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INSIDE

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listening in

Steve Goldman, Quant With A Record

Uber-Patient, Computer-Savvy Strategist Revels In Market Complexity

Let me be perfectly blunt. When I first met Steven Goldman, 18 years ago, he was an enigma. This studious, bespectacled fellow sitting at the end of Weeden & Co.'s often-raucous trading desk, surrounded by even more computer screens than the rest of the guys, rarely raised his head — or his voice. But when he did, the room stilled. Virtually everyone wanted to hear what "Goldie" was saying over the hoot.

Steve Goldman

Steve was Weeden's chief market strategist and, as far as he was concerned, I was a new kid on the block of a potentially most dangerous sort. A journalist, of all things, hired as an "analyst" whose new publication (you're reading its successor) was supposed to burnish the firm's reputation in research. So, while unfailingly cordial, Steve was very careful what he said to me.

Besides his own reputation, you see, Steve had his strategy to protect. His career-long endeavor to decipher the myriad tell-tale signals that he had long been convinced could give him profit-enhancing early indicators of the direction of the stock market. So like many proud inventors, he guarded the details of his strategy — well, obsessively.

But I was curious. And as evidence mounted that this guy who liked to talk in riddles was pretty lucky in calling the market's fits and starts, I started using break room conversations to challenge and pester Goldie over his puzzles. But I couldn't crack them — or him, for that matter.

Then, after the internet bubble popped, sending the market into a deep funk that turned immeasurably darker, society-wide, with the horrors of 9/11, it seemed for a time as if animal spirits would never revive. But in the summer of 2002 — in what seemed to me, at the time, an inexplicable reversal — cautiously optimistic sounds started coming from Goldie's end of the trading desk. Characteristically (and frustratingly) tentative at first, but then with building conviction, Steve was telling clients the worst was over. Re-invest.

It was a brilliant call. And after only about six months of cajoling, Barry Small, then Weeden's CEO, convinced Steve to cooperate with me so that I could write about it. I'm republishing that piece, originally dated May 16, 2003, just behind our interview in this issue of WOWS, for readers who are likely as skeptical as I was. Because the crazy thing

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is, Steve has kept minutely timing the market all these years, using his calls to invest in S&P futures for himself — and for clients in a fund and managed accounts at his commodities trading advisory firm, Goldman Management, Inc. And his record, improbable as it may seem, has to be seen to be believed.

Steve was nice enough to chat with me early this week, from his Springfield, NJ office. Listen in, and prepare to be impressed.
KMW.

Congratulations, Steve. I saw an ad in the *Wall Street Journal*, saying you won an award for your 5-year track record. What was it exactly, again?
It was the Pinnacle Award, as the best single-sector CTA over the last five years. The people at the CME Group and Barclay Hedge Alternative Investment Database are the ones who make the awards. The competition is open to commodities trading advisors.

So, to be perfectly straight, your competition wasn't all that daunting —
Easy now. That's pretty harsh. But if you want to compare my performance to the HFRI index of hedge funds — or even compare my strategy to the long/short indexes — I've vastly outperformed those as well.

Just teasing — I don't want to make enemies of *any* portfolio managers!
The irony is that, actually, my last five years aren't my strongest five years, if you look at my 30-year track record, or even at my audited performance going back to 2002. But the returns were consistent, without "war scars."

Let's back up and give folks some background on you that I might not get in the introduction. We met at Weeden, when I joined in March of 1999. And I think you went off on your own shortly before I did, in the spring of 2012.
Right. I left Weeden in September, 2011. So you've seen me in action, you've seen the dynamic calls, and many of my write-ups. I've actually published them seamlessly since the late 1980s. My returns since 2002 — or when you wrote an article about me in early 2003 — are up 800% on a gross basis, versus the S&P's 193% total return.

"The original iteration of my strategy, formulated in my thesis, was essentially a black box, but by the beginning of 1987, I'd decided to make it open-ended. I was constantly finding new indicators and refining the strategy — Even to this day, I've never stopped researching ways to sharpen the strategy's cornerstones and principles."

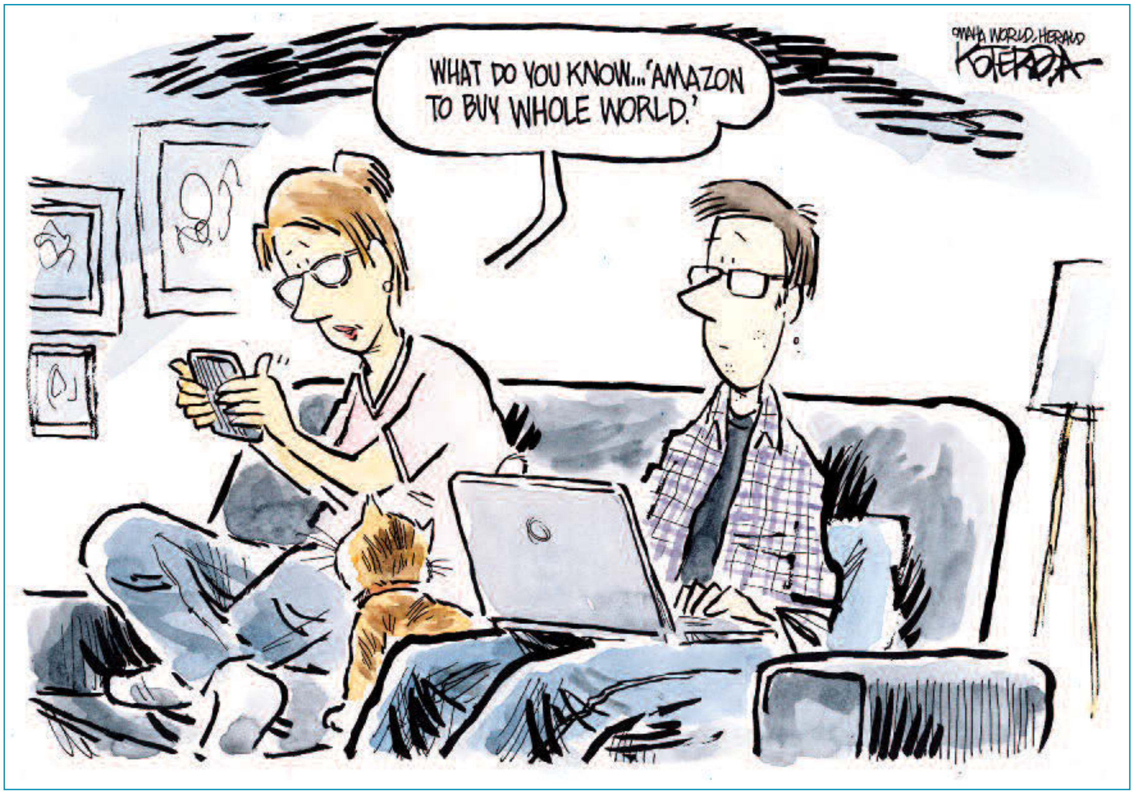
WOW. But go back even further, Steve. What attracted you to the stock market?
Well, when I graduated from the University of Maryland in 1979, with an emphasis in economics and finance, my then-girlfriend's uncle basically said, "Come into the business," so I did. Started working as a broker in the Fort Lee, N.J. office of Gruntal, while going to graduate school at Baruch at night. I focused on emerging growth companies, looking at relative strength, at the Value Line surveys — picking stocks.

***You?* You started as a stock picker?**
Not for long. What I found, between '79 and '81, was that I was picking stocks but the market invariably was deciding my fate. In retrospect, I realized that because the stock market traded in a symmetrical range from '66 to '81, the first thing that was going to determine my investment outcome was getting the direction of the market right.

A "symmetrical" range? How so?
I mean, the Dow Jones Industrial Average had been bouncing between 1,000 and 600 or 700, for 15 years.

So it was spinning its wheels, in effect.

But fortunes were made on those moves.
Right. Which made me think, "Shouldn't I be a market timer rather than a stock picker?" Happily, my realization pretty much coincided with the advent of personal computers. I was one of the first to buy an Apple II. I remember rushing home from the Hamptons — much to my wife's chagrin — in '81 when I got the call it was delivered. It's still in my office reception area — still runs, I think.



