FrontLine Research Paper

Time is of the essence: assessing time-to-liquidity risks

When questioned about their exposure to private markets, fund investors usually discuss their current total commitments to funds, as well as their plans for the future. Some investors even have a calendar of the upcoming funds to market and pre-plan their commitments to the ones they want to invest in. Operationally, the vintage years of these funds help investors assess their current and expected cash exposure. This is very helpful at a portfolio level, notably to manage risks and plan cash outflows.

Looking into the actual exposure of individual funds can prove more challenging. Investors can look through their own funds, as they receive regular reports. Thanks to this information, they can compute their overall

There is limited information about the holding periods of private market funds.

average time-exposure: how long has the capital been put at work by fund managers? Fund investors can also observe what were the shortest and the longest investments. From these elements, they can try to identify outliers but also assess what were the conditions which lead to a faster or a slower rotation of assets. If this information is useful, it is in practice difficult to benchmark.

Indeed, there is limited information about the average, minimum and maximum holding periods of private market funds. It is, therefore, necessary to find a proxy. Thanks to the high quality and granularity of the data provided by eFront Insight, we have been able to design a time-to-liquidity indicator.

This metric approaches the actual holding period as it is a function of the IRR and the multiple of invested capital of private markets funds. This proxy can be useful to benchmark holding periods. It can also be used to model the actual exposure of investors when setting up new programs or investigating new strategies. The time-to-liquidity can also

It is possible to approach holding periods with a proxy: the time-to-liquidity.

be used to decide if a specific strategy is coherent with the time-horizon of an investor. To explore assess and compare the time-to-liquidity of private markets strategies, our samples will focus on the US. This should notably help avoiding analytical distortions related to exchange rates.

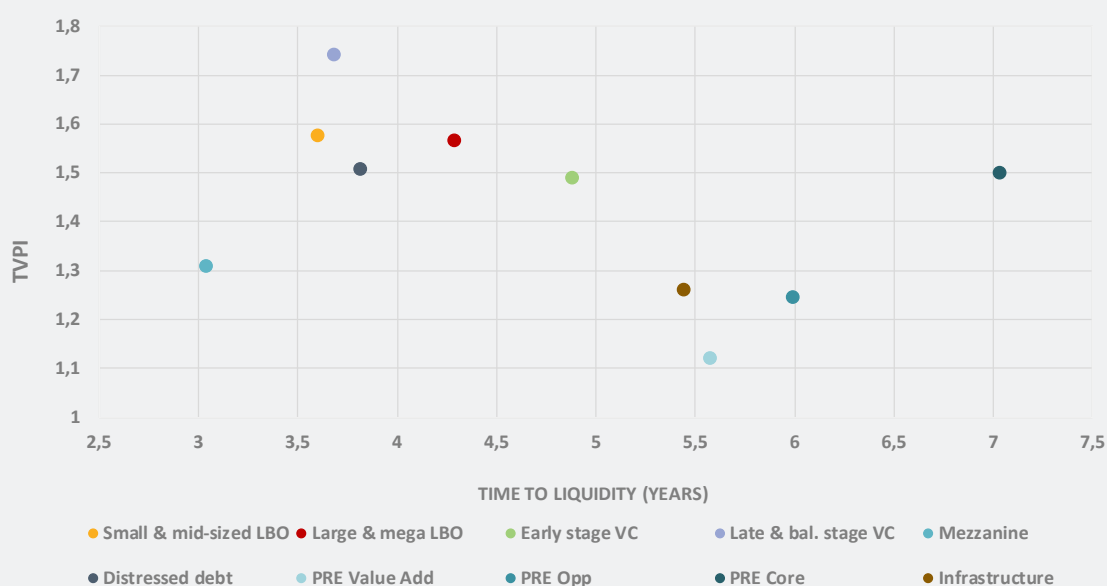# What is the average time-to-liquidity of US private markets strategies?

