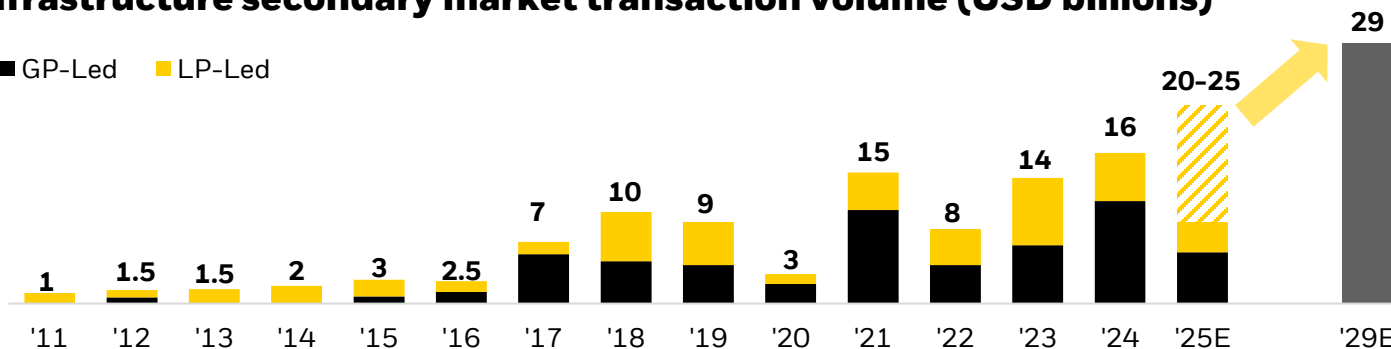


Sources: 1) Preqin, excluding infrastructure debt, as of October 2025. Small differences may be due to rounding.

Ascending to new heights

Infrastructure secondary market transaction volume (USD billions)

■ GP-Led ■ LP-Led



The formation and development of a secondary marketplace is recognized as a natural progression for illiquid asset classes, as seen in the maturation of more established alternative strategies such as private equity & real estate.

Secondaries as a percentage of total AUM...



Private Equity



Real Estate

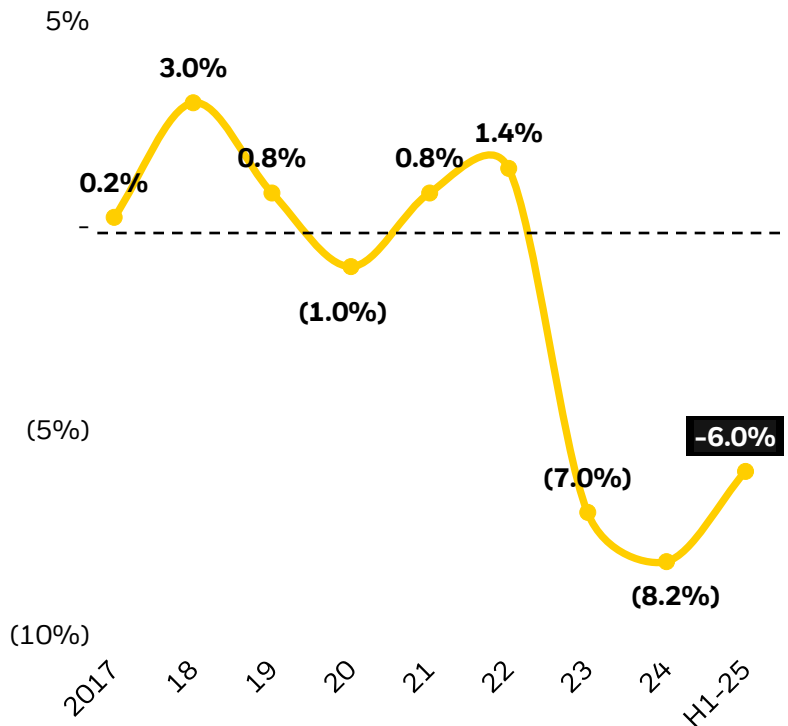


Infrastructure

Sources: Preqin, excluding infrastructure debt; Campbell Lutyens Secondary Market Overview H1 2025. Small differences may be due to rounding. **There is no guarantee that any forecasts made will come to pass.**

Transacted infrastructure market pricing

Premium / (discount) relative to reference date



Attractive pricing

LP-led secondary investments are typically acquired at a discount to NAV, which can drive immediate uplift. Furthermore, pricing is often based on a historical reference date valuation, which may be stale at the point of acquisition. This results in an effective discount that is often higher than the optical discount, which can be further enhanced through the use of deferred payments.

