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Meet Ken Griffin

*Just 32, he wants to run the world's biggest
and best hedge fund. He's nearly there.*

Ken Griffin was desperate for a satellite dish, but unlike most 18-year-olds, he wasn't looking to get an unlimited selection of TV channels. It was the fall of 1987, and the Harvard College sophomore urgently needed up-to-the-minute stock quotes. Why? Along with studying economics, he happened to be running an investment fund out of his third-floor dorm room in the ivy-covered turn-of-the-century Cabot House.

Therein lay a problem. Harvard forbids students from operating their own businesses on campus. "There were issues," recalls Julian Chang, former senior tutor of Cabot.

But Griffin lobbied, and Cabot House decided that the fund, a Florida partnership, was an off-campus activity. So Griffin put up his dish. "It was on the third floor, hanging outside his window," says Chang.

Griffin got the feed just in time. That year saw the historic October crash, and he had \$265,000 at risk.

Says Griffin: "I can't believe they let me put it up."

"Unbelievable" just about sums up Ken Griffin, whose life seems to come straight from the pages of fiction, not the annals of high finance. In the barely more than a decade since he left behind that dorm room with its two phone lines and futon bed, Griffin has fashioned an investment empire rivaled by very few in the world. Today his Chicago-based Citadel Investment Group manages \$6 billion for such astute investors as Morgan Stanley, the University of North Carolina endowment and Glenwood Capital Management. Citadel easily ranks among the five biggest hedge funds in the world, and at the rate it is expanding — Griffin is raising money for a new trading unit that could reach \$2 billion — it may soon be the biggest. Employing 15 strategies from convertible bond arbitrage to risk arbitrage, Citadel, which trades 24 hours across the globe, typically accounts for 1 percent of all trading every day on the New York, London and Tokyo stock exchanges.

A shrewd investor — the Cabot House sophomore was short heading into the '87 crash — Griffin's stellar returns place his firm among a tiny elite. The hardest task Griffin faces these days is how to turn away investors and figure out how to spend a personal fortune of many hundreds of millions of dollars — not easy when your favorite hobby is playing soccer in two sandlot leagues.

"His numbers speak for themselves," says Justin Adams, a Citadel investor who also co-founded the prominent West Palm Beach, Florida, hedge fund III Associates. "He has set the standard for hedge funds. Citadel's ability to move from one strategy to another is remarkable."

Notably, Griffin has turned in this record with no formal technical training, no advanced degree and next to no experience working anywhere but at his own firm. And he has done it in the most arcane areas of quantitative trading, a discipline overrun by Ph.D.s and the occasional Nobel laureate. Next

month he turns 33.