Amazon Prime Directive, Jeff Koterba, Omaha World Herald, NE

I guess you didn't buy it to play games —
No. I've been using computers to work diligently on my strategy, full-time, ever since then. My .MBA thesis, in 1984, was based on "*A Random Walk Down Wall Street*" and I like to think that if someone asks me to justify how I am allocated to the market, I could give them a mini-thesis outlining the data-driven reasons for my stance.

I have to ask. Why did you structure Goldman Management as a *commodities trading advisor*, when you're focused on besting the stock market — specifically, the S&P 500 index?
Timing. The No. 1 reason is that I started trading my strategy in 1984. Back then, there weren't any other instruments to use to trade a basket of stocks representing the S&P 500. It wasn't until around 2005, I believe, that SPDRs were introduced.

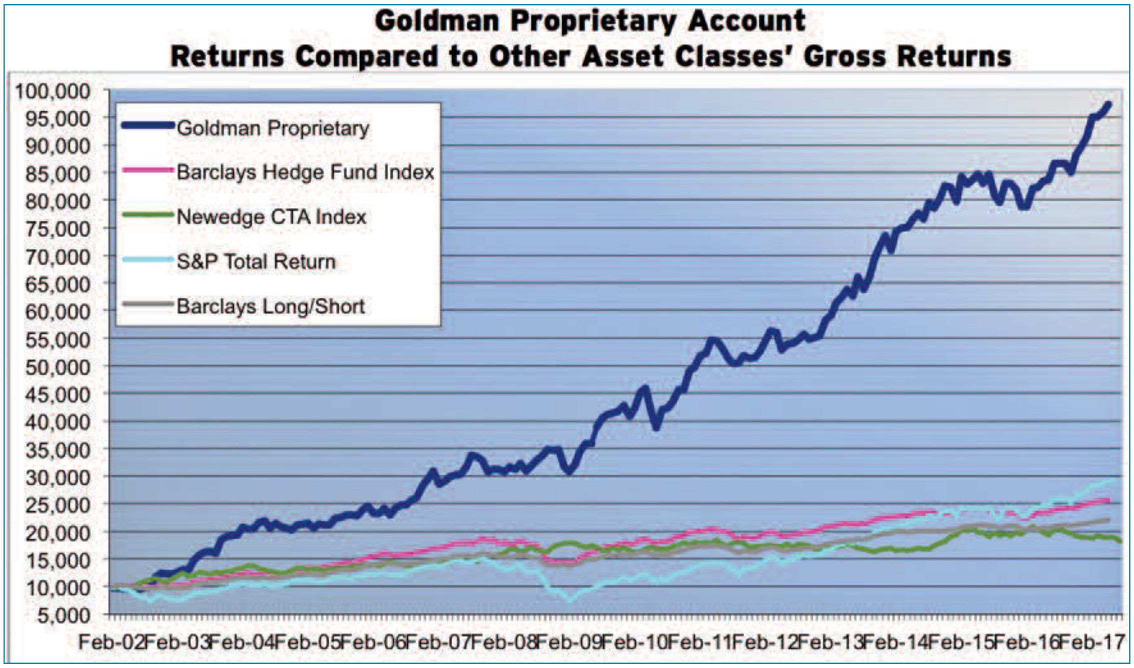
The original iteration of my strategy, formulated in my thesis, was essentially a black box, but by the beginning of 1987, I'd decided to make it open-ended. I was constantly finding new indicators and refining the strategy — so it didn't make sense to stick with a black box model. I also became a discretionary trader at about that time, when I joined Weeden as chief market strategist and a partner. But I've continued to evolve my strategy, to enhance my methodologies. Even to this day, I've never stopped researching ways to sharpen the strategy's cornerstones and principles.

Yet my trading returns have been more or less consistent throughout the decades. Needless, to say, I've upgraded my computer resources considerably, as well!

How did you land at Weeden & Co.?
I talked to a number of people before then, considered joining Michael Steinhardt's Steinhardt Partners and going to Prudential with Jack Schwager, but I decided to go to Weeden because it was a medium-sized firm. I knew I'd have an opportunity to make a name for myself, working with the principals. I'm not aware of many other market strategists in Wall Street who succeeded at one firm over those 26 years. For that, and many other reasons, I'm grateful for working there — and to our special colleagues/partners who created its unusual, family-like environment.

Nobody phoned it in, that's for sure. There were investment opinions aplenty around that desk, but I saw very quickly that yours commanded unusual respect.
Well, that's another reason I'm grateful. I have a number of Weeden employees, past and present, as investors in my fund — and they've known me 20 years or more!

Here's the thing, Steve. If your record is as sterling as you say, why keep tinkering with your strategy? Or is that why it has



Source: All charts courtesy of Goldman Management Inc. ***Past Performance is not necessarily indicative of future results.***

Okay, Goldman Management is a CTA that offers a fund, the Navigator Fund, along with a separate managed account program, to clients. It specializes in discretionary tactical trading in the U.S. stock market through positioning in the S&P and/or domestic stock index futures — and in that process, it applies more than 300 indicators and dozens of models.

While my strategy is discretionary in nature, it relies on the proprietary quantitative indicators and models I've developed. The indicators are both technical and fundamental. My data on many go back daily to the early-1900s. The strategy is well-tested. There's a quantitative structure that is overlaid with a discretionary overview to enhance my ability to fine-tune it. Let me stress that everything that goes into it is data-driven.

You're a quant, first and foremost —
It all goes back to my belief that market timing is one of the most critical aspects of portfolio returns. And my track record, going back to 1987, bears that out. When you review it, what you should find is a high level of consistency in maintaining a high level of stock market exposure — a high correlation — during bull market phases. Also, low levels of exposure — a negative correlation — during corrective phases. You'll also see there's an added element of opportunistically trading to create alpha during major phases. So there are times that I trade around my core positioning.

I've also spent a lot of time allotting the indicators I follow to various groups that help me determine what phase the market is in — and trade accordingly. The principal objective at Goldman Management is to profit from all types markets. To consistently outperform the market with lower volatility throughout market cycles. So gross exposure, over the past decade, has varied from 130% long to minus 40% short.

What do you say to eternal skeptics like me who insist that market timing is ulti-

kept working, as markets have morphed?
After 33 years, I continue to surprise myself that my research opportunities aren't exhausted. I'm continually astonished during the course of the year to find new avenues to pursue in studying the direct and indirect drivers that affect the direction of stock prices. There's still very little that makes me more excited than increasing my knowledge and enhancing my indicators. The best way I can think to describe it is that I've been putting together this mosaic and the more kernels of information I add, the clearer the picture becomes. As I said, the basic principles have worked fine since the 1980s and that continues to this day.

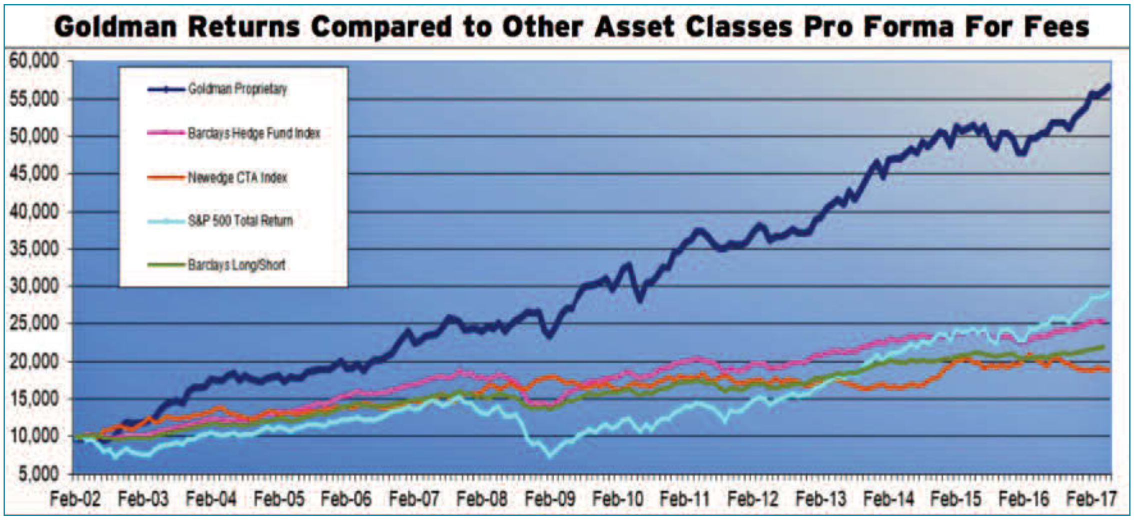
I well know the last thing you'll do is reveal your "secret sauce," but how about describing the strategy's basic principles?
Well, the strategy's basic principles fall into five broad categories — I refer to them as "GMI's cornerstones of investment." They are valuations, sentiment, market internals, monetary environment and macro.

