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The masterminds at the helm of hedge fund giant D.E. Shaw think they have found the formula for prospering during troubled times
THE POWER OF SIX

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*The masterminds at hedge fund giant D.E. Shaw think they've found the formula for thriving during troubled times.*

By Michael Peltz

Few hedge fund firms have a more well-deserved reputation for secrecy than D.E. Shaw & Co. Founded two decades ago by David Shaw, then a computer science professor at Columbia University, the outfit was an early pioneer in quantitative investing — developing sophisticated computer programs to identify and profit from anomalies in the market. Like Coca-Cola Co., which zealously guards the formula for its prized syrup, D.E. Shaw has always vigilantly protected its proprietary trading algorithms. So secretive was the firm during its first few years that some employees wouldn't even tell their families where they worked, let alone what they were doing there.

"There's a healthy paranoia that we have in the firm," says managing director Eric Wepsic, 39, who oversees quantitative trading strategies.


"We were creating something from scratch." Anne Dinning, with (clockwise) fellow D.E. Shaw EC members Louis Salkind, Julius Gaudio, Stuart Steckler, Max Stone and Eric Wepsic. New York. January 28, 2009.

*Photographs by Mike McGregor*

That attitude has served it well. By rigorously protecting and refining its trading strategies and putting a big premium on risk management, D.E. Shaw has grown steadily to become one of the world's biggest and most diversified hedge fund managers, with $30 billion in assets when this year began. The firm has performed strongly through much of the credit crisis, handily outperforming most rivals last year.

What's even more impressive is that D.E. Shaw has maintained its growth through an unprecedented leadership transition from its visionary founder to a collective of six executives, most of whom have never worked anywhere else. Shaw created the executive committee in 2002 and has since removed himself from any involvement in day-to-day management. In effect, he has institutionalized the philosophy and culture that account for D.E. Shaw's success, pulling off something that has eluded almost every other hedge fund firm since former journalist Alfred W. Jones came up with the novel idea of combining leverage and short-selling some 60 years ago.

"One of the unique things that David has been able to accomplish is a transition to a next generation of managers," says Donald Sussman, founder of Paloma Partners Management Co., the now $2 billion Greenwich, Connecticut–based investment firm that originally staked Shaw. "D.E. Shaw now is run totally by this group of people, all of whom had been handpicked by David, all of whom had been trained by David, and all of whom had been empowered by David."

In a series of recent interviews, these six executives — managing directors Anne Dinning, Julius Gaudio, Louis Salkind, Stuart Steckler, Max Stone and Eric Wepsic — have given *Alpha* an unprecedented look at the people and processes that lie behind the company's success.

Most financial firms have difficulty operating with two CEOs, let alone six. The typically oversize egos of Wall Street chiefs make it difficult for them to share power, as shown by the pitched battles earlier this decade between Citigroup's former co-CEOs, Sanford Weill and John Reed, and between John Mack and Phillip Purcell at Morgan Stanley. But having a group of close-knit top executives with different areas of expertise enables D.E. Shaw to efficiently move capital among different asset classes and strategies.

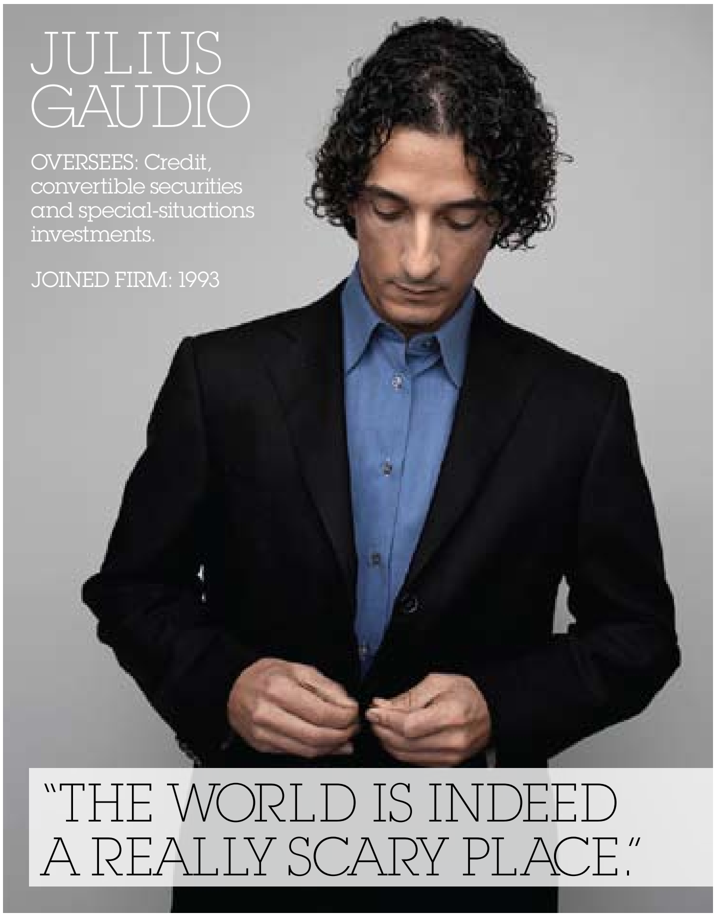
"One of their strengths is critical thinking," says Steven Algert, who manages the hedge fund portfolio for the $5 billion Los Angeles–based J. Paul Getty Trust, a D.E. Shaw investor. "They are always looking to see if they are doing it right. They don't want to be complacent with asset classes or with strategies." Indeed, notwithstanding its reputation as a quant shop, D.E. Shaw has expanded into more qualitative investment strategies, such as distressed credit, energy trading, private equity and real estate — areas that today account for fully one third of its assets.