The time-to-liquidity as defined only applied to pooled average performance measurements. The reason for that is that any other measure of performance captures different samples for the IRR and the TVPI. For example, funds that are in the top quartile in terms of IRR might not be in terms of TVPI. Figure 1 provides a perspective on the pooled average performance of private markets funds and their corresponding time-to-liquidity. The range is quite broad, from 3.03 years for mezzanine funds to 7.03 years for core private real estate funds. This helps to frame the analysis: if investors cannot commit to a minimum of three years of investment, then they should rethink their allocation to private markets. On the other hand, there is a fairly wide range of options

for investors who can commit for 3.5 to 7 years. A closer look triggers some questions. If it looks logical that early stage venture capital funds have a longer time-to-liquidity, how come that the latter have a shorter one than large and mega LBO funds? Along the same lines, how is it that small and mid-sized LBO funds also have a significantly shorter time exposure than their larger peers? The explanation lies in the fact that the samples capture realized and active funds. Accounting rules force fund managers to assume that their portfolio are sold as of the end of each reporting period. Therefore, the IRR of active funds is particularly high.

[1] Calculated as: $\ln(TVPI)/\ln(1+IRR)$.

This means that according to the time-to-liquidity formula, their exposure appears shorter. Although this is coherent with the accounting rules, the reality differs. This is why the time-to-liquidity metric should be used when funds are fully or largely realized. The resulting IRRs are much more reliable and accordingly, so is the time-to-liquidity measurement.

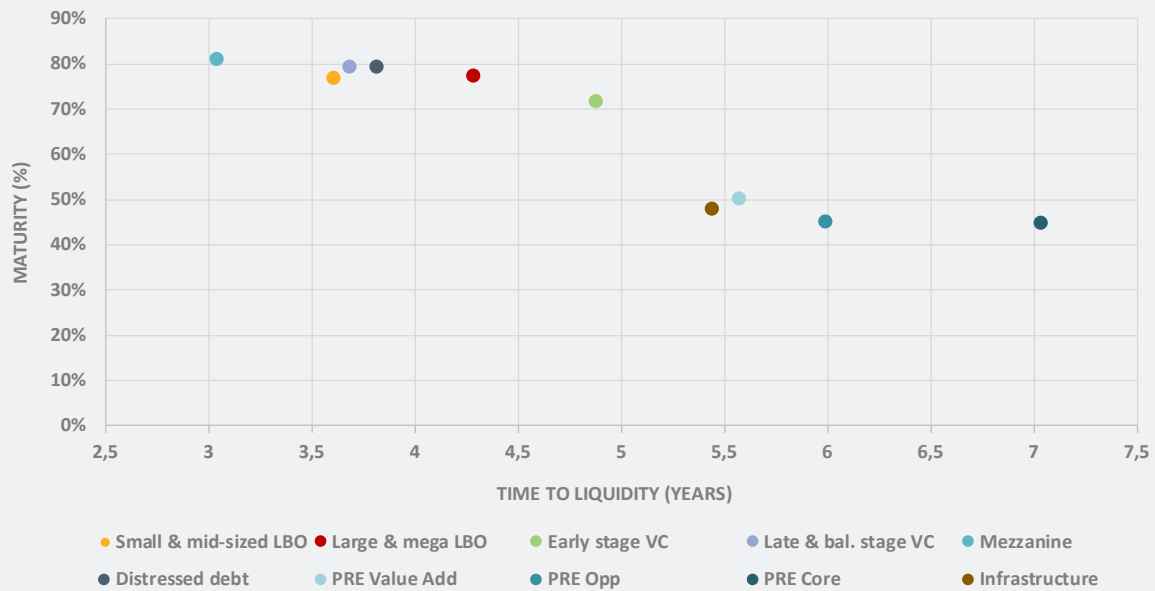**Figure 1** – Multiple of invested capital and time-to-liquidity of private markets funds

Source: eFront Insight, as of Q2, 2019. "VC" refers to "venture capital", "LBO" to "leveraged buy-out", "bal." to "balanced, "PRE" to "private real estate", "Opp" to "Opportunistic.

