Panel Discussion

Introduction

As usual, Harcourt has invited three prominent hedge fund managers to participate in a roundtable discussion. The following 3 Hedge Funds share their views on some of the risks specific to their strategies:

MKP Capital Management L.L.C., New York
Funds: MKP Partners / MKP Opportunity / MKP Credit.
AUM: USD 1,700 million
Representative: Eric Keiter, Co-head of investing and risk management and Founding principal

Endeavour Capital Management Ltd, London
Fund: Endeavour Fund LP
AUM: USD 625 million
Representative: Paolo Kind, Chief Risk Officer, Founding partner and ex-Head of Research for Global Fixed Income Arbitrage at Salomon Smith Barney.

Metacapital Management, New York
Fund: Metacapital Fixed Income Relative Value Fund, Ltd.
AUM: USD 70 million
Representative: Deepak Narula, Co-Founder and Managing Partner and ex-Head of Mortgage Research for the Mortgage Strategy group at Lehman Brothers.

Market outlook:

Q: What is your economic outlook for the first half of 2003?

MKP: Assuming the current state of affairs, we believe the US economy will plod along with modest growth and the Federal Reserve will remain on hold with its relatively accommodative Fed Funds target. However, there seems to be an unusually high number of variables which could have a material impact on near-term economic activity. Among the most significant are the performance of US and global stock markets, the outcome of the Iraqi situation, potential terrorist activity and Middle East instability, the weakness of the dollar and the level of the US Federal budget. Therefore, any forecast must incorporate the possibility of significant error.
ENDEAVOUR: Continued weak growth in the global economy with stable short-term rates in the major currencies. Bond and equity markets likely to trade in a range, but with a distinct possibility of extreme outcomes due to the unpredictability of the influence of Middle East conflict and massive injection of liquidity by central banks.
METACAPITAL: We do not position risk that is an explicit bet on the level of economic activity and do not express strong views about the future course of the US economy. However, in our opinion, the most likely scenario is one of the following:

- Signs of an economic recovery begin to emerge. Interest rates in the US head higher accompanied by a substantial flattening of the yield curve.
- Prolonged geopolitical turmoil, accompanied by a delayed recovery in the US. Interest rates would head lower in such a scenario.
- Repeat of 2002: sputtering economy, Fed on hold. This scenario would lead to a range bound market with a steep yield curve as the Fed holds short rates low and long rates remain higher in anticipation of increased Treasury supply.

Q: Flight to quality has contributed to the generally good performance of non-credit sensitive Fixed Income instruments. How much was your performance helped by this trend?

MKP: The flight-to-quality movement out of corporate bonds into high-quality securities (Treasuries, agency debentures, mortgage-backed securities, etc.) has not only tightened spreads but also lowered interest rates. To the extent we have had exposure to spreads, our performance has been helped by this market flow. However, we believe the total effect on our performance to be somewhat minor, as lower interest rates have also brought forth a tremendous mortgage refinancing wave, which has had a much larger impact on security valuations across the entire high-quality universe. Our funds are also hedged against interest rate

movements, and therefore did not benefit materially from the bond market rally.

ENDEAVOUR: The positive trend in fixed income markets has not contributed directly to the positive performance of our Fund. However, the sustained bull market in Fixed Income and the move to a very low level of yields in the US and Japan has indirectly contributed to the fund performance by creating significant distortions in the shape of yield curves and in the volatility market from which the fund has been able to benefit through its relative value strategies. On the other hand, the yield spread between government securities and interest rate swaps has in fact narrowed which has worked against strategies we hold that are long government securities against matched maturity swaps.

METACAPITAL: There has been no explicit impact on our performance (we do not position this kind of basis trade), however, cross-over demand for Agency credit securities led to better flows in the mortgage market, which provided greater relative value opportunities.

Q: The mortgage market is larger than the fixed income market. There is a discussion in the US about removing the implicit government guarantee from some of the agencies. What impact would this have on your strategy?

MKP: We believe that the markets are already pricing in some probability of this happening. One can see this in the significant spread widening of agency debentures to LIBOR over the past two years. That being said, we would still expect some further agency debenture spread widening if indeed the lines were completely severed between the agencies and the US Treasury. The effect on the mortgage-backed securities market would be more complex. Unlike the agencies' general obligation debt, mortgage securities are backed by actual loans, which the market values at a higher credit. Thus, mortgage securities would most likely outperform agency debentures in this scenario. The impact on our strategies would be directly related to our various exposures at that time, but we would expect it to be very modest. However, we strive to maintain appropriate risk-adjusted levels of agency spread exposure and we have successfully navigated periods of agency debenture volatility in the past.

