



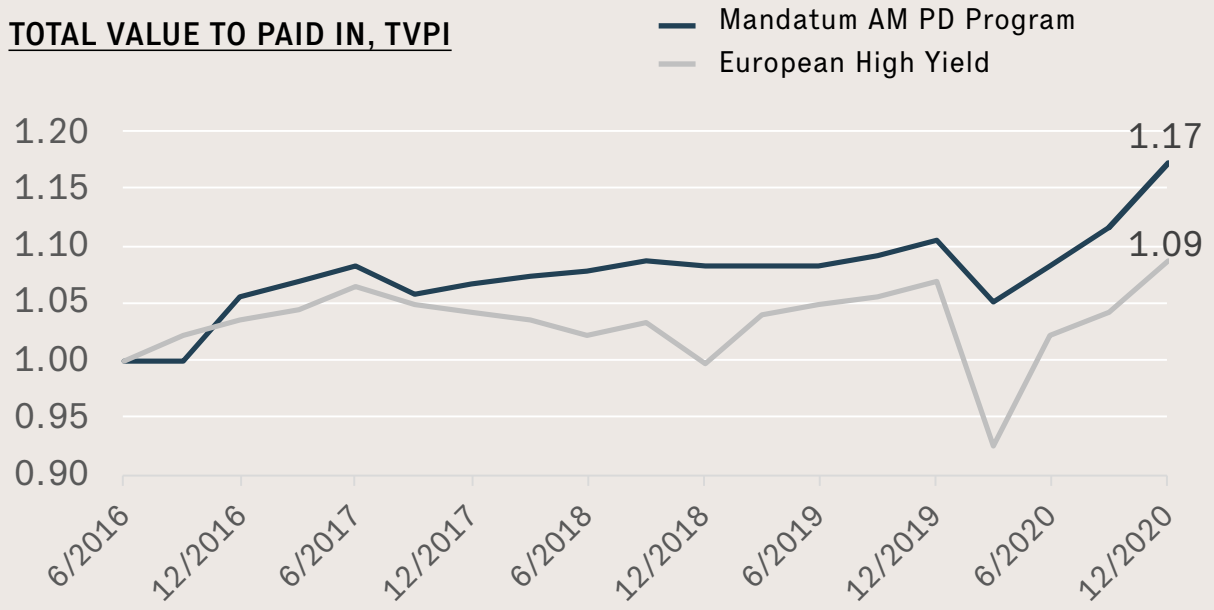
PRIVATE DEBT AND PUBLIC MARKET EQUIVALENT RETURN COMPARISON

CASE STUDY:

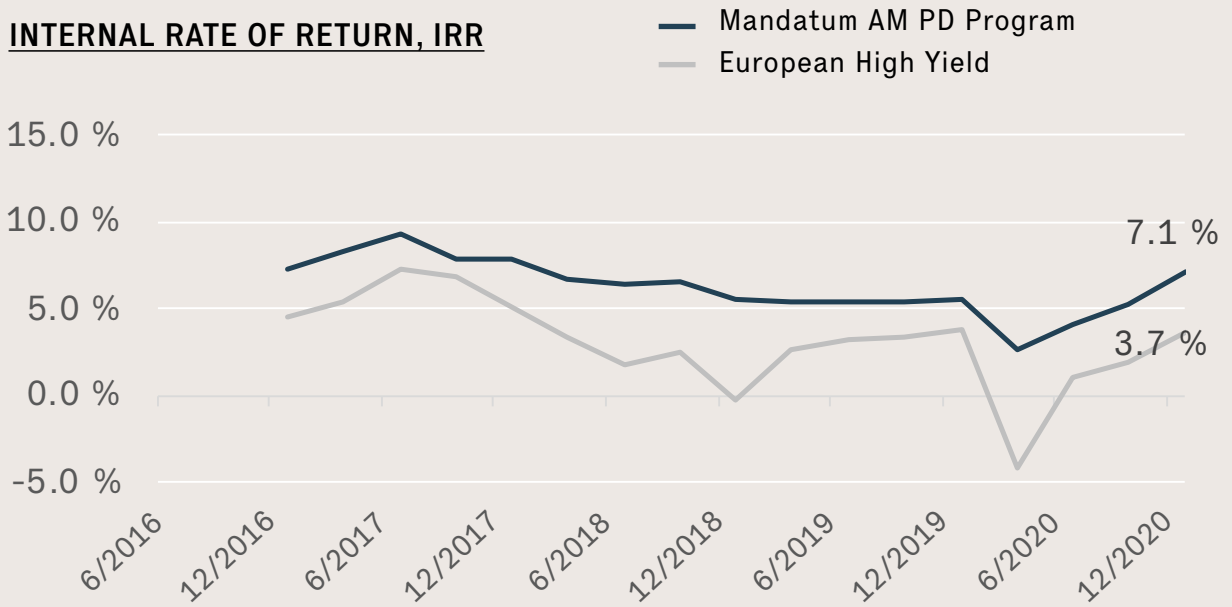
Mandatum AM Private Debt Program vs. EUR High Yield

As our Private Debt program has matured, we felt that the time is right to prepare a comparison of our performance against the public market equivalent. For a EUR investor, EUR HY index is in our opinion the most relevant comparison point. To illustrate this, we have prepared a comparison that can be seen in the below graphs. For transparency, we have made the comparison with different types of performance metrics (money multiple, time weighted return and rolling IRR).

