

Alternative Investments Building Blocks

Illiquid Assets



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■ Non-traded assets should attract a premium over the long-run. This means that liquidity tolerance, and not risk tolerance, should be the first place one starts for asset allocation.

Introduction

Alternative asset classes have varying degrees of tradability and structural liquidity. As individual investors increase their portfolio allocations to alternative investments, their portfolios often accumulate infrequently traded assets such as private real estate, leveraged buyout and venture capital funds or hedge funds which involve substantial “lock-up” periods and have limited secondary markets. As a result, it may not be sufficient to classify assets simply in terms of market risk and return. This article draws attention to the concept of illiquidity and suggests that a tradability premium for investments in non-traded assets may justify investors locking up their money.

Redemption

Alternative investment funds vary in the degree to which one can redeem where the fund share agreement stipulates the share redemption policy for its funds. A redemption policy may generally have the following provisions that restrict investors from redeeming their shares:

Lockup Period. All initial monies allocated to the fund cannot be withdrawn for a certain period of time. After the initial lockup period, investors can only redeem their shares at certain periods. Lockup periods for funds invested in more liquid trading instruments range from 3 months to 3 years. Private equity, private real estate, and some credit structures can have lockups that are even longer—as much as 7 to 10 years. During this period, investors can receive some of their investment back in the form of distributions, but are restricted from receiving the remaining principal back except at discount or via the secondary market.

Redemption Frequency. After the lockup period, investors in alternative investment hedge funds may redeem their shares. However, the redemption process is not continuous and investor can only redeem at certain points in time. The periods where investors are allowed to withdraw funds are controlled by the redemption frequency. For instance, if the redemption frequency is 3 months, an investor can only withdraw funds every 3 months after the lockup period has expired. This translates into a maximum of 4 withdrawing events each year. Redemption frequencies can range from daily to annually. Not all managers impose redemption frequency restrictions.

Redemption Notice. In some vehicles, investors are generally required to give notice some time in advance before any redemption. This minimum notice period is known as redemption notice. Redemption notice periods range from 30 days to one year, although the most common periods notice periods are 30, 45 and 60 days. Not all managers impose a minimum redemption notice period.

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■ Investors are generally overly wary of illiquidity. Diversification in various risks of illiquid investments (uncertainty about cash inflows, outflows, valuations, spending requirements, rebalancing requirements, new investment opportunities) may help reduce the total illiquidity risk.

■ There are three primary sources of returns investors have to choose from: fundamentals, skill, and illiquidity

Illiquidity Curbs Flexibility

Fundamentally, the varying degree of tradability means that rebalancing a portfolio is not - as is assumed in simplistic asset allocation models - an option that can be continuously exercised. Investing in assets that restrict trading such as in a private equity or real estate fund carries a cost with it; it restricts an investor from rebalancing the portfolio, restricts ability to respond to unforeseen cash flow requirements and curbs ability to take advantage of topical investment opportunities. What this means is investors have to get compensated for these limitations on top of the market risk premium. But the cost of illiquidity is very different for different investors; while some individual investors may need quick access to their capital, others with very long horizons for investment, may not and they therefore ought to collect an illiquidity premium.

We assert that illiquidity requires a return premium. Even investors without immediate liquidity needs prefer to hold liquid assets rather than illiquid assets, assuming equal return and risk. As a corollary, in order to entice investors into illiquid assets, it will be necessary to offer either return enhancement or risk reduction relative to liquid assets.

Illiquidity Premium

By investing in an asset that restricts trading, an investor gives up (or “sells”) an option to trade the asset. Such investors deserve to be compensated for the sale of this option. Since, as option pricing theory suggests, the value of an option increases as the risk of the underlying position increases, assets with higher volatility such as venture capital and leveraged buyouts should earn a higher premium than assets with lower volatility, such as real estate. This premium arises from two sources.

(i) The first source is that illiquidity limits investment flexibility – the ability to rebalance the portfolio at will in response to new information about investments. The undesirable consequence of this is that there is greater uncertainty in overall portfolio volatility and return, as compared to the investor’s original target. In other words, over time, illiquidity may place the investor on an unintended location of the efficient frontier. Illiquidity may also drive the investor off the efficient frontier altogether.