ENDEAVOUR: Negligible, as we have no positions in US Mortgage securities at present. We occasionally hold small positions in Freddie Mac Eurobonds, which would be affected by any regulation change, but any effect on the portfolio would be small.

METACAPITAL: The impact would depend on how and why the guarantee is revoked. A surprise rescission caused by a material adverse event at one of the two major Agencies (Fannie Mae and Freddie Mac) could cause spreads on Agency debt to widen substantially. Agency MBS, which has the additional protection of the underlying home, would widen too, but not nearly as much as Agency debt. Additionally, our strategy does not revolve around having a core long in MBS. We hedge our spread and credit exposures carefully. We maintain a core short in Agency debentures versus a long position in similar duration Treasury bonds. We view this as a macro hedge trade and have had it on since inception. As assets under management grow, we increase this position. Unlike all of our other trades, this trade does not have a stop-loss. During 2002, this macro hedge cost the portfolio 2% in returns, but we consider it money well spent. Obviously, we would prefer to never have to cash this insurance policy, but in the event of any serious distress at the Agencies, we expect this macro hedge to shield the portfolio from extensive losses.

Q: Which segments of the market represents the most appealing opportunities in the months ahead for your fund?

MKP: As fixed income hedge funds are but a small fraction of the overall investing universe, flow driven opportunities consistently arise from which we can take advantage. We try to remain disciplined in terms of committing capital, especially when valuations are more fairly valued. That said, our MKP Partners fund will continue to focus on the more liquid sectors of the MBS market: mortgage passthroughs, interest-only and principal-only strip trusts, mortgage options, and commercial mortgage-backed securities. There are plenty of inefficiencies in these markets and these sectors have been our main focus for the past few years.

ENDEAVOUR: Yield curve relative value trades in the US and Japan, volatility markets in the US and Europe and inflation index-linked government bonds.

METACAPITAL: We see the greatest opportunities in Agency pass-throughs (both TBA and specified pools) and in Interest only (IO) and Principal only (PO) securities (both Trusts and structured securities). These instruments, along with Agency debentures, swaps and Treasuries, constitute the bulk of our holdings.

Our investment style involves two different sets of strategies. The first centers around trades in liquid markets, where we take relative spread risk by being long one spread product

and short another spread product. Typically, both the long and short legs are mortgage-backed securities. The second set of strategies relies on taking relative prepayment risk: we combine premium mortgage-backed securities, which we expect to prepay slower than market expectations, with discount mortgage-backed securities, which we expect to prepay faster than market expectations. We then hedge these combinations of «slow premiums» and «fast discounts» with generic, liquid mortgage-backed securities to eliminate the impact of macro variables (interest rates, spreads, volatility, etc.)

Strategy analysis

Q: What would be the worst economic scenario for your strategy?

MKP: Our objective is to be able to adapt to the challenges of investing in any economic environment. That being said, perhaps the most volatile scenario that we can envision in the relatively near future would be where the Federal Reserve raised rates aggressively. In this scenario, we are likely to see significant shifts in market valuations, and we must ensure that we manage our risk exposures appropriately. On the positive side, with increased volatility, we would seek to take advantage of opportunities created by the dislocations in the marketplace. From a longer-term perspective, the toughest environment for fixed income arbitrage strategies is when the yield curve is significantly inverted.

ENDEAVOUR: A deleveraging crisis in which leveraged investors reduce their balance sheet and relative value relationships come under stress with no market participants prepared to take positions to exploit the mis-pricing.

METACAPITAL: The worst economic scenario would be a substantial bull flattener in the interest rate markets accompanied by distress at the Federal Agencies. This would lead to reduced liquidity and unanticipated volatility in the markets.

Q: Fixed Income strategies are particularly vulnerable to fat tails and leverage effects. How does your fund manage its exposure to insure the protection of capital?

MKP: Assuming risk exposures such as duration are managed carefully, we believe most of the fat tail effects seen in fixed income strategies come from misestimating actual security volatility. In other words, securities may exhibit much greater volatility at times than has ever been seen in the past. This, in conjunction with the utilization of leverage, is the key to a greater than expected capital drawdown. Additionally, changes in security liquidity in different market environments can contribute to unexpected return volatility as well.