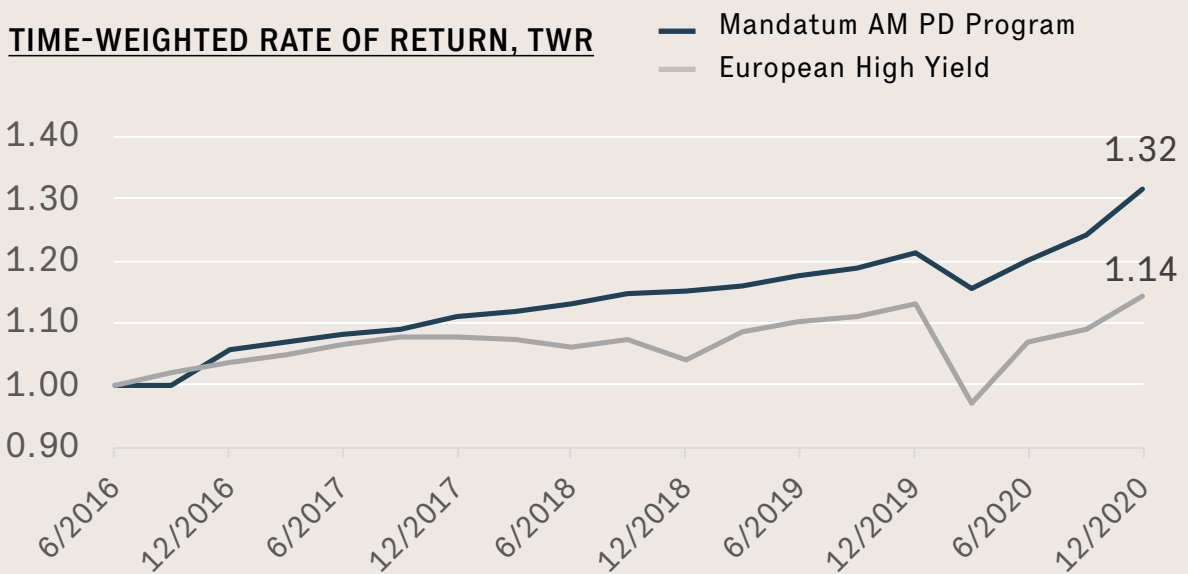
TOTAL VALUE TO PAID IN, TVPI



INTERNAL RATE OF RETURN, IRR



TIME-WEIGHTED RATE OF RETURN, TWR



RETURN COMPARISON see appendix for methodology

The end result tells the hard truth: our PD program has generated almost double the returns (TVPI of 1.173 vs 1.086) of EUR HY index during 6/2016 – 12/2020 or a 3.5% premium in IRR terms. This finding is in line with the expectations – our PD program invests in illiquid debt instruments, in order to justify the investment, it needs to generate premium return against the public markets benchmark. However, there are a few things to note about the time series: for instance, our program did not lose money during q3/2017 even though one might think so by looking at the graph – the multiple just became more diluted as more money was drawn during that quarter. One can easily arrive at the same conclusion by conducting a TWR comparison, even though in our opinion TWR is generally a biased metric for drawdown vehicles, mainly due to the fact that private debt as asset class has typically a rather limited j-curve.

RETURN PREMIUM IN 2020 ENVIRONMENT

By looking at the graphs above it seems that a large return premium was generated during the very turbulent times of Q1/2020. We would, however, argue that this is mainly a result of the valuation methodology used. Most of the underlying funds' assets are not valued based on mark-to-market accounting (which is obvious as with the underlying loans are most often private or bilateral), thus quite many of them reported positive returns (accrued coupon) for the turbulent time period of Q1 2020. In practice though we would argue that almost every asset in the PD portfolio lost value on mark-to-market terms in Q1/2020, so the "premium" return was actually for large part just based on the stickiness of the valuations, not actual performance difference. Despite this valuation mismatch we think that the private markets will perform strongly on a relative basis in a downturn as well, but one quarter is arguably too short time period to assess that. However, if one looks at the return premium for the year 2020 as a whole it is easy to see that this was (both on relative and absolute terms) very strong year for our PD program. We would furthermore argue that is actually due to the offensive nature of more opportunistic funds in our portfolio: these funds were able to buy from forced sellers, i.e., funds offering monthly or even daily liquidity to their investors, during March-May 2020 lows and thus generated superior returns during 2020. This has been discussed in greater detail in our recent article "Diversified private debt program as a tool for countercyclical investing". The article can be [read here](#).

