FINANCIAL ENGINEERING NEWS™

Alternative Investments from A to Z

By Kathleen Graham

Public interest in alternative investments is sky-rocketing because investors consider them a good way to diversify their traditional stock and bond portfolios since most of these products have a low correlation to stock market performance. But the range of differences in structure, risk, and rewards is huge, while what defines assets alternatives hinges on two factors: they are more privately held and illiquid than the traditional investments.

Alternative investment products fall into four categories (as illustrated in the table below):

ALTERNATIVE INVESTMENTS A THROUGH Z*

PRODUCT	TYPES	REWARD	RISK
Debt-Based Offering:	**Credit Derivatives**: Contracts linked to the underlying reference asset's credit performance.	Credit risk reduction for issuers; less costly (than underlying asset) derivatives access for buyers.	Performance measurement shortcomings, transparency, liquidity, & agenc issues.
	Distressed Debt: Acquisition of seriously troubled companies' corporate bonds.	Capture capital gains from spread return between price paid and restructuring or liquidation results.	Market timing & correlation, cyclicality, asymmetrical information, agen issues, event, hold period & liquidati risk.
Hedge Fund: a private investment conduit organized as a limited partnership where investors' assets are pooled.	**Convertible Bond Arbitrage**: in synch purchase a bond with option to exchange it for a fixed number of stock shares & "borrowed" sale of same firm's common stock.	Attain profit through price differences while protecting initial investment.	Lack of underlyin product availabilit performance measurement shortcomings, transparency issue liquidity, interest rate, & failure rate risk.
	Emerging Markets: buying stocks &/or bonds in less economically developed countries with strengthening economies.	Acquire potential profits embedded in exponential start-up growth phase.	
	Equity Market Neutral: buying stock/selling "borrowed" stock to maintain a portfolio net exposure of zero dollars, zero beta, or zero sector = no market direction bets.	Gain steady returns with minimal risk.	
	Event-Driven: buying stock &/or selling "borrowed" stock OR in synch stock purchase with sale of "borrowed" stock &/or convertible bond of firm expected to have one of these events: 1) ***Risk (Merger) Arbitrage:*** merger or acquisition; 2) ***Distressed or High Yield Securities***: financially distressed or bankrupt company; 3) ***Regulation D***: micro/small cap public firm raising private monies.	Capture price movements of consequential corporate events.	
	Fixed Income Arbitrage: buy interest rate security/sell "borrowed" related interest rate security on a global basis.	Net price incongruities that offer steady returns with low volatility.	
	Global Macro: buy any (including derivative) asset/sell "borrowed" same asset on a global basis based on an opinion of overall market direction in reaction to economic event.	Attain profit from price directional changes.	
	Long/Short Equity: buy stock while selling "borrowed" stock with maybe some balancing futures/options to bet on an	Gain profit from price directional changes.	

	interesting sector's direction.		
	Managed Futures: buy financial, commodity, &/or currency futures contract/sell same "borrowed" financial, commodity, &/or currency futures contract.	Capture profit when market dislocation occurs.	
	Multi-Strategy: 1) ***Single Manager*** with a strategy of investing/shifting in/between multiple types of hedge funds but all in one portfolio; OR 2) ***Funds of Funds*** a hedge fund that invests in other hedge funds.	***Single Manager*** gains greater choice of investments with lower costs than a funds of funds while ***Funds of Funds*** offer greater diversification. Both offer more investment oversight.	
	Short Sellers: buying less stock &/or derivative than selling same "borrowed" stock &/or derivative with aim of buying them back at a lower price.	Acquire profit from market inefficiencies creating pricing inaccuracies.	
Private Equity: private partnership or closely-held company with a pool of investors' capital to fund corporate growth.	**Small-Business Investment Company:** government funded entity invests in entrepreneur with product idea in start-up stage. **Venture Capital**: equity investment in early stage to expansion stage private companies. **Mezzanine**: hybrid often unsecured subordinated debt with equity up ticks issued as later stage financing. **Private Equity**: leveraged buy-out of mature firm financing.	Gain increase from shareholder value growth.	Market timing & correlation, performance measurement concerns, trend overreaction.
Real Estate: investment in listed and unlisted properties.	**Infrastructure:** public facility &/or transportation project. **Natural Resources**: property containing commodities innately generated by/located in the ground. **Traditional**: hotel, office building, shopping center, etc…	Profit from sales of goods/services &/or investment appreciation.	Liquidity issues, performance measurement concerns, cyclica

* Operational risks of key person, settlement, judge track record, claim liability, disputed/contingent claims, holding period, liquidation, tax issues, and compliance/IT/legal/infrastructure are similar to other privately-held businesses.