The current market environment is considered buyer-friendly, with **high-quality deal flow available at attractive pricing** and terms. Before 2023, pricing remained close to par with relatively narrow average discounts. However, in 2023, infrastructure secondaries saw a **notable softening in pricing** in the high single-digit discount range, which broadly persisted in subsequent years while directionally narrowing again more recently. Given these conditions, the market is expected to remain supportive for secondary buyers, offering continued access to compelling opportunities even as pricing gradually normalizes.

What factors to consider when evaluating infrastructure secondaries?

When evaluating infrastructure secondaries, investors should consider a range of factors:

LP-led transactions

- Operating performance of portfolio companies
- Valuations
- Capital structure
- Exit scenarios
- Cash yield
- GP alignment
- Bidding strategy

GP-led transactions

- Transaction rationale & GP alignment
- Business model & value creation plan
- Operating & financial performance
- Industry dynamics & competitive landscape
- Valuation
- Management credentials & alignment

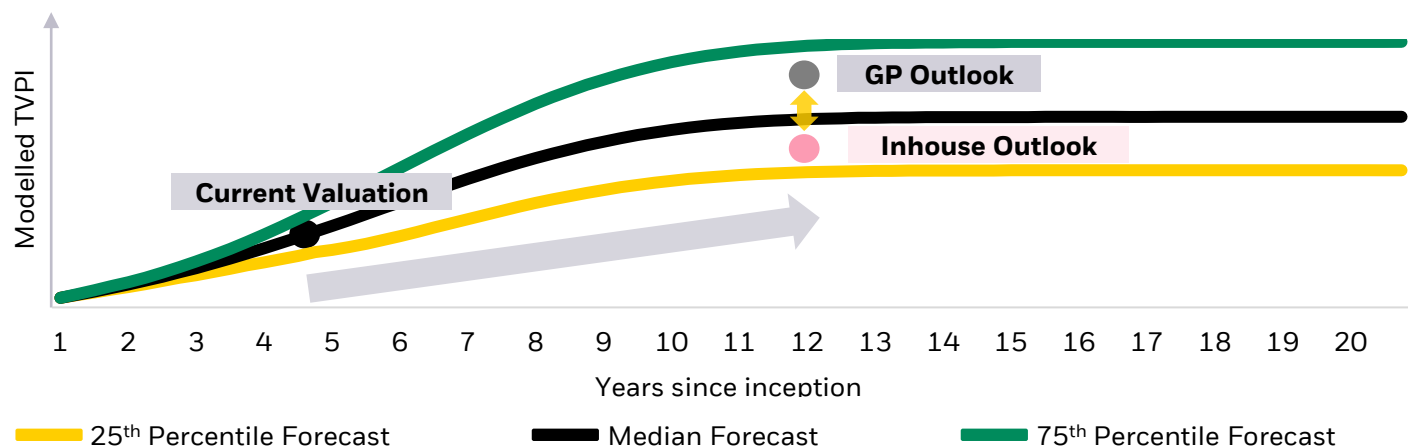
In all cases, a critical part of due diligence involves assessing the manager's skill and **structuring continued alignment of interests** to deliver on performance during the secondary hold period. In a specialist asset class such as infrastructure, it is important for secondary investors to have **strong infrastructure knowledge & expertise** to effectively assess secondary opportunities.

Spotlight: Underwriting with data analytics

Secondary underwriting is a data & analytics intensive process, where **access to data & technology is critical** and can provide a distinctive edge. In particular, LP-led auction processes typically provide very little point-in-time information to bidders with short transaction timelines. As a result, buyers who have access to existing historical data can gain an edge in underwriting secondaries efficiently and accurately. This **information advantage** can be pronounced for buyers with existing investments & relationships across the infrastructure GP universe through primaries & co-investments and the resulting ecosystem of data collected. Such privileged access to data combined with the technology to process it can be a source of alpha in the infrastructure secondary market.