I can be a bit secretive about some of the proprietary ways I combine many indicators, but my investment philosophies and the cornerstones of my analysis are scarcely unique. It's how I interchange them and apply them against historical experience — specifically, the vast data base I've compiled over the last 37 years — that I believe creates alpha.

So tell me as much as you're willing to divulge about what you do in Goldman Management—

mately a futile endeavor? I have to say, the hot hands I've known have inevitably cooled.
That's usually correct.

Why are you the exception?
Well, I've actually shown I can do it for more than 30 years now. I've spent a lifetime developing this strategy — and I continue to devote my life to refining it. Plus, I incorporate multiple disciplines into the strategy. It's multi-dimensional.



Source: All charts courtesy of Goldman Management Inc. ***Past Performance is not necessarily indicative of future results.***

I like to describe the foundation of my strategy as the dynamic discovery, historical testing and rigorous assessment of market data — in pursuit of predictive qualitative factors that directly or indirectly drive stock price behavior. My entire collection of indicators and proprietary models, I employ synergistically to create an ever-evolving strategy focused on predicting market behavior — and emphasizing profiting from those predictions when rewards are attractive, relative to risks.

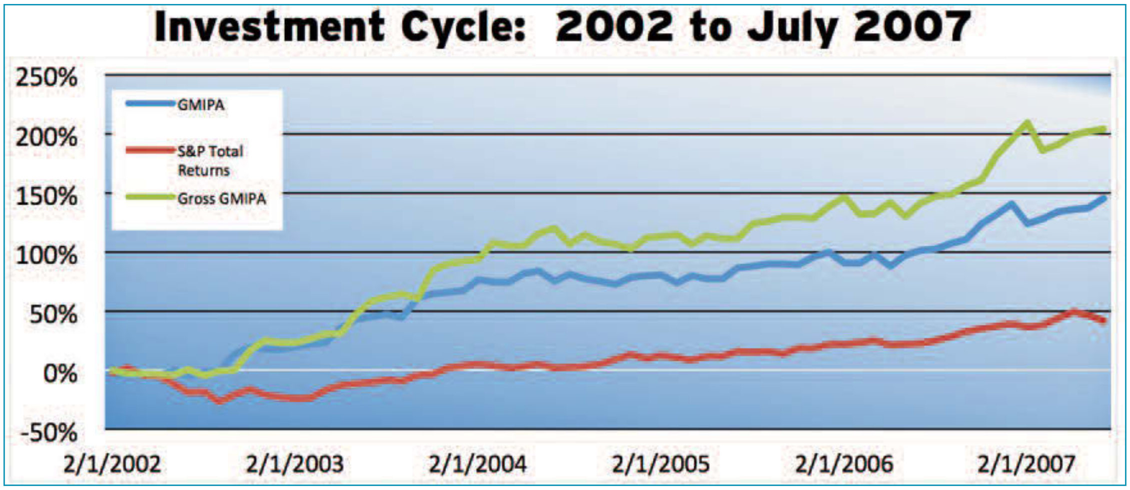
Another way I like to put it is, I'm an economist but I'm not the best economist. I'm a computer programmer — but I'm probably not the best computer programmer. I'm a quantitative person with a vast data base, but it's probably not the most extensive, anywhere. I'm a pretty good tape reader, too, but probably not the best ever.

Then why has your strategy worked so well, for so long?
I once heard the cartoonist, Scot Adams, the creator of *"Dilbert"* say something like, "I'm not the best comedian, and I'm not the best illustrator, but the combination works." It's sort of like that for me. It's really the fact that my strategy combines all the things I've mentioned and more — *and not always in the same ways* — that makes it durable. And the unique models I've developed are employed in varying combinations to increase the predictive power of the data. There are always unique features to market periods, so how do you apply your indicators? It really takes a deep understanding of all of them, in all their permutations, to know when something won't work — and when it will.

But presumably there's a rhyme and a reason in the way you come to that understanding —
How the data and models behave and align in different market cycles and at market inflection points is a key. Value is added through the integration of all these inputs into a quantitative decision matrix. My emphasis is on low-risk entry/exit points. I rely on this quantitative matrix to discretionarily predict market behavior — and to position exposure accordingly in stock index futures. This process has signaled key behavioral phases in the stock market across multiple business cycles.

Before we get to examples, can I get you to be a bit more specific about the sorts of quantitative data you look at? It's not sun spots or Trump's tweet count, is it?
Very funny. The components of my decision matrix typically fall into familiar investment categories — fundamental valuations, stock market structure, market sentiment, momentum measures, overbought/oversold measures, central bank monetary policy, and macro factors. It's when I further distill them into four major decision themes that I call them GMI's cornerstones of investment.

You said one is valuation. How do you employ it?
Market valuation, whether over-valued, under-valued or neutral, is a strong indication of the intermediate term risk/reward for stock prices. In particular, I find that the median P/E ratio on the average stock is a valuable gauge in the short and intermediate time horizon. Then interest rates and risk premiums are frequently factored into the various equations and models to standardize for different economic environments.



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Sentiment is another, I think?
Yes, I use more than three dozen indicators in daily and weekly sentiment models to assess investor expectations. These sentiment indicators are contrarian tools used to pinpoint the market's short-term inflection points, particularly after sell-offs. Interim market bottoms in bull markets frequently are reached as sentiment readings register modestly bearish levels. In an actual bear market bottom, however, sentiment gauges generally need to reach greater bearish extremes.

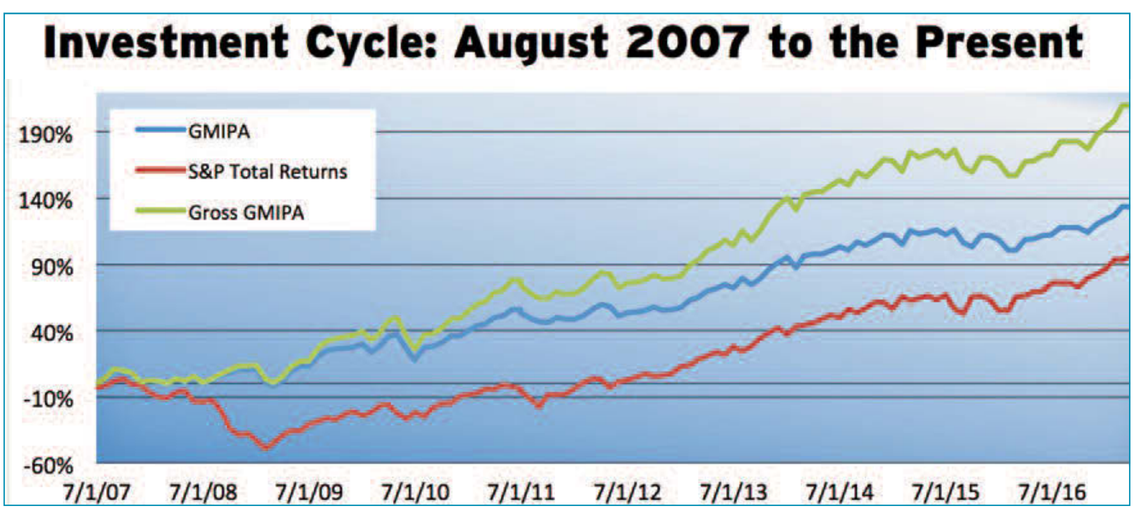
Then what sort of market internals are another cornerstone?
Indicators like momentum, market structure and seasonal factors. Similar to sentiment readings, this group of indicators shows a significant capacity to identify market turns. Momentum readings are derived from strength or acceleration in the rate of stock price change and can indicate the market's likelihood to continue up or down.