Debt-based Offerings

Credit derivatives (CDs), especially Collateralized Debt Obligations (CDOs), began as bank products but expanded rapidly to over $1 trillion globally because non-bank entities joined the banks in using financial engineering constructs to create customized synthetic CDs, according to Joe Rizzi, ABN AMRO's Structured Products Risk Managing Director. Despite initial investors getting burned by inaccurate modeling and pricing caused by lack of transparency and historical data coupled with a razor-thin secondary market, Rizzi foresees that CDs will grow because of improved models, information, and transparency.

Hedge Funds

"There are many distinct hedge fund types," says Izzy Nelken, Ph.D., President, Super Computer Consulting, Inc. and author of the forthcoming book Hedge Funds and Investment Management. Dr. Nelken insists that this distinction is necessary because, unlike traditional equity fund investments where all perform well in a bull market to varying degrees, different types of hedge funds generate returns that can be quite dissimilar in the same market.

In addition to the many fund types, which are based upon the dominant strategy the fund employs, there are four hedge fund aspects – asset class, geography, investment style, and delivery method. The largest asset class used in hedge fund strategies is "equities" but a fund can also involve fixed income, convertibles, currencies, or commodities. Where a fund invests can also impact results, but the majority shows no clear geographic preference. Some hedge funds are located domestically and others are overseas so tax ramifications and parties' legal rights vary extensively.

Hedge fund managers' investment styles – how much leverage and what product mix – fluctuate. Each manager chooses different levels to achieve his or her desired return within a certain risk spectrum. Managers can change their styles, and even exercise their embedded incentive fee call options by upping the volatility in an "all or nothing" scenario when faced with mounting losses. Because an investor's capital is locked up for a period, investors face liquidity risk resulting from a potential investment style change. But Dr. Nelken believes that, once identified, this risk factor is manageable by making adjustments before using optimizers to account for the fund's liquidity level.

Speaking of mounting losses, the global failure rate risk for hedge funds is less than 10 percent with over 7,000 hedge funds in situ and more opening their doors than closing them. An investor wanting to lower that rate can always choose a multi-strategy single manager or funds of funds.

Scott Schweighauser, Partner and Portfolio Manager, Harris Alternatives, LLC, believes that funds of funds offer investors two distinct advantages:

- Instant diversification given the comparatively small amount of capital needed to invest in funds of funds versus the substantially greater amount needed to achieve the same level of diversification by investing directly in hedge funds.

- Active portfolio management with attractive returns, low volatility, and no dependence on the market direction for those returns.

Kay Torshen, President of Torshen Capital Management, LLC thinks that the most important service that funds of funds provide to investors is providing experts that understand tactics and perform on-going due diligence. "Hedge funds can employ complex investment strategies, so having a third party there watching your interests is extremely helpful," says Torshen.

According to Mike Scotto, Director of Alternatives Research, Hewitt Associates, LLC, concern regarding fees charged [to individual investors] by funds of funds is lessening as the funds catering to institutional investors are dropping their fees. Scotto thinks these changes are a sign that competition is increasing in this sector in response to increasing institutional capital inflow.

Finally, delivery method concerns how the investment decisions are formed and then implemented. The delivery method can be discretionary, systematic, or a combination of the two.

The classic example of a discretionary or "guru" manager is Warren Buffet. Mark Rzepecynski, President and CIO, John W. Henry & Co., Inc., says that global macro hedge funds tend to be "guru" shops, stock pickers, convergent managers with some systematic trading elements. Rzepecynski believes that these fund's portfolios have greater exposure to the equity markets and individual stocks than those of managed futures firms, thus an analysis may indicate that their returns are more highly correlated to global stocks and bonds. "Although many global macro hedge funds originated from the managed futures area," says Rzepecynski, "the majority of global macro managers are more likely to have come from the long-only global fixed income and equity side."

Managed futures traders, unlike global macro "guru" shops, are usually systematic traders, to the point that the computers automatically generate the buy and sell orders, explains John W. McDonnell, chairman of The 6800 Capital Group. He thinks that managed futures are a critical investing component because, he says, "They add unbelievable stability to funds as a whole through their neutral correlation to the S&P500. When the markets are in a tizzy, it's managed futures that keep draw-downs low."