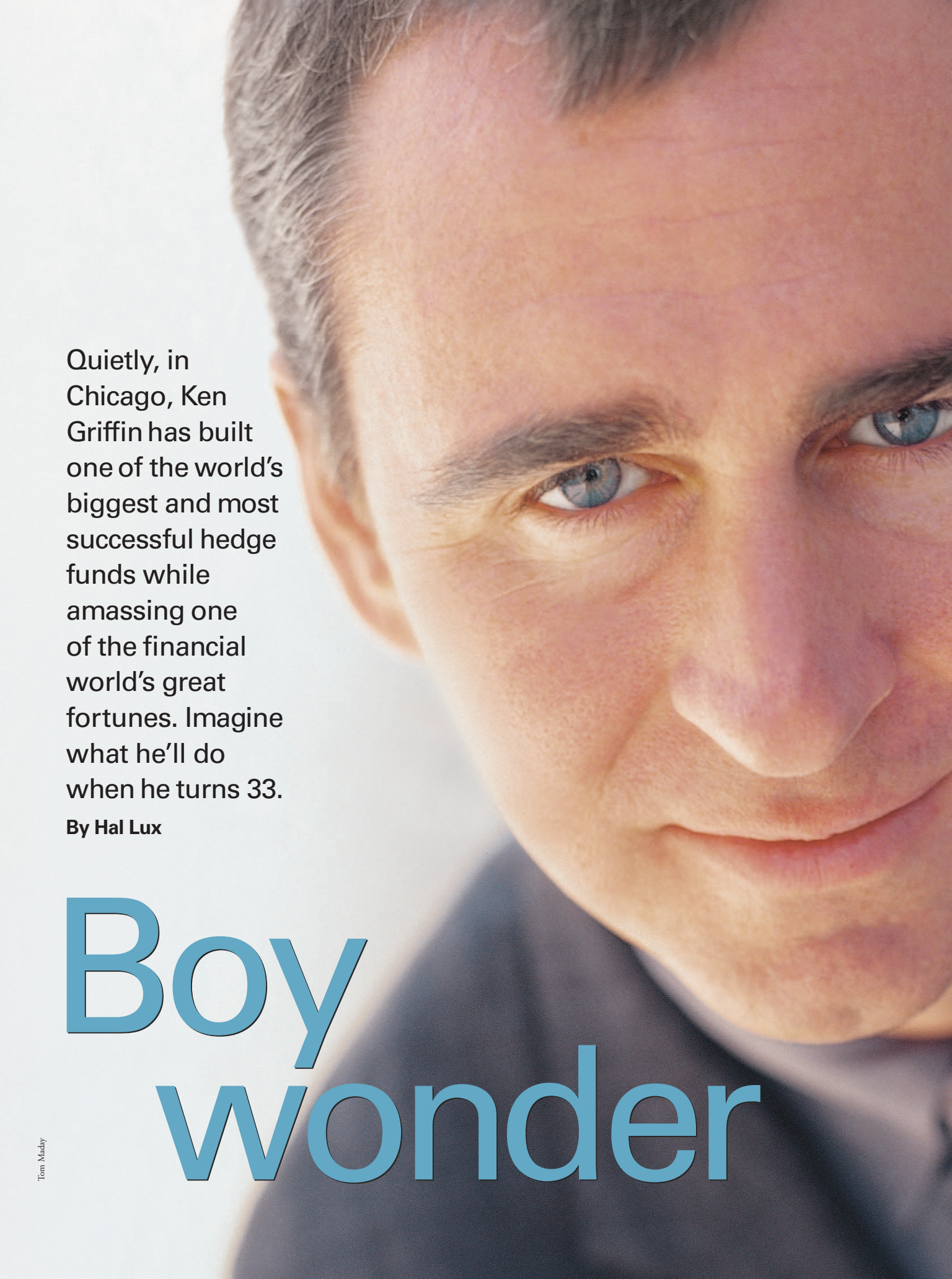
Griffin's interest in the market dates to 1986, when a negative *Forbes* magazine story on Home Shopping Network, the mass seller of inexpensive baubles, piqued his interest and inspired him to buy some put options. Miffed at the size of the broker's fees, he ambled over to the Harvard Business School library and read up on finance theory. He soon built his own convertible bond pricing model (the firm currently uses version 600). Fifteen years later he stashes his soccer cleats in a \$6.9 million Chicago apartment, sits on the board of Chicago's Museum of Contemporary Art and Public Library Foundation, and this year sponsored the \$1 million challenge grant at the Robin Hood Foundation annual dinner charity auction. The previous donor: Kohlberg Kravis Roberts & Co. founder Henry Kravis.

Griffin is to hedge funds what pimply faced dot-com billionaires were briefly to the Internet: the boy god, nerd made good, self-taught polymath of finance. Comfortable in a wide range of disciplines from computer engineering to advanced statistics, he can write derivatives pricing models, debate options for reengineering computer networks or poke holes in complex mortgage-backed-securities positions with equal ease. Unlike those dot-comers, though, he appears unlikely to self-destruct anytime soon.

To be sure, hedge funds, like dot-coms, have come in for some rough times lately. Morgan Stanley market strategist Barton Biggs is warning of an impending hedge fund "bubble"; *Forbes* recently published a cover story debunking claims by the industry (with some 6,000 funds and perhaps \$500 billion in capital) that it regularly outperforms the rest of the money management industry.

Several of the biggest and most prominent funds have come to sorry ends. Julian Robertson closed up shop, and George Soros farmed out most of his money last year; the partners at Bowman Capital and Galleon Group are in the midst of nasty breakups. These funds ran aground for a variety of reasons: poor judgment, infighting, bad timing, poor management and, to some extent, too much success — they simply got too big to handle all their investments well.

Fiercely competitive, Griffin is focused and ambitious. "I've never known him to be interested in anything else," says Har-

A close-up, high-angle portrait of a man with light blue eyes and short, light-colored hair. He is looking slightly to the right of the camera with a subtle, confident smile. The lighting is soft and even, highlighting the texture of his skin and the intensity of his gaze. The background is a plain, light color, making the subject stand out.

Quietly, in Chicago, Ken Griffin has built one of the world's biggest and most successful hedge funds while amassing one of the financial world's great fortunes. Imagine what he'll do when he turns 33.

By Hal Lux

Boy wonder

vard undergrad pal Alexander Slusky, who runs San Francisco-based venture capital firm Vector Capital.

"From day one, the goal was always to build the best independent trading firm," says Griffin. "If you make \$100 million at another hedge fund, you are a god. If you make \$100 million here and someone down the street makes \$400 million, you'd better be thinking about why you didn't make \$500 million."

