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JOEL GREENBLATT

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About Joel Greenblatt 2

Debriefing Greenblatt 3

Greenblatt in *Forbes*

"Books Can Make You Rich," 12/21/09.............................. 7
"Value In Construction, Not Housing," 09/30/09.................. 9
"Five Little Book Stocks That Beat The Market," 03/31/09...... 12
"Beat The Market With Magic Stocks," 01/30/07.................. 19

The Greenblatt Interview 19

ABOUT JOEL GREENBLATT

Intelligent Investing with Steve Forbes

Joel Greenblatt is the founder and managing partner of the hedge fund Gotham Capital. He is also the co-founder of Formula Investing, an investment system that offers a value-based investment strategy chronicled in one of Greenblatt's books called *The Little Book That Beats The Market*.

Greenblatt is chairman of Harlem Success Academy I and III and the Success Charter Network, which is a chain of charter schools in New York City. He is also the former chairman of the board of Alliant Techsystems, an aerospace and defense company.

Greenblatt has been an adjunct professor at the Columbia Business School since 1996 where he teaches value and special situation investing. Greenblatt also wrote *You Can Be A Stock Market Genius*.

Greenblatt received his bachelors degree and MBA from the Wharton School at the University of Pennsylvania.

DEBRIEFING GREENBLATT

Intelligent Investing with Steve Forbes

Interview conducted by Alexandra Zendrian
January 22, 2010

Forbes: Can you describe the magic formula for investing and how you came up with it?

Joel Greenblatt: This is what I wrote the book about five years ago. It follows the principles I've used in investing since I started my firm in 1985 and I've been teaching at Columbia for the past 14 years and these are the principles I've used to teach. And about seven or eight years ago, we set out to test it.

And the two things I look at are earnings yield, which is how cheap is the company. A simple earnings yield would be the inverse of the P/E ratio or earnings to price. So, in other words, if something earned $2 and it cost you $10 a share, you'd have a 20% earnings yield.

We use a more sophisticated metric than just earnings, than just price. But the concept is the same. We use EBIT – earnings before interest and taxes – and we compare that to enterprise value, which is the market value of a company's stock plus the long-term debt that a company has. That adjusts for companies that have different ratios of leverage, different tax rates, all those things. But the concept is still the same. We want to get more earnings for the price we're paying.

And that was sort of the principles that Benjamin Graham taught, meaning that cheap is good. If you buy cheap, you leave yourself a large margin of safety. Warren Buffett had a twist on that and said, "Gee, it's nice to buy cheap things but I also like to buy good businesses." So if I could buy good businesses at a cheap price, it's better than just cheap.

So we have another metric that we look at in the magic formula which tries to determine those companies that are in better businesses. So we look at a business' return on capital. I described in my book the example that I gave to my son which is he had a friend that used to buy a pack of gum before he went to school with five sticks of gum in it. And he paid 25 cents for the pack of gum and at school he'd sell each stick of gum for 25 cents. So he would collect $1.25 and the pack would cost him a quarter and he would make a dollar for every pack he sold in school. So we supposed that his friend grew up and opened a chain of gum stores. And let's say to set up a store with inventory in the whole store, displays and everything else it costs $400,000 to open a gum store. And each year one of those gum stores earn $200,000 a year. So the cost of setting up the gum store is $400,000 and each year it spits out $200,000 a year in profit. So that's a business that earns a 50% return on capital. Then I said, "Let's suppose we have another business and I called that 'Just Broccoli' and it was also a store but only sold broccoli." But it still cost $400,000 to open a store. Each year, that store only earned $10,000. So that's a 2.5%

return on capital. So we simply say that a business that earns the higher return on capital [is better].

So what the magic formula does is ranks companies first according to cheapness based on their earnings yield; the higher the earnings yield, the cheaper it is. So you rank all companies, thousands of companies based on how cheap they are based on their earnings yield. Then in a totally separate way you rank all companies again, but this time you're just ranking them based on their return on capital; the higher the better. So you do two rankings – one just based on cheapness and one based on return on capital. Then what the magic formula does is combine those rankings. So, in other words, if you were the cheapest company on this list, you'd get a 1 for cheapness and if you were the 200th highest return on capital, your combined score would be 201. If you were the 60th cheapest out of 2,000 companies and you were the 60th best return on capital, you'd get a combined score of 120. So you want to get close to 2, which is the best you could do. So the 120 score would come out better than the company that was the cheapest in the universe, which was 201.

So we're not looking for the cheapest company, we're not looking for the best return on capital, we're looking for those companies that have the best combinations of those two. And we rank all companies with this combined ranking and then we just buy the top batch. What we're trying to get at is buying above-average companies, high return on capital companies but only when they're available at below-average prices.

