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An alternative investment solution for challenging times ahead

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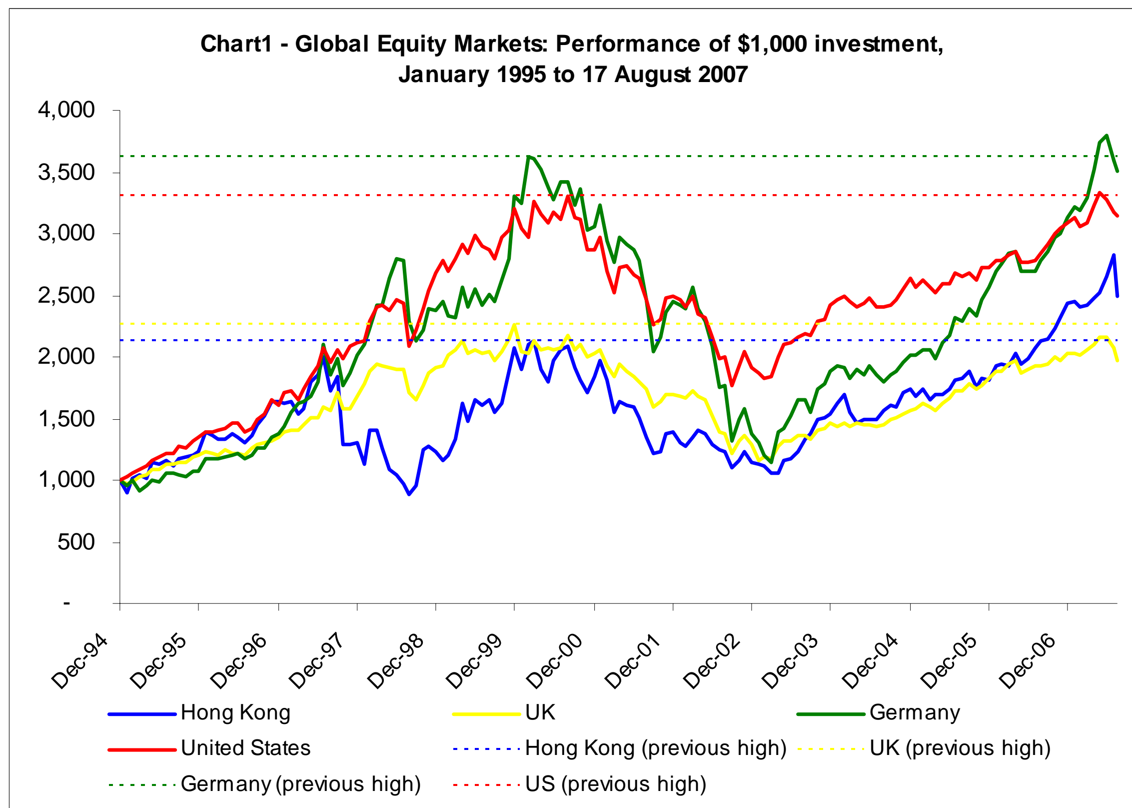
For many industry participants, 'Alternative Investments' conjures up images of high volatility coupled with the potential for higher returns. In reality, an exposure to a professionally managed range of alternative assets and strategies provides advisers with a simple way to diversify, decrease risk, and smooth portfolio returns over time. This research paper explores the alternative investments universe – how alternative investments inter-relate with traditional markets, and their role in portfolio construction. It outlines the benefits of diversification, how this can be attained, and the challenges involved in constructing a truly diversified mix of alternatives that is likely to perform in periods of market crisis. It will also introduce some emerging 'second generation' alternative investment strategies.

The current investment landscape

Rising markets

Until the events of July and August this year, the last few years had witnessed a phenomenal period of investment performance, particularly for Australians who have enjoyed buoyant domestic equity markets – benefiting from continuing strong economic growth and the resources boom. Strong results have not been confined to Australia however, with many global equity markets also hitting new all-time high levels this year (refer Chart 1) in a generally tame inflationary environment.

Until the recent contagion from US sub-prime mortgages started to spread, high yield investments had also delivered generous returns with credit spreads moving to and persisting at historically tight levels (refer Chart 3). Performance had been fuelled by frantic merger and acquisition activity, expanding corporate profits, and exceptionally low levels of global volatility, not just confined to equities but also in fixed income/interest rate, commodity and foreign exchange markets.