(ii) The second source of the premium is that illiquidity reduces investor flexibility – the ability to respond to new investor circumstances and preferences. This has implications and tradeoffs for investors who need to decide how important that is, given individual circumstances, and balanced against return and volatility.

Investors may have current and future spending requirements which dictate some absolute maximum level of illiquidity – e.g., the need to make a major purchase within the next ten years. After taking into account identifiable spending needs, some investors will seldom wish to be invested overwhelmingly in illiquid assets for the following reasons:

■ All asset allocation problems boil down to one of comparison—making valid comparisons between often hard-to-compare choices. It is critical that illiquid asset classes are made comparable to liquid asset classes.

Diversification. Like all asset classes, illiquid asset classes exhibit return cycles. Prudent investors who are tolerant of illiquidity should invest in a range of asset classes that includes both liquid and illiquid assets. Illiquid assets that act as broad diversifiers against other assets in a portfolio need not earn as high a “reward” for non-tradability as illiquid assets that act simply as proxies for traditional assets. In other words, assets such as private real estate, with their relatively low correlation to stocks and bonds, will carry a lower premium than assets such as leveraged buyouts, which are highly correlated with public equities.

Tactical Opportunities. Because illiquid assets cannot be traded (except at great cost), it is practically impossible to react to new and relatively unfavorable information about them. This applies at the aggregate asset class level: investors cannot reduce private equity or real estate allocations in the short to medium-term. If investors believe that tactical (or medium-term) asset allocation can add value, they will be restricted from undertaking this activity with the illiquid portion of the portfolio.

Maintaining Target Allocations. In all asset allocation modeling, two principles, among others, must operate.

First, the asset classes one includes have to be made comparable.

Second, the inputs need to be as accurate, or at least reasonable, as possible.

These two principles make the inclusion of illiquid asset classes difficult. One particular problem, which violates both principles, is that illiquid asset classes are not valued on the same basis as traditional, liquid asset classes. On the one hand, this raises a problem of comparison. The fundamental problem is that while we measure the risk and correlation of the liquid asset classes on the basis of regular movements of publicly observable market prices, illiquid asset classes are not measured on a “marked-to-market” basis. This then means that the illiquid asset classes might have artificially smoothed return series, making them look less variable (and less correlated). On the other hand, because of inconsistencies in valuation and accounting methods, returns for illiquid asset classes, when reported, might still be inaccurate. The combination of these two problems means that including illiquid asset class forecasts of risk and correlation based on historically reported performance will lead to highly inappropriate allocations. Indeed, it is not just that that allocation to these classes will be suspect, but because the assumptions are highly interactive, the weights suggested to all asset classes will be inappropriate.

Given this situation, investors must be aware of the true risks and correlations for these asset classes. Perhaps the best way to do this in practice is to have a systematic, micro analytic approach which revalues at regular intervals the underlying investments in illiquid investments.

■ Illiquid asset classes are not measured on a “marked-to-market” basis which makes it hard to estimate the impact of illiquid uncertainty in allocations.

Because illiquid assets cannot be rebalanced, it is difficult to maintain a target location on the efficient frontier. This means that the return-risk profile will drift for extended periods of time, to some extent beyond the investor’s control. If illiquid assets outperform liquid assets, they become a greater proportion of the portfolio, which might increase overall portfolio risk beyond target levels. While corrective action may be taken in the liquid portion of the portfolio to reduce overall risk - e.g., selling public equities - that may also have unfavorable consequences such as reducing diversification and incurring taxes.

Changing Risk Profile. Some investors may not want to maintain a constant risk profile (which implies selling outperforming and buying underperforming asset classes). These investors may have a higher (lower) tolerance for volatility as their overall wealth increases (decreases). If the value of their portfolio drops sharply, these investors – who are in effect portfolio insurers -- will have difficulty reverting to a low-risk portfolio if they are heavily invested in illiquid assets.

