A Quarterly Investment Letter for Senior Private Equity Professionals' Personal Account Investing
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Asset Class Attractiveness for Private Equity Managing Directors' Personal Account Investments

The mantra of "uncorrelated" asset classes that private equity veterans seek for their personal account ("PA") investments stops short of important considerations to do with the stand-alone attractiveness of asset classes in the current economic environment and the impact of taxes and inflation. This quarter's issue of Partners Capital's *Personal Account Investing* provides the reader with an integrated evaluation of the overall attractiveness to senior Private Equity professionals ("PE MDs") of over 20 different asset classes.

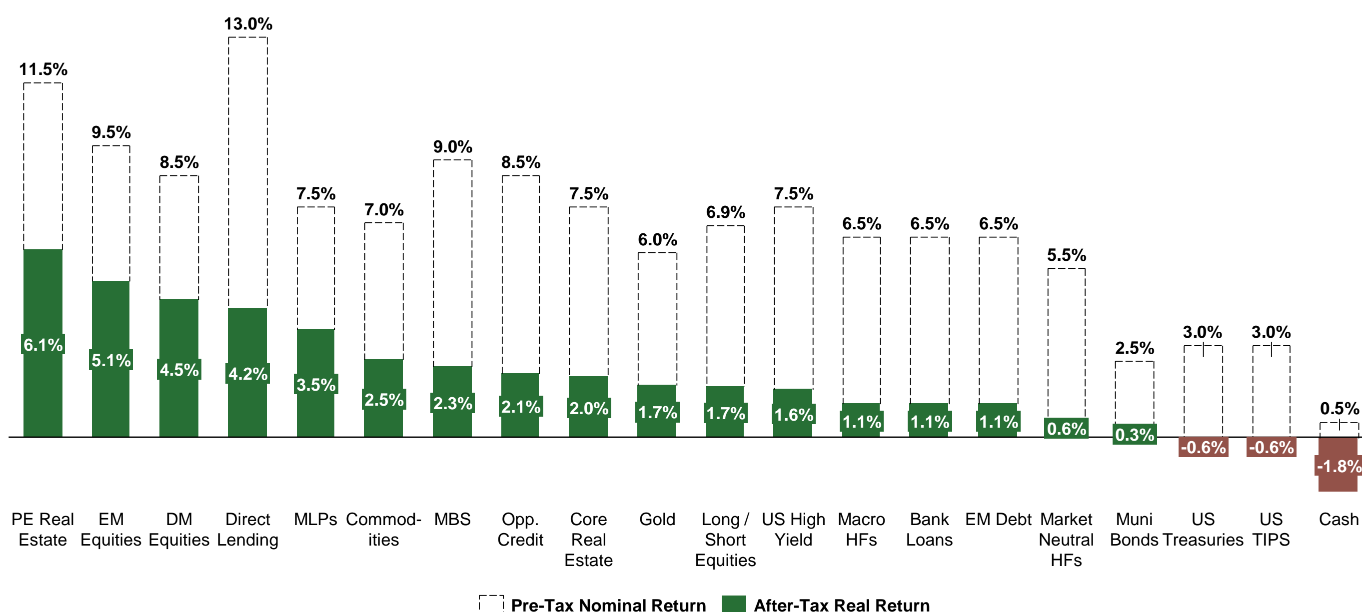
We launched our business in 2001 to help PE veterans establish 'family endowments' and diversify their personal balance sheets away from their predominant private equity exposure. From the outset, our primary focus was on finding investment strategies that had low or negative correlation to private and public equity. This remains our focus, but in a dynamic model which monitors changes and trends in correlations. For example, since 2008, we have seen commodities go from being relatively uncorrelated to strongly correlated with equities. In contrast, we have seen US Treasuries go from a small positive correlation to a significant negative correlation as they benefit from the flight to safety in "risk-off" periods.

However, considering correlation alone ignores the critical factors of inflation, taxes and the stand-alone attractiveness of current opportunities. A common feature of many of the least correlated asset classes (such as US Treasuries and absolute return hedge funds) is their poor tax efficiency relative to more correlated equity and property asset classes. Accordingly, PE MD portfolio construction should go beyond simple correlation analysis and must also consider the impact of taxes and inflation and the expected returns from any given asset class.

