

VALIDUS

Case Study

Secondaries Fund FX Hedging

Our client is a large USD-denominated secondaries manager with capital invested across sponsors in multiple regions.

Background

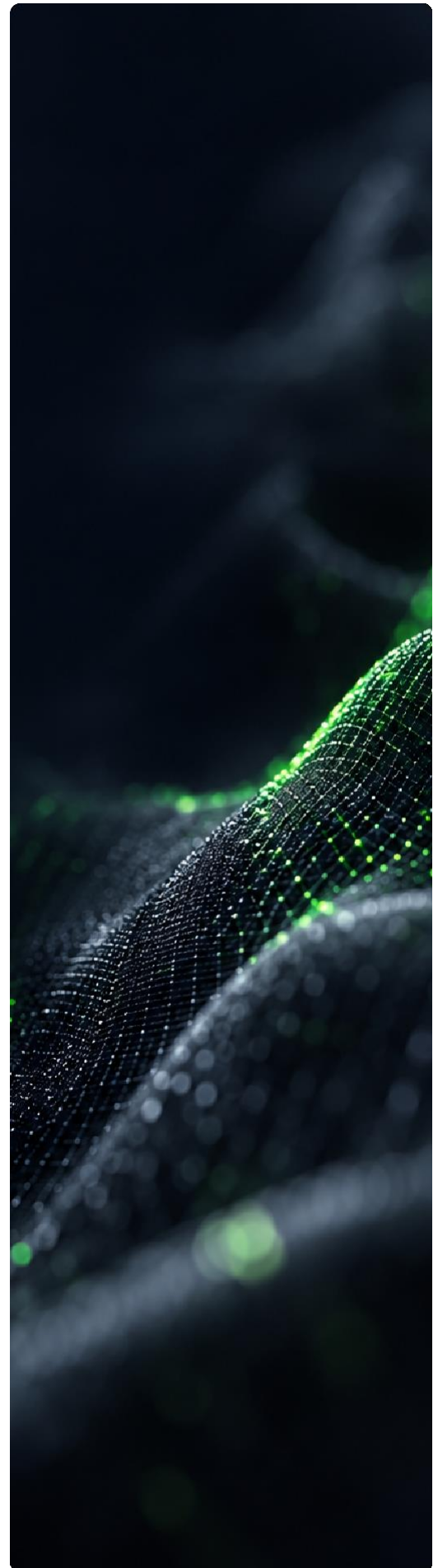
A USD-denominated secondaries fund manager approached Validus to seek assistance in evaluating the FX risk associated with multiple fund families comprising over 20 entities. These include parallel and co-investment entities in addition to the main investment vehicles, offering Real Estate and Private Equity solutions. The client had historically not hedged its FX exposure and thus they aimed to:

1. Assess whether the FX risk of each entity is within acceptable levels.
2. If not, explore hedging strategies to mitigate this risk.

Approach

Validus was tasked with conducting an in-depth analysis of each fund's exposures to facilitate informed decision-making. To achieve this, we adopted a quantitative approach, examining how FX risk could impact the return profile of each entity. This process laid the essential groundwork for crafting strategies that could manage this risk within each entity's tolerance.

Based on the results of the analysis, Validus recommended a tailored approach that took into account the unique risk profile of each fund. Subsequently, we have been actively involved in the implementation and ongoing management of the hedging program to ensure optimal risk mitigation.



The Nuances to the Risk Quantification

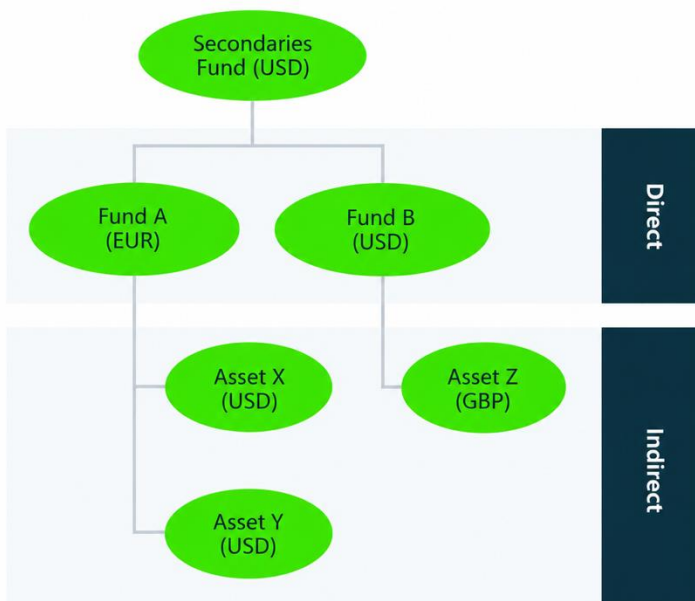
Given the secondaries profile of the client, there are two levels of FX risk exposures:

1. Direct (fund-level) - investments made into funds denominated in a foreign currency, e.g. Fund A results in direct EUR risk.
2. Indirect (asset-level) - the currencies of the underlying deals of the funds invested into, e.g. Fund A does not present any FX risk at the indirect level given the underlying assets are in USD.