Since you've tested this formula, how often does it work?

It works a lot. In the book, I tested the 17 years prior to the book. So 1988 to 2004. And you can see those results in the book. But for the purposes of Formula Investing, the business that we set up to take advantage of this formula, we back-tested the last 10 years. So we updated another five years. So the results are that over the last 10 years, the S&P 500 is actually down. These are from statistics through September 30, 2009. So the S&P was actually down 1.5% during that period. If you followed this strategy, you would have been up 289% during that same period. That's quadrupling your money when the market was down.

Over the last five years since I wrote the book, you would have been up 75% versus the market up 5%. So it's continued to beat the market; over that 10 year period, you beat the market by over 14.5% a year annualized and over the last five years about 11%.

Do you think that the formula would do equally well in an up market?

It's a strategy where you buy the top list of stocks. We're buying the top 24. It does well in both markets, but you're 100% long in the markets, so you can beat the markets and still lose a lot of money. So if the market's down 37% but you're down 36%, you beat the market but you didn't make money.

So there's a few reasons why the magic formula was not so great. One of which is that it doesn't always work. That great 10-year period where you quadrupled your money, there was a three-year period during that time where you didn't beat the market. And then there

was a non-overlapping, a 13-month period, where you didn't beat the market. You would have about four years where you weren't even beating the market. But over the 10 years, you quadrupled your money.

So the formula doesn't always work in every period. There could be one, two or even three-year periods where this formula doesn't work. But what you're doing is buying above-average companies at below-average prices; you know, the market's very emotional but over time, doing something logical and systematic does work. The market eventually gets it right. So if the formula worked every week and every month and every year, everyone would do it. If it always worked, everyone would do it and then it would get ruined. The prices would be pushed up and everything else. So the only formula that could long-term work is one that doesn't always work so that people would have difficulty following it.

It's simple value investing. It's a systematic, very quantitative and disciplined way of effectively being a value investor. Value investing works over long periods of time but doesn't necessarily work in any particular month or year. And that's what's going on here. So I think the fact that the formula is not so great, meaning it doesn't work every week and every year, is good because if it didn't, it would stop working.

You were mentioning that sometimes the markets get emotional. Are the emotions in the market the x factor that sometimes makes the formula not work?

Well, theoretically, if you're truly buying good value, then what you're trying to take advantage of, the reason you're able to buy bargains, is if the market is emotionally throwing away companies at unreasonable prices. And that's what you're trying to take advantage of. The reason this works is because the markets are emotional, it's not always rational, and you're systematically taking advantage of that by buying companies that are unreasonably cheap and good. But you have to buy a basket of them because, I wrote this for individuals; if you think of value investing or investing in general as figuring out what something's worth and paying a lot less for it, but if you have no idea how to value something, then you really can't do that. Most individuals have no idea how to value a company. So what we're trying to do is statistically find a group of companies that on average are cheap and good. And you want to buy a basket. In the book I suggested 20 to 30 securities. At Formula Investing, we're picking 24 and updating quarterly. We're updating six of the names quarterly.

The other thing we do in the book is if you start with the 2500 largest companies in the U.S., you rank them according to the magic formula in order, and we made groups. We ranked them by the best 10% ranked, then second best down to the bottom 10% which are companies that are expensive and bad. The formula was actually able to tell you which group of companies was going to do well next year in returns. Meaning that group one, the best ranked companies, did better than group two. [And] it actually worked it order. So in the back test, for instance, the top 10% of companies ranked did 17.2% a year and the bottom 10% did 2.5% a year.

When you do the formula, do you tend to find certain sectors that go to the top or the bottom of the list?

Usually what you're getting is sectors that are kind of out of favor now, meaning people don't want to own them and they're throwing them away at unreasonably cheap prices. So right now, there are a number of construction and engineering companies on there because people think the building boom's in the past and the next few years are going to stink. The consumer companies, some of the defense companies where people are worried that Obama is going to roll down some of the defense spending over time. Health care companies, people are worried about health care reform and how that's going to affect them. Pharmaceuticals and other health care providers come up on the list. Some of them are deservedly cheap, but on average, you're buying cheap and good companies and they work over time.

GREENBLATT IN *FORBES*

Intelligent Investing with Steve Forbes

Intelligent Investing Panel

Books Can Make You Rich

Stephanie Dahle, 12.21.09, 12:30 PM EST

The essential investing library and gift guide, chosen by financial professionals.

The holidays are here, our economy is in a recession and your Christmas shopping needs a bailout.

While we can't dole out federal money to rescue your holiday budget, the Forbes Investor Team can help you find the perfect gift for the savvy investor on your list.