In all of our funds, we utilize security price volatility data from 1998 to present (a very volatile period) to ensure we understand the potential size of valuation swings. We employ a sophisticated risk management process, and utilize both scenario and correlation analyses to understand portfolio performance in different market environments. We also maintain very liquid portfolios so that should we be faced with unexpected volatility, we can reduce risk quickly without significant price slippage. Additionally, we will utilize insurance in the form of options where necessary. It is also important to note that many fixed income hedge funds are being run with lower leverage levels as return expectations from the investor community are more matched with the optimal reward/risk potential for fixed income strategies.

ENDEAVOUR: We limit the size of each strategy in the portfolio, and set sufficient capital aside against each strategy, to limit the maximum potential draw-down on the portfolio and to be able to absorb the mark-to-market volatility of each trade if the trade were to move to its estimated maximum potential loss. In addition we operate under a strict limit on the size and liquidity of our balance sheet. The limit on maximum balance sheet leverage is 20:1 of NAV. For off-balance sheet items we monitor on a constant basis the actual and potential capital requirements from changes in initial and variation margins and mark-to-market collateral posting. We ensure that the Fund always has a large amount (at least 50% of NAV) in free unencumbered cash to meet any potential collateral requirements and to be able to sustain the existing position in any market environment.

METACAPITAL: Our investment style relies on the relative value of different securities with similar risk profiles. We do not speculate on the level of rates or the slope of the yield curve, nor do we engage in large spread or volatility bets. We hedge our interest rate exposure carefully and run the portfolio duration neutral with a hard limit on gamma (negative convexity). Furthermore, we do not make long term bets on vega (implied volatility). We also control spread exposure; our typical trade is long a spread product hedged by being short another spread product. We have a hard limit on the less liquid holdings in portfolio and currently own no leveraged mortgage derivatives (inverses). We would add exposure to this sector only if it cheapens substantially

from current levels. Lastly, we have hard stop-loss limits on all of our trades. These constraints, along with our relative value style of investing, result in a portfolio that is designed to mitigate vulnerability to fat tail risk.

Manager skills and Performance:

Q: How important is it for the Fixed Income arbitrage manager to understand the effects of mortgage markets on pure Fixed Income instruments?

MKP: We believe that understanding the mechanics of the mortgage market and its effects is absolutely crucial to understanding and investing in the US fixed income markets. As the mortgage-backed securities market is the largest fixed income market, its sheer size can dominate investment and hedging flows. In that sense, understanding the key players and how they operate is very important. For example, the entire agency debenture market exists so that Freddie Mac and Fannie Mae can fund their purchases of mortgages. Also, investors who grasp the large role that the mortgage origination process and mortgage servicers play in the markets gain greater insight into market flows. But perhaps the most essential element in understanding how the mortgage market can influence other markets is the embedded prepayment option. The convexity effects that result from this are the main contributor to interest rate volatility and drive a large portion of the market for swaps and options. Furthermore, the large interest rate swings seen in the US markets are often directly related to the hedging of the contraction and extension risk in mortgage-backed securities. Proof of this exists in the US swaption markets, where implied volatilities are literally twice that of the European swaption markets, where mortgage prepayments are not a large factor. At MKP, our expertise in the mortgage market aids us in our investment decisions not just for our mortgage arbitrage fund, MKP Partners, but also for our diversified fixed income arbitrage strategy, MKP Opportunity.
ENDEAVOUR: Hedging activities of mortgage agencies in the US have significant impacts on bond and volatility markets, particularly in periods of market stress and sharp movements in the level of yield curves.
METACAPITAL: It is very important. The mortgage market is enormous and its negative convexity causes movements in the interest rate markets to get magnified. For example, in a falling rate environment, mortgage holders are forced to buy duration to delta hedge their portfolios, and this causes rates to fall further, resulting in even more duration buying. Just the opposite is true in a rising rate environment. The net result is that the actions of mortgage investors may amplify movements in the interest rate markets. Furthermore, mortgage and Agency spreads versus Treasuries are highly correlated with swap spreads. Spread movements in any one of these markets spill over rapidly to the other two markets.

Q: A big concern for institutional investors is the possibility of manager mistake (Hedging, voluntary style drift, etc.) which could result in large losses. Why can't mistakes happen to you?

