Benefits of private assets in multi-asset portfolios

Stability, diversification and cash flows:
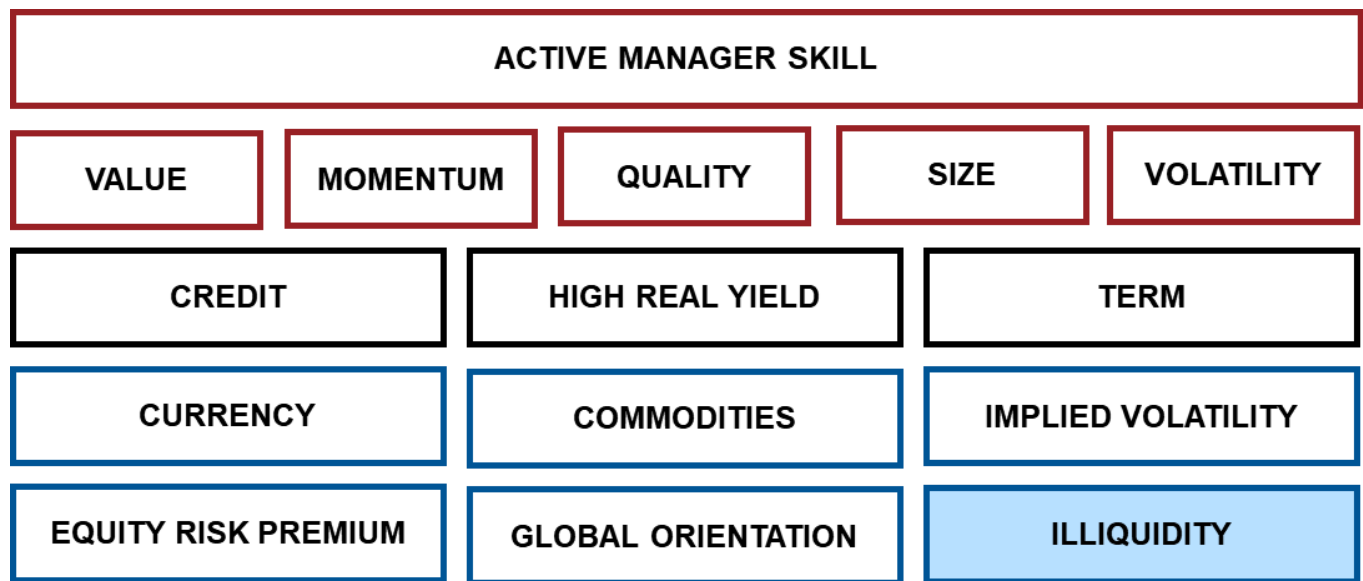Evidence private assets can provide liquidity

Russell Investments Research

Russell Investments' belief in illiquidity premium

Russell Investments believes a competently managed exposure to illiquid assets will generate higher returns than comparable liquid assets in many market environments.

For many years, Russell Investments has had a series of Strategic Beliefs that serve as guideposts in our research and underpin the design, construction and management of multi-asset portfolios. These Strategic Beliefs[1] are illustrated in Exhibit 1.

Exhibit 1: Russell Investments' Strategic Beliefs

ACTIVE MANAGER SKILL				
VALUE	MOMENTUM	QUALITY	SIZE	VOLATILITY
CREDIT		HIGH REAL YIELD		TERM
CURRENCY		COMMODITIES		IMPLIED VOLATILITY
EQUITY RISK PREMIUM		GLOBAL ORIENTATION		ILLIQUIDITY

Among Russell Investments' Strategic Beliefs, equity risk premium, value and credit factors have demonstrated particular volatility since the beginning of 2020. During times of extreme market disruptions, it is reasonable to ask which factors bolster portfolios both in terms of performance enhancement and volatility reduction, as the potential longer-term impacts of market disruptions continue to evolve. We don't have perfect foresight, and while we expect equity risk premium, value and credit factors to add value to portfolios over the course of a full business cycle, our research demonstrates that illiquid assets have been beneficial during and after periods of market disruption. We expect that this time will prove no different. To evaluate the contributions of illiquid assets, we analyzed the Preqin database of private asset fund cash flows using 1,932 funds from vintage years 2003 through 2016.[2]