Restricted Tradability. The trading difficulty of illiquid asset classes also applies at the level of individual investments: regardless of their outlook for the asset class as a whole, investors cannot switch out of a particular private equity fund or sell a specific building in the short term. In this sense, illiquid assets have much more specific risk than liquid asset classes. Not only is it harder to diversify by holding a greater number of illiquid investments (because of high minimum size requirements), but it is practically impossible to react to new information over the short term. One implication of this is that illiquid investments will experience much greater tracking error relative to the asset class benchmark, which in turn implies that overall portfolio volatility may be higher than target levels. An asset with a ten-year lockup is more restrictive than an asset with, say, a one-year lockup and quarterly redemptions. It should therefore “pay” the investor a higher illiquidity premium.

Unexpected Spending Requirements. When investors with large illiquid asset holdings encounter unexpected spending requirements, they have two main options. They can sell down the liquid portion of the portfolio, with consequences as described earlier. Or they can borrow which increases their overall risk profile, and incurs borrowing costs. Borrowing costs will depend on the specific circumstances of each investor.

Change in investor risk tolerance. If investor circumstances change due to unforeseen events or caprice, and the investor’s risk tolerance changes substantially, it may be difficult to reflect the changes in the portfolio if there are large holdings in illiquid assets.

Determining the 'Appropriate' Level of Illiquidity?

Just as one cannot determine what the appropriate level of risk is for a client, one cannot determine the appropriate level of liquidity. The answer has to be determined on a case-by-case basis in consultation with the client.

In considering what the appropriate level of liquidity is, one must consider both the benefits and costs of increasing portfolio illiquidity. It is imperative to understand how one gets compensated for illiquidity. This is one part of the equation (the benefits of being in non-traded assets). The other part of the equation (the costs of illiquidity) will be very client-specific. They will generally be, all other things equal, increasing in: the frequency which the client rebalances; the proportion of their portfolio they spend and uncertainty about their pattern of cash flow from their portfolio; uncertainty about future investment opportunities; and psychological concerns about not having access to their investments.

As part of the consultative process, therefore, it helps to discuss at least qualitatively, one's views and life circumstances about each of these issues. Then one may examine potential sources of excess return available from increasing the level of illiquidity (while holding the risk constant). The question then is essentially framed as "is the additional return worth the increase in illiquidity, given my situation?"

Conclusion

Alternative assets liquidity constraints impose costs and risks to investors. Also, investors are limited in their ability to make tactical decisions, reallocate their positions and meet unforeseen liquidity event. Whereas some of the variation in the public markets should be reflected in corresponding private markets, private markets do not behave in lockstep with their public market counterparts. One reason for this uniqueness is that the asset liquidity risk differs across public and private markets. As illiquid, private investments are often in much less liquid markets, changes in the underlying liquidity of the market might affect the private market in a way that does not affect the public market.

Illiquid investments are required to deliver a return premium because they increase the uncertainty of accessible wealth over the investment horizon. Uncertainty is increased beyond the forecast volatility of the asset classes as a whole because of the inability to rebalance, higher specific risk, inability to react to new information about investments, and inability to respond to modified investor circumstances. Because illiquidity limits investment flexibility, investors will tend to drift away from their desired location on the efficient frontier for substantial periods of time. This means the range of portfolio volatility and return will be greater than would be experienced with an all-liquid portfolio.

■ In properly constructed portfolios the costs of illiquidity may be more than offset by the non-tradability premium.

The tradability premium that illiquid assets appear to earn suggests that they can be attractive additions to a portfolio. But how attractive will depend on how each investor values liquidity. Investors will need to determine their own allocations to illiquid assets based on considerations such as:

- Cash flow requirements (and time horizons).
- Reinvestment opportunities.
- Portfolio rebalancing frequency.

In principle, one may be able to quantify the premium arising from limited investment flexibility, although these estimates will vary widely. Although one can suggest reasonable ranges for illiquidity based on an investor's particular circumstances, one cannot suggest the 'correct' level for an investor. Investors should therefore understand the costs and risks associated with investments in alternative investment funds to make appropriate decisions that will adequately remunerate them for bearing illiquidity.