Illustrative stochastic model

Stochastic modelling leveraging a database of 100+ fund investments and scenario-based simulations to calibrate bottom-up modelling



Leveraging data collected through primary investments to develop proprietary fund curves, which can be applied for stochastic modelling of fund performance

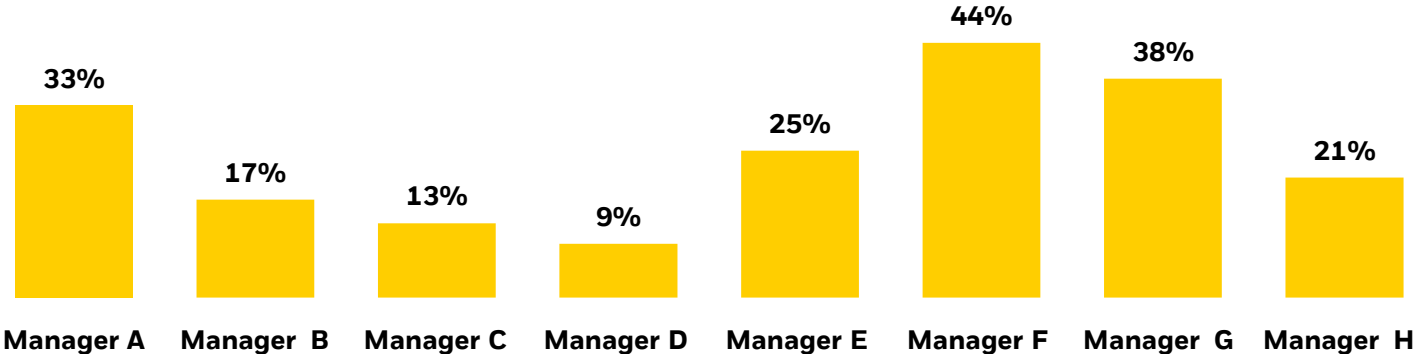
Sources: BlackRock, as of August 2025. For illustrative purposes only. The information above is not a prediction of future performance and performance is not guaranteed.

A key element in the underwriting process is the bottom-up valuation of a secondary portfolio and/or assets. For a specialist asset class such as infrastructure, this requires deep asset class expertise and the use of infrastructure-specific valuation tools. Buyers with access to proprietary valuation models (e.g. through existing or reviewed co-investments), proprietary databases of comparable transactions, and other privileged information will have a significant **underwriting advantage**.

In addition, privileged access to data collected through historical investments can be leveraged to perform **top-down calibration of the bottom-up underwriting**. This can include secondary pricing using stochastic modelling of fund performance, or analyzing data such as the historical exit mark-up of GPs to NAV as an indicator of GP valuation conservatism.

Illustrative exit valuation analysis (exit mark-up in % of last available valuation)

Secondaries pricing leveraging a database of 1,000+ assets and time series of NAV valuations over time



Secondaries pricing using data & analytics can provide room for more tactical pricing for certain managers who follow a more conservative valuation approach

Sources: BlackRock, as of August 2025. For illustrative purposes only. The information above is not a prediction of future performance and performance is not guaranteed.

Conclusion

01

Welcome onboard

Infrastructure secondaries can play a **variety of roles within a portfolio**, for both new and existing infrastructure investors alike.

There are several ways for investors to engage with infrastructure secondaries. Institutional & high-net-worth investors can access infrastructure secondaries opportunities via **LP-led, GP-led secondaries or bespoke structured solutions**, through private funds or separately managed accounts.

02

Prepare for takeoff

In a specialist asset class such as infrastructure, **strong infrastructure knowledge & expertise** is necessary to effectively assess secondary opportunities.

Access to proprietary data & technology is critical and can provide a distinctive edge. Proprietary data such as historical financials, valuation models, and databases from existing primaries & co-investments can lead to an **underwriting advantage** in a market with significant price and information inefficiencies.

03

Time is now

Infrastructure secondaries are taking off. We see infrastructure secondary penetration rates just beginning to catch up to the levels seen in private equity in the early 2000s, with transaction volumes expected to ascend to new heights in the coming years.

As these conditions persist, we anticipate secondary buyers to be presented with attractive investments at compelling prices. **The time is now.**

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