Source: Bloomberg. Performance is stated in local currency terms. Hong Kong: Hang Seng Index, UK: FTSE 100 Index, Germany: DAX Index, United States: S&P500 Index. All indices are stated in local currency terms.

Why have markets been so strong? Many, including the International Monetary Fund[1] (IMF) and Bank of International Settlements[2] (BIS), point to the plentiful supply of global liquidity in the early part of this decade, fuelled by accommodative monetary policy, primarily in the United States. In addition, loosening of credit policies by rating agencies and banks, with the corresponding supply of leveraged loans to corporates and credit generally to the private sectors have also fuelled leverage and an increase in appetite for risk.

Low volatility

In relation to the benign volatility level that persisted until recently (illustrated in Chart 2)[3], the IMF suggested three contributors being: 1) low inflation concerns, partly because of developing economies such as China and India meeting supply capacity constraints; 2) a shallower credit cycle due to actions from central banks and accommodative macroeconomic policy; and 3) the wider spread of risk in the financial system facilitated by financial innovations and credit derivatives, allowing banks and financial institutions to securitize and offload various risks that have historically been held in more concentrated numbers of hands. Ironically, these points may have fuelled some of the significant problems we are now starting to witness roll through the capital markets through de-leveraging and a sudden aversion to risk.

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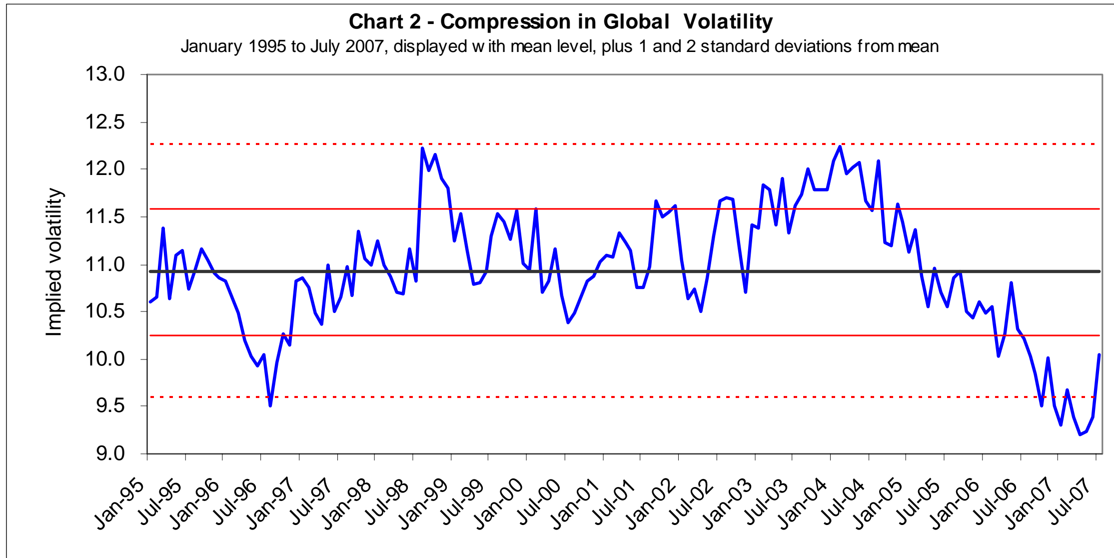
[1] International Monetary Fund - Monetary and Capital Markets Department Global Markets Monitoring and Analysis Division, 2006, “Financial Market Update”, pages 6-10.
[2] Bank For International Settlements, 24 June 2007, “77th Annual Report – 1 April 2006 to 31 March 2007”
[3] Underlying volatility indices from 36 South Investment Managers Limited indicate that this compression has occurred in all of the sub-sectors (i.e. equity, fixed interest/interest rates & foreign exchange), with the exception being commodities.