We routinely monitor over 20 asset classes and rank their attractiveness to the typical PE MD based on our three-year forecast of real returns, volatility, tax efficiency and correlation to public equity markets. In *Exhibit 1* below, we present our forecast of the three-year after-tax real returns for each asset class based on these factors.

Exhibit 1.

Three-Year Annual Return Forecast by Asset Class (Sorted By Projected After-Tax Real Return)



Past performance is not indicative of future returns

Note:

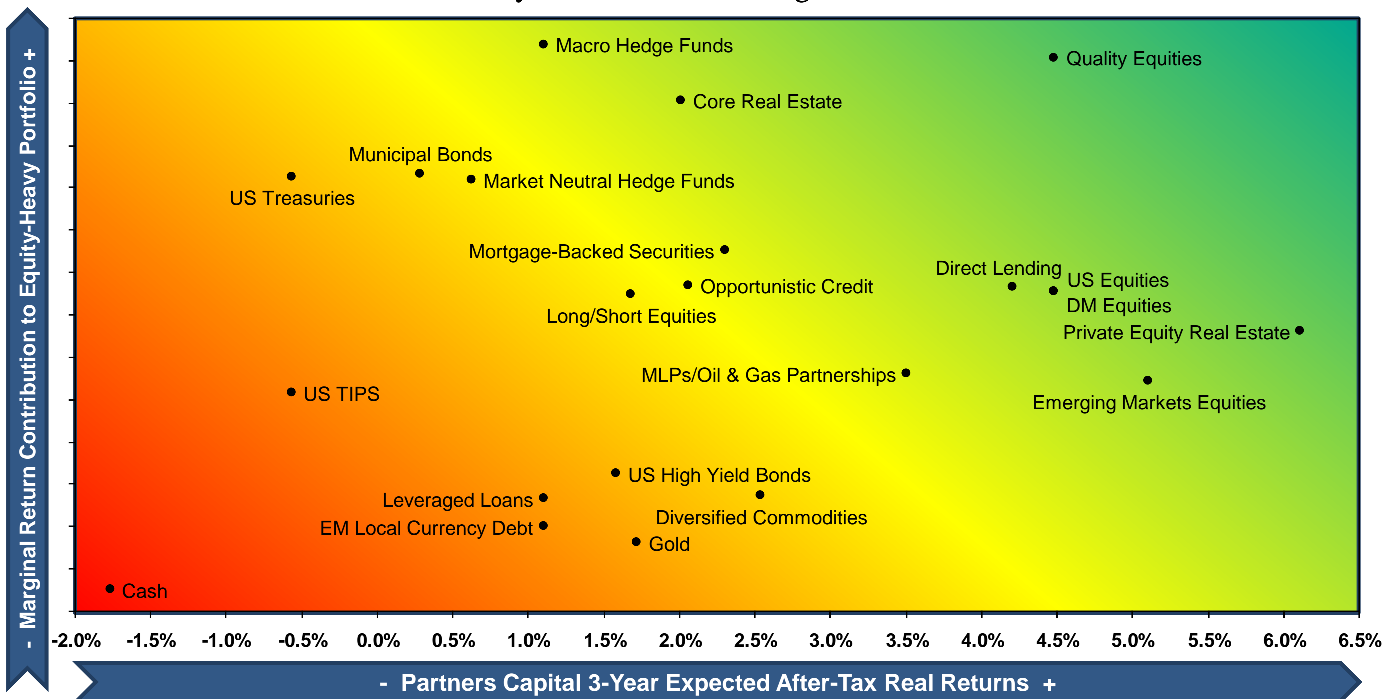
1. Expected returns are based on Partners Capital's forecast of net returns, including market returns (beta) in each asset class plus the relative outperformance (alpha) we expect to see from our core stable of active asset managers. Past performance is not indicative of future returns. After-tax real returns are estimated for a New York state resident, assuming a top marginal federal tax rate of 43.4% (assumes the Bush tax cuts expire at end of 2012 and includes 3.8% Medicare contribution) and 15.0% tax on long-term capital gains. Assumed New York state tax rates are 8.8% on both income and long-term capital gains. Real returns are based on an expected annual inflation rate of 2.0%.