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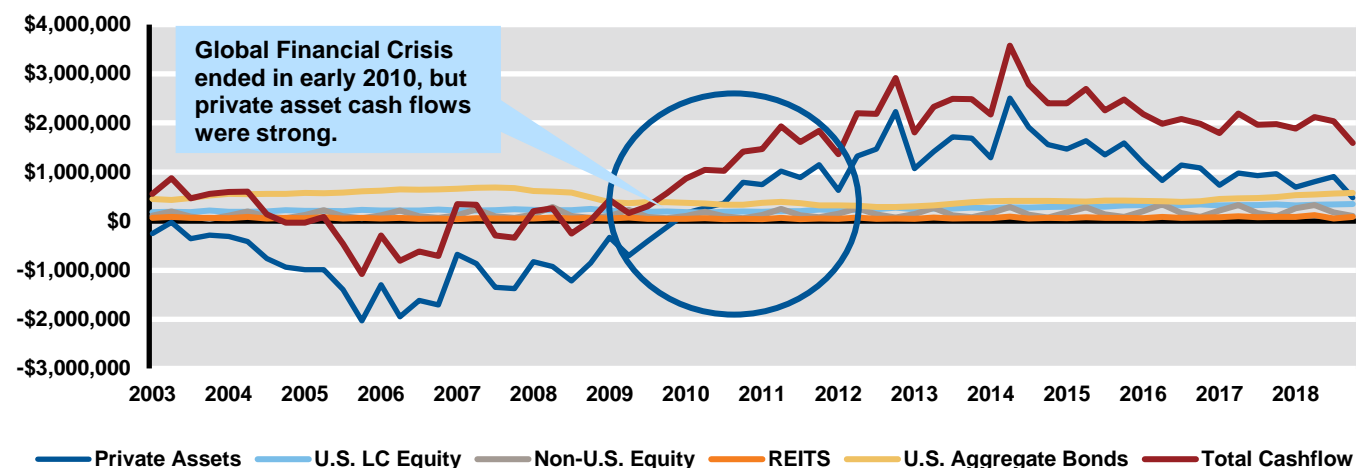
Private assets during periods of market disruption

The Global Financial Crisis (GFC) of 2008-2009 was an important test case for private assets. With the Russell® 1000 losing 53% of its value over nine months, and a simulated listed-only multi-asset portfolio losing nearly 24% in 2008, finding assets to curtail those losses and reduce volatility was desirable and private assets helped.

To understand how targeting 20% of a multi-asset to private assets (MAPA) portfolio might have performed relative to a multi-asset listed only (MALO) portfolio (shown in Table 1) during the GFC, we simulated 5,000 portfolios for the sample period of 2003-2018. Each sample portfolio built up a private asset allocation over several years just as a typical private asset investor would, buying private assets based on capital calls while receiving distributions from dividends and subsequent asset sales.

Table 1: The listed portion of simulated multi-asset portfolios

MULTI-ASSET PORTFOLIO	WEIGHT	INDEX REPRESENTATION
U.S. Equity	40%	Russell 3000 Index
Non-U.S. Equity	15%	MSCI EAFE Index
Global REITs	5%	FTSE EPRA/NAREIT Developed
U.S. Aggregate Bonds	40%	Bloomberg Barclays U.S. Aggregate

Starting with a cash-flow analysis

Each simulation added private markets allocations over multiple years to achieve the vintage year diversification that is typical of a private asset program. The capital calls were initially funded from selling listed assets. Distributions funded new private asset investments, and ultimately contributed to meeting spending requirements as they occurred naturally. We illustrate the net cash flows for various assets over the sample period in Figure 1. Note that listed assets have slow, steady cash distributions based on dividends, coupons and bond expiries. By contrast, the cash flows from private assets are irregular, both in their amounts and timing. What is more interesting is the magnitude the private asset cash distributions achieve after the investment program has matured (i.e., about six years). Even with the GFC barely passed, the cash distributions from private assets grew sharply positive by 2010. Indeed, we find that private assets often contribute more positive cash flows than any other asset type except bonds.

Exhibit 2: Net cash-flow for various assets 2003-2018

Global Financial Crisis ended in early 2010, but private asset cash flows were strong.

Legend: Private Assets — U.S. LC Equity — Non-U.S. Equity — REITS — U.S. Aggregate Bonds — Total Cashflow

From cash flows to returns

It is well understood that internal rate of returns (IRRs) and time-weighted returns are incompatible. Therefore, we inferred a return to private assets by comparing the MALO portfolio to the simulated MAPA portfolio. By inferring these quarterly returns, we were able to decipher the value added from various private assets and infer a private asset return distribution. From the inferred returns, we estimated the distribution of private asset returns over various periods, which are shown in Table 2 and Table 3. Table 2 excludes the first four years of the sample period that would likely have negative returns due to the impact of the cash flow J-curve in the early years of a private-markets investment program. Table 3 includes the entire sample period.