A question of maturity

Figure 2 provides some background on the matter. The maturity of funds is measured through the ratio distributed-to-total value. A significant proportion of private real assets funds are immature, with the majority of their value still unrealized. Likewise, some private equity strategies still include a significant share of unrealized value. This means that not only could the performance change, but the time-to-liquidity should also increase.

Nevertheless, small and mid-sized LBO funds and large and mega LBO funds seem to have similar maturities. This seems to invalidate the idea that their relative time-to-liquidity is distorted due to active funds.

Figure 2 – Maturity and time-to-liquidity of private markets funds

Source: eFront Insight, as of Q2, 2019. "bal." refers to "balanced, "PRE" to "private real estate", "Opp" to "Opportunistic.

Indeed, Figure 3 shows that systematically, the minimum, average and maximum time-to-liquidity of fully realized funds is shorter for small and mid-sized funds than for their larger peers. This conclusion would require further investigation, especially since larger deals are more often subject to dividend recapitalizations than the smaller ones. Their IRR should therefore be higher, and thus their time-to-liquidity shorter.
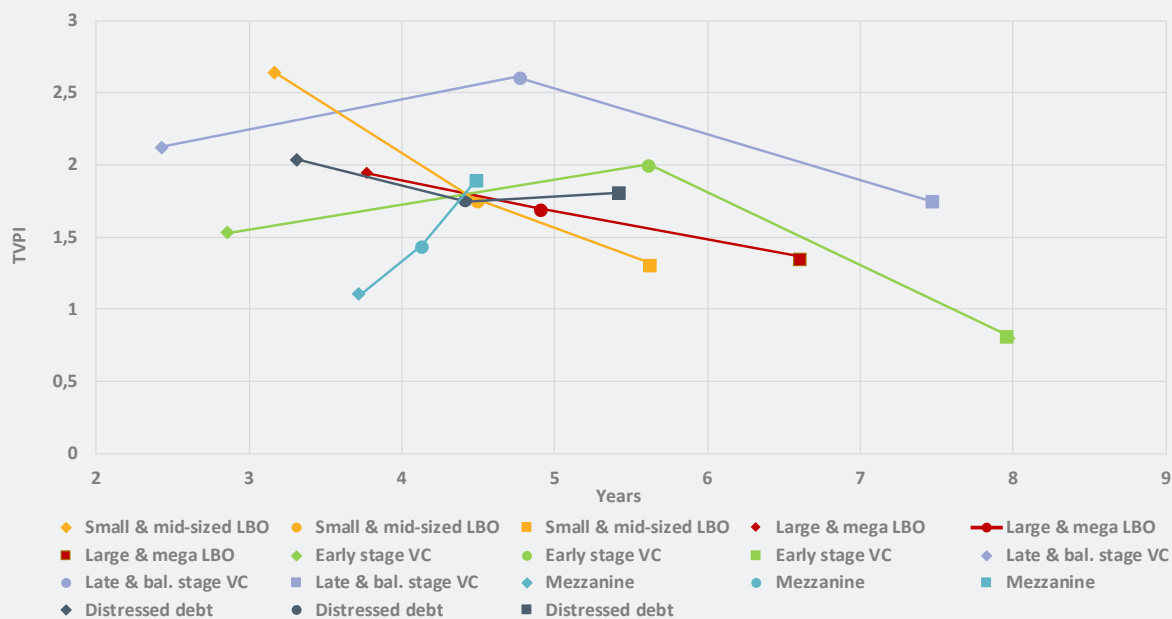
Assessing the time-to-liquidity risk

Average times-to-liquidity are a useful benchmarking instrument for fund investors. Comparing Figure 3 with the two others, it appears that the time-to-liquidity of fully realized funds is longer. It ranges from 4.1 years for mezzanine funds to 5.6 years for early-stage venture capital funds. These elements are interesting in anticipating the theoretical time-exposure of investors. However, they might aggregate significant variations from one vintage year to another.