The firm showed off the depth and confidence of its management ranks at an investor day early last fall, its first ever. Held to commemorate D.E. Shaw's 20th anniversary, the event took place in the midst of a global market meltdown on September 17, just two days after the collapse of Lehman Brothers Holdings.

While Dinning, Steckler and Wepsic minded the shop, Gaudio, Salkind and Stone joined Shaw himself in reassuring some 200 investors about the ability of the firm to perform through the turmoil. "The world is indeed a really scary place, but we're on it," said Gaudio, at 38 the youngest member of the executive committee, during his presentation on the market environment.

Shaw, 57, poked fun at himself in his opening presentation, noting that he has had no operational role in management since deciding in 2001 to step aside to pursue cutting-edge research in molecular dynamics (see box). "What's a little embarrassing is that it seemed to make no perceptible difference," Shaw quipped. "So far as I could tell, the firm was running every bit as well as it had been before."

Shaw may not be a steady presence, but he has molded the firm very much in his own image. The formula for success at D.E. Shaw is embedded as much as in its founder's core values — hire extraordinary people, set ambitious goals, focus on teamwork and putting the firm first, take the ethical high road, analyze everything rigorously — as it is in the firm's prized algorithms. Like the citizens of the fictional town of Lake Wobegon, the "extraordinarily gifted professionals" at D.E. Shaw are "each among the very best in his or her profession," according to the firm's Web site.




ALL PHOTOS OF LOUIS SALKIND PHOTOGRAPHED BY JONATHAN SPRAGUE

"Our culture is very attractive to a lot of very smart, talented people who don't want to work at a typical Wall Street firm," says managing director Nicholas Gianakouros, a 16-year D.E. Shaw veteran. As head of human capital since 2004, Gianakouros oversees a team of about 110 recruiting-related staff whose job is to ensure that the firm doesn't dilute its gene pool. With nearly 1,700 people spread among three continents, it is by far the largest hedge fund manager in terms of employees.

"There's almost an academiclike environment at D.E. Shaw," says Farah (Sasha) Ebrahimi, CEO of Boston-based family office Rostam Capital, a D.E. Shaw investor since 2007. "The sense of collaboration is very unique. I'd have to imagine that it comes from David Shaw."

Shaw is also known for his maniacal focus on risk management. Long the firm's biggest investor, the billionaire hedge fund manager has always placed preservation of capital ahead of outsize gains, a trait that has been a big contributor to D.E. Shaw's success. "David, like [Caxton Associates founder] Bruce Kovner, approaches the business from a risk management perspective — you may not know how to make money at times, but you had better know how not to lose it," explains Paloma's Sussman, whose funds were down only 3 percent last year. "And that's a very critical difference between what they do and what most people in this business do. First they decide how to size positions and how much risk they can take based on projections. The difference between the people who survive for long periods of time and have good records and those who don't is risk management."

The six members of D.E. Shaw's executive committee have worked together for more than a decade and share the founder's methods and instincts as if they were second nature. The group typically meets once a week to discuss larger strategic or firmwide issues, such as whether to enter a new business or make a key hire, and they are generally in daily contact through e-mail and videoconferencing. Because the six have such a long shared history, they trust one another to make the smaller portfolio-level decisions without convening the whole group. "Naturally, smaller decisions don't get made by the full EC but by one member or by a subset of them," says Stone, 40, who oversees the firm's fixed-income and macro strategies.

What might be an unwieldy management structure at any other firm has worked well at D.E. Shaw.

D.E. Shaw has lived through adversity before. In 1998 the firm was one of several hedge funds to get ensnarled in the fallout from the near-collapse of Long-Term Capital Management, losing $200 million in proprietary capital on highly leveraged fixed-income investments; Bank of America Corp. had to write off more than one third of the $1.4 billion it had loaned D.E. Shaw in 1997 as part of a strategic alliance. D.E. Shaw sold off noncore assets it had developed over the years, including e-mail provider Juno Online Services, cut staff and focused on the original equity-related trading strategies that had driven the firm's success during its first decade.

LOUIS SALKIND

OVERSEES: Private equity, venture capital and direct capital investments.

JOINED FIRM: 1988

"WITH SIX PEOPLE IT ALWAYS TAKES A LITTLE LONGER TO REACH A CONSENSUS."

Investors, for their part, say that they are relatively happy with the 2008 performance — D.E. Shaw's losses paled in comparison with the 20.3 percent decline in the HFRI multistrategy index and the 55 percent drop in Chicago-based Citadel Investment Group's multistrategy funds.