> From the inferred returns, we estimated the distribution of private asset returns over various periods, which are shown in Table 2 and Table 3.

Table 2: Annualized (inferred) returns distribution of private assets (2007-2018)

	10%	25%	50%	75%	90%	MEAN
Private Equity	9.59	10.51	11.48	12.42	13.29	11.47
Venture Capital[3]	5.58	6.75	8.53	10.81	12.20	8.75
Private Debt	7.44	7.96	8.52	9.13	9.72	8.56
Real Estate	2.45	3.38	4.47	5.46	6.32	4.40
RE + Infrastructure	2.50	3.45	4.48	5.49	6.44	4.46

Table 3: Annualized (inferred) returns distribution of private assets (2003-2018)

	10%	25%	50%	75%	90%	MEAN	# FUNDS
Private Equity	9.22	10.84	12.78	15.08	16.66	12.63	912
Venture Capital	-34.32	1.80	4.27	6.33	8.00	-1.58	318
Private Debt	9.80	10.18	10.63	11.10	11.54	10.66	219
Real Estate	4.68	5.41	6.26	7.07	7.76	6.23	364
RE + Infrastructure	4.73	5.48	6.29	7.07	7.82	6.27	393

In reviewing inferred returns, we need to keep a few things in mind. First, it is possible that the data show some biases. Note that Preqin obtains its private asset cash-flows data from the Freedom of Information Act (FOIA), which may be biased by the investors who are subject to reporting to the FOIA. Second, we cannot identify which cash distributions were made under duress (i.e., fire-sales) or impose a cash flow as we could on a market-priced listed asset. Therefore, we take all cash flows as exogenous and attach no assumptions related to why any asset was sold. Third, the Preqin data do not contain a large enough sample of infrastructure funds to evaluate separately, so we offer non-core real estate alone and combined with infrastructure as our only information on that asset class.

With these caveats in mind, we can make several observations from Table 2 and Table 3:

1. The only asset with a strong and severe J-curve effect is venture capital (VC).

2. The first few years of our sample period were periods of strong returns for real estate, infrastructure and private debt.

3. The range of outcomes for private asset fund of funds (FOF) is quite tight for all but VC. The range of outcomes for VC is quite wide, particularly on the downside.

> *…if private markets help during periods of market disruption, it should be reflected in the data.*

Private asset returns vs. listed asset returns

In order to be rewarded for investing in a relatively illiquid asset type, investors should receive a premium over listed assets in exchange for less liquidity and to help improve portfolio performance. In addition, if private markets help during periods of market disruption, it should be reflected in the data. Therefore, we compared the median returns of private assets to their listed counterparts during the sample period of 2003-2018. The data in Table 4 are segmented into the same two time periods as in Table 2 and Table 3.

Table 4: Comparison of private and listed asset returns over two sample periods

	PRIVATE RETURN	PRIVATE ST DEV	LISTED EQUIVALENT	RETURN	ST DEV
2007-2018					
Private Equity	11.5	11.3	MSCI World	6.1	16.9
Venture Capital	8.5	10.3	R2000	7.9	19.8
Private Debt	8.5	6.4	BB Global HY	7.1	12.0
Real Estate	4.5	9.6	EPRA NAREIT	4.6	21.4
RE + Infrastructure	4.5	9.5	S&P GLI	5.1	16.3
2003-2018					
Private Equity	12.8	13.7	MSCI World	9.3	16.0
Venture Capital	4.3	15.6	R2000	11.2	19.2
Private Debt	10.6	7.6	BB Global HY	9.0	11.1
Real Estate	6.3	13.6	EPRA NAREIT	11.2	20.6
RE + Infrastructure	6.3	13.5	S&P GLI	10.9	16.0

Because the Preqin database has a short history for private assets data, our comparison with listed assets is limited. However, we do see, from the median simulation, that private equity and private debt exhibit higher returns at lower inferred volatilities than their listed counterparts over the 2003-2018 period. What is potentially more interesting is how private assets performed in the shorter period, 2007-2018, which includes the GFC years, and after private equity and venture capital funds have moved past their J-curves. The data show a much stronger outperformance for private assets, with private equity registering 540 bps of outperformance over the MSCI World Index; VC besting the Russell 2000 Index by 61 bps; and private debt with a solid excess return over global high yield of 138 bps, with materially lower volatility in all cases.