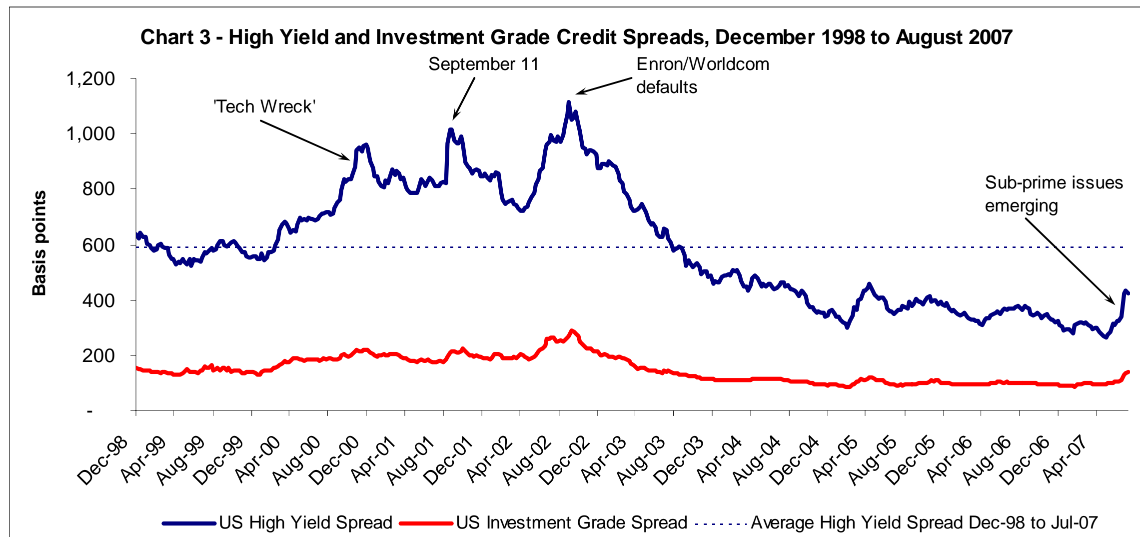
Source: 36 South Investment Managers Limited - GIVIX Balanced Index. Based at weighted average of components on 1 January 1995. Index comprises aggregate implied volatility across equity, bond/interest rate, commodity and foreign exchange markets.

Were the problems now unfolding that hard to see coming?

Despite the benign environment, in its 2007 Annual Report the BIS issued some stark warnings, and it is readily apparent that they considered some of the major risks facing international financial stability to be either credit-related (tight credit spreads, greater issuance of structured products & CDO's, vulnerability from a slowdown in corporate profits, rising leveraged buy-out activity and increasing financing and indebtedness of companies[4], the ability of banks to offload or diversify credit risk via derivatives, the relaxation of credit standards towards households and businesses and excessive residential property exposure), or systemic (the internationalisation of banking / growing inter-bank activity and the unwinding of the 'carry trade').

The focus of the BIS on credit is not surprising given the massive compression of spreads we have witnessed in the last few years, particularly in high yield debt, illustrated in Chart 3.

[4] According to the BIS the average debt / cashflow ratio for companies acquired by private equity firms reached a record high of 5.4 and the volume of international syndicated loans related to leveraged buyouts increased by 70% in 2006



Source: Credit Suisse - CS High Yield Index Spread to Worst, Bank of America - BOA High Grade Broad Market Corporate Spread to Worst, 31 December 1998 to 13 July 2007

Calculations by the BIS at June 2007 indicated that the tight level of spreads in US high yield markets at that time would not have compensated investors for historical default levels experienced in any 5-year corporate bond markets since the mid-1970's[5] (i.e. the risk being taken by US high yield investors was completely imprudent given expected levels of returns, and it is a wonder that these actions continued at all). This situation is clearly reversing at present with a global re-assessment of risk occurring.

Despite the seemingly calm investment environment that has persisted for the last three to five years and the insatiable appetite for risk that has been driven by it, there was a clear danger of being lulled into complacency and hence a lack of portfolio diversification and an over-reliance on traditional investment markets many of which have been at or near historic high or favourable levels for quite a period of time. The BIS states this well[6]:

"The historical record provides stark evidence that a preceding period of price stability is not sufficient to avoid serious macroeconomic downturns. Perhaps the most telling example is that of the Great Depression in the United States in the 1930s…this outturn was not preceded by any noticeable inflation…Rather, the period was characterised by rapid technological innovation, rising productivity, rapid increases in the prices of equity and real estate and strong fixed investment. Behind these developments were ongoing technical innovations in the financial sector, not least the much greater availability of consumer credit. Still more recently, attention could be drawn first to the financial crisis in South East Asia in the late 1990s…Similar to the US and Japanese cases, these difficulties were not preceded by any inflationary excesses but rather sharp rises in credit, asset prices and fixed investment. On the financial side, an important influence was exerted by large-scale capital inflows, which subsequently and suddenly reversed as the crisis worsened. Finally, the same general point could be made about the rather different stresses imposed on the real and financial system by the failure of LTCM and the Russian debt crisis in 1998, and the collapse of global stock markets in 2001. These disruptive incidents also took place in an