Our base case macroeconomic scenario for the next three years is centered on developed economy deleveraging and mediocre global growth. Expected returns are based on our Central Research Team's forecast of annual returns and expected volatility (annual standard deviation) over the next three years and include both market-based returns ("beta") and manager skill-based returns ("alpha"). Our forecasts are based on input from leading independent research houses including BCA and Bridgewater and the alpha we expect to see from our core stable of active asset managers. We translate the forecasted nominal returns into real after-tax returns by adjusting for market expectations of inflation (currently about 2%) as well as federal and state taxes using expected maximum marginal rates for 2013.

On their own, our expected after-tax real return forecasts are informative but leave out a critical determinant of attractiveness to PE-heavy portfolios by reference to their correlation to equities. Our final step in evaluating each asset class is to measure the marginal contribution to after-tax real returns in a PE-heavy portfolio per unit of volatility added. This is measured as the difference in Sharpe Ratio (the portfolio's excess return over the risk-free rate, divided by volatility) between a 100% private equity portfolio and a two-asset portfolio with a 50% allocation to private equity and 50% to the given asset class evaluated. This analysis accounts for the correlation of each asset class to equities in the calculation of portfolio volatility. Our correlation assumptions are forward looking but reflect recent trends in correlations.

Exhibit 2.

Asset Class Attractiveness for PE-Heavy Portfolios Plotted Against 3-Year Forecast After-Tax Real Returns



Notes: Y-Axis is the change in Sharpe Ratio between a 100% PE portfolio and 50% PE/50% allocation to a second asset class.

The analysis shown in *Exhibit 2* above demonstrates that asset classes such as macro hedge funds and municipal bonds, despite low expected after-tax real returns, may have a role in a PE-heavy portfolio due to their considerable correlation benefits. Similarly, asset classes like private equity real estate with attractive standalone return characteristics may be *relatively* less attractive to PE-heavy portfolios since they are

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highly correlated with equities. Notably, we rate "quality equities" as one of the most attractive asset classes on both dimensions. We define quality companies as those with stable earnings, strong balance sheets, defensible market positions and high return on equity (driven by high operating leverage, not financial leverage). This segment primarily encompasses mega-cap multinational companies, which have historically traded at a premium valuation to the broader equity markets but are currently trading in line with or below average market multiples. Over the next three years, we expect quality equities to have comparable returns to broad developed equity markets but with substantially lower risk (30% lower volatility).

Our recommended investment strategy for the current economic climate first optimizes after-tax real returns in our base case, which points to growth-oriented asset classes such as equities and property with high expected after-tax returns but high volatility. However, in the investment world, surprises are the norm. A sensible approach also includes allocations to asset classes that protect wealth if macro events do not play out as expected.

Our PA Investment Strategy for the Current Environment

Our medium-term investment strategy almost always begins with an overall view of the global macroeconomic environment to determine a base case scenario for where we are in the business and market cycles. As mentioned before, our base-case scenario for the next three years assumes weak global growth driven by slow, protracted deleveraging in developed economies. We also see two other scenarios worth considering in our medium-term strategy: a second global downturn in developed economies leading to further deflation; or an unexpected rise in inflation and interest rates, likely driven by policy mistakes by major central banks. Although we believe the probability of the latter two scenarios is significantly lower than our base case, we believe they are plausible enough to warrant hedging strategies within our recommended asset allocation.

We typically construct family endowment portfolios for PE MDs using allocations to three portfolio sub-strategies. We "dial up or down" the asset class mix of each sub-strategy depending on the client's risk profile, liquidity needs, time horizon and performance objectives and expected returns from each sub-strategy based on our current macroeconomic view. Our three core sub-strategies are summarized below:

1) **Conservative Enhanced Cash.** Targets low returns but with strong capital protection. This portfolio should perform defensively in a deflationary environment. Investments include municipal bonds, US Treasuries, low-risk credit strategies (such as very short duration high yield bonds) and uncorrelated absolute return hedge fund strategies (such as global macro and equity market neutral).