Such competitiveness is not uncommon in the hedge fund world, but what sets Griffin apart, and just might secure his reputation, is an absolute mania for management. Though a first-class trader himself, he walked away from the convertibles desk years ago to dedicate himself totally to building the business and creating an institution with a solid infrastructure. That's something Robertson and Soros tried to do too late (*In-*

stitutional Investor, September 1999).

Griffin has done this by hiring talented executives and instilling in his troops his obsession with systems and analysis. His people talk constantly of "process." He himself consumes so many books and articles on corporate strategy and leadership to hone his own management skills that he sometimes sounds like a corporate self-improvement junkie (a recent *Harvard Business Review* favorite: "Level 5 Leadership: The Triumph of Humility and Fierce Resolve").

But it isn't all just palaver. Unusual for hedge funds, he has brought in professional managers from places like Andersen and Boston Consulting Group (in fact, eight former consultants are on his payroll). He built an internal stock lending operation in the late 1990s to allow Citadel to fly below Wall Street's radar

Secrecy and death spirals

With market-beating returns for the past decade, the traders at Citadel Investment Group in Chicago are among the best in the world. Just don't ask them how they do it. They are as secretive as they are successful.

One night earlier this year, AIG Global Investment Corp. hedge fund investment executive Norman Chait found himself sitting between Citadel's risk arbitrage head, Alec Litowitz, and a trader from another major hedge fund at a dinner sponsored by Morgan Stanley. "When the other trader was turned away, Alec talked to me about business," says Chait. "When the trader would turn in our direction, Alec would immediately start talking about kids' videos. This went on all night."

When pressed, Citadel's partners were no more revealing with this magazine. But interviews with traders and a review of the firm's offering memorandums and investor letters does provide a glimpse behind the curtain.

The firm applies 15 strategies, but about 85 percent of its profits in the past few years have come from convertible bond trading, risk arbitrage and other event-driven strategies, say investors. Convertible bond trading and similar equity derivatives trading account for more than half the firm's profits.

Global in reach, Citadel, which uses leverage aggressively on certain positions, has built up big holdings in Japan; at times these have amounted to more than 70 percent of the firm's convertible positions.

Up 12.6 percent through the end of July, Citadel has outperformed many rivals because it steered clear of the hard-hit telecommunications sector. In risk arbitrage and event-driven trading, one of the firm's coups this year was making money on the failed General Electric

Co.-Honeywell International deal, which caused considerable losses for many risk arb units.

The firm has occasionally stumbled. In the late 1990s Citadel amassed big positions in the equity-linked derivatives issued by money-center Japanese banks, hoping to take advantage of mispricings created by the unusual complexity and giant size of the offerings. But the trades soured. The firm scrambled out after suffering a loss of 2 percent in one month, but the same securities became a big money-maker for Citadel in the next two years. "We respect them a lot," says Louis Salkind, managing director of archrival hedge fund group D.E. Shaw & Co. "They are certainly one of the top players in the world of arbitrage. We cross paths with them all the time. They are huge."

Citadel has become increasingly aggressive in private placements, including the exotic field of Pipes, private investments in public entities. Over the past six years, it invested in 80 private transactions worth \$550 million in public companies, according to DirectPlacement, a San Diego investment bank specializing in the area. Many of the Citadel deals, in companies such as MicroStrategy and eToys, had a reset provision allowing the company to convert at a lower price if the stock fell.

One variety of these convertible securities, known as "death spirals," has no floor on the conversion price and has become increasingly controversial. These securities get their name from the combination of the investor's right to short the stock and the right to reset the conversion price, which creates a potential incentive for holders of the securities to push down the price of the stock. In January 2001 Providence, Rhode Island, telecommunications company Log On America sued Credit Suisse First Boston and two funds controlled by

Citadel, charging that they had caused the firm's stock price to collapse, from \$17 to less than \$1, by engaging in short-selling after buying death-spiral converts.

"We are alleging that they bought the security with the intent of manipulating the stock," says David Paolo, CEO of Log On America. Paolo says Citadel engaged in "massive" short-selling, but Citadel, which declines to comment, bought only \$3.75 million worth of the convertibles. Citadel is also enmeshed in a small investment in a company whose recent history seems like a bad movie. Soon after Citadel loaned \$25 million to a Florida casino cruise company called SunCruz Casinos, a previous owner was murdered while driving down a Fort Lauderdale street by someone firing a gun from a black Mustang. *The Miami Herald* then printed allegations that one of the new owners, ex-Dial-A-Mattress franchisee Adam Kidan, had made "food and beverage consulting" payments to a caterer with alleged mob connections. Fort Lauderdale homicide detective John King says the murder remains unsolved and Kidan is not a suspect. The Citadel loan is still performing, but the profitable SunCruz filed for Chapter 11 to deal with a blizzard of lawsuits. Kidan, who has since left the company, has said the payments were legitimate business expenses. He did not return a message left with his attorney.