[5] Bank For International Settlements, 24 June 2007, "77th Annual Report – 1 April 2006 to 31 March 2007", page 115
[6] BIS Working Papers No 205 "Is price stability enough?", William R White Monetary and Economic Department April 2006, pages 7-8

environment of effective price stability. As with the episodes above, each was preceded by significant evidence of financial overreach (accelerating credit growth, rising leverage, rising asset prices)…These facts are as easy to describe as their implications are hard to deny: price stability was not enough to ensure high, sustained growth."

It is not hard at all to draw a parallel between the statement and the current environment that has been experienced from 2002/2003 to July/August 2007 and it is going to be very interesting to see where the course of events takes us.

The potential role of alternative investments

Despite the fact that many investors have fared exceptionally well in traditional markets in recent years, and plump returns have been generated easily in the benign market conditions, there has also been a growing ground-swell and recognition that this approach may not serve well in times of crises, or when markets become overstretched. During the course of the last decade (and in some cases even longer), a number of sophisticated investors including pension, superannuation and endowment funds have made sizeable allocations to various alternative investments in an effort to diversify away from more traditional market risks, thus attempting to avoid the inevitable pot-holes that occur in mainstream investments. This is well evidenced in an annual survey conducted by the National Association of College and University Business Officers which, based on their 2006 study of 765 US university endowment participants, indicates that the dollar-weighted average alternative asset class allocation of the endowments is 30.9%[7]. Increases in average allocations to private equity, natural resources (timber, oil/gas and commodities) and hedge funds over the preceding 10-year period were 533%, 400% and 336% respectively. On aggregate, the resulting performance as displayed in Table 1 is also very compelling, especially over the 5 year period detailed which covers the 2001-2003 equity bear market period in the US.

Table 1 - US endowment fund performance summary, years ending 30 June 2006

Time period	1 year	3 years	5 years	10 years
Number of survey participants	700	656	589	477
Dollar weighted average endowment performance	**15.3%**	**15.6%**	**9.2%**	**11.7%**
S&P 500	8.6%	11.2%	2.5%	8.3%
Lehman Bond Aggregate	-0.8%	2.1%	5.0%	6.2%
Inflation (CPI) - seasonally adjusted	4.3%	3.3%	2.6%	2.6%

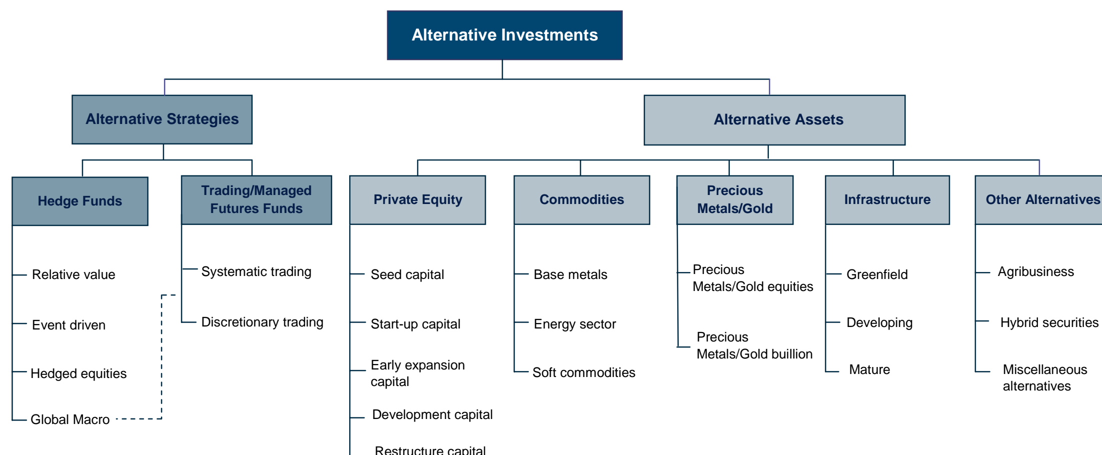
Source: 2006 NACUBO Endowment Study. Comparative index returns assume a year-end date of June 30. Rates of return are reported net of management fees and expenses.