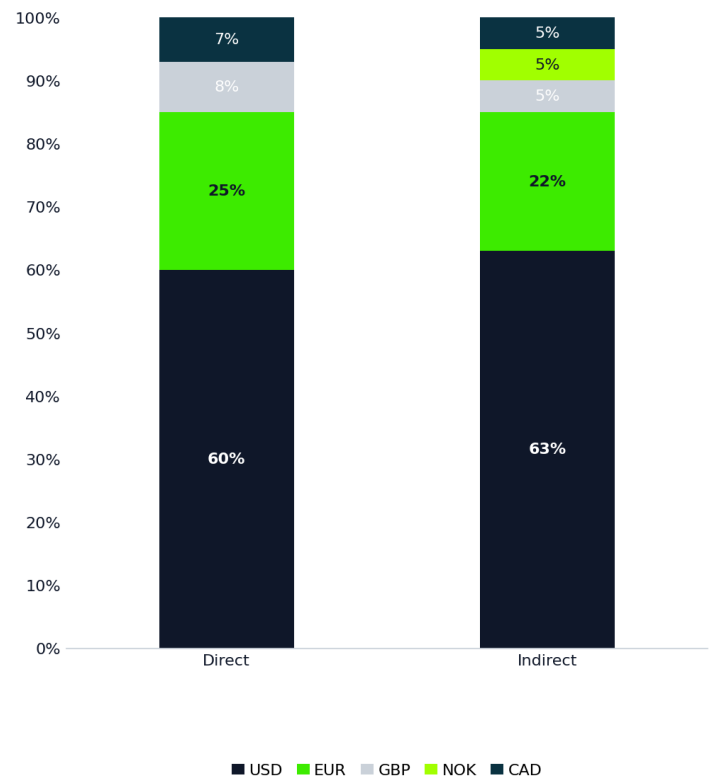
In order to accurately identify the true economic exposure, it was necessary to look beyond the sponsors and delve into the underlying deals. This approach offered a more comprehensive and accurate assessment of the risk profile. However, achieving this required a meticulous analysis of the fund-level exposure data, to determine:

1. The underlying deal currencies and the relevant % splits.
2. Whether any hedging was done by the fund managers and if so, the proportion of the underlying exposures hedged.

Secondaries: Risk Profile



Exposures at Direct vs. Indirect Level



FX Risk Quantification: Direct vs. Indirect Level

With this dataset, we estimated the net unhedged FX exposures to each entity. We then focussed on quantifying the proportion of IRR that could be eroded due to adverse FX moves based on both the direct and indirect FX currency allocations.

In this case, given the similarity of FX profiles at both levels (see bar chart on the preceding page), the fund's IRR at Risk was aligned with slightly different diversification effects due to variance in the currency baskets.

	Direct	Indirect
Base Case IRR	20.0%	20.0%
Current FX Loss	-0.5%	-0.5%
IRR at Risk	-3.5%	-3.5%
Diversification Effect	0.3%	0.4%
Unhedged Worst Case IRR	16.3%	16.4%

From this analysis and client feedback, we established that:

1. The risk to IRR for many entities (e.g. the one illustrated above with a net IRR at Risk of 320 bps) was beyond the fund's tolerance of 100 bps. As such, the manager was keen to explore hedging strategies for these entities.
2. The fund's direct and indirect exposures were fairly aligned and given reduced operational requirements to hedge the direct exposure, the focus of the strategy evaluation would be at this level.

Hedging Solution

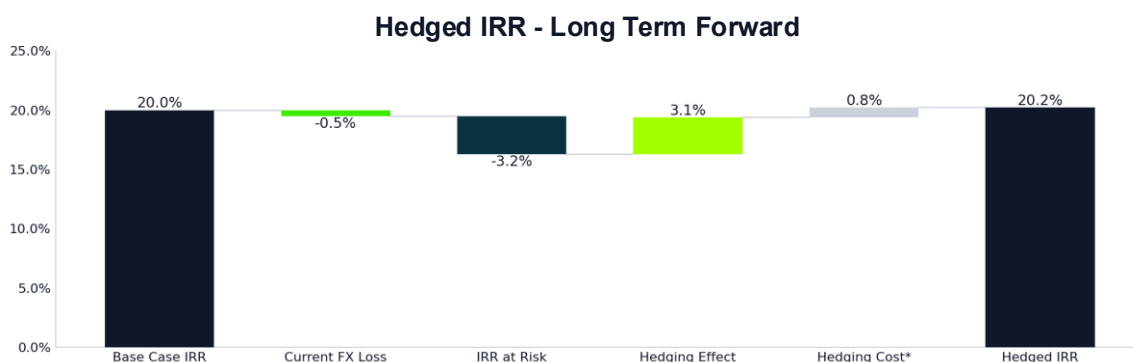
In the next phase, we designed hedging strategies for the entities in which the analysis indicated IRR at Risk was in excess of 100bps. The client was concerned about the reduced visibility of the asset cash flows, which posed the risk of being over-hedged. To address this, we explored the use of lower hedge ratios and optionality, which could mitigate the risk while ensuring optimal returns. We evaluated hedging strategies varying the following parameters:

- Hedge Instrument** forwards vs. put options vs. combined forward + call option (used to cap liquidity risk).
- Hedge Ratio** as a % of NAV.
- Hedge Tenor** to quantify the difference in cash drag and liquidity implications.

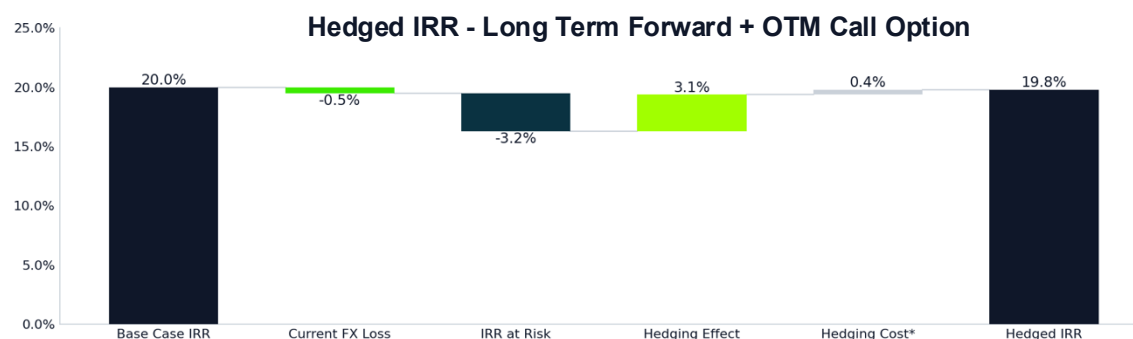
The key output of the evaluation was to quantify the implications on Hedging Effect, Hedging Cost and Liquidity Risk for each potential hedging approach.

Following several iterations and a thorough review of available strategies, the approach our client favoured was the use of long term forward contracts due to better alignment of hedge settlements with asset distributions..

To manage liquidity at risk, the fund onboarded a panel of banks offering adequate credit support, reducing margin call risk to zero at a 95% confidence level. Over the life of the hedging program, the fund would also tactically consider purchasing out-of-the-money call options to cap the liquidity risk of the forwards, should the need arise



* Hedging cost here represents the interest rate differential which was a **favourable IRR impact to the USD fund**.



* Hedging cost here represents the interest rate differential which was a favorable IRR impact to the USD fund. For the combined forward.

+ option approach, hedging cost represents the interest rate differential plus the option premiums, which was still a net IRR benefit for this strategy.

Our Ongoing Support

Since the strategy was agreed, Validus has managed the implementation of the hedging strategy to relieve the operational burden on the client's team. Validus acts as an extension of the manager's treasury team providing the following areas of support:

ONBOARDING

Given this manager had never hedged, the requisite banking infrastructure had to be set up, which included:

- 1. Quantifying appropriate panel size to provide sufficient credit support to minimise the risk of a margin call.
- 2. Gauging appetite and indicative terms to short-list appropriate counterparties across the 60+ banks that we work with.
- 3. Project managing the end-to-end ISDA negotiation process, advising on commercial terms and ensuring panel remains appropriate over time.

EXECUTION

On an ongoing basis, Validus assists with the execution of all trades on behalf of the trading entities providing the following coverage:

- 1. Liaising with the banking panel to obtain pricing and recommending the most suitable counterparty based on the best execution policy of the client.
- 2. Reviewing pricing and ensuring it is fair and in line with benchmarks based on our experience trading 12,000+ trades/month, and \$600Bn+ of notional annually.
- 3. Providing post-trade support including trade matching, bank reconciliations, confirmation of settlements and regulatory reporting.

REPORTING & TECH SUPPORT

Given the complexity of the fund's structure, our technology platform allows:

- 1. Allocation of single transactions to multiple entities for reporting and tracking purposes.
- 2. Each entity to allocate hedges to a specific transaction, further allocated to separate sub-levels.

Our proprietary RiskView technology allows the fund manager to monitor liquidity risk, hedge valuations, hedge ratios and hedge effectiveness daily.

ONGOING ADVICE

Validus offers periodic health checks for implemented strategies and recommendations for adjustments, including analysis on reducing tenor, adding optionality to forwards, and hedging specific transactions at the indirect level.

60+	12,000+	\$600Bn+
BANKING	BANKING	NOTIONAL TRADED
COUNTERPARTIES	COUNTERPARTIES	ANNUALLY