MKP: We believe the greatest protection we offer our investors is in the way we run our business – we manage each of our funds as a team, with a disciplined investment process and intensive risk management. Furthermore, we have a system of checks and balances which span the investment and operational aspects of our funds. We also provide investors with transparency so that they can monitor and gain comfort that we are attempting to meet our investment objectives in our described manner. Lastly, we not only utilize third party/dealer marks, we also have our auditor and administrator regularly review these marks for accuracy.
ENDEAVOUR: The possibility of voluntary or involuntary mistakes, accounting errors, and other types of accidents is always the top concern of a hedge fund manager. We bring more than ten years of experience in managing large portfolios of fixed income relative value trades and developing proprietary risk management and pricing systems, to ensuring the integrity of the Fund's operations at all levels. On the operational/accounting side we have first of all decided to outsource to a highly qualified external administrator all our back- and middle-office and fund accounting functions including the independent daily marks of all our books. In addition we have implemented and continually improve highly automated reconciliation procedures between our internal system and those of the administrator and prime brokers. This includes daily reconciliation of the fund P&L from the administrator against our independent snapshots of the markets. These procedures have been designed to minimize the possibility of any book entry or accounting error and to ensure that should any such error occur it would be captured the next day. On the trading and risk management side, our portfolio management structure is one where all material investment and sizing decisions

are made by the three principals in close consultation with the investment manager/trader responsible for managing the position on a day-to-day basis. Our risk management system is built to provide all investment managers, in particular the three principals, with full and easy access to any risk exposure information on positions at all level of aggregation (from the aggregate portfolio level to the individual trades or positions). This means that all positions in the fund are managed at a portfolio level greatly reducing the risk of individual traders failing to report or properly hedge undesired risks, or hiding losses they hope they will be able to recover at some later stage. While it is impossible to ensure that no problem will ever occur in the operation of a fund, we pride ourselves for placing great emphasis on the integrity of our whole operation and believe that we have built a structure that is at the forefront of the industry in this respect.
METACAPITAL: Mistakes can always happen. However, the important distinction between different mistakes is whether these are deliberate missteps (mis-hedging and/or style drift) or a result of adverse market conditions or poor investment decisions in an otherwise sound strategy. As long as a manager sticks to the discipline relevant to his style, it is manager skill that leads to either excess return generation or to poor results. It is when managers stray from their investment style and discipline that big accidents occur. In our fund management team, we have created the office of Chief Risk Officer that is independent of the investment team, to monitor adherence to our risk guidelines.

Meeting investor expectation:

Q: Fixed Income strategies have attracted increased attention on the part of institutional investors lately. Which risks does your strategy present to an institutional pension fund investor?

MKP: The main risk that any strategy, fixed income or otherwise, presents to investors is the possibility of losing money. It is always important that due diligence be performed on any manager and that all of the risks in the investment process be understood. Communication between the manager and the investor can help in the understanding of performance, and aid in the allocation process.
ENDEAVOUR: Like most other hedge fund investment styles, leveraged strategies may incur material mark-to-market losses in the event of a severe liquidity or deleveraging crisis. However, in the case of a fixed income relative value fund most of the exposures derive from taking positions on particular relative value relationships that are necessarily bounded and over time tend to revert to an equilibrium value. Therefore, as long as the sizing of each trade and the amount of free working capital available for collateral posting are properly scaled, the fund will be able to hold on its positions and the mark-to-market losses suffered even in the worse crisis will eventually be recovered.
METACAPITAL: Because we hedge out most macro risks, the biggest risk to investors in our fund becomes manager risk. If we cease to be good at what we specialize in (identifying and taking advantage of relative value opportunities in the mortgage market) returns could suffer. A sudden and drastic shift in market paradigm also represents a potential hazard (similar to the events in late 1998, for example). We have implemented risk management policies and procedures that are designed to mitigate losses in this type of scenario.

Q: Fixed Income managers performed very well in 2002, what is the performance outlook for your strategy in the first half 2003?

MKP: While it is always hard to predict performance, as we enter 2003 we believe that the current fixed income market environment is still conducive to good performance. The combination of low finance rates, continued market volatility, and strong investor demand for high-quality fixed income instruments should provide investment opportunities, and we expect that our funds will produce positive, uncorrelated returns in the foreseeable future. As an aside, with the risk free rates as low as they are, we believe investors should look for more modest gains on average in all hedge fund strategies 2003.
ENDEAVOUR: The current environment in fixed income markets, with very steep yield curves and fairly distorted volatility markets, is likely to continue throughout the first half of 2003 and will provide an excellent environment for relative value strategies.
METACAPITAL: As always, we remain cautiously optimistic. We expect there to remain numerous opportunities in our markets, and we look to take advantage of these opportunities.