"They did pretty well in a very difficult set of markets," says the Getty Trust's Algert.

Still, like almost every hedge fund firm, D.E. Shaw suffered redemptions — probably around $2 billion, based on its 2008 returns and January 1 asset totals, although the firm won't comment. But even if the mass exodus of money from hedge funds is largely over — and there's no reason to think it is — investors are likely to demand greater transparency from D.E. Shaw, which, given the firm's history, may not come easily.

"D.E. Shaw will tell you which strategies made money, but they won't disclose their holdings," says one large fund-of-hedge-funds invested with the firm. "For people who require real transparency, D.E. Shaw might not be the right investment."

David Shaw envisioned D.E. Shaw "as essentially a research lab that happened to invest, and not as a financial firm that happened to have a few people playing with equations." He considers himself a scientist rather than a financier and knew next to nothing about finance when he arrived on Wall Street. His vision began to take shape in 1986, when he left Columbia to join the automated proprietary trading group at Morgan Stanley & Co. Led by renowned quant Nunzio Tartaglia and trader Gregory van Kipnis, the APT group used statistical models to identify and profit from small, typically very short-term, anomalies in securities prices. To be successful, statistical arbitrageurs must be able to process and analyze an enormous amount of data. Shaw's big contribution at Morgan Stanley was to introduce distributed computing — using multiple computer processors in parallel to crunch data — to create what was in effect a supercomputer.

In 1988, Shaw left Morgan Stanley to strike out on his own. He began by looking for people with backgrounds like his — scientists, rather than financial professionals, who could use their expertise to develop trading strategies. "David has done it right," says Marek Fludzinski, who was a researcher at D.E. Shaw from 1990 to 1992 and now manages Thales Asset Management, a $350 million New York–based statistical arbitrage hedge fund firm. "He would hire the smartest people who could also communicate with others and have a clear point of view."

Lou Salkind was the second employee hired. (The first, Peter Laventhol, left D.E. Shaw in January 1994 to start his own firm, Spark Management.) A mathematics prodigy and Manhattan native, Salkind was finishing up his Ph.D. in computer science and robotics at New York University's Courant Institute of Mathematical Sciences during the summer of 1988 when he got a call from Shaw, who was looking for someone with systems and technical skills to help with his financial start-up. At the time, Shaw was operating out of a small office above Revolution Books, a communist bookstore on East 16th Street, not far from NYU.

"I had never really thought about finance, and when David called I was a bit skeptical," recalls Salkind, who had a reputation as a superhacker for his skill at programming computers that use the Unix operating system. "I came up in shorts and a T-shirt; he had a suit on. He took me out to lunch, described his vision for combining capital with the disruptive capability of technology and two hours later I knew I was going to join this company." (Salkind says he read 20 to 30 books on finance during his first six months at the firm.)

With $28 million in capital from Paloma and a couple of private investors, D.E. Shaw began trading in June 1989. (Shaw and Paloma's Sussman had met through a mutual friend.) From the beginning Shaw believed that recruiting could give his firm an edge. He required everyone to spend three or four hours a week looking for potential new hires and courting them.

Dinning joined D.E. Shaw as a junior researcher in 1990, after completing a Ph.D. in computer science at the Courant Institute. She had met Shaw through Salkind, whose wife shared an office with Dinning at NYU, and like him had not previously given a lot of thought to going into finance.

"I came to interview here almost on a lark," explains Dinning, 46, who grew up in Seattle and now oversees D.E.

## DAVID SHAW JOINS THE WAR ON CANCER

David Shaw had established one of the leading quantitative hedge fund firms by the late '90s, with a decadelong record of investing excellence, but still the former computer science professor felt unfulfilled. "From a scientific point of view, I felt like I was getting stupider with every passing year," he says. "I was forgetting things I'd learned in undergraduate calculus. I found it really depressing."

Shaw's epiphany came in 2001, at his 50th birthday party, when he spoke with the late William Golden, then 91 and a leading figure in U.S. science policy since the 1950s. Golden, whom Shaw had met shortly after being appointed to the President's Council of Advisors on Science and Technology in 1994 by Bill Clinton, told the hedge fund manager to follow his heart.

Has he ever. Over the past seven years, Shaw has assembled a team of 75 biologists, chemists, computer scientists, engineers, mathematicians and physicists and built D.E. Shaw Research into a leading innovator in the field of molecular dynamics, which uses computers to create 3-D images of biological structures.

The inspiration for the research arm harks back to Shaw's days at Columbia University in the mid-1980s, when he was developing a massively parallel supercomputer for use in artificial-intelligence systems. Cyrus Levinthal, then chairman of the university's biological sciences department and a pioneer in molecular dynamics, had designed a software program that tried to predict how proteins assemble themselves, a process called folding, but he needed a specialized supercomputer to run it. Shaw couldn't come up with a solution at the time, but he found the problem interesting — and, ultimately, irresistible. When he decided to step back from the day-to-day grind of the hedge fund business and return to the world of scientific research, he chose to tackle the protein-folding problem.

