



## HEDGE FUND OF THE YEAR DE SHAW GROUP

DE Shaw Group, the \$26 billion New York-based hedge fund, could be considered one of the pillars of US hedge fund folklore. Secretive, highly technical, staffed with scientists, scarred by the Russian debt crisis of 1998, investors in the internet revolution, amorphous and opportunistic – all can be used to describe the 19-year-old private investment vehicle. But it's the firm's foray into business more the preserve of traditional asset managers and investment banks that has clearly set it apart in recent years. It has made significant strides into long-only asset management, direct lending and distressed debt, while adapting and setting higher risk management standards along the way.

The hedge fund is most known for its systematic equity market-neutral trading strategy, which was the foundation of its business when it opened in 1988. Based on complex quantitative models, it captures equity stock mispricings around the globe. The computer-intensive strategy is coupled with a massive research and development effort – in fact, more than 80 out of 1,000 total employees focus on equity trading and quantitative research.

However, Anne Dinning, a New York-based managing director at DE Shaw and one of four on the firm's risk management committee, says new entrants into the market-place have made it increasingly difficult to earn the same returns as those that were possible at the fund's inception. "We couldn't do what we did years ago and still make money," she admits. Over the years, the fund has expanded its business to include Japanese warrants trading, fixed-income relative value, equity derivatives arbitrage, thematic funds and futures, and currency-related strategies, among others. Against a backdrop of increasing competition, the group has continually sought to diversify its portfolio.

Its most recent push has been in long-only asset management, where it now competes head-on with firms such as New York-based Goldman Sachs Asset Management, San Francisco-based Barclays Global Investors and New York-based Credit Suisse Asset Management. DE Shaw had wanted to diversify into the asset management business for a long time, attracted by the stable long-term investor base of long-only funds, explains Trey Beck, a New York-based managing director at the firm. Additionally, the firm felt the transition would be a smooth and logical one, given its history of managing equities through its hedge fund strategies.

"We have this really well-oiled alpha engine, and we knew that we could deliver that alpha in different configurations depending on client preferences. In some cases, people want market-neutral performance with an absolute return objective. And in other cases, people want something that looks very much like equity," says Beck. "To us, it was just a delivery mechanism. We didn't have to reinvent the wheel."

Nonetheless, there are significant barriers to entry for newcomers to traditional long-only asset management. Specifically, while the flow of funds in the alternative space is often driven by word of mouth, consultants direct around 60% to 80% of the institutional equity business. Moreover, they often require a minimum track record of five years.

Under a happy confluence of events, the Virginia Retirement System, a \$45 billion Richmond-based state pension plan, requested that the DE Shaw group manage a portion of the plan's assets in a long-only portfolio in June 2000. The targeted tracking error of the mandate was 100 basis points relative to the S&P 500 Index. To date, the strategy created for this project has an impressive information ratio – the ratio of annualised excess return divided by the annualised tracking error for the performance period in question – (gross of fees). In addition, the excess returns generated by this strategy have a low correlation with the market.

On the back of this success, the firm officially created an asset management division, DE Shaw Investment Management (DESIM), in the second quarter of 2005. Clients can now choose between a core, value and growth portfolio benchmarked to a variety of US indexes, such as the S&P 500 or the Russell 2500, and can customise their risk exposure by specifying an annualised tracking error between 100bp and 300bp for large cap long-only portfolios and 400bp for small cap portfolios.

In October 2006, DESIM extended its strategies to include short selling, while keeping a portfolio beta of one to the market. So, for a positive 1% move in market prices, the portfolio's value would also move by (approximately) 1%, positively. DESIM constructed a 130/30% strategy, which would go long 130% of its portfolio and short 30%.

One of the advantages of traditional long-only asset managers is that they usually require lower fees than those charged by hedge funds. Beck declined to comment on how much lower the fees on DESIM's strategies were compared with the industry's standard hedge fund charges (2% of assets under management and 20% of performance), but noted that "they are absolutely lower, which makes sense in the context of the mandate". Additionally, the firm provides DESIM separate account clients with complete position transparency through their custodian bank.

From its modest start, DESIM has grown to having more than \$1 billion in committed capital, and that is expected to rise to \$2 billion by the end of the first quarter of 2007. "But I would not be surprised if, five years from now, DESIM's assets rival those of our absolute return business," says Beck. In 2007, the firm plans to diversify its benchmarks to include indexes outside the US – one

already under consideration is the MSCI Europe, Australasia and Far East index. The firm is also working on non-equity products.