Indeed, depending on the strategy, the minimum and maximum time-to-liquidity per vintage years can fluctuate a lot. Venture capital is probably the strategy which shows the largest divergences from the average. The minimum time-to-liquidity is exceptional as it results from the particularly favorable conditions for venture capital exits at the end of the decade 1990. Very long time-to-liquidity translates into lower multiples, and probably illustrate the challenging conditions that managers had to face before being able to sell portfolio companies.

Private equity and private debt strategies have a time-to-liquidity of 4.1 to 5.6 years on average.

Figure 3 – Variation of multiple of invested capital and time-to-liquidity of fully realized private markets funds

Source: eFront Insight, as of Q2, 2019. "bal." refers to "balanced, "PRE" to "private real estate", "Opp" to "Opportunistic. Diamonds refer to the shortest time-to-liquidity observed for any given year, the dot to the average time-to-liquidity and the square to the longest.

LBO funds, regardless their size, show a rather consistent picture: the longer the exposure, the lower the multiple. Here again longer holding periods might reflect more challenging economic conditions and thus lead to lower performance. Interestingly, this is not true for distressed debt. Although shorter time-to-liquidity might reflect opportunistic acquisitions driven by specific macro conditions, it appears that the average and maximum time-to-liquidity deliver similar performance. This illustrates the necessity to hold companies for a fairly long time to be able to successfully execute a turn-around.

Mezzanine funds show a specific profile. The longer the time-to-liquidity, the better the performance. This sounds fairly logical: interests are accumulated over time. If the debt is repaid early, its overall compensation will be lower. As for conversion rights, they are more likely to be lucrative if the deals that are supported have the time to unfold. It is interesting to note that in that respect, the maximum performance and time-to-liquidity of mezzanine funds corresponds to the average time-to-liquidity of LBO funds. This could well be a coincidence, but could also show that when mezzanine debt reaches a specific level of maturity, its compensation increases substantially. This would require further investigation.

Conclusion

Time-to-liquidity can prove a very useful instrument for fund investors. It supports multiple analyses underlying portfolio construction, modelling, cash planning and stress testing. However, it remains a proxy until holding periods can be benchmarked efficiently. The main limit of this proxy is that it partially relies on the internal rate of return (IRR), and is therefore subject to distortions.

Indeed, the IRR of a fund can be boosted by the use of credit lines (also known as equity bridge financing). The "IRR clock" starts to tick when the capital is effectively called. However, a fund using a credit line has been in practice investing before. The holding period in that context has started before the capital call, leading to potentially significant discrepancies. As funds increasingly use this type of financing facility, the proxy of the time-to-liquidity should use the IRR computed without the use of credit lines. The latter should be provided to investors,

Venture capital shows the highest level of variation of time-to-liquidity.

in line with the ILPA recommendations. The IRR is also sensitive to so-called "dividend recapitalizations". LBO fund managers can re-leverage a deal to anticipate the distribution of capital to their investors. In that process, they stop the "IRR clock" while the fund continues to hold the corresponding asset. Here again, there could be significant discrepancies between the time-to-liquidity and the actual holding periods. There is no easy path to reconcile the two. Investors will therefore have to keep in mind that dividend recapitalizations might influence the time-to-liquidity in their analyses and correct potential distortions.

Note

The aim of this newsletter is to provide readers with elements of analysis and understanding of the private finance universe, based only on cash-flow data collected by eFront Insight. It does not intend to draw any definitive conclusion, nor judge the performance of fund managers. By providing a guided reasoning, FrontLine hopes to contribute to the overall progress of understanding of the asset class in a short monthly format, with all the limits that this entails.

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