And "market structure" refers to evaluating the overall stock market vs. the individual issues and industry groups that comprise it. When broad stock prices continue in an upward direction, but individual stocks and groups start to underperform, stricter risk control measures become necessary.

Okay, your monetary indicators involve Fed watching, I'm guessing —
These days. The monetary environment is strongly influenced by interest rates and macroeconomic circumstances. From the 1950s to 1999, short-term interest rates were a major driver of stock price direction. But, in the aftermath of imploding bubbles in both real estate and stock prices, the Fed aggressively lowered short-term rates to near zero, rendering them less influential. Credit spreads and long-term rates, however, continue to influence the intermediate direction in stock prices.

Are all your cornerstones equally weighted in your analysis?
No, it's the relative alignment of my cornerstones that determines the direction and the potential magnitude of changes in stock prices. Their signals paint a picture of the evolving market environment and become the core drivers of the relative exposure decisions I make for the portfolios. Alpha is created in through the combination of interpreting the cornerstones and selecting the appropriate stock market exposures. If you pressed me to outline the keys to my process, they'd be that its constantly evolving. The research, like the market, is dynamic. It's the interpretation of indicators in varied combinations that creates alpha, not any individual one. No one cornerstone or model is a determining factor or standalone signal. And it's often the alignment of cornerstones that illuminates inflection points in the market — helping determine the direction and potential magnitude of stock price moves.

Source: All charts courtesy of Goldman Management Inc. ***Past Performance is not necessarily indicative of future results.***



Does risk control figure prominently in your strategy?
It's actually integrated

into the whole process. By limiting our investments to futures on a broad domestic stock index, GMI eliminates a large number of idiosyncratic risks usually linked to stock selection — systematic risk. Our risk is distilled down to one core parameter — exposure. And managing it as a function of perceived opportunity — or lack thereof — puts risk control at the center of the process. In other words, exposure levels are dynamically varied based on signal strength — which is analyzed throughout the trade day and can prompt intra-day adjustments of exposure. The relative strength of trading signals is also used to dynamically adjust leverage levels.

How about giving me a specific example of how it all works?

Well, a certain "desert island" indicator worked in the '60s until 2000 — it involved Treasury bills. The stock market would *never* go down — invariably — if interest rates were trending lower. Only when Treasury bills would go up by X percentage points was the stock market potentially vulnerable. Then it turned out the indicator is no longer relevant when bubbles are imploding. It didn't work in Japan, it subsequently didn't work here in 2000, it didn't work in 2007. The lesson, clearly, is that you need a deep and broad understanding of your indicators — when they are going to work and when they're not.

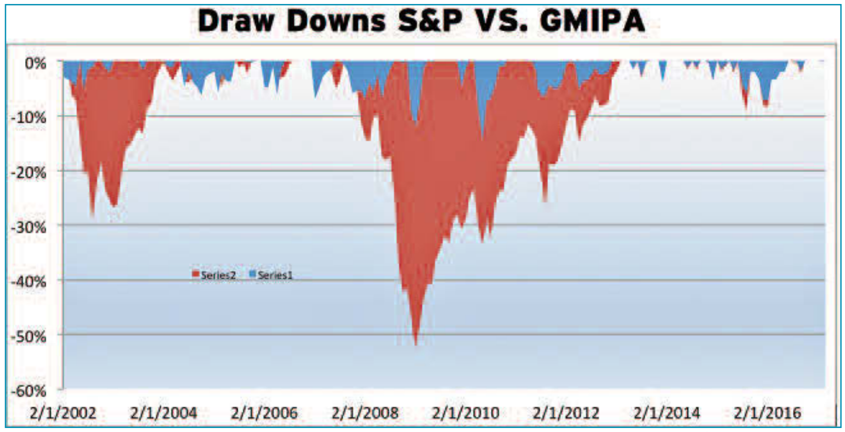
Again, it's my broad-based overview that's most important. At any time, pieces of your radar are going to get knocked down, so it's important to have alternative radars also working for you. It's the breadth of the analysis. It's my 38 years of researching the stock market on a consistent, full-time basis that potentially makes the difference.

Are you saying history doesn't repeat, but it rhymes, and your strategy is tuned to picking up subtle variations in those patterns?

Yes, plus I try to avoid the white noise that is so much market chatter. A lot of faulty narratives get passed around today, ones that just are never researched or analyzed against the data. Having a data-driven, logic- based investment process allows for objective thought — allows you the confidence to implement your trading strategies.

For instance?

It was, what, a year-and-a-half ago, when we went through that January correction, and the consensus quickly became, "we must be heading into a recession." But, if you looked at the 10 indicators that historically signify an increase in risk associated with recessions *not one* was flashing a warning. Yet everybody was saying, "recession."



Source: All charts courtesy of Goldman Management Inc. ***Past Performance is not necessarily indicative of future results.***

And they were enough to sway you?

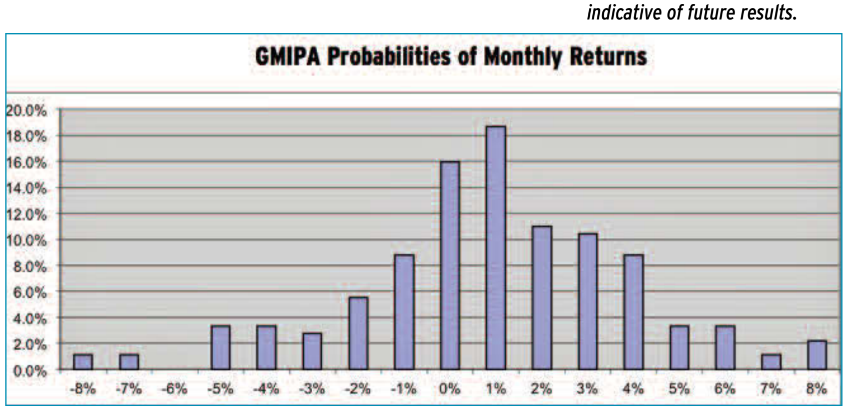
Again, a legacy of evolution is embedded in my confidence in trading the strategy. It's a repeatable, analytical software process, based on the indicators, which embrace a number of economic, fundamental, technical, quant and tape-reading principles — indicators that I've found predictive of subsequent market behavior.

Tape reading is almost a lost art, Steve —

There's a fine-tuning aspect to it that is quantitative. So for me, it isn't a lost art. There's a storyline, there's a poetry, there are certain nuances that come out on the tape. Again, it's not a primary indicator I use. It's when my indicators become conflicting, when the market's risk profile has risen, or when I'm close to implementing a trade (I typically trade in tranches) that I may resort to tape reading. If I have very bullish market projections, then I don't look at the fine-tuning indicators as a determinant.

It's the weight of evidence — the summation of my indicators — that I express in the weighting of my equity exposure. But there's also a timeliness aspect to my indicators that's very important. The indicators fall into timeliness categories ranging from one day to one week, from one month to three months and from six months to one year. And I adjust exposures accordingly.

Source: All charts courtesy of Goldman Management Inc. ***Past Performance is not necessarily indicative of future results.***



It's probably worth mentioning here, too, that your market-timing focus is really short to intermediate term. You rarely look out beyond six months.
That's right.

Do you never feel lost in oceans of data?
No, all of this continuous discovery, historical testing, and rigorous assessment of data is for one purpose: Pursuing predictive, quantitative factors that directly or indirectly affect equity prices. That's the foundation of everything I do at GMI.

Let me emphasize, the last thing I look for are what Buffett has called "desert island" indicators — a single signal that would supposedly be all I'd need, if shipwrecked. No *one* indicator makes a difference for me. It's the combination of indicators that really gives me increased prognosticating power.

I guess another way to put it is that you actually embrace market complexity.
Yes, yes, yes. Correct. And I'm a big proponent of studying history — I've spent my whole career, finding every source imaginable. Reading countless books, ranging from Marty Zweig's *"Winning on Wall Street,"* to Norman Fosback's *"Stock Market Logic"* to all of Ned Davis' guides. Everything I could find that involved quantitative indicators — not just opinions. There were many mentors in the beginning, then eventually you just take flight. I continue to look for new quantitative indicators, but these days the process tends to be more self-exploration than finding others who've discovered kernels. Really, when you have hundreds of indicators, all interacting, you can have literally an infinite number of setups. But you have to find which are significant, by applying your knowledge, understanding your indicators and comparing today's environment with the past.