2) **Complementary Growth.** This sub-portfolio seeks a high level of after-tax real returns and performs best in our base case scenario. Investments include quality equities, emerging markets equities, private equity real estate and specialist credit strategies such as mortgage-backed securities and direct lending.

3) **Inflation Protection.** This sub-portfolio serves as a hedge to protect against an unexpected rise in inflation and interest rates. These assets include real estate, commodities, gold and quality equities (global companies with ability to manage cost increases through strong pricing power).

In *Exhibit 3* we lay out approximate, illustrative allocations for these sub-strategies and hypothetical after-tax real returns for the three macroeconomic scenarios outlined above.

Our recommended allocation for the *average* PE MD has a 50% allocation to the Complementary Growth strategy, which we expect to deliver the most attractive after-tax real returns in our base-case macroeconomic scenario, and 25% allocations each to the Conservative Enhanced Cash and Inflation

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Protection strategies. This overall approach will have expected volatility roughly in line with a conventional 60/40 stock/bond portfolio, but we expect this strategy to outperform a 60/40 allocation meaningfully after taxes and inflation in most macroeconomic scenarios. Although our average PE MD client has a low to moderate risk profile, our recommended allocation is oriented towards risk assets (e.g. equities, real estate and specialist credit managers). This is due to the very low after-tax real returns available in conservative income-oriented strategies in the current environment, driven in part by the potential increase in ordinary income tax rates in 2013 (after the expiry of the Bush tax cuts and introduction of the 3.8% Medicare tax on investment income). For more conservative investors or investors with near-term spending needs, the Conservative Enhanced Cash strategy may be an attractive alternative to cash. We expect this sub-strategy to provide a modest positive after-tax real return with low risk, compared to cash which we project to have a significant negative after-tax real return (-1.8% per year).

Exhibit 3.
Partners Capital Recommended PA Sub-Strategies and Hypothetical Three-Year Annual Returns

Conservative Strategy	%	Complementary Growth	%	Inflation Protection	%	Recommended Allocation	%
Municipal Bonds	20%	Quality Equities	30%	Core Real Estate	15%	Conservative Enhanced Cash	25%
US Treasuries	10%	Emerging Markets Equities	15%	Diversified Commodities	20%	Complementary Growth	50%
Short Duration High Yield	30%	Private Equity Real Estate	20%	Gold	15%	Inflation Protection	25%
Macro Hedge Funds	20%	Mortgage-Backed Securities	20%	Quality Equities	25%		
Market Neutral Hedge Funds	20%	Direct Lending	15%	Macro Hedge Funds	25%		
	100%		100%		100%		100%
After-Tax Real Returns (Net)							
Base Case Scenario Return	**1%**		**4%**		**2%**		**3%**
Deflation Scenario Return	1%		-4%		-2%		-2%
Inflation Scenario Return	-2%		3%		2%		2%
Base Case Standard Deviation	6%		16%		14%		11%
Pre-Tax Nominal Returns (Net)							
Base Case Scenario Return	**4%**		**10%**		**7%**		**8%**
Deflation Scenario Return	1%		-5%		-4%		-3%
Inflation Scenario Return	-2%		12%		13%		8%

Note:
The allocations shown above in *Exhibit 3* are illustrative and are for discussion purposes only. The actual asset allocation will vary for each client depending on their risk tolerance, liquidity needs, time horizons, performance targets and other investment considerations. The actual asset allocation may also vary over time due to market events, risks, other uncertainties and changes to a client's investment considerations. No representation is being made that any client will or is likely to achieve profits or losses similar to those shown above. These results are simulated and may be presented gross or net of management fees.