"At a certain point I started thinking it might be possible to build a supercomputer that could shed light on the folding process and on other bio-

Shaw's energy trading, real estate, insurance, fundamental long-short equity strategies and institutional asset management operations. "Everything else I was interviewing for was to be a professor in computer science. I liked what I saw to be the very short-term feedback loop here. You could measure very quantitatively how I could contribute to the firm; the research has dollars and cents associated with it."

When Dinning arrived at D.E. Shaw, the firm had 20 employees and was operating out of a loft on Park Avenue South, a few blocks north of its original office. With its unfinished ceilings, exposed pipes and computer cables snaking around the floors, the offices felt more like a high-tech start-up than an investment firm.

"Back in those days, if you tripped over one of the cables, you could disable trading for ten minutes until you got the trading system plugged back in," says Dinning, whose initial project was to develop a quantitative statistical arbitrage forecast for Japanese equities. "We were creating something from scratch. For those of us who were here from the very early days, trying to keep that sort of energy of creating something de novo is what we find appealing."

In 1989, Stu Steckler was a partner in the New York accounting firm of Oppenheim, Appel, Dixon & Co. when he got a call from a friend who had seen a job posting for a CFO with a fledgling hedge fund. Steckler, who was born in Brooklyn and has a degree in accounting from the City University of New York's Queens College, was newly married at the time. He told his wife about the job but said he was too busy to consider it. She suggested it would be good practice to go for an interview, which turned out to be a three-and-a-half-hour marathon with David Shaw.

"I was wiped out at the end," recalls Steckler, 51, who gave up his duties as CFO last year when he was promoted to chief administrative officer. "David laid out the foundation for how he was thinking of building this company. While it might not necessarily be in my nature to take big career risks, generally, it seemed like I had no choice but to roll the dice and join this start-up."

In 1991, D.E. Shaw moved uptown to its present headquarters in Tower 45 on West 45th Street, one block east of Times Square. As the guy writing the checks, Steckler was point person on the project, but he says Shaw was very involved, hiring an architect to design their space and supervising the work down to the last detail.

"David is not involved in the day-to-day operations of the investment management business these days, but it was very much the opposite when the firm started," Steckler says. "Back then, he was not only the big-picture CEO guiding the general direction and development of the firm, but he was also very involved at an operational level, leaving his imprint on all aspects of the firm."

The award-winning offices, designed by Steven Holl Architects, have stark white walls, polished black vinyl tile floors and lots of brushed metal. The reception area is especially dramatic: The 30-foot-high walls give off a radiant pale-green glow, the result of fluorescent lights hidden behind rectangular cutouts in the walls.

By January 1992, D.E. Shaw had grown to 50 people and had started hiring what it calls generalists — liberal arts majors from leading universities and colleges. The firm would send out letters, signed by Shaw, to Ivy League honors graduates, Rhodes and Fulbright scholars and others, introducing his "cool financial firm," which had no dress code and combined some of the most attractive features of academia (an emphasis on collaboration and the open exploration of ideas) with the rewards of Wall Street.

Max Stone received his letter in the fall of 1991 at his

logically important phenomena by simulating the dynamical behavior of proteins," Shaw says. "But you'd have to design such a machine in a completely different way than a regular computer."

That's what he and his research team have done. Last fall they unveiled Anton, a massively parallel supercomputer that can perform very long, accurate molecular simulations — crunching enormous amounts of data to create virtual movies of molecules at an atomic level of detail. Anton and the research venture are housed on the 32nd and 33rd floors of Tower 45, the Manhattan headquarters of the hedge fund firm D.E. Shaw & Co. Shaw named the computer after Anton von Leeuwenhoek, the 17th-century Dutch scientist and inventor known as the father of microscopy, and has spent in the tens of millions of dollars on the project.

"Anton is probably David's boldest move," says Klaus Schulten, head of the Theoretical and Computational Biophysics Group at the University of Illinois at Urbana-Champaign, which has developed its own supercomputer for doing molecular simulations.

To represent a molecule in motion, Anton must calculate the forces acting on each of its atoms, incorporating potentially hundreds of years of data from chemistry experiments and the laws of physics. Shaw and his group designed Anton's 512 specialized processors, which were built by Japan's Fujitsu, as well as the sophisticated software that together generate the simulations. Shaw plans to build 16 more supercomputers, and hopes to make one available for free to universities and other not-for-profit research labs.

The work by D.E. Shaw Research (and by Schulten's group at the University of Illinois) has the potential to revolutionize drug development. So-called computational microscopes like Anton could enable researchers to design drugs at the molecular level rather than through trial and error. Shaw points to work his group has done on the protein c-Abl kinase, which when it goes awry causes chronic myelogenous leukemia.

"We've tried to learn more about how the protein moves and changes shape, what causes it to do that and what functional significance those motions might have," Shaw explains. "If a mutation causes it to get stuck in its active state, the protein can cause a life-threatening form of cancer. Chronic myelogenous leukemia has recently become highly treatable using a drug called Gleevec, which has significantly extended the lives of many patients, but most of them eventually become resistant to the drug's effects. If you understand the biology really well and could visualize in detail how this drug is binding to the protein and changing its behavior, the hope would be that somebody might ultimately use that knowledge to design new drugs that attack the disease in other ways."