Let's talk about how you've put all this together to make market calls. You weren't taken by surprise in 2007, I recall.
No, as early as May 2007, I started telling clients at Weeden and in my letters that defensive positioning was warranted. The S&P in that June declined by 1.8%. But my trading returns that month were a positive 0.8%. In July, the S&P fell by 3%, but my trading account climbed by 4.1%. That August, the S&P got hammered, plunging 3.7%, but my trading account rose by 6.6%.

Source: All tables courtesy of Goldman Management Inc.
Past Performance is not necessarily indicative of future results.

S&P 500 Price Change VS GMIPA (excluding fees) "Yearly Market Call"

Date	S&P ROR	GMI Gross	S&P WDD	GMI WDD	Diff in ROR	Diff in WDD
2002	-22.0%	23.2%	-29.0%	-5.2%	45.2%	-23.8%
2003	26.4%	55.7%	-4.4%	-2.0%	29.3%	-2.4%
2004	9.0%	10.4%	-3.2%	-6.3%	1.4%	3.1%
2005	3.0%	12.3%	-4.5%	-3.8%	9.3%	-0.7%
2006	13.6%	23.8%	-3.1%	-5.9%	10.2%	2.8%
2007	3.5%	5.7%	-5.2%	-7.0%	2.2%	1.8%
2008	-38.5%	10.9%	-34.0%	-4.3%	49.4%	-29.7%
2009	23.5%	22.5%	-18.6%	-11.8%	-1.0%	-6.8%
2010	12.8%	14.9%	-13.6%	-14.4%	2.1%	0.8%
2011	0.0%	5.3%	-14.8%	-6.3%	5.3%	-8.5%
2012	13.4%	7.8%	-7.0%	-6.2%	-5.6%	-0.8%
2013	29.6%	32.8%	-3.0%	-2.7%	3.2%	-0.3%
2014	11.4%	11.9%	-3.9%	-3.9%	0.5%	0.0%
2015	-0.7%	-0.5%	-8.9%	-5.9%	0.2%	-3.0%
2016	9.5%	9.8%	-5.5%	-3.9%	0.3%	-1.6%
AVG	4.7%	16.0%	-10.2%	-5.7%	11.3%	-4.5%

Some of the drivers / bullet points that I mentioned during that time in my research reports at Weeden included: Long- term yields moved to the highest level in five years, while the S&P was at an all-time high. Since the 1960's a move to a two- year high in long-term rates accompanied with the S&P at or near a two-year high had occurred seven other times. In those instances, the S&P one month later was fractionally lower and, over the following three months, was lower by nearly 4%.

So?
Later in August, I went so far as to put out an interim report — intra-week — which was something I hardly ever did. But I wanted to stress to clients that market risk had increased another notch in just a few short weeks. The weight of evidence suggested that market gains should become more difficult. Additionally, the earnings yield divided by bond yields, or the risk premium, was nearing zero. In fact, that ratio went to one of its lowest levels in the previous 10 years.

Then, as the month progressed, market structure just kept deteriorating. Recessionary risk over recent months had also steadily increased.

So based on my strategy's cornerstones — the monetary backdrop, valuations and market structure — I was fully expecting a worsening outlook. My record shows that I switched my allocation from an investment stance that summer — which was no longer appropriate — to a trading approach. And my results, which had been highly correlated to the market as it rallied into that summer, became inversely correlated to the market's as my warning signs mounted and then as the crisis hit.

You mentioned earlier that you weren't surprised in the beginning of 2016, like a lot of investors were, as the market suddenly turned south.
The S&P was vulnerable at that juncture, given the weakness in oil prices, the fragile macro backdrop and a topping process that had been etched over the prior six months. Nevertheless, after the pullback, market chatter was increasingly all about a recession. Our premise, based on our signals, was that we'd see a short-lived market decline, similar to those in other non-economic bear markets.

You didn't buy the gloom and doom?

No. Reviewing other non-economic bear markets, we recognized certain characteristics.

Meaning *what*?

We can go back and look at all the historical non-recessionary intermediate-term bear cycles. Even if you look at only the declines since the 1980s, you'll see that 1987, '98 and 2011 were non-recessionary bear markets. But none of those got as depressed as this one did, in one aspect: The two-year rate of change, or the 500-day rate of change, got to zero in this one. In '87, '98 and 2000, it never got down there.

It didn't?

No. After the market decline in 2000, the 500-day rate of change hit 3%. The '98, number, after that 20% decline, with Long-Term Capital's collapse, was still 38%. And after 1987's 30-something-percent decline, the rate of change stood at 8%. So in some ways, this market has been moving sideways for two years. We didn't see that kind of grinding lack of progress, even in those earlier bear periods.

During bearish stretches in the '60s and '70s, we did get the rate of change down to zero, but that was against a very different sort of economic backdrop. Interest rates were a determining factor back then and it took a little longer for higher rates to squelch out the excesses.

Nevertheless, my point is that when the market's 500-day rate of change got down to zero as that retreat in 2016 was first bottoming in January, it was doing it in a *non-recessionary environment*. And history says that when the market drops like that — and the decline is not related to a recession — the median length of that decline is about six months, and the base-building process is short in duration.

Which is pretty much what happened, as I recall.

Well, we had the January low, and then we got a retest in February. Afterwards, we had expectations, based on the data, that we'd be up, from the bottom — by 25% in about a year. The actual result was that we were up 27% a year later. Now again, that call wasn't based on just one indicator. It was the summation of all my indicators. But it happened that in looking at them, there was a big-picture theme to be discerned, the non-recessionary bear market.

Of course almost nobody called December-January affair a bear market back then. They were too fixated on FANGs, and the more typical longer-term 20% decline definition of a bear market.

Well, as you know, my focus is on market timing, so I watch short and intermediate-term market moves. Peak to trough, the S&P fell 15% that December-January, but its rate of change went down to zero. The overall decline was moderated because interest rates were nosediving at the same time, holding up the defensive sectors of the market. The S&P probably would have been down 20%, if it wasn't for that huge decline in interest rates. And financial stocks retreated 25%. As it happens, that is also a meaningful indicator in my toolbox.

Does your kit include ice water for your veins? You never seem nervous, even when your conviction waxes and wanes.

I guess what you could say is that I'm the product of my objective quantitative indicators at this point. I don't have an opinion, I don't have views. I have data and probabilities. It's a big difference.

That's what my track record demonstrates. There's an audit report posted on my website [www.goldmanmgt.com] where you can see the Arthur Bell report on my personal account from 2002 to 2012, which was managed exactly the way I've always handled client accounts. And, of course, my CTA performance going back to 2002 is also displayed, along with my recent letters to investors.

Tracking just my market calls as such (top chart, page 4) — without management fees etc. — I've produced a roughly a 16% annualized return over the past 15 years. My gross Sharpe ratio is 1..4 — that's three times the S&P's. My gross Sortino ratio is three times the S&P's, at 2.8, or about 5 times the S&P's. And if you add in the '87 period, those rates of returns get closer to 20%.