Across all of these portfolio strategies, we focus on after-tax returns net of all fees and pay active asset manager fees only where we have high conviction in outperformance. The bar is higher than ever for active management. In the current environment of below-average expected returns, the classic "2 & 20" fee regime is particularly damaging to net performance as an even greater share of returns go to the asset manager. We do recommend some long-only equity funds managed by extraordinary investors with well-aligned fee structures (e.g. performance fees paid only on returns above a market benchmark and no fees for "beta"). We also see a role for the most exceptional equity long/short managers running at high levels of net exposure (50%+) where the after-tax net return profile is more attractive than a typical long/short fund running at 30-50% net exposure with high portfolio turnover.

Finally, careful manager selection is as important and more difficult than at any time we can recall in recent history. *Exhibit 4* demonstrates the required returns and percentiles for active asset managers to justify allocating to these asset classes in a PE-heavy portfolio (our threshold for justifying an allocation is that the asset class added must improve the Sharpe Ratio, or risk-adjusted return profile, of a 100% PE portfolio by at least one-third). For asset classes with high correlation to equities such as emerging markets local currency debt and high yield bonds, allocation requires access to exceptional first quartile active asset managers.

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Exhibit 4.

Active Asset Manager Returns and Percentiles Needed to Justify Allocation in PE-Heavy Portfolio

Asset Class	Nominal Return Needed to Justify Allocation	Implied Outperformance vs. Median	Equivalent Percentile	Quartile Required
EM Local Currency Debt	12.1%	5.6%	81%	First Quartile
Leveraged Loans	11.5%	6.0%	79%	First Quartile
US High Yield Corp Bonds	12.3%	5.8%	78%	First Quartile
US Equities	10.0%	2.5%	78%	First Quartile
Diversified Commodities	11.3%	5.3%	78%	Second Quartile
Emerging Markets Equities	12.4%	3.4%	69%	Second Quartile
MLPs/Oil & Gas Partnerships	9.9%	2.4%	69%	Second Quartile
Developed Markets Equities	10.0%	2.5%	65%	Second Quartile
Private Equity Real Estate	14.0%	4.0%	59%	Second Quartile
Opportunistic Credit	10.3%	2.8%	58%	Second Quartile
Long/Short Equities	8.5%	4.7%	57%	Second Quartile
Direct Lending	15.3%	5.3%	56%	Second Quartile
Mortgage-Backed Securities	10.3%	2.3%	55%	Second Quartile
Market Neutral Hedge Funds	5.7%	2.2%	51%	Second Quartile
Core Real Estate	6.9%	-0.6%	47%	Third Quartile
Macro Hedge Funds	5.3%	0.8%	46%	Third Quartile
Quality Equities	7.6%	0.1%	32%	Third Quartile

Note:

"Nominal Return Needed to Justify Allocation" refers to the nominal return required for each given asset class to improve the Sharpe Ratio of a 100% PE portfolio by at least 30% by allocating 50% of the portfolio to that asset class. Expected returns are based on Partners Capital's forecast of real after-tax returns (with assumptions as explained in Exhibit 1). Manager percentiles are based on illustrative historical data on return dispersion between first and third quartile managers .

In summary, many PE MDs rightly look for uncorrelated asset classes but do not give due consideration to the stand-alone attractiveness and the impact of both inflation and taxes on returns when constructing their family endowment portfolios. Taxes and inflation are of especially high concern in the current environment with a risk-free rate of zero, low nominal returns across most asset classes and expected tax rate increases in 2013. The overall PA investment program should provide attractive after-tax real returns with low to moderate correlation to the PE-heavy investor's business assets. However, notwithstanding that the least correlated asset classes are often also the least tax efficient, a well-balanced portfolio should be able to accommodate some allocation to tax inefficient asset classes that may help weather "risk-off" and other adverse economic scenarios.

In this newsletter we have seen the impact of taxes on returns across asset classes. In our next newsletter, we will examine specific opportunities for tax-advantaged and tax-free investing, including the use of private placement life insurance (PPLI) as a vehicle for attractive but tax-inefficient investing and estate planning. We will demonstrate how the astute use of trusts combined with PPLI may improve the after-tax returns for a family endowment portfolio through tax-free compounding of investment returns. In the meantime, please let me or any member of our team know if you have any questions, comments or suggested topics for future newsletters.

Best regards.

Paul Dimitruk
Chairman & Partner

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APPENDIX

Exhibit 5.