As the chief architect of Anton, Shaw sees his role in part as that of an enabler for other, even greater breakthroughs: "I have no illusions of being a general in the war against cancer, but it feels good to be serving as a soldier." — **M.P.**

mother's house in Duluth, Minnesota. He had graduated magna cum laude from Brown University with a BA in psychology the previous spring. Stone had put off plans to go to graduate school to be near his future wife, and had gotten a job at a psychiatric hospital in Providence, Rhode Island. After a year changing bedpans, he had a change in plans. "Then I thought business sounded interesting," Stone says. "I looked for a job, but because I had no discernible business skills and poor interviewing aptitude, that didn't go very well."

Stone sent his résumé to D.E. Shaw. The clever thing, he says, was that he included that he was self-taught in generally accepted accounting principles, adding that "it was just geeky enough" to get him in the door. He came to New York for a battery of interviews with more than a half-dozen people at the firm, including Salkind, Steckler and Jeffrey Bezos (the Amazon.com founder was then a senior vice president at D.E. Shaw).

Stone spent his first year on random projects, mostly related to operations, like whether the firm should change its tax status or get into leveraged buyouts. In 1993 he worked with Bezos on a financing strategy and, separately, collaborated with others on starting a business making markets in over-the-counter equity derivatives. "I'm not a natural fit on the customer side, so in 1994 I was allowed to come back to the hedge fund trading side," he says.

ANNE DINNING

OVERSEES: Energy trading, insurance, long-short equity, real estate and institutional asset management.

JOINED FIRM: 1990

"I LIKED THE VERY SHORT-TERM FEEDBACK LOOP HERE."

Toronto native Julius Gaudio had hoped to get a job with a financial firm in Canada after graduating in 1993 with an AB in honors economics from Harvard University. But his home country was in deep recession ("I couldn't even get a job sweeping floors," he says). By then, D.E. Shaw had begun on-campus recruiting. Like Stone, Gaudio remembers myriad interviews during the hiring process, with different people from different parts of the firm asking him different things, throwing in occasional brain-teasers to try to assess his raw smarts.

Gaudio's first day at D.E. Shaw, in August 1993, was especially memorable. His boss, Peter Laventhol, was on vacation but hadn't told anyone. When they tracked him down, Gaudio says, it was obvious Laventhol had him confused with another job candidate because the instructions he gave over the phone involved computer programming. When the other person there finally convinced Laventhol that Gaudio didn't know how to program, Laventhol said, "Make him learn how to program in C," a widely used programming language, and then repeated the original instructions.

Gaudio would get plenty of practice writing computer code his first few years at D.E. Shaw. He wrote the firm's first-ever convertible-bond pricing program ("It was pretty bad software, but it got the job done," he says). Gaudio remembers in 1994 trading U.S. convertible bonds during the day, afterward going to his office to take a nap under his desk for an hour and then start coding again. He oversees convertible securities, credit and special situations investments.

Eric Wepsic was the last member of the executive committee to join D.E. Shaw. As a kid growing up in the Jamaica Plain section of Boston, he had wanted to be a math professor. In 1988 he enrolled at Harvard, where he earned his AB and AM degrees in math. While there, he twice won an award for having one of the top five scores in the prestigious William Lowell Putnam Mathematical Competition, in which thousands of top U.S. college students compete once a year. But sometime during graduate school, Wepsic realized that academia might not be his calling, and after speaking to a few of his friends who had gone to D.E. Shaw — and were very happy — he applied.

Wepsic began working at D.E. Shaw in April 1994. He started with the quantitative equity research team, which, as it does today, was trying to identify factors that have predictive power, as well as determine the strength of those factors. The factors range from technical ones, such as price movements, to more fundamental drivers, like earnings growth. Often the effect of a signal is small and may be worth trading only in conjunction with other signals. The algorithms created by D.E. Shaw's researchers are like recipes, with detailed step-by-step instructions to tell the computer when to buy and sell.

"Very roughly, we have a machine that we give inputs about price movements, risks and transaction costs, and then it outputs trades," Wepsic explains. "The machine has changed, the inputs have changed, but the principle hasn't changed as long as I've been here."