The other very long-term chart (top chart, page 5) reflects a comparison of other assets classes to the same Value Added Monthly Index of my propri-

The 16 Best and Worst Monthly Performances in the S&P 500 vs. GMIPA

Best Months	S&P Best Gains	GMI	Worse Months	S&P Worst Declines	GMI
10/1/2011	10.80%	2.30%	10/1/2008	-16.83%	2.60%
4/1/2009	9.39%	7.20%	2/1/2009	-10.99%	-3.00%
9/1/2010	8.80%	2.40%	9/1/2002	-10.97%	0.59%
10/1/2002	8.63%	14.40%	9/1/2008	-9.21%	2.10%
3/1/2009	8.54%	4.40%	6/1/2008	-8.60%	-4.30%
4/1/2003	8.11%	0.50%	1/1/2009	-8.58%	-9.10%
7/1/2009	7.40%	6.60%	5/1/2010	-8.20%	-8.30%
7/1/2010	6.88%	8.40%	7/1/2002	-7.93%	-5.12%
12/1/2010	6.53%	5.80%	11/1/2008	-7.54%	-0.40%
11/1/2009	5.74%	0.63%	6/1/2002	-7.22%	4.81%
11/1/2002	5.70%	5.91%	9/1/2011	-7.20%	-0.10%
10/1/2003	5.50%	12.60%	5/1/2012	-6.30%	-4.60%
3/1/2010	5.41%	5.60%	4/1/2002	-6.14%	-0.40%
5/1/2009	5.32%	3.40%	1/1/2008	-6.11%	-0.90%
1/1/2013	5.05%	4.00%	12/1/2002	-6.02%	-1.20%
78.0%	7.2%	5.6%	21.0%	-8.5%	-1.8%

Source: All tables courtesy of Goldman Management Inc. Past Performance is not necessarily indicative of future results.

etary account's performance going back to 2002 — but it's adjusted to show the results net of performance fees (a 20% pro forma annual incentive fee and a pro forma monthly management fee of 1% per annum). It is intended to show what the rates of return would have been under GMI's current fee structure.

It's fair to say, then, that my proprietary account has demonstrated superior risk-adjusted performance over several market cycles — and the two charts on page 6 show my long-term record broken down into those full market cycles. The first, between 2002 and June, 2007. And the second, from August 2007 through to the present. The strategy has had only one losing year in the last 15 years. That was in 2015, when it was down by four-tenths of a basis point, gross, and by 1.4%, net. My second-worst year in the pure market-timing portfolio was actually *up* 5.3%.

What about intra-year roller coaster rides?
If you look (table, bottom this page) at my worst draw downs during the years between 2002 and currently — the highest monthly peak to lowest monthly peak — they've averaged minus 5.67%. I've tended to recoup 70%-100% of the losses, on average, within 2.7 months. Again, my returns are 877% vs. a 193% return in the S&P — and that outperformance was do to the avoidance of bear markets.

To review, from February 2002 to the bear market low in September of 2002, the market dropped 29% — but I lost only 35 basis points in that decline. The other ugly bear market was between June of 2007 and March of 2009, when the S&P 500 declined by 52.6%. I gained 2.1% during that stretch. On a cumulative basis, the S&P lost 79% while I gained 1.75% (gross basis).

What are your numbers over the full cycles?
Again, if you measure from the peak in February 2002 to the 2007 peak, the S&P returned 46.5%. My return in the same period was 208%, gross.

Measured the same way, in the still-incomplete "full cycle" from July 2007 to the present, the S&P is up just under 90% and my return (gross) is about 190%.

The other thing prospective clients like to look at is how often am I wrong? One measure I use to give them an idea of that is how often have I lost more than 1% within a six-month window. Historically, this has occurred 12% of the time.

Prospective clients must also focus on how much it'll cost them to implement your strategy, given that you trade a lot.
As I said, my managed accounts program charges 1% and 20%. But my trading costs are almost insignificant. Not even a fraction of a decimal point. I don't really trade that much — and you can trade $125,000 worth of futures, round trip, for $6-$7. The market in S&P futures is quite liquid, so I should be able to scale my strategy fairly easily. There's also a tax break, by the way, because it's 60/40 long term /short term trades Plus, in the futures markets, you don't have to put up all the money to take a position, just a down payment. But if you want to put up all the money — avoid leverage — you get paid interest on your money. Which is starting to add up again, finally, at 1.25%.

Finally — though they're not audited because, while I have all my documents, the auditors weren't able to verify them all against independent records — you've seen all my numbers back to 1987. My returns during those were in excess of 20% annually.

They look impressive, even if it pretty much seems today we're in an entirely different investment universe. So what are your indicators telling you about today's market environment?
Some of the things that are relevant presently from an intermediate-term perspective is that in early-February we were getting the kind of momentum projections that tend to last over the next six months. They're not enormously significant momentum projections, but they did suggest that the skew of the gain — meaning the rate of gain, versus draw downs, should stay very shallow, with modest projections going forward.

Well, that six-month stretch is fast-approaching its end —
But most recently, minor momentum signals were rendered, as well...implying the trend is intact. The end result, as I was anticipating in February, will probably be no more than about a 10% gain in this advance's first six months and then maybe 5% in its second half.

As you may recall from the monthly letters I sent out late last year, I've been detailing some reasons that the usual drops in earnings and in estimate revisions, which we often see as a year progresses, might be less troublesome this year, than they have been in the past. That has been something I've continued seeing as this year has progressed.

There was actually a study put out by McKinsey not that long ago that found Wall Street analysts had meaningfully cut their annual earnings estimates during every year from 1985 to 2008 — except in two years, 2005 and 2006. But this year, we're seeing analysts cautiously *raising* their earnings estimates. I bring this up because if you look at S&P performance during '05 and '06, returns were very good in each year's second half — as what was happening with earnings became obvious.

Do you have a sense of what's driving the rise in earnings?

One of the main determinants regarding earnings is the firming in the industrial metals prices. This group's profits declined by roughly 25% from 2014 to January 2016 — and earnings expectations declined rapidly, as well, which led to an earnings recession. But in the past nine months, global PMIs have been improving.

And another of the indicators I've often mentioned as a driver of the market is the Industrials CRB (ICRB). If you look at that index, which is a proxy for how things are going on a global basis — because it tracks industrial commodities used in production, not traded — it has been in a bear market for years. Yet lo and behold, near the bottom of the market in February '16 — it didn't even confirm that retest of the S&P's December 15 lows. The CRB Industrials were actually turning up that February. I believe that's part of the reason earnings have stabilized.

Still, don't valuations give you pause?

Well, let's look at valuations from the last peak, in 2007 (although market didn't decline because of valuations alone, other factors became more relevant). The P/E ratio in '07 was 16.75 and presently we have a P/E of 18.35, based on our expected year end P/E ratio.

Like I said —

But if you look at the earnings yield — if we divide 1 by 16.75 — that was a 2007 earnings yield of 6%. But the bond market was at 4.50% to 5.30%, so the spread was 100-50 basis points. Presently, you have a P/E of 18.35, which gives you an earnings yield of 5.44% and bonds are at 2.50%. That's a risk premium spread of 300 basis points now, versus 100 basis points in 2007.

So the earnings yield on stocks is now offering a much higher premium to what's available on bonds.

Exactly. It's a bigger premium spread. And again, there's no real divergences in my indicators here.

Okay, mission accomplished on your call last year. But what's your new big theme now — or is there one?

There is — and this is important. There are two types of tightening cycles. I guess what people would say is that soft landings are hard for the Fed to mediate. Because if you look at all the times, historically, that the Fed has instituted tightening cycles, inevitably, risk has tended to increase as the years progressed. Eventually, the market had a problem — in all cases, more or less. If you look at Goldman Sachs's work, they put out a release saying, "recession probability rises from low levels." Their measure is up to a 30%-32% recessionary risk over the next 9 quarters. Their probability has moved up coincidentally with each hike in interest rates the Fed has made.

What's that old saying about "three steps and a stumble?" It was like clockwork.

Right. As soon as the Fed stopped QE, boy, that was what everybody said was going to happen. Now, they're saying the same kinds of things about Europe stopping QE. But the reality is, if you look through history there are different types of tightening cycles — ones with different phases and I like to look at the different types.

How are they different?

The variations have to do with the speed of the hikes and the sizes of the hikes. There are fast cycles and slow cycles, and different variations even within those. You can really break it down into three, four five different sets of periods. And once you start reviewing all of those, what you find is that it is critical to look at where market rates were during those cycles. This most recent tightening cycle, as just about everyone expected, is turning out to be a slow tightening cycle. But they're not all alike.

So what does it mean that you're calling this one "slow?"

Tightening cycles that I'd classify as slow have initially been generally favorable periods for equity prices — for at least a year, year and a half. We've had four of them (before this one) since 1955. For instance, in the tightening cycle that began in April 1955, market rates rose by roughly 40 basis points over the first year — and the market did fine. But in the second year, rates moved up 150 basis points — and markets succumbed to that. If we look at the period starting in September '58, it took rates about a year and a half to really move higher and start impacting stocks. In other words, not until about a year and a half into a tightening period, in these cases was there an amber light flashing for equity investors.