In addition, it was recently reported by SuperReview[8] that "Unlisted alternative assets have helped propel Australia's superannuation funds to their best returns in a decade, according to the latest survey by Sydney-based ratings firm SuperRatings".

[7] National Association of College and University Business Officers, 2007, "2006 NACUBO Endowment Study". Note: Alternative allocations include hedge funds, private equity, venture capital and natural resources (timber, oil/gas and commodities), but does not include real estate, while although it is considered an alternative investment in the US, is considered by SELECT to be a reasonably mainstream investment in Australia.
[8] SuperReview.com.au "Best super returns in a decade", Lorna Thornber, 26 July 2007

Such diversification makes intuitive sense from a portfolio construction perspective, but analysis of various alternative asset classes is far from simple, and is limited on a number of fronts by varying liquidity, transparency, non-normal distributions of returns and limited available public information on many strategies and managers.

At a macro level, the available universe of broadly recognised alternative investments can be displayed as follows:



Even within each of the widely recognised alternative investment classes, the diagram illustrates that it is possible to gain diversification amongst sub-categories of alternative strategies and alternatives assets.

Although data is limited, and short in length in some cases, a fairly broad analysis on alternative investments can be performed over market crisis periods and during positive and negative performance in global equity markets, providing some interesting results (refer Table 2).

Table 2 – Performance of Alternative Investments in Differing International Equity Market Conditions:

	Traditional Markets		Alternative Investments				
	Global Equity Markets	Global Bond Markets	Hedge Funds	Trading Funds / Managed Futures	Unlisted Private Equity	Commoditi es	Gold Bullion
Data period		Jan-90 to May-07	Jan-90 to May-07	Jan-90 to May-07	Jan-90 to May-07	Feb-91 to May-07	Jan-90 to May-07
Overall correlation to global equity markets		0.18	0.68	-0.12	0.42	0.18	0.02
Correlation in positive global equity months		-0.05	0.56	-0.47	0.34	0.07	-0.05
Beta in positive global equity months		-0.08	0.81	-0.55	0.61	0.07	-0.04
Correlation in negative global equity months		0.19	0.39	-0.12	0.15	0.01	-0.15
Beta in negative global equity months		0.25	0.65	-0.10	0.25	0.01	-0.10

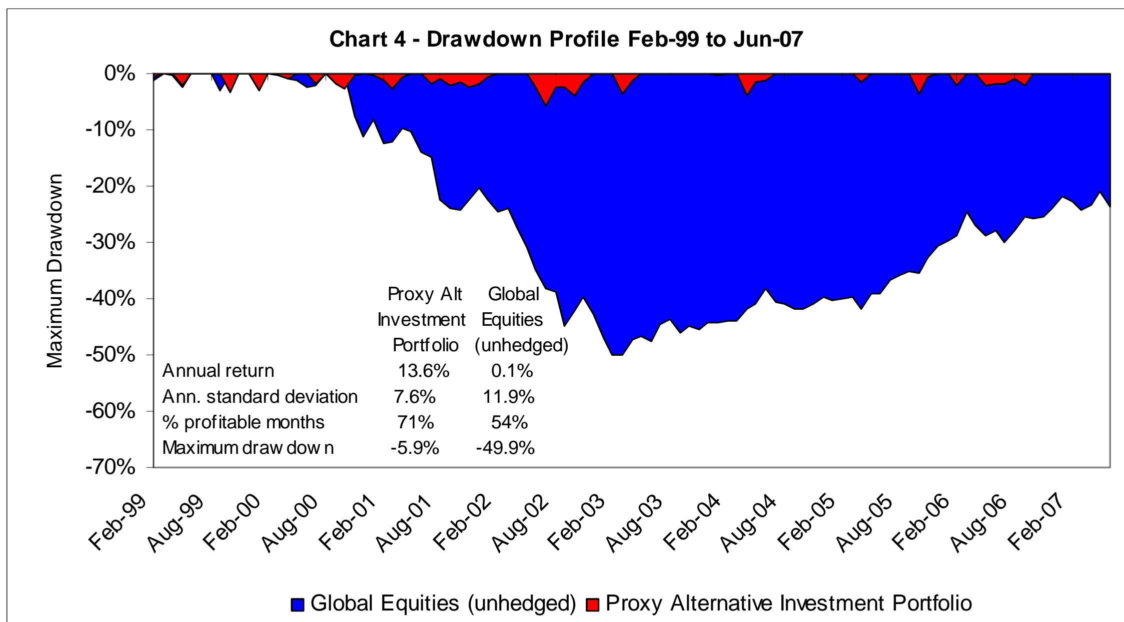
Crisis	Months	Global Equity Markets	Global Bond Markets	Hedge Funds	Trading Funds / Managed Futures	Unlisted Private Equity	Commoditi es	Gold Bullion
UK Currency Crisis	Sep-92 to Oct-92	-4.0%	-2.6%	4.1%	-1.4%	3.6%	-2.0%	-0.8%
Mexican Peso Crisis	Oct-94 to Dec-94	-1.2%	0.5%	-1.4%	1.3%	5.6%	2.1%	-3.0%
Asian Stock Market Crisis	Oct-97	-5.4%	2.1%	-1.5%	-1.6%	3.4%	-0.0%	-6.2%
Russian Debt Default / LTCM	Aug-98 to Sep-98	-12.0%	8.1%	-8.1%	9.3%	-3.8%	0.1%	2.1%
Dot-Com Bubble Burst	Apr-00 to May-00	-6.8%	-2.3%	-4.8%	-0.8%	-1.4%	4.7%	-2.5%
September 11	Sep-01	-8.9%	0.7%	-2.8%	1.8%	-2.9%	-7.0%	6.6%
October 2002 Market Correction	Oct-02	-11.1%	1.2%	-1.5%	2.4%	-1.6%	3.6%	3.6%
Equity Bear Market 2000-2003	Apr-00 to Mar-03	-47.7%	24.4%	1.2%	22.9%	-27.0%	14.9%	20.1%