Historical and Forecast Asset Class Correlations with Developed Market Equities

	Correlation to MSCI World NR LC				
Asset Class	Expected Forward 3-Year	Actual 1-Year	Actual 5-Year	Actual 10-Year	Rationale for expected future correlation
US Treasuries	-0.50	-0.72	-0.34	-0.36	Negative correlation remains heightened due to haven status in risk-on, risk-off markets
Municipal Bonds	-0.10	-0.30	0.17	0.01	Negative correlation remains heightened due to haven status in risk-on, risk-off markets
Cash	0.00	0.11	-0.29	-0.08	In line with long-term trend
US TIPS	0.00	-0.00	0.22	0.03	In line with long-term trend
Macro Hedge Funds	0.00	0.08	0.21	0.20	Expect our active asset managers to have slightly lower correlation than peers
Market Neutral Hedge Funds	0.10	0.87	0.54	0.48	Expect our active asset managers to have lower correlation than peers
Core Real Estate	0.30	-0.53	0.19	0.23	Expect forward correlation closer to long-term trend than last 12 months
Gold	0.40	0.68	0.09	0.05	Higher correlation than historical due to correlation to QE which helps risk assets also
Diversified Commodities	0.55	0.85	0.61	0.44	Eases towards historical as supply/demand issues become more central (e.g., US drought)
MLPs/Oil & Gas Partnerships	0.70	0.80	0.59	0.51	Correlation eases slightly from current levels but remains heightened due to
Leveraged Loans	0.70	0.81	0.68	0.59	Correlation eases from current levels to 5-year average
Direct Lending	0.70	N/A	N/A	N/A	Limited historical data; assume correlation in line with liquid bank loans
Mortgage-Backed Securities	0.70	N/A	N/A	N/A	Limited historical data; assume slightly lower correlation than high yield
Opportunistic Credit	0.70	N/A	N/A	N/A	Limited historical data; assume slightly lower correlation than high yield
Private Equity Real Estate	0.80	0.87	0.49	0.42	Heightened correlation due to linkages to banking sector and leverage in legacy deals
Long/Short Equities	0.80	0.96	0.91	0.88	Expect our active asset managers to have slightly lower correlation than peers
EM Local Currency Debt	0.80	0.89	0.74	0.70	Correlation remains high due to EM financial linkages with European banks
US High Yield Corp Bonds	0.85	0.87	0.79	0.70	Remains heightened due to record issuance in recent years and low absolute yields
Emerging Markets Equities	0.90	0.94	0.89	0.86	In line with long-term trend
Quality Equities	0.90	0.97	0.91	0.89	In line with long-term trend, but expect lower beta and higher alpha potential
US Equities	1.00	0.98	0.98	0.98	In line with long-term trend
Global Developed Markets Equities	1.00	1.00	1.00	1.00	Correlation to itself

Exhibit 6.

Asset Class Indices Used In Historical Performance and Correlation Analysis

Asset Class	Index
US Treasuries	Barclays Capital Treasury 5-10 Year TR
Municipal Bonds	Barclays Capital Municipal Bond 7-Year TR
Cash	LIBOR USD 3-Month
US TIPS	Barclays U.S. TIPS TR
Macro Hedge Funds	HFRI Macro (Total) Index
Market Neutral Hedge Funds	HFRI EH: Equity Market Neutral Index
Core Real Estate	NCREIF Property Index
Gold	Gold Spot
Diversified Commodities	Dow Jones UBS Commodity TR
MLPs/Oil & Gas Partnerships	Alerian MLP
Leveraged Loans	Credit Suisse Leveraged Loan Index TR
Private Equity Real Estate	NCREIF Townsend Opportunistic
Long/Short Equities	HFRI Equity Hedge (Total) Index
EM Local Currency Debt	JPM GBI-EM Global Diversified
US High Yield Corp Bonds	Barclays Capital U.S. Corporate High Yield TR
Emerging Markets Equities	MSCI EM (Emerging Markets) NR USD
Quality Equities	GMO Quality
US Equities	S&P 500 TR
Developed Markets Equities	MSCI World NR LC

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