What about in the other half of your "slow" historical examples?

Likewise, in the cycle starting in '77, rates went up considerably in the second to third years, and that's when stocks suffered. The exception was the period beginning in '63, when rates did *not* shoot up. And so far in this cycle, they have *not*. Again, in all the other tightening periods, when market rates eventually shot up, the stock market responded by weakening. Actually, this occurred in both fast cycles and slow ones. In slow ones, it just took longer, but eventually, market rates exploded and the stocks imploded.

So elaborate a little about what you're implying about 1963 and this cycle?

In '63, it took until the third year (post-the-first-hike) for the stock market to become vulnerable — because interest rates had just flat-lined until then. If you look at the Fed's current tightening efforts, now, after four hikes in interest rates, rates have pretty much flat-lined, and stocks are up. After the first hike, the S&P had gained 9%; 19 months later, we're up 19%.

In reviewing all four of the four prior "slow" tightening periods, the stock market did eventually start to struggle on average and eventually declined — *but not until market interest rates began to increase in a disorderly fashion.*

So market risk rose during these slow tightening periods, but not beginning until at least a year after the Fed's first move. And that was also very much dependent on how market rates behaved. This time around, market rates, such as on 3- and 10-year notes, stood at 1.35% and 2.27%, respectively, when the Fed initially raised the fed funds rate. At the end of June, the 3-year note stood at 1.55% and the 10-year rate at 2.30%. They've barely budged!

So we can expect stocks to keep on rallying, like in '63-'64?

Well, that was the only similar period. In that slow tightening cycle in 1963-'64, interest rates had risen by all of roughly 10 basis points one year after the initial hike. By the end of the second anniversary, they'd risen by only another 5-10 basis points. Well, two years after that initial hike in 1963 — helped by those "tame" market rates — stock prices had advanced by 32%. Indeed, the stock market escaped that tightening cycle without succumbing. Right now, in this cycle, market rates are virtually unchanged — which hasn't happened since '63,- '64. So we *might* be following a similar path.

I know that "Goldie" tone to your voice — you're not ready to jump out on that limb.

You also know I never rely on just one indicator, or reading. I'm always weighing all the evidence I can find. I will tell you, though that I'm also seeing some similarities between the periods in terms of momentum. In early '64, the S&P's total return went up for six consecutive months, rising by 10.5%. Then it gained an addditional 5% in the second half, for a total return of 16.3%. I'm wondering if something like that may not be accomplished here, given how 2017 has started.

Yet another possible parallel I've noticed is that the maximum intra-period draw down in 1964 was one of the best numbers on record, only 3.5%. Only 1995, at 2.5%, and this year's 2.8% maximum drawdown — so far — have ever been better. As I've said, it's the way indicators combine and reinforce each other — or not — that tends to modulate my outlook and confidence.

Interesting. So are today's placid volatility readings adding another thread to your tapestry?

Well, one of the outliers here in the first half *was* the very low volatility in stocks. And again, if you look through the historical record, you'll find that very low vol was also a feature of the 1964 market. So we seem to be repeating that, as well. Part of what probably has been supporting this buoyancy are expectations that we will see changes in tax rates for corporations. I think that's been a significant influence on the market's ability to maintain this orderly advance and not succumb, despite the evident disarray in Congress. It should be noted that the S&P's forward P/E prior to the election was 16.5 and it presently stands at 17.5, as the S&P has advanced by roughly 16%. So the forward P/E has risen only by 6%. That tells me that the majority of the advance has earnings-driven and only about 6% of it has ridden on the back of optimism about seeing the GOP fulfill mandates such as lower corporate taxes.

So you're actually pretty sanguine —

Listen, right now, interest rates are tame, there are no excesses, inflation is rolling over yet everybody is concerned about wage inflation. Usually, this long after the Fed has started hiking, interest rate markets are disorderly and the Fed has to get aggressive to rein in excesses in the economy and markets. But here, speculation is rather quiet, excesses aren't pervasive — and it's still a pretty calm environment for investors. So that's the big theme here, to me.

Goldilocks? That's your theme, Goldie?

I grant you, that is a vague term often used to describe an economy "not too hot and too cold." What's different here is that we have Goldilocks while the Fed is raising rates. Goldilocks usually doesn't enter the picture when the Fed is raising rates. But again, up to a couple, three weeks ago, we were seeing aggressive stocks, defensive stocks, techs, even the average stock — all boats were being lifted in this Goldilocks environment.

The market climbed over 100 days without as much as a 1% correction; we went 70 weeks without a 2% weekly pullback. When I run through my indicators here, what tends to show up these days is usually skewed toward a decent environment going forward. So, though the market is typically vulnerable to excesses at this later stage of the cycle, there really aren't any excesses — so there still seems to be a window of opportunity for equity investors.

I don't want to sound like a broken record, but valuations at these elevated levels historically haven't been portents of good things to come.

Well, the average stock *is* a bit questionable here. But I think the expectation is for earnings to improve. It may take dynamic scoring, but if the effective tax rate on corporate earnings of 28% is cut by 4 or 5 percentage points, that will help the S&P 500. If the tax rate on average stocks — which is closer to 35% — is slashed to, say, 20%, it would certainly help melt valuation concerns.

The other thing — if you look historically at the correlation of forward P/Es to one-year returns, it is like 0.10. Now, if you look at forward P/Es to five-year returns, the correlation is 0.42. But I'm never trying to look that far out. And who knows what tax changes we may get next year, or even this year?

I wouldn't place any bets on Congress or the White House. But it's clear that little things like the age of this economic expansion and high valuations don't daunt you.

True. People talk about the VIX being low and worry about low interest rates, but I don't hear a lot of complaints about GDP *volatility* also being low. There's a real calm in the economy — and the markets love calm. There are no rates flaring up, GDP volatility isn't spiking. And it's this calm environment that may possibly allow us to break another record soon — 106 months without a recession. That was set in the non-recessionary 1961-'69 market cycle. This expansion is already 85 months or so old, and it looks likely we may break that record in 20-21 months. Sometimes we don't look at the positives enough.

Guilty. But I feel duty-bound to remind you that a nasty, decade-long bear market followed the Go-Go Years of the '60s.

Yes — and I know this question always gets you in trouble. But shouldn't we *maybe* be looking at this market as different from others?

This time is different?

Isn't every period? In most every other period, we've always concerned ourselves with whether rates could go to 4, 5, 6, 7%. But maybe we're a no-worrying environment where rates may eventually only go to 3.5%? Well, if rates are only going to go to 3.5%, where does one invest? Aren't stocks maybe looking a little bit more attractive? Maybe valuations are on a somewhat different plateau than in previous periods when rates had the potential to go to 7%.

Is that what you are suggesting?

I'm not. But I think those questions need to be asked — pondered. And speaking of different. You once asked me, I think in exasperation, what makes me different. Well, one thing I do differently than most analysts is the way — physically — I look at data.

What do you mean?

Well, when we look at a table of data (at least in the West), we read it left to right. A quant, like me, does it the same way, looking at the data chronologically. When chartists, however, look at a chart formation, say, a head and shoulders top, they read it from right to left. But when you're looking right to left, you tend to have selective perception — focus on the most-recent occurrence — and don't tend to notice, for instance, a previous head and shoulders that didn't work. You only notice when a head & shoulders *does work*. As a quant, I can software code for every instance of a signal and see how often it works, instead of being blinded by selection bias.

What are you getting at?

Well, the cumulative A/D line is a generic tool for technicians, right? It is said that every bear market is preceded by the A/D line topping out. So if I were to say to you that the A/D line is topping out now, what would you say?

Market activity is narrowing?

Well, most would say, a bear market is coming. Because they're are being highly selective, focusing on the current "topping pattern." But if you review that data in chronological order, you may see that the A/D line has reached that level numerous times — and only 50% of the time has that been followed by a bear market. My argument is that you have to filter raw data from the beginning to develop a big picture view.