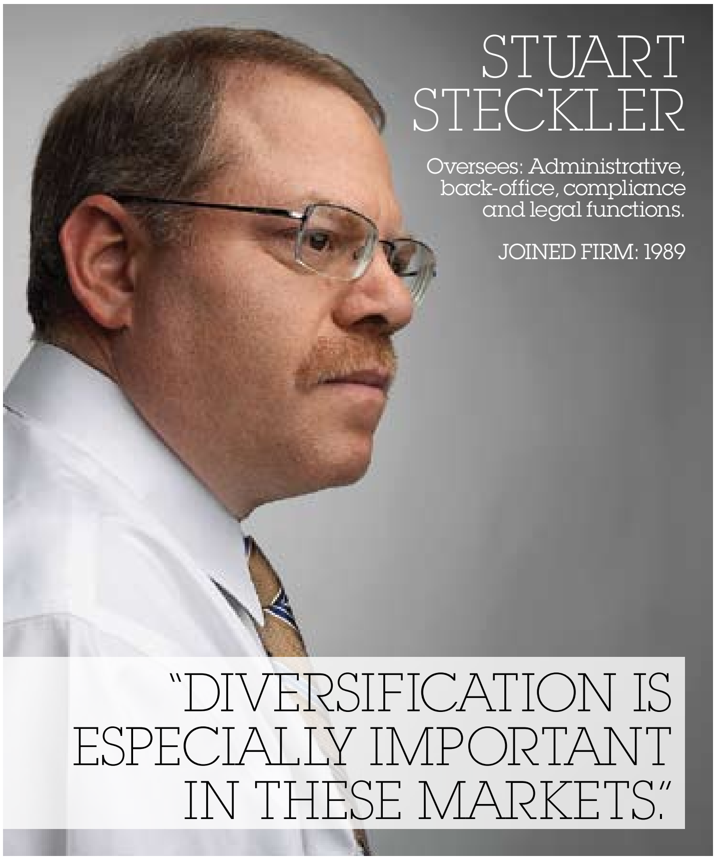
By 1995, Dinning was overseeing most of D.E. Shaw's hedge fund trading. Wepsic, Gaudio and Stone all ultimately reported to her. The firm was managing several hundred million dollars in market-neutral strategies, including statistical arbitrage, Japanese warrant arbitrage, convertible-bond arbitrage and fixed-income trading, and coming off a year where it had a net return of nearly 26 percent. For the 130 people then at D.E. Shaw, confidentiality continued to be paramount. "At the time, the firm was so secretive that we barely discussed which asset classes we traded," Wepsic says.

D.E. Shaw's ambitions extended well beyond hedge funds. In 1993 the firm set up a broker-dealer subsidiary, D.E. Shaw Securities Group, to provide off-exchange trading in exchange-listed securities for retail clients. (The biggest provider of so-called third-market trading at the time was the now-infamous Bernard L. Madoff Investment Securities, although that business has no apparent connection to Madoff's alleged Ponzi scheme.) In 1995, D.E. Shaw founded e-mail provider Juno Online and launched FarSight Financial Services, one of the world's first online banking and brokerage firms. The following year it opened an office in Hyderabad, India, to develop software and systems for its trading operations (both customer and proprietary) and online businesses.

This rapid expansion, however, came back to haunt D.E. Shaw when it entered into its ill-fated March 1997 strategic alliance with Bank of America. In return for an unsecured $1.4 billion loan, the firm agreed to structure and help market equity derivatives and other products for the bank's clients, allocating much of the new capital to the fixed-income arbitrage strategy. Stone's group had been doing the same kind of relative-value trades as LTCM, but on a smaller scale. D.E. Shaw's $20 billion bond portfolio — which was leveraged about 19 to 1 — got hammered in the fall of 1998 by the near collapse of LTCM. In October of that year, Bank of America announced that it was writing off $372 million of the D.E. Shaw loan and taking back the bond portfolio. The San Francisco–based bank, which only two weeks earlier had agreed to be acquired by Charlotte, North Carolina–based NationsBank, later wrote off another $200 million of the loan and severed its alliance with the hedge fund firm.

D.E. Shaw, for its part, retrenched and rebuilt. In December 1998 it sold part of its third-market business to Purchase, New York–based Trimark Securities, the first of a series of deals capped by the $84.5 million IPO of Juno in May 1999. At the start of the new millennium, D.E. Shaw's head count had shrunk from a high of 540 employees in 1999 (not including Juno) to 180, and its capital had shrunk from $1.7 billion to $460 million.

The shadow of 1998 looms large over D.E. Shaw. Stone, who ran the firm's ill-fated bond investments at the time, calls it "a very unpleasant education in just how messed up markets can get." He adds: "One of the nice things about 1998 is that I have experience in how things can go wrong. I spend a lot of my time thinking about extreme events, what forms they can take and what you can do to protect against them."




For a firm known for its rigorous analysis and critical thinking, there's a certain irony in the fact that the executive committee evolved organically rather than from meticulous planning. "There was never a single point when I said, 'Okay, I'm making this transition, now you do this and you do that,'" Shaw says. "It was more of a gradual process in which one step led naturally to the next."

In fact, Dinning, Salkind and Steckler were running much of D.E. Shaw's daily operations as early as 1996. Dinning and Salkind split responsibility for the firm's investment activities; Steckler handled the back-office, compliance, legal and administrative functions. When Dinning retired in 1999 after the birth of her first child and moved to Seattle, Salkind assumed the role of vice chairman and had overall responsibility for running the company day-to-day, working closely with Gaudio, Stone and Wepsic, who oversaw the portfolio. Even D.E. Shaw can't put an exact time stamp on when the EC was formed, but most of its members trace the date back to 2002, when Salkind retired, moving to California to focus on philanthropy, and Dinning returned to the firm to lead the expansion into nonquantitative investment strategies.