Citadel won't say how it fared on private placement investments in other fallen companies such as eToys. But, says DirectPlacement president Brian Overstreet, "I think they made a lot of money from these other transactions because they were around long enough for them to trade out. But it's impossible for anyone to really know how they did."

That's just how Citadel likes it. —H.L.

screen on sensitive short sales; it's the kind of operation run only by major investment banks. Stung by a bad experience with liquidity in the brutal bond markets of 1994, Griffin moved to secure more permanent capital from his investors that couldn't be yanked in a crisis. Last year Citadel became the first hedge fund organization to receive public ratings from Standard & Poor's and Fitch; the investment-grade rating it received lowered the firm's funding costs.

"We've talked to a lot of hedge fund organizations, and very few would qualify for an investment-grade rating," says S&P financial institutions analyst Jonathan Ukeiley. "Citadel's institutionalization is very deep for a fund."

"I would liken him much more to a broad institution than a boutique hedge fund," says friend and rival Paul Tudor Jones of Tudor Investments. "He's built an extraordinarily diverse organization, horizontally and vertically integrated. It's something with franchise value, which makes him different from 95 percent of the companies classified as hedge funds."

Underlying his success is an effort to translate the fierce discipline of quantitative trading to other investment arenas. Quants, like ex-computer science professor David Shaw of D.E. Shaw & Co. and prize-winning mathematician Jim Simons at Renaissance Technologies Corp., have posted some of the best returns in the fund management business by building models and computer systems that tell them what securities to buy and when to buy them. As Griffin has moved into areas like risk arbitrage and distressed-securities investing, he is supporting all these strategies with the advanced technology and analytical rigor typically found only in certain quant trading fields. His goal is essentially to build an investing assembly line that can methodically produce successful strategies across the markets.

That, of course, is easier said than done. And even some of Griffin's biggest fans worry that he may overreach. Citadel is getting ready to launch a new U.S. long-short equity unit that will basically involve a classic stock picking business — quite a departure from its current approach. Investors say the firm may raise as much as \$2 billion; in July Citadel hired Carson Levit from Pequot Capital Management to manage a broad market portfolio and Peter Labon from Bowman Capital to run the telecommunications, media and technology sectors.

Beating the market in U.S. stocks is always difficult, and it's not clear how Citadel's technology and information-gathering techniques in areas like risk arbitrage will necessarily give it any edge. "It's hard to bet against Ken," says one hedge fund investor. "But the connection between long-short and what he's been doing is not obvious."

Also troubling is the rate of Citadel's growth in recent years. Citadel grew from \$18 million to \$2 billion in assets under

management in its first eight years, but it has swelled by a further \$4 billion in just the past three years, thanks to great returns and huge investor demand for hedge fund product. One hedge fund after another has hit the investing shoals when it got too big to handle its own success.

Moreover, Griffin uses lots of leverage to generate his returns, cranking up his positions by three to six times. He's pro-



Traders Labon (left) and Levit: Building Citadel's new operation in San Francisco

duced consistent gains, but leverage has led to big problems for other hedge funds during financial market crises.

Still, his first big investor suspects he will find a way, somehow, to make it work. "If you had told me that I would stake my reputation on a 22-year-old, I would have said never," says Frank Meyer, the hedge fund veteran who backed him a decade ago. "But then I met Ken Griffin."