ADJUSTMENT FOR RISK

As in all financial investing one should also assess the performance relative to risk when analyzing returns. Traditional risk metrics to look at would be volatility or risk-adjusted return metrics such as the Sharpe ratio. However, volatility does not work for private asset classes as prices are very sticky due to the accounting reason discussed above. If one was to apply Sharpe ratio metrics to our private debt program the excess returns would be substantial, rendering the use of the metric useless.

During the same time frame the EUR HY market has benefited from yield compression and corresponding excess return -- this is clearly not a source of risk or return for the Private Debt market, given that instruments are typically held to maturity. During the period (6/2016 – 12/2020) the yields compressed more than 1 percentage point in the European high yield market. Adjusting for the returns generated by duration (i.e. underlying rates and credit spreads falling lower) the analysis would likely be even more favorable for our PD program (interest rate duration for our program is approximately 1.1).

Generally, it could be argued that it is impossible to quantitatively assess the risk related to our private debt program in a perfect fashion. In private debt transactions the traditional credit metrics (e.g. leverage) are typically lower (vs. public counterparts), but the companies are typically smaller as well and/or they are undergoing a complex situation, which makes the risk assessment more difficult. It should also be noted that reasonable statistics on default rates or credit losses are not available in private markets.

CONCLUSION

The private debt market has grown significantly in recent years, as demonstrated by the number and size of deals financed by private debt funds instead of liquid capital markets or banks, and the asset class has also become a key pillar of investors' portfolios. Therefore, one might draw the conclusion that in today's environment it is an active (or atypical) decision not to invest in private debt instead of allocating funds in the asset class, which is evidenced by the recent growth of the asset class. Furthermore, based on our analysis (and analysis performed by independent third parties) it would be a smart thing also from the performance point of view to give up poor liquidity in exchange for superior returns. At Sampo Group have been investing in illiquid debt strategies since the Great Financial Crisis and ramped up the allocation already a decade ago. During the recent years we have been fortunate to successfully expand our offering to our external clients thus providing them with access to our skillset and knowledge alongside our own balance sheet.

(Below is also a comparison table for different comparison metrics)

APPENDIX: METHODOLOGY

The comparison is done by comparing our Private Debt programs' returns assuming that an investor has invested in all of our fund-of-fund -like strategies (PD I, II, III and IV with first closings 6/16, 6/17, 12/18 and 4/20, respectively) in the first closing with equal weights and assuming a 0.80% fee for our strategy (typical fee if an institution has committed 10 MEUR in all 4 of our consecutive strategies). All the underlying funds' returns are calculated net of fees (including the discounts that we are typically able to negotiate due to large volumes and our long-standing history with the managers). EUR HY is Markit iBoxx EUR High Yield index and for comparison purposes we have applied a 0.30% p.a. cost on it.

This document is being provided to you for informational purposes only and does not constitute investment advice or a solicitation to invest or to participate in any trading or investment strategy. Any investors should make their own assessment as to the suitability of investing in any of the discussed strategies and, if necessary, consult their own legal and tax advisors. The presented information is based on the information available at the time the article was created as well as on the views and estimates of Mandatum Group at that time.

COMPARISON TABLE FOR DIFFERENT COMPARISON METRICS

	Total value to paid In (Graph 1)	Internal rate of return (Graph 2)	Time-weighted rate of return (Graph 3)
	<ul style="list-style-type: none"> The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. 	<ul style="list-style-type: none"> The Internal Rate of Return (IRR) is the discount rate that makes the net present value (NPV) of a project zero. 	<ul style="list-style-type: none"> The time-weighted rate of return (TWR) is a measure of the compound rate of growth in a portfolio.
PROS	<ul style="list-style-type: none"> End result demonstrates returns as compared to invested capital. 	<ul style="list-style-type: none"> Works reasonably well when presented as a time series in rolling IRR-format. Value of the information increases as time goes by. 	<ul style="list-style-type: none"> Works well when presented as a time series. Works reasonably well when the program is mature and the money invested stays relatively constant.
CONS	<ul style="list-style-type: none"> Does not work well as a time series given the multiple is diluted when you invest more money and, especially, if you recycle capital. Comparison between strategies is biased if they have drawn different amounts. 	<ul style="list-style-type: none"> IRR fluctuates easily when little capital has been invested and conclusions are too early to be drawn. Use of subscription facilities might also provide a leveraged version of the actual performance 	<ul style="list-style-type: none"> Does not work particularly well for investments in ramp up phase. Does not take into account the amount of capital invested.
CONCLUSION	<ul style="list-style-type: none"> We believe that TVPI and IRR together are the best metrics for this comparison. We believe that TVPI is the best objective metric for the end result in a comparison Time series is complicated but most informative. 	<ul style="list-style-type: none"> Informative. We believe that TVPI and IRR together are the best metrics for this comparison. We believe that IRR is the best metric for a mature, long-term program. 	<ul style="list-style-type: none"> Less informative until the program is more mature. Works well with more traditional asset classes (equities and bonds), when the investor is able to determine the timing of the investment.