The trick is making sense of it all —
I will say this: I really study all that I can about the economy and the markets — then quantify all the data I find into a logical perspective. A logical perspective that can be called on to illuminate events as they are unfolding. In the summer of 2011, I found I couldn't sleep at night. Within a fortnight, short-term rates in Italy had shot up substantially, yet the markets were still eerily calm. But then I suddenly understood what that meant. So I lowered my exposure to the market by 80% — to 20% from 100% — while the S&P was still near its highs. It was just about understanding that worrisome logical sequence of events.

So Italy's rate spike tipped your scales?
Right. I had already been thinking that market upside was going to be challenging from there, given my indicators. Then we had that exogenous event. Again, it's about doing all the research and knowing and trusting your indicators. There's all sorts of noise in the markets all the time. But the collective wisdom of my indicators helps me separate out the noise and alerts me ahead of game-changing events.

You're pretty fully invested now, I take it?
Since I increased my exposure after the weekend before last fall's election, my allocation has held pretty steady at around 105% gross long.

So you're not leveraged to the gills, but you are more than fully invested.
Well, I'm expecting 5%, as I said, in the second half. But there's always a chance the wheels fall off the bus, given the political turmoil. And, in general, I think there's a certain fragileness — ever since since '09 — to the global economies. Something that wasn't there, prior to the financial crisis. Before that, one could feel much more confident in your indicators, soley based on domestic influences. Now, macro events have to be factored into the equation.

You've added a lot of international inputs?
Not exactly. I do have a mousetrap that I put together, regarding the global participation in key market indexes, as a subset of market internals now. And for a while a few years ago, I was waking up at 3:15 am to check on how Germany was doing. There were studies then that said a lot of the market gains that showed up in the futures later in the day originated in Germany in the wee hours. But mine is still a domestic strategy, based mostly on domestic indicators. Still, because of this fragileness in many global economies — which interact with our own somewhat fragile economy, I can't have the same confidence I once had that all my factors will be as predictive. I'm having to take into consideration all sorts of nuances in the strategy that are exerted by exogenous events, whether in Greece or Italy, Spain or China, Japan or Korea. It's another level of concerns.

So that's why you're not leveraging way up?
Well, in answer to your earlier question, I don't think many investors are very anxious to see levered portfolios here. In fact, it makes them anxious.

Who isn't?
I could probably write a mini-thesis on all the reasons I have for my allocations where they are. But in terms of this market, as I said, there just aren't a lot of things causing me to worry —

You haven't mentioned debt levels. Although rates are low, "too much debt" is a frequent rallying cry in the Street and in Congress.
Debt *is* high as a percentage of GDP. But there's usually a catalyst. In 2007, there was a financial catalyst. In 2002, there was an aneurism on the bubble in the valuations on technology stocks while the whole market was being held up by just a handful of large-cap tech stocks. In '98, there were tremendous structural problems in the market. And markets just tend to exhaust themselves, as well. Again, none of that is evident today.

In fact, much of the market looks just so — mundane — today, that it's a bit hard to get very animated about it. But that's part of what is giving it legs.

What I wonder about, Steve, is why you're not running billions, considering your track record — even if you are organized, unfashionably, as a CTA.
You're right, I suppose, I should be doing more to market my performance. But I have only so much bandwidth, and you know me, marketing isn't my thing. I'm still spending almost all my time slaving away, working on refining my process. I will say, too, that the scars many people carry around from 2000 and 2007-2008 are still affecting investor behavior. Probably will for at least a generation. And that makes it tough.

How much do you have in your fund and managed account program?
I have about $60 million in AUM. Not as much as I'd like, clearly, and I *am* working to attract more investors. I will note that because I'm a CTA and my information is in a CTA database, it tends to be seen

by CTA-oriented investors. Many of whom aren't terribly happy these days. The CTA Index that SocGen puts together, using the performance of top CTA funds, has been flat since 2009.

So it's my bad luck to be competing in a universe that's being tarred by bad performance. GDP is not moving much, identifiable major trends aren't developing, and the investors tending to look in the CTA data base aren't in the mood to add funds.

Then too, I'm not considered part of the hedge fund community because I'm not dealing in stocks and I'm not dealing in SPDRs; I'm dealing in futures. That has limited my ability to market to hedge funds — I can't get listed in their databases. I've been working on some ways to perhaps surmount those hurdles, but I can't announce anything yet.

The obvious critical question is whether your strategy would work as well if you did add considerably more assets.

Right. So I want to stress this. Sometimes, depending on the instruments they're employing and which markets they're active in, portfolio managers can experience real difficulties trying to scale up. In the small-cap arena, for instance, a fund with only \$3 million or \$4 million to invest may have very different performance characteristics than a fund with \$250 million, much less \$500 million. Liquidity is an issue.

No kidding.

But whether you're managing a \$3 million program in S&P futures or a \$100 million program, there's no difference. There's no slippage. In fact, the bid/offer is \$100 million. So I could most likely run \$1 billion in my strategy and see no slippage.

Couldn't you apply your strategy to stock index ETFs or SPDRs?

The problem is, then I couldn't use my track record. And the regulatory issues would be off the charts. That said, I have 100% of my liquid net worth in this strategy, \$12 million. This is really my net worth vessel. And I'm really proud of my pure market calls record, as reflected in that VAMI chart [value added monthly index], with all its upward-sloping V-shaped bottoms. [Page 4] What that shows is that 88% of the time, my returns are growing, based on a six-month window.

I've got to admit, I've never though it possible to consistently time the market correctly. You're a rare bird. Thanks, Steve.

WellingonWallSt. interviewee disclosure. Steven Goldman has been the Principal, the founder, the sole director and shareholder of Goldman Management, Inc., a commodities trading advisory firm based in Springfield, N.J., since October 1985. He has been registered as an Associated Person of GMI since January 1986. He is responsible for all aspects of the firm's operations including market research, trading operations and management. Steve, who also answers to "Goldie," received a Bachelor's of Science degree from the University of Maryland in 1979, with an emphasis in economics and finance. He received a Master's in Business Administration in 1984 from the Zicklin School of Business, Baruch College with an emphasis in economics. From April 1986 to September 2011, Steve served as the Chief Market Strategist and a partner at Weeden & Co, LP. The Greenwich, Ct.-based firm was founded in 1922 and is a medium-size institutional equity brokerage company, which provides execution services for institutional clients. As such, Kate Welling was a colleague of Steve's while she also was a partner in Weeden from 1999 to 2014. Mr. Goldman still presently owns a minority stake in the firm. Kate has fully divested.

GMI offers clients a managed account program based on its proprietary trading strategy that is a product of over 30 years of rigorous research developing tools to forecast the short term, intermediate and long term direction in stock indexes. The strategy seeks capital appreciation of client assets through speculative trading in stock index futures. There is no representation being made that these programs will be successful in achieving this goal. Hundred of indicators and models are employed, using a quantitative analysis, many of these indicators date back to the early 1900's. These indicators comprise the principals of both technical and fundamental analysis. The risk of loss in trading commodities can be substantial. You should therefore carefully consider whether such trading is suitable for you in light of your financial condition. Past performance is not necessarily indicative of future results. The principle objective of GM is to profit from all types of markets while using strict control measures to minimize risk. Analysis and research into improving systems and strategies is an ongoing process. It may be determined minor modifications to one or more trading models would improve performance. New systems and or models may be added, removed or modified for future use. Managed account clients will not be informed with respect to such minor changes in GM trading methods. The program enters both long and short positions and the level of investment varies.

GMI's program is only open to investors fitting the definition of a "qualified eligible person" as that term is defined under Commodity Futures Trading Commission ("CFTC") Regulation 4.7(a). An investment in the GMI's program, like all investments, contains risk including the risk of total loss. Trading in commodity futures involves significant risk of loss, and is thus not appropriate for all investors. This presentation is not an offer to buy or sell, nor a solicitation of an offer to buy or sell financial instrument. An investment with GMI may be made only by clients after receipt of GMI's Disclosure Document and execution of the appropriate agreements by such clients, and only in those jurisdictions where permitted by law. GMI is an exempt Commodity Trading Advisor under CFTC Regulation 4.7, and therefore is not required to adhere to certain disclosure, reporting and recordkeeping requirements under the Commodity Exchange Act ("CEA").

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