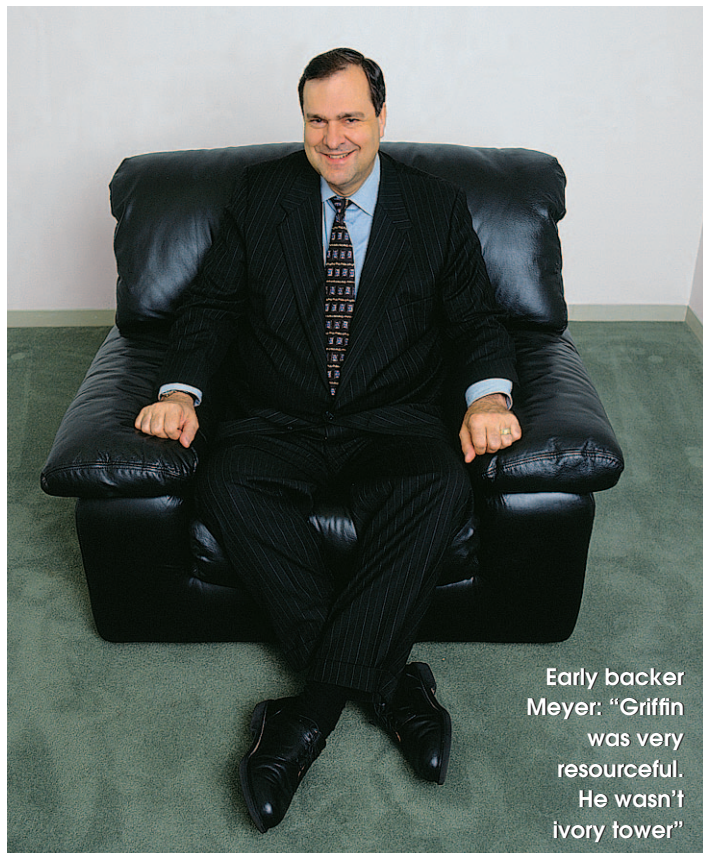
KEN GRIFFIN GREW UP THINKING ABOUT MAKING money in a town that had plenty of it, Boca Raton, Florida.

The oldest son of a serial entrepreneur, who made his biggest splash in the building supplies industry, Griffin dreamed of making a killing in business from an early age. What business was unclear, though. Computers looked like a sure bet early on; IBM Corp. was the biggest employer in town, and while he attended Boca Raton Community High School, Griffin, who had a facility for numbers and technology, taught himself to be a proficient programmer. By 11th grade he was operating a small computer consulting business.

When he entered Harvard in 1986, leveraged buyouts were all the rage, and Griffin imagined for himself a career as a hot-shot banker helping to reshape corporate America. Then he read the *Forbes* article that argued that the stock of Home Shop-

ping Network was overvalued. Griffin agreed, and opened his first brokerage account, bought one or two put options contracts, and turned a quick \$5,000 profit when the stock fell.

Griffin got a surprise when he sold the options and got paid less than their apparent value. His broker explained the economics of Wall Street's bid-ask spread; it irritated the Harvard freshman to know that someone else was making a riskless profit off his trade. "He paid me a discount to the intrinsic value of the option," says Griffin. "I had been arbed. And I took it upon myself to find out why."



Early backer Meyer: "Griffin was very resourceful. He wasn't ivory tower"

Blair Jensen

Camping out at the Harvard Business School library, Griffin spent hundreds of hours imbibing finance theory from the capital asset pricing model to the Black-Scholes options pricing model. By chance, he made another discovery while thumbing through Standard & Poor's stock guide, which contained an appendix with quotes for the little-known convertible bond market. Comparing stock and convert prices, Griffin saw a discrepancy. "The price relationships just didn't look right," he says.

Looking for an explanation, he called the local office of First Boston Corp., figuring that with such a name it had to be the best bank in Boston. Hooking up with an institutional salesman, the 18-year-old visited the regional office to grill him. Recalls Griffin, "They said, 'It's not a strategy we recommend for the firm's clients, but we do it for our own account.'" Griffin was even more intrigued.

Back at Harvard he began building a rudimentary model to price the bonds. Returning home to Florida during the summer between his freshman and sophomore years, Griffin visited a

broker friend working at the First National Bank of Palm Beach and began to discuss his new model. A retiree named Saul Golkin walked into the office and listened in as Griffin explained his theories about trading converts. After 20 minutes, Golkin said, "I've got to run to lunch. I'm in for 50." At first Griffin didn't understand. Then the broker explained that Golkin had just agreed to invest \$50,000. Emboldened, Griffin quickly raised a \$265,000 limited partnership — whose investors included his grandmother — called Convertible Hedge Fund #1.

Returning to Harvard, Griffin rushed to get his satellite dish and began trading. Then, on October 19, the stock market crashed. Many hedge fund managers, such as Michael Steinhardt, suffered widely publicized losses. Griffin, however, just happened to be leaning very short in his portfolio. Making money during a crash made it easy to quickly raise \$750,000 for another fund, this one called Convertible Hedge Fund #2. "Historical happenstance has a way of making people look like geniuses," he says modestly.

Early on he showed his practical side. Not content to simply fiddle with his computer models, Griffin went out and introduced himself to the Wall Street stock loan departments that convertibles traders depend on to borrow stock for shorting. Brokers who had no reason to be nice to a small partnership gave Griffin a break as he played up his unusual role as student trader. "He was very resourceful," says early backer Meyer. "He wasn't ivory tower. He took the fact that he was small and made it an advantage."