"My last act before retiring was to formalize the structure that had been running the firm," says Salkind. "We called it the executive committee."

Then there were four members: Dinning, Gaudio, Steckler and Wepsic. The firm had 220 employees at the start of 2002 and managed $2.36 billion. In subsequent years it would enjoy explosive growth, as institutional investors burned by the equity bear market rushed into alternatives, and D.E. Shaw posted strong, risk-adjusted returns and expanded into new strategies.

In January 2003, Stone joined the executive committee, returning from his own two-year retirement (spent mostly playing with his then three young kids) to relaunch a less-leveraged version of the fixed-income strategy that had caused big losses back in 1998.

Salkind came out of retirement in January 2005 to complete the team. From D.E. Shaw's Cupertino, California, offices in the heart of Silicon Valley, he oversees the firm's $2 billion in private equity and venture capital and another $2 billion allocated to direct capital investments. As the only member of the executive committee not based in New York, Salkind is a big user of video conferencing, including a weekly Wednesday evening call to Anil Chawla, who heads up D.E. Shaw's private equity activities in India. (The firm employs more than 800 people in India, including programmers, financial analysts, back-office staff and Chawla's private equity team.)

The management structure gives D.E. Shaw the extra bandwidth at a very senior level to deal with fast-changing events in the market. When Gaudio was in Dubai last September on business and learned that regulators in the U.K. and U.S. were expanding the prohibitions against short-selling in the shares of financial companies, which could have had a huge negative impact on the convertible bond arbitrage investments he oversees, he didn't have to rush back to New York to deal with the problem. With Wepsic taking the lead of a team that included Dinning and members of Steckler's legal and compliance groups, D.E. Shaw quickly made temporary changes to its trading to reflect the new rules — a not inconsequential task considering that more than 800 stocks were affected.

"D.E. Shaw is well positioned," says Rostam's Ebrahimi. "They have the resources and the infrastructure to manage the increasing complexity and regulation of the current environment."

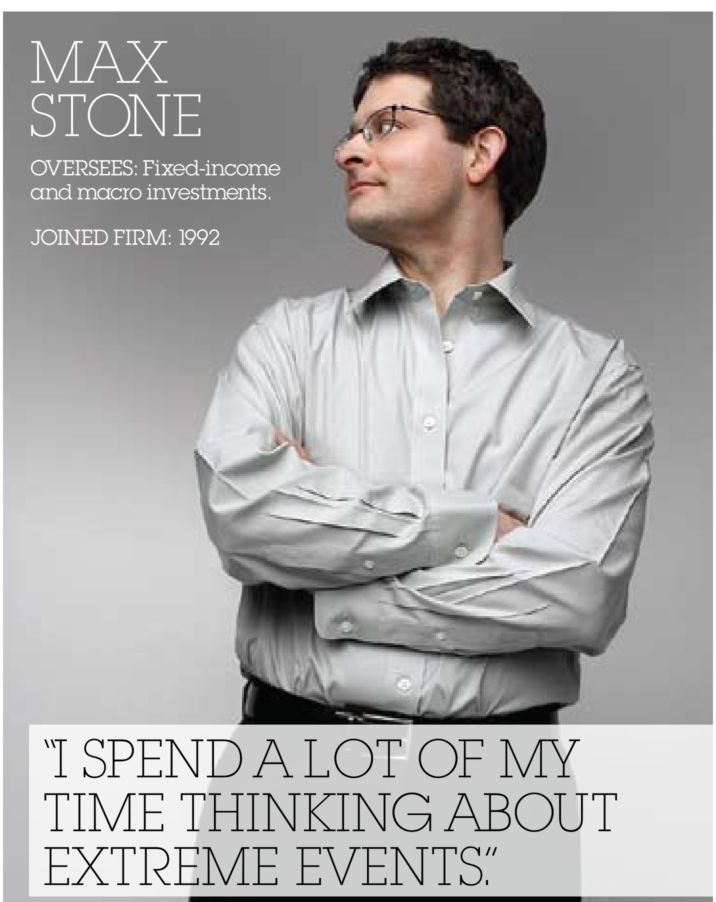
Throughout the financial crisis, D.E. Shaw has been one of the more active hedge fund firms when it comes to engaging regulators and lawmakers in dialogue. Trey Beck, a managing director and head of the firm's investor relations group, is on the board of directors and executive committee of the Managed Funds Association, the hedge fund industry's main voice in Washington. In that role he has briefed staffers at both the Securities and Exchange Commission and the Federal Reserve Bank of New York on issues like short-selling and counterparty risk.

Dinning has been a member of the Asset Managers' Committee of the President's Working Group on Financial Markets since September 2007. Last year the committee released its guidelines for hedge fund best practices. D.E. Shaw also has close ties with Lawrence Summers, the former Treasury secretary who heads President Barack Obama's National Economic Council. Summers worked as a part-time managing director at D.E. Shaw from 2006 to 2008. He would typically come in from Boston on Wednesdays and was involved in everything from risk management to new investment strategies.