Another standard banking business DE Shaw has recently entered is direct lending. In 2004, the hedge fund recognised that the middle-market corporate sector was being under-served: retail banks tended to focus on individuals and small to medium-sized enterprises; while investment banks often targeted larger companies. Consequently, the firm established its Laminar Direct Capital unit to focus on this overlooked market sector. The group typically targets companies with \$25 million–50 million in assets. Laminar is based in Houston and now has teams in San Francisco and Washington, DC.

Flexibility is a quality that DE Shaw considers among its strategic advantages in this area. “One way that alternative direct lending managers can compete is that they can be much more responsive and move more quickly than a commercial bank might be able to,” says Beck. The direct lending division does not have a regional or industry focus, and is active in both the debt and equity parts of a corporation. For example, it might offer a company debt and receive equity warrants at the same time, so the division has the option to take a stake in the company, as well as receive interest on its loan.

Along with direct lending, DE Shaw has had recent success in distressed debt. In 2001, the fund began talking to other participants in that space, interviewing potential business partners and reading a lot on the subject, says Beck. The firm asked itself three questions: is there an inefficiency in the market and a structural reason why people can make money? Is it a business that the firm can be competitive in? And if the answer to the first two questions is yes, then what is the best way to go about deploying the strategy? It spent a full year researching the industry before opening its distressed debt business in 2002.

Distressed debt not only provides an example of the way DE Shaw approaches a new strategy, it also exemplifies its ingenuity in risk management. In stark contrast to most distressed investors – who are predominantly long credit risk by virtue of buying the companies’ debt at low cost and waiting for the company to pay back bondholders – the fund approaches the sector in a market-neutral fashion. It splits its risk exposures into the separate components – for instance, equity, industry group, interest rate and idiosyncratic risks – to isolate exposure it wants to keep itself. “Your exposure to the macroeconomic risk factors tends to be small in any given instrument of this type, because if the company’s in the bankruptcy process then it’s in its own little world. But if you have a large book, they add up,” says Dinning.

DE Shaw then hedges out every component it doesn’t want exposure to. For example, it could use credit default swaps to

hedge the credit risk element. “In our distressed and direct lending activities. We’re generally agnostic on overall credit spread levels, and view them more as a source of risk than opportunity. We don’t feel like it’s our mandate within those strategies to take that kind of bet,” explains Beck.

Overall, the firm’s risk management is guided by a philosophy of integration and unification. “The same people who manage risk also run the portfolios. So, when you build a portfolio, you have to consider your return associated with those positions, the riskiness of those positions, the relationship with those positions with each other and the cost of transacting in those positions, at the same time,” says Beck. “Risk management is not an adjunct function.” At the same time, it is streamlining the division with the appointment of Peter Bernard, former president of New York-based technology vendor RiskMetrics, as chief risk officer in October 2006.

One of the most important factors for the firm is liquidity risk. The collapse of Greenwich-based hedge fund Amaranth Advisors last September starkly illustrates the dangers of holding positions larger than the market can absorb. At the time, the fund attributed its demise to illiquidity of the natural gas market, which meant it was unable to close out of its positions (*Risk* October 2006, page 8).

This, however, is a risk DE Shaw takes seriously. When putting on a trade, the firm tries to evaluate whether other hedge funds and dealers are taking the same positions, in an attempt to avoid a situation where everyone is exiting the same trade at the same time. It also looks at the size and liquidity of the underlying market. “If it’s a future, for example, we’ll look at the open interest, the amount traded on a given day, and we try to make sure our trades are sized appropriately to the liquidity of the market,” says Dinning.

She points to the US equities market, where DE Shaw sometimes accounts for 1–2% of the daily trading volume on the New York Stock Exchange. “We want to make sure we’re not too much of a fraction [of any given market]. This is partly because you want to be controlling your costs getting in, but more importantly, you want to make sure you can get out in a cost-effective manner,” she says.

That 1–2% of the NYSE trading volume is significantly lower than the 5% reported in the press in the mid-1990s, before the Asian financial crisis and Russian debt crisis roiled the markets. In 1998, DE Shaw was caught out by the market decline. The next year, it had to lay off employees and sell portions of its business, including an online brokerage unit. Perhaps DE Shaw is now hyper-aware of how liquidity in a market can turn on a dime, and as it progresses into less liquid assets it solidifies its place in the world’s financial architecture, becoming less of a myth and more of a stalwart institution.

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*In the following passage from this article, the author mentions the name of a prior investment advisory client that participated in the existing long-only strategy, which client ended its relationship with the D. E. Shaw group: “Under a happy confluence of events, the Virginia Retirement System, a \$45 billion Richmond-based state pension plan, requested that the D. E. Shaw group manage a portion of the plan’s assets in a long-only portfolio in June 2000.”*

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