Griffin found time for classes at Harvard, but not much else. "He was a pretty serious guy," says venture capitalist Slusky. "He went to classes and ran his business." Even Griffin's schoolwork had a practical bent; his thesis, advised by economist Richard Caves, analyzed the effects of mergers on bondholders. He distinguished himself for his rigor. "The thesis," says Caves, who is renowned for his research on industrial organization, "could have been published in an academic journal."

Two years later Griffin had solid returns in the high teens and enough credits to graduate early. He considered taking a job with the Palm Beach III fund but eventually decided to stay partly independent. III's Adams, who was using the same attorney as the 20-year-old, introduced him to Meyer, a hedge fund pioneer who ran a Chicago-based alternative investment operation called Glenwood Investment Corp.

In September 1990 Griffin began trading a convertible arb strategy as a separate account for Glenwood. One year later, duly impressed with Griffin's maturity — and his 70 percent returns — Meyer introduced him to Glenwood's clients, enabling him to raise a then-significant \$18 million fund called Wellington Partners. Griffin leased 3,000 square feet of space in an office building in Chicago's historic Loop district and launched the five-person fund.

At first, Wellington traded only U.S. convertibles, Japanese convertibles and warrants — lucrative trading arenas in the early 1990s. "In the early 1990s, if you knew how to model a bond, you could make a lot of money," says convertible bond chief David Bunning, a onetime Harvard wrestler who joined Citadel as its sixth employee in 1991. Griffin hired inexperienced college graduates and even interns as he gradually expanded. "It was a global arbitrage shop run by a 22-year-old," says Bunning.

Griffin's youth showed. Former employees recall Griffin, in

the early years, as a difficult and abrasive manager impatient with small mistakes. He was forever challenging Citadel traders to defend every nuance of their positions and personally running them through pointed grillings at regular trading meetings. "He was in your face," says one former employee. "He was a micro-manager. He would dig. He was always challenging people to do things better. He loves looking at everything from different perspectives." Some people don't. Turnover was high.

"Ken has a remarkable ability to remember a vast amount of detail," says the former Citadel staffer. "He can be talking to 20 traders and practically know their books better than they do." Griffin says he has learned more over time about the best way to run a "functioning team." Friends and associates say he has mellowed since the firm's early days.

I T I S A S T E A M Y M I D - J U L Y morning in downtown Chicago, and Griffin, natty in a dark blue shirt and striped tie, is spooning up his daily bowl of raisin bran with bananas and raspberries at a small, round conference table in his neat, modest office where he eats breakfast each day. There are few distractions. An inexpensive print of Harvard Yard, celebrating the school's 350th anniversary, hangs beside his desk — he's a donor and active fundraiser. A soccer ball sits on a credenza, and a small rubber lizard is perched on a computer screen, but that's it for whimsy.

Griffin's desk and shelves are full of business plans, consulting reports and stacks of books, including the Long-Term Capital Management exposé *When Genius Failed* and the political-scientific treatise *Meaning of It All* by Nobel Prize-winning physicist Richard Feynman. The most prominent decoration in Griffin's office is a giant erasable whiteboard where he likes to scribble ideas during staff meetings.

Griffin loves grinding through analyses with managers from all parts of the firm, whether it's a takeover deal the firm is betting on or a new computer system it's investigating. "What makes it fun is I like solving problems," he says. "I simply like having the opportunity to compete. You grow. You become a better person."

Though Griffin no longer trades, his office is placed prominently beside Citadel's L-shaped trading floor. Having handed off direct trading control years ago, he professes not to know how his traders are doing on most days, even though market data screens are perched on his desk. If a big position goes bad, he says, his trading managers will let him know. "I try very hard to minimize the time I spend looking at the daily P&L," he says. "You end up fixating on a lot of noise."

The markets are opening for business in New York, and Citadel's 70 or so young traders, dressed hedge fund casual in shirtsleeves, are stirring. Quietly hunched over their computer screens, they punch buttons and talk into their phones. Unlike many trading shops, few trophies or decorations adorn the walls. Similarly, few personal touches occupy the trading desks, except for the occasional baby pictures and bumper stickers that bear the legend "Hubris Kills." These were handed out by chief convert trader Bunning at a traders' off-site meeting in May.

A Japanese flag hangs over some empty desks against one wall. Their usual occupants are home sleeping; beginning at 4:00 p.m. they'll be filled by a dozen traders, who work Citadel's giant posi-

tions in Japanese equity and bond markets overnight. Citadel operates smaller but significant offices in London, San Francisco, Tokyo and Greenwich, Connecticut.