The members of the executive committee have all assimilated David Shaw's obsession with risk management. Capital allocation is driven by the risk committee, which includes Dinning, Gaudio, Stone and Wepsic and is supported by chief risk officer Peter Bernard. At the beginning of every month, the risk committee meets with Bernard to discuss where the firm is placing its bets. They scrutinize risk at both the strategy and portfolio levels, using scenario analysis and stress-testing to determine if it is properly hedged. Stone in particular is known for having an especially vivid imagination for stressful scenarios. One of his favorites: The Great Depression Times Two.

"Max is very good at coming up with Armageddon-type situations," says Neil Cosgrove, who spent six years in the New York office before moving back to London in 2005 to manage D.E. Shaw's non-U.S. convertible securities investments. "They are very realistic."

Such careful planning failed to protect the firm from the sudden drop in U.S. equity prices at the start of the credit crisis in August 2007, although D.E. Shaw suffered less than many big quant houses. The sell-off caught



many top quant investors off guard, including AQR Capital Management, Goldman Sachs Asset Management and Renaissance Technologies Corp. (Goldman was hit hardest; its Global Equity Opportunities Fund plummeted 23 percent.) August 2007 caused the firm to put much greater importance on the correlation between asset classes during periods of stress when evaluating how to allocate its capital.

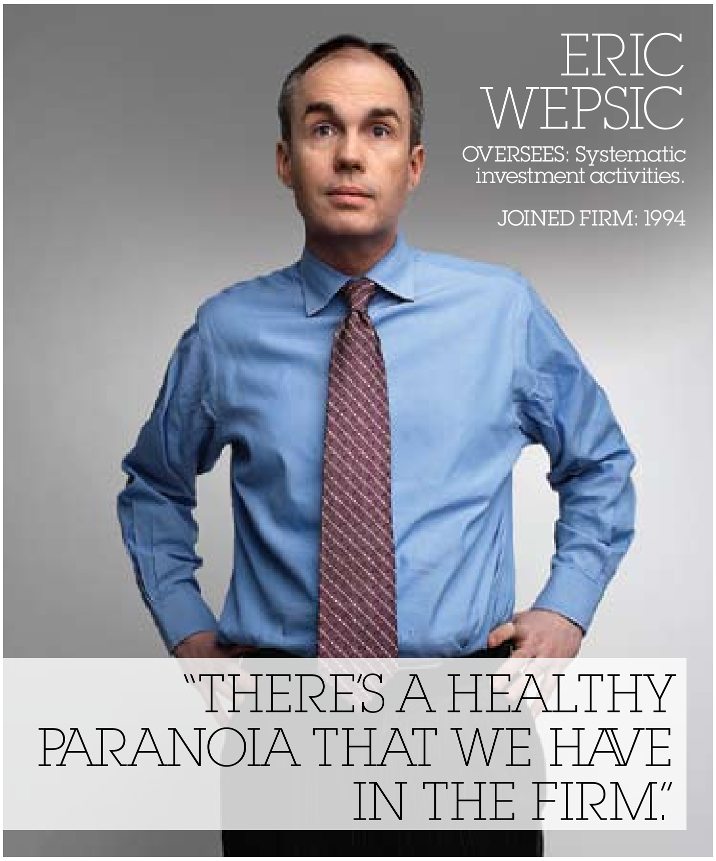
Risk management extends well beyond the executive committee. Each of D.E. Shaw's portfolio managers is charged with performing the same kind of scenario analysis. "We view everybody in the firm as a risk manager," says Beck, who started at the firm in 1993.

D.E. Shaw also obsesses about operational risk. The firm has spent much of the past year trying to steer clear of events like the Lehman Brothers bankruptcy. One way it does that is by ensuring that the counterparties that lend it money have limited ability to change the terms of their agreements. Last summer the firm brought in Tom Levy, who had been co-head of global prime brokerage sales at Morgan Stanley, to manage its relationships with financing and trading counterparties.

"We're focusing on liquidity," asserts Steckler. "This is still clearly a very stressful time. Diversification is especially important in these markets."

Steckler is referring to the diversification of both D.E. Shaw's investments and its sources of funding. Last year D.E. Shaw moved assets and balances away from banks and brokerages it deemed fragile. Although the firm had little counterparty exposure to Lehman when the brokerage firm filed for bankruptcy protection, it will be watching the restructuring closely because what's left of Lehman owns 20 percent of D.E. Shaw.

Lehman Brothers filed for bankruptcy just two days before D.E. Shaw's September conference, sending the Dow Jones industrial average plummeting 504 points, its worst one-day drop in seven years. The day of the conference wasn't much better, thanks to the Federal Reserve's poorly received $85 billion bailout of troubled insurer American




International Group. By 1:00 p.m., as D.E. Shaw investors began arriving at Espace, a chic event spot on Manhattan's west side, the Dow was down 300 points on its way to a 449-point fall. But Gaudio, Salkind and Stone went ahead with the investor meeting while the rest of the executive committee held down the fort a ten-minute walk away at D.E. Shaw's midtown headquarters — demonstrating the value of the firm's unique management structure.

"With six people, it always takes a little longer to reach a consensus, but we've learned over the years how to speed it along," Salkind says. "But don't try this at home."