The newest and fastest growing managed futures product is single stock futures. Peter Borish, Senior Managing Director for OneChicago, commented, "For the active trader holding for short time periods, single stock futures are the low cost efficient provider."

"Another high return area is distressed/high yield securities," says Scotto from Hewitt Associates. Unlike convertible arbitrage and risk arbitrage that are slow because of limited product issuance, there have been no product limits in distressed securities because of the record default numbers.

Both convertible bond arbitrage and fixed income arbitrage hedge funds have convergent- thinking managers, reports Rzepecynski from John Henry. He says, for instance, "A convertible bond arbitrager waits for markets to get out of line so that he or she can make money when the markets for whatever asset converges to its real value. Arbitrage styles' risk is that if there's a large dislocation, the market will trend and won't converge to the arbitrageur's expectations. Unstable uncertain markets will lead to divergences that aren't what convergent traders expect."

Gregory H. Sachs, Chairman and CEO, Deerfield Capital Management, confirms that over the past decade, the fixed income arbitrage field has been repeatedly tested several times by severe market dislocations. He holds the portfolio's short convexity responsible for the catastrophic event's reaction. "This sector's challenge has been and always will be to find ways to protect the returns from the downside," comments Sachs, "and there are many ways to construct trades that do well during market dislocations that can result in a well-balanced fund."

Finally, Schweighauser of Harris Alternatives says, "Short sellers are good at doing careful, independent, and original research, and uncovering overvalued securities because that's what their mandate is and what their monetary incentive encourages them to do. In the process, short sellers enhance overall market efficiency by assisting equity valuations to more realistic levels and by 'getting the story out' in instances where traditional street research may overlook problems or be biased, which is definitely good for the global capital market's health."

In fact, the professionals interviewed for this article agree that:

- Hedge funds absolutely help the overall stability and global capital market's health as they are main liquidity providers.

- The top priority of hedge funds is, as Derrick Grava, UBS Financial Services' First Vice President and Divisional Director, Alternative Investment Group, affirmed, "Wealth preservation with reasonable growth." He says that hedge funds have advantages over their traditional counterparts because:

    1. Hedge funds can use cash to linger when unfavorable market conditions prevail, whereas traditional asset managers' portfolios are typically limited to 10 percent cash.
    2. Hedge funds can engage in short selling and use derivatives to capture market inefficiencies whereas traditional money managers are limited or prohibited from engaging in these products.
    3. The compensation structure for hedge funds is directly aligned with rewarding staff and management according to how well they perform in increasing or protecting investors' funds.

A concern with hedge funds is that because traditional performance measurements are being applied to them, the results may not be suitable. For instance, funds are comparing their risk-adjusted returns using the Sharpe ratio. This ratio uses the return distribution's standard deviation for the investor's total risk profile, which assumes that investors are indifferent between upside and downside risk – which isn't the case.

To counter the Sharpe Ratio's limitation, the Sortino Ratio, the Omega Measure, and the Stutzer Index are used. Hilary Till, Principal, Premia Capital Management, LLC, also recommends the Bernardo-Ledoit Gain-Loss Ratio, the Bavar Ratio, or adjusting the downside deviation calculation in the Sharpe Ratio in her forthcoming book, The Core-Satellite Approach to Portfolio Management.

Private Equity

Scott Meadow, Professor of Entrepreneurship at the University of Chicago, sees this sector contracting for awhile as capital does a flight towards quality and private equity overreacts to trends. He thinks, however, that future growth opportunities exist for funds with capital and a willingness to "pick through" those projects now abandoned by others.

Real Estate

Investor interest in all forms of real estate continues to grow because of interest in diversification, coupled with low interest rates and comparatively attractive returns.

Other Alternatives?

Finally, there is yet one more area of alternative investment that is experiencing noteworthy growth. To put it in perspective, remember that during the California Gold Rush, the largest group to profit was not the miners, it was the guys who supplied the shovels! In this rush, it's the service providers.

For example, Frank Franiak, Executive Vice President of Customized Accounting Solutions (CAS), a provider of fund administration, accounting systems and other services to the alternatives field, says, "Business has grown very dramatically over the last few years." Fifteen years ago, client demand led to the initial development of CAS's software. Now, growth in hedge fund complexity and the demand by institutional investors for special features has resulted in its development of new functionalities.

Just as the U.S. space program led to the development of a wide range of useful everyday products, it appears that the alternative investments rush is also creating useful "everyday" products that reduce costs and improve efficiency and transparency, while increasing GDP through enhanced revenue generation – and these outcomes are also good for the overall health of the global capital market.

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