Like their boss, the vast number of Citadel employees don't actually trade. The 350-person staff — heavy on young Ivy League and University of Chicago graduates — divide into several areas: portfolio financing, technology, quantitative research, administration and trading. Quantitative research, for example, develops the firm's new trading strategy and updates the old models.

Citadel goes to great lengths to ensure that these different groups work together. Except for the most junior employees, trader compensation — which is divided into salary, discretionary bonus and performance bonus — is based more on the firm's overall returns than on the trader's profit-and-loss statement. Technologists take classes taught by firm officials on trading strategies, and traders take classes on technology or portfolio financing issues. Turnover is now low.

These days Griffin spends much of his time as CEO thinking about how to manage a financial services firm, an admittedly rare art form. Every Citadel unit operates according to detailed, regularly updated business plans, which are stacked all around Griffin's office.

Such planning certainly has helped Citadel's financial structure. After the 1994 troubles, Griffin set out to create a more stable capital structure and more reliable financing to allow Citadel to survive and profit the next time panic hit the markets.

"If you're Avis, and the lights suddenly go off at Hertz, you had better be in a position to make a lot of money," says Griffin.

Most hedge funds outsource their financing and stock lending to one of Wall Street's "prime brokers." Griffin concluded that was dangerous and expensive; instead, in 1998 he hired John DiRocco, a veteran Wall Street stock loan and repurchase specialist from rival hedge fund Paloma Securities, to create his own securities lending operation and expand his lending and counterparty arrangements. The Greenwich-based unit has its own Depository Trust and Clearing Corp. account, borrows stock directly from large institutional investors such as Vanguard Group and has floated small bond issues to get rated by S&P and Fitch. "All financial institutions live and die by their liquidity," says Griffin. "We are a financial institution. The fact that many people don't think about it is beyond me. It is the essence of what we do."

Obsessed with risk, Citadel meticulously tracks all its dealings with more than 60 financial counterparties and Wall Street brokers, constantly grading them on 20 factors — from the cost of borrowing hard-to-find securities to the range of securities they'll finance — on a scale from 20 to 200. "We have the information stored on every deal we've done," says CFO DiRocco.

All this attention to financials has paid off. In 1998 Griffin decided to risk alienating investors by significantly restricting their ability to withdraw their capital. They had to agree to the new lockup terms or face the possibility of having their investment returned. The firm had already been reducing its positions as converts chief Bunning grew alarmed at the cheap

pricing of credit in the bond market. Through the summer DiRocco strengthened Citadel's counterparty arrangements, and the capital lockups went into effect August 1.

Russia soon defaulted on its debt, and Long-Term Capital Management nearly collapsed, along with the rest of the financial world. Citadel, with locked-in capital and a de-levered portfolio, enjoyed one of the best performances among hedge funds, earning returns of 30.5 percent. The firm was a rare buyer, as desperate hedge funds unloaded bond inventory.

"Ken hired me to expand his funding capabilities in June of 1998, and he locked up his capital 60 days before the biggest hedge fund blowup ever," says DiRocco. "When you're liquid with locked-up investors in that kind of environment, you can be very selective about when and what you're buying."

WHETHER IT'S BUILDING A capital structure or refining an investment approach, "process" is the guiding philosophy at Citadel. The firm focuses not just on coming up with better pricing models but on applying to money management the type of analysis that a Japanese car company would use to improve its assembly lines. "We are process-driven beyond the quantitative, and we blend the quantitative and the fundamental," says Daniel LeVine, a Brown University Ph.D. in math who runs Citadel's quantitative research group. "The things to which we apply quantitative techniques might surprise some people. I think that is what distinguishes us."

Adds Bunning: "Our goal is to quantify what we can quantify. To take the human element out where we can. To see if we can turn the investment process into widget making."

Thus Citadel aims to automate wherever possible and to study every part of every trading strategy — from information gathering to trade execution — in a formal, rigorous way. In 1998 Citadel took its analysis a step further by hiring Boston Consulting Group to break down all the elements of its investing process. Every step of every trading strategy was put into computerized flow charts.

Citadel collects all information from its high-volume trading in a sprawling

database overseen by a staff of 15. The firm's traders regularly record their day-to-day operating procedures on flow charts to make sure they are not overlooking any small detail that can be improved. In terms of automation, the firm looks for

set of strategies.