Private real assets are also very attractive. In comparing non-core real estate and non-core listed infrastructure with listed asset during the shorter 2007-2018 period, we can clearly see that producing a return premium is potentially out of the cards for this market that bore the brunt of the GFC. However, the private assets demonstrate much lower return volatilities.

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Stabilizing returns in a downturn, and delivering cash in a pinch

As we continued to test our belief that private assets add value to multi-asset portfolios, we considered their lower volatility relative to listed assets along with the relatively long-term nature of private markets funds. (Private equity funds generally have a legal life of 10 years, though private debt fund terms can be shorter, and private infrastructure fund life spans are in the range of 12 years.) Indeed, it is their illiquidity that brings stability to multi-asset portfolios, which tend to be dominated by the listed assets of equites and bonds.

We simulated how much various portfolios grew or declined over the 16-year sample period (2003-2018) under various asset allocations and spending patterns. By definition the MALO portfolios do not have a private asset allocation, while the MAPA portfolios have a targeted 20% allocation. The three spending scenarios were: no spending requirement; spending in line with inflation and asset under management (AUM) based spending.

The results shown in Table 5 indicate that holding private assets materially reduced the asset losses during the depth of the GFC, while gradually adding assets in other periods. It is particularly powerful how portfolios contracted in 2008, when the GFC hit, and in 2009, when the listed markets recovered. The MAPA portfolios contracted much less than the MALO portfolio in 2008. Although the MALO portfolio snapped back very quickly in 2009, it was outpaced by the MAPA portfolios.

Table 5: Distribution of returns for pure growth scenario – no spending requirement

	MALO	MAPA 25%	MAPA 50%	MAPA 75%			MALO	MAPA 25%	MAPA 50%	MAPA 75%
2003	21.3	21.2	21.3	21.1		**2011**	81.7	91.3	92.3	96.1
2004	35.1	34.7	34.7	35.1		**2012**	104.1	112.1	113.1	122.7
2005	43.6	43.8	45.1	44.3		**2013**	135.5	141.7	144.6	154.3
2006	63.5	66.6	65.4	65.7		**2014**	153.0	160.3	165.8	175.4
2007	73.8	79.8	80.1	80.2		**2015**	154.4	167.2	177.2	179.6
2008	32.2	40.4	42.5	41.9		**2016**	171.5	186.5	194.4	197.2
2009	59.4	63.1	63.1	63.2		**2017**	209.4	226.2	236.2	243.2
2010	78.7	82.9	84.4	86.3		**2018**	196.4	221.2	231.6	243.6

Evidence that private assets can improve return stability

1. Private assets do not reprice as quickly as listed assets, therefore the net asset values (NAVs) take a couple quarters to catch up with the market. Some view this reality as a problem, but it can also be a benefit. With private assets not repricing immediately, they offer a return diversification to listed assets that other listed assets cannot. Additionally, with less ability to liquidate, many investors are "forced" to hold on to private assets through the worst of a downturn—sometimes because buyers are hard to find, sometime just because investors expect NAVs to recover. Therefore, while panicked investors may rush to sell listed assets and drive prices down for their cool-headed counterparts, private assets may avert some of the downside price pressures that result from liquidation. However, NAVs to not remain stable forever.

2. After one or two quarters, private asset NAVs begin to reflect the price shifts from the listed markets. However, for a v-shaped downturn, the repricings may be softened by some rebound in the listed markets. Including some degree of rebound reinforces the low correlations that reduce total portfolio volatility and improves the growth rate.

3. As a private asset program matures, it produces more and more cash distributions. Our simulation begins with data in 2003 and cannot show the level of cash distributions from private assets that a mature fund may have distributed during the GFC, which occurred five years later in 2008, because the funds were not mature enough at that point. However, the data show that these funds continue to generate cash and offer strong flows throughout the sample period. These cash flows work to stabilize the volatility coming from the listed market assets and, in particular, the listed equities.

Data in Table 5 are specific to the case where there are no explicit spending requirements (e.g., a healthcare operating pool or a public foundation). Many institutional investors have regular spending obligations—possibly as a percentage of their assets. We use 4% of previous year's AUM as the spending target, or a fixed amount that must grow at least in line with inflation proxied by the U.S. city average Consumer Price Index (CPI) for all urban consumers (CPI_U).[4] Table 6 shows the results of those scenarios.