Source: Bloomberg, January 1990 to May 2007, unless otherwise noted. Data is as follows - Global Equity Markets: MSCI World Index (USD), Global Bond Markets: JP Morgan Global Bond Index (USD), Hedge Funds: HFRI Fund Weighted Composite Index (USD), Trading Funds/Managed Futures: Barclay CTA

Index (USD), Unlisted Infrastructure: Cambridge Private Equity Index (USD), Commodities: Dow Jones AIG Commodity Index, Gold Bullion (USD). Note that Cambridge Private Equity Index performance is published quarterly. For this analysis quarterly returns have been spread evenly over the months within each quarter.

It is immediately clear that historically different types of alternatives strategies and alternative assets have behaved differently according to the stage of economic and market cycles at that time, and the nature of individual crisis periods. Notably, it appears that private equity and hedge funds have had a higher broad correlation and beta to global equity markets, although more so in positive equity market conditions that in negative periods. In relation to this moderate correlation however, it is worth noting that the aggregate hedge fund index generated a positive return over the largest equity bear market during the period analysed (where the MSCI World Index returned -47.7% in US Dollar terms). The relationship in the case of private equity is more clear-cut, insofar that private equity has a closer nexus to public equity markets, and therefore these correlation and beta numbers are not surprising.

In terms of packaging alternative investments together, Chart 4 illustrates that based on historic performance even a naively diversified portfolio of equally weighted alternative investments can protect capital in difficult market conditions[9]:



Note: The maximum drawdown is a measure of risk that refers to the peak to trough decline during a specific period of an investment or fund. Source: Select Asset Management Limited, Bloomberg, February 1999 to June 2007. Global Equities (A$ unhedged) is measured by the MSCI World Index. The Portfolio of Alternatives Investments consists of equal weightings of the HFR Fund Weighted Composite Index 100% hedged to A$, Barclays CTA Index 100% hedged to A$, 50/50 blend of Cambridge and Listed Private Equity Index (both 100% hedged to A$), Dow Jones AIG Commodities Index (100% hedged to A$), 50/50 blend of FTSE Gold Mines Index and Gold Bullion (both 100% hedged to A$), and the UBS Australian Listed Infrastructure Index.