Citadel's net numbers are even more impressive than they might appear, because the firm, unlike almost all of its competitors, deducts all operating expenses from its fund performance before



Senior managers David Bunning, Daniel LeVine, Alec Litowitz and James Yeh (left to right): Running a panoply of trading strategies

opportunities to create efficiencies in every part of the business. Citadel is now testing a natural language processor that will automatically cull broker e-mails for specific bond quotes that can be made immediately available to traders. "Citadel's R&D and planning processes resemble a well-oiled manufacturing company more than a money management firm," says James Greenberg, a J.P. Morgan Chase & Co. investment banker who has done work for the firm.

Citadel's impressive numbers are what makes all of its talk about process, strategy and widgets more than just hype. After almost 11 years of operations, the firm has one of the best long-term records among hedge funds, and it has managed to successfully diversify into a relatively broad

paying investors. Those variable expense charges are higher than 3 percent per year, compared with the typical 1 percent flat asset management fee that most hedge fund investors are charged.

Griffin uses one old-fashioned hedge fund technique to generate his returns — plenty of leverage. Citadel levers its stock positions a steep three to six times, according to a firm official. But S&P analyst Ukeiley, who tracks the firm's balance sheet on a monthly basis, thinks the firm's leverage is reasonable once it's adjusted for offsetting positions.

In 1999, after the firm finished up 45 percent, rumors began circulating that the hedge fund was mismarking its positions to generate these kinds of outside returns. Intent on ending the speculation, Citadel,

which has been audited by Arthur Andersen for the past ten years, commissioned an additional independent audit of all its thousands of positions by a different auditor. The audit confirmed all of Citadel's marks, according to investors. "When a firm has returns like that back to back, you want to find out what is going on," says Mark Yusko, who runs the University of North Carolina's investment office. "We have reviewed their operations every which way to Sunday, and they appear to be marking their positions just fine."

"EVERY ORGANIZATION HAS TWO choices," says Griffin. "Choice one is to grow. Choice two is to die. If you decide not to grow, it's a clear-cut message to talented people that it's time to leave."

Although convertible bonds still account for about half of the firm's trading profits, Citadel has steadily diversified. Today the firm also invests money in distressed high yield, government bond arbitrage, statistical equity arbitrage, risk arbitrage and event-driven trading. The firm has also developed a business structuring private investments — typically convertible financings — in public, often speculative, companies (see box).

As the firm has grown, Griffin has recruited senior executives into management and strategy roles. Apart from CFO DiRocco, Griffin has brought in chief operating officer Barry Wallach from Andersen, where he was managing partner for U.S. operations; chief information of-

ficer Thomas Miglis from Bankers Trust Co., where he was head of global systems; and chief strategist Robert Morette, who ran Boston Consulting Group's Midwest finance practice. An additional eight consultants from such places as BCG and Booz, Allen & Hamilton now work full time at Citadel. It's an extraordinary amount of management skill for a 350-person firm, and it's unique in the hedge fund business. "The systems that Citadel has are far superior to anything that I've seen in the hedge fund business," says Carson Levit, who joined Citadel in July as a portfolio manager in its long-short equity business. He previously worked at Soros Fund Management and Pequot Capital Management.

Griffin is always on the lookout for talent. Last year he hired a team of consultants from BCG to collect detailed information on his major hedge fund competitors in hopes of understanding their strategies and poaching their best people. And when the news broke last October that the successful hedge fund Vinik Asset Management would shut down, Griffin was in Boston 48 hours later interviewing Vinik traders.

Griffin's ability to expand into new areas is rare in the hedge fund business, where most groups stick with one type of trading. "I am not aware of them having a failure at any of the strategies they've diversified into," says Jerry Baesel, a Morgan Stanley managing director who runs an alternative investment fund that has

invested with Citadel since 1991.

Now Griffin is pushing ahead with plans to launch a major new trading unit buying and shorting U.S. stocks. New recruits Levit and Labon, who will be based in San Francisco, are gearing up to lure more talent away from hedge fund competitors. Citadel will be competing against much larger and more experienced investment firms, and its sophisticated information-processing systems may be of less value in a market like U.S. stocks, where information flows freely. Nor has Griffin ever tried to fashion a big team in one fell swoop by recruiting quickly from among many firms.

Challenged about the difficulty of applying Citadel's analytical framework to picking stocks, Griffin insists that the firm has done just that in risk arbitrage and has taken a meticulous approach to researching this new business. "I believe we have built one of the best merger arbitrage businesses in the world, even though someone could have made the argument that it wasn't related to our strengths," he says.

With more money than anyone will ever need, Griffin's overriding goal is to build the first great hedge fund shop that's permanent. As always, he's got a process. "I try to surround myself with people who disagree with me," says Griffin. "Successful people tend to be very overconfident about what they know, and it leads to tragic mistakes. That will not be the final chapter in my career." ■