Table 6: Distributions of scenario returns with spending—inflation-based and AUM-based spending

	INFLATION-BASED SPENDING				AUM-BASED SPENDING			
	MALO	MAPA 25%	MAPA 50%	MAPA 75%	MALO	MAPA 25%	MAPA 50%	MAPA 75%
2003	21.3	21.1	21.1	21.8	21.3	21.8	21.7	22.4
2004	35.1	34.8	34.5	36.1	35.1	36.5	36.3	37.3
2005	43.6	44.9	43.0	47.3	43.6	45.2	46.9	45.8
2006	63.4	65.0	65.2	69.0	63.4	69.0	70.7	69.6
2007	73.8	81.5	76.0	89.1	73.8	84.1	82.9	85.4
2008	32.2	41.0	38.5	45.0	32.2	44.2	38.4	43.7
2009	59.4	59.3	59.8	67.1	59.4	60.2	61.1	64.4
2010	78.7	79.8	82.4	91.2	78.7	77.5	84.7	85.0
2011	81.6	87.9	88.9	99.9	81.6	82.1	92.0	89.3
2012	104.1	108.7	113.0	124.3	104.1	104.9	115.1	108.6
2013	135.4	137.4	145.8	159.1	135.4	139.0	149.4	142.9
2014	152.9	153.6	168.4	182.0	152.9	162.1	170.4	164.1
2015	154.4	159.2	171.4	185.4	154.3	166.4	173.4	164.5
2016	171.4	175.8	194.1	202.6	171.4	183.2	192.9	183.2
2017	209.3	215.0	235.1	241.2	209.2	221.5	230.1	226.0
2018	196.3	218.2	228.5	240.1	196.3	217.1	228.2	241.0

From these data, we offer the following observations:

1. The entire interquartile range of simulated MAPAs outperforms the MALO portfolio under both the inflation- and AUM-based spending scenarios. *In other words, the MAPA specifically outperforms listed assets when cash is steadily withdrawn from the portfolio.* We believe this observation is most important because it demonstrates that *private assets can be a fundamental support to providing liquidity for meeting spending requirements*.

2. The MALO portfolio has slightly different growth rates. This is because of transaction costs, which vary and are dependent on the spending program. The transactions costs differ for each example, and the accumulated growth of the MALO portfolio will be impacted by what is spent and when.

3. The pattern of downside protection in the depths of the GFC, with a delayed repricing, holds true for portfolios that are obligated to meet spending requirements. In fact, only the 25th percentile MAPA shows a 2009 growth that is slightly behind the MALO growth, which also reverses by 2010.

> *…private assets can be a fundamental support to providing liquidity for meeting spending requirements*

Summarizing the benefits of private assets in multi-asset portfolios

In this study, we simulated groups of 5,000 multi-asset with private asset (MAPA) portfolios and compared the information we inferred from those simulations to listed assets and to multi-asset listed only (MALO) portfolios.

Our findings:

1. Private asset premiums may come from head-to-head return comparisons; or they may be more about getting a similar return over time with lower volatility.

2. Performance comparisons may be challenging because of sample period issues, limited data and different types of data; however, we can overcome some of these challenges to make comparisons

3. Private assets are quite different from each other, and the range of potential outcomes is broad. Vintage year and strategy diversification are fundamental to managing the unknowns associated with private asset investing.

4. Private assets provide a material downside protection and a natural diversification to listed assets that stabilizes their grown trajectory and delivers over a business cycle.

5. Private assets, the illiquid assets, are fundamentally beneficial to institutional investors with consistent and growing cash-flow needs. Indeed, it is their very illiquidity that provides this characteristic and allows the entire portfolio to grow while supporting spending programs.

Do private assets have a premium over their listed counterparts? And is that premium an illiquidity premium?

Ultimately, private assets offer something that listed assets cannot—: stability, diversification and strong cash distributions. By combining these assets with highly volatile, correlations-go-to-one-in-a-crisis, buy-today-sell-tomorrow-portfolios, we get a total that is more than the sum of the parts. While the "illiquidity premium" is challenging to parse out, the evidence of it is everywhere.

About Russell Investments

Russell Investments is a global asset manager with a unique set of capabilities that we believe is essential to managing your total portfolio and to meeting your desired outcome. At Russell Investments, we stand with you, whether you're an institutional investor, a financial adviser, or an individual guided by an advisor's personalized advice. We believe the best way to reach your desired outcomes is with a multi-asset approach that combines: asset allocation, capital markets insights, factor exposures, manager research and portfolio implementation.

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