[9] Both international equity and the proxy alternative investment portfolio have been stated in A$ terms in this case, alternative investment performance is currency hedged, and international equity performance is unhedged

There are a number of issues with such analysis however, including:

- Broad indices, including different types of funds with ranging investment objectives and approaches, incorporate both top and bottom quartile performance, as well as an element of survivorship bias. Clearly when making any investment (not limited to private equity and hedge funds), the aim is to choose better performers from the broader universe;
- Almost 34% of the constituent funds in the hedge fund index (measured by asset size) are long/short equity funds, many of which are long-biased (only 2.3% of the index is represented by equity market neutral funds)[10]. This intuitively tends to tilt the index and makes the results slightly deceptive especially if a conscious effort is made to focus on more market neutral hedge funds;
- In some instances (the 1998 LTCM / Russian debt default is a good example), in the months following a market crisis, hedge fund performance is often very strong, as large market movements provide the opportunity for many hedge fund strategies to capitalise on mis-pricing opportunities driven by market contagion. Performance of the composite hedge fund index used above, after the events of August/September 1998, was +10.3% in the following four months and +23.3% in the following 12 months[11]);
- Commodity indices, depending on the provider, tend to have biases to certain markets (e.g. energy), which must be taken into account for commodity index based products[12];
- The currency in which gold is stated makes a huge difference in terms of performance, as many consider gold by to be a pseudo currency itself; and
- Infrastructure investments, although a clear candidate for inclusion as an alternative investment have not been included in the analysis above, as it is difficult to find a broadly representative index (either listed or unlisted), that contains sensible data.

Despite these limitations, the analysis does broadly illustrate some of the diversification benefits available from various alternatives, and it is therefore not hard to imagine that a broad portfolio of these types of investments can provide a lowly correlated and fairly conservative return profile with strong capital preservation characteristics. Clearly, there is the opportunity to further diversify mainstream portfolios which in many cases have a significant bias to equity and fixed income investments.

Specialist Alternatives Funds

Some additional considerations and some key issues to consider

It is important to note that there are also distinctions between structure and style of alternative investments within the broad alternative asset classes - some of which are not immediately apparent without a familiarity with the available universe. This is particularly relevant in the recent environment of shrinking equity risk premiums, tight credit spreads and low volatility. For example in the case of hedge funds, a much lower correlation to markets can be achieved via investment in those which take a more market-neutral approach (i.e. fully hedge out equity, interest rate or commodity exposures), and in the current environment of historically tight credit spreads, those that take less credit risk, or are actually net short credit.

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[10] Hedge Fund Research Inc., "HFR Industry Report 2nd Quarter 2007"
[11] Source: Hedge Fund Research Inc. Performance is represented by the HFRI Fund Weighted Composite Index.
[12] The Dow Jones AIG Commodity Index (rebalanced as at January 2007) has a 30% allocation to energy-related commodities (Source: Dow Jones Indices), while the S&P GSCI Commodity Index has a 71% allocation to energy-related commodities (Source: Goldman Sachs)

In addition, there is also the increasing opportunity to invest across a broad range of listed alternatives (for example infrastructure, private equity and hedge funds as many new funds have been floated in recent years), providing additional liquidity and with a different opportunity set, in some cases trading well below underlying net asset-backing of the vehicles. It is also possible to tilt allocations to managers with specific skews in their portfolios (e.g. commodity managers with a higher allocation to agricultural commodities which have not run as hard as metals or energy markets, or private equity managers with less exposure to leveraged buy-outs).

Some key issues that should be considered when investing in a portfolio of alternative investments include:

- Diversification:
  - Aim for a low correlation of investments to mainstream markets and to each other
  - Aim to spread underlying themes, strategies and dispersion of investment returns as well as sources of risk. Obviously these should not all be linked to traditional market sources
  - Balancing appropriate liquidity can be difficult, but is not impossible
- Accessing some of the best ideas can entail a significant amount of work to find managers and opportunities, a lot of lateral thinking and extensive due diligence and solving challenges with structure, domicile and tax issues;
- Leverage and illiquidity are typically a bad combination in the wrong structure;
- Differentiate between true skill based investments and those relying on risk premiums which may not exist tomorrow (e.g. Yen carry trade, tight credit spreads);
- 'Blow up' risk - it is not just hedge funds that 'blow up', many listed companies do as well, however, underlying manager diversification does provide comfort - make sure that one 'blow up' does not cause critical portfolio damage;
- Two or more highly volatile investments may actually be complementary and provide strong risk-adjusted returns when combined in a portfolio; and
- The major challenge for individuals is to diversify across a broad spectrum of alternative investments. This requires appropriate operational scale and breadth of research.

The benefits of experience

Such nuances only come with experience and a full appreciation of the opportunity set available in the alternative investment universe as well as mainstream asset classes. Gaining meaningful diversification across alternative assets and strategies, both in terms of return profiles but just as importantly sources of risk, is not an easy task and there are some clear lessons highlighted by recent hedge fund manager difficulties both offshore and in Australia. Claims that some of the issues seen with a handful of high yield funds in Australia was unpredictable is incorrect – an assertion clearly illustrated by the BIS 2007 Annual Report discussed earlier. Such issues illustrate the benefits from well diversified, professionally managed multi-manager funds compared to the greater risks involved with larger and more concentrated direct allocations to sometimes complex and often difficult to understand single manager hedge and specialist funds. Experience is clearly required in differentiating strengths and weaknesses of various alternative investments and different means of accessing and investing in them.

Future developments and the maturity of alternative investments

Given the current investment environment explored at the beginning of the paper, we are clearly entering a period where diversification, even in the alternatives space is becoming more difficult. As the alternative investment industry develops and matures with associated inflows of capital, some areas currently classified as alternative will clearly become more mainstream. In this environment, there is the potential for

opportunities and performance in more well-known alternatives strategies or assets to be eroded by the weight of capital. The fight for capacity in the better managers and strategies is likely to intensify, in some cases where the investments are more inherently capacity constrained than traditional markets.

As this occurs, more sophisticated investors are likely strive to invest in less mainstream opportunities, which provide truly uncorrelated returns not dependent on traditional markets, providing an added layer of diversification and less contagion through the smaller weight of capital invested in them. Although this approach entails investment in sometimes novel, innovative and unconventional managers - in many cases within inefficient markets - it offers potentially strong performance. However, it entails a different set of risks and in many cases a different approach to due diligence.

Some examples include investing in managers and strategies that would benefit in an environment of increasing volatility (a 'long volatility' bias as volatility generally has a strongly negative correlation to markets – as they plunge, volatility tends to spike), or those that operate other strategies not directly dependent on mainstream markets for performance – for example (but not by any stretch of the imagination limited to) insurance and weather-related securities, electricity markets, royalty streams, agriculture and timber. In many cases, where markets are in their infancy, inefficiency premiums and arbitrage opportunities exist which can be harnessed in different ways by a well planned and executed investment strategy. Clearly however more work is required to understand the nature of the markets and the managers in question, as they may contain a completely different subset of risks.

Conclusion

The benefits of alternative investment opportunities have been demonstrated for a number of years by some of the world's most sophisticated investors, and the prudence of this approach has clearly paid dividends, particularly in difficult times, as illustrated in Table 2 in the specific case of US endowment funds. What is clear in the current environment, and particularly in mainstream markets, is that it is becoming increasingly difficult to find investments that on the balance illustrate strong risk/return characteristics. As markets become more over-extended, the risks become more intensified.

Diversification away from some of the mainstream market risks is clearly possible, although in order to make any sort of material difference it has to be a meaningful allocation. Select Asset Management suggests an allocation of at least 10% to 20%, although the practical example led by some prominent pension and endowment funds varies. These include alternative investment allocations of 10% by Hermes[13] (the largest UK pension fund, incorporating British Telecom and post office pension assets), 21.5% by ABP[14] (Europe's largest pension fund), 13.5% by calPERS[15] (the largest pension fund in the United States), and 38% and 54.5% respectively by the Harvard and Yale endowment funds[16] (the largest two endowment funds in the United States). The next few years are likely to see the continued extension and development of alternative investment opportunities that currently exist, although research and investment into these areas requires a different skill-set and a great deal of lateral thinking. Given that many investors lack the requisite resources or skills involved in building a diversified exposure in these types of investments, professionally managed multi-manager funds offer a potential solution.

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[13] Financial Times, May 7 2006 "Hermes proposes changes for BT fund"
[14] International Fund Investment, December 2006, "Dutch allocations to alternatives will likely increase substantially in '07"
[15] calPERS website. SELECT calculations based on $31.5bn in alternative investment management programme versus total assets managed by calPERS of $230.3bn at 31 December 2006.
[16] SeekingAlpha.com, 20 November 2006 "Learning from the Harvard & Yale Endowments"