Vahan Janjigian, Forbes chief investment strategist, and Stephen Roseman, head of Thesis Capital, praised *Against the Gods: The Remarkable Story of Risk* by Peter Bernstein. Roseman chose this book because it "talks about the history of risk and risk-taking and sociological and cultural propensities towards managing it (or lack thereof)."

Roseman also recommended *A Demon of Our Own Designs*, by Richard Bookstaber. It "addresses the systemic risks that have built up as a result of über-complicated financial products and the implication for the firms that create them, trade them and for the financial system as a whole," said Roseman. "Interesting to note that this book came out in the spring of 2007, several months before the credit crisis began. This book is still very relevant."

"I like Joel Greenblatt's *The Little Book That Beats the Market* because of its (almost overly) simple explanation at the beginning of the book," said Jason Thomas, chief investment officer of Aspiriant. "It reminds all of us that real value creation comes from value-adding economic activity, despite the fact that most of us professional money managers spend time devising and evaluating ever more complicated investing strategies.

The Extraordinary Popular Delusions and the Maddness of Crowds by Charles MacKay should be mandatory reading for advisers and clients, said Randy Carver, senior vice president at Raymond James.

Greg Ghodsi, the head of the 360 Wealth Management Group at Raymond James, chose *An Empire of Wealth: The Epic History of American Economic Power* by John Steele Gordon. "A historical account of the US economy sounds boring, but I found the book an easy read," said Ghodsi. "I re-read the book last year in the middle of the market crisis, and it provided comfort to know free markets always have and always will have meltdowns."

Lynn Phillips-Gaines, an investment adviser with Raymond James, recommends *Your Brain, Your Money* by Jason Zweig. "It has helped me to understand how humans are hard wired to make our decisions and how hard they are to overcome."

And for those investors looking to enjoy a good non-investing book, Marc Lowlicht, head of the wealth management division at Further Lane Asset Management, recommends *Salt* by Mark Kurlansky. "While not directly related to investing, the reader will get a good understanding on how any commodity, even one as abundant and simple as salt can have an impact on the economy and culture," said Lowlicht.

Also, for fun: John Osbon, founder of Osbon Capital Management, recommends a trio by Steig Larsson: *The Girl with the Dragon Tattoo, The Girl who Played with Fire* and *The Girl who Kicked the Hornet's Nest.* "Larsson is a page-turning writer who has us willingly suspend all disbelief as we read his crime fiction books, which are not what they seem, and go in wildly unpredictable directions."

Of course, if the investor on your list isn't much of a reader, one could always give a bottle champagne. After all, even the most bearish investor is ready to bid farewell to 2009 and toast to the hope of a brighter new year.

Guru Screen

Value In Construction, Not Housing

John Reese, Validea.com, 09.30.09, 07:35 PM EDT

Some of the best investors of all time would still stay away from builders, but they'd find a lot to love about construction stocks.

The housing market has offered some signs of hope in recent months. Existing home sales have increased for four months in a row for the first time in five years, according to the National Association of Realtors, and the group's pending home sales index has risen six straight months--the first time that has happened since NAR started keeping track in 2001.

Home prices have also shown signs of leveling out, with the Federal Housing Finance Authority announcing Tuesday that its single-family home price index rose--albeit slightly--for the third straight month. Warren Buffett even recently cited dramatic changes in housing activity and prices, particularly in the mid- and lower-range categories, as a key sign that the economy is on the mend. All of that has sent the stocks of many homebuilders surging, with big players K.B. Home and **D.R. Horton** up about 140% and about 90%, respectively, since the March 9 low.

So, does all of this mean it's time for investors to dive back into homebuilders, a group that was pummeled as much as anyone during the bear market? No, according to the 12 Guru Strategy computer models I run on Validea.com.

My strategies--each of which is based on the published approach of a different Wall street great--are finding homebuilder stocks to have extremely flawed fundamentals, and do not currently give strong interest to any homebuilding firm. In fact, most fall woefully short of getting any kind of interest from any of my models.

That does not, however, mean that the construction industry should be avoided altogether. My models are actually finding a number of good values among construction services firms that work mostly in either the commercial or government arenas.

Here's a look at the best of the bunch. These firms all have strong fundamentals, and, amazingly, all increased earnings per share in both 2007 and 2008.

Granite Construction Inc.: Based in California, Granite is one of the nation's largest heavy civil contractors and construction materials producers and is best known for its transportation infrastructure projects. It works in the public and private sectors, and its projects range from small site developments to multi-billion-dollar federal projects--the latter of which makes it a potential beneficiary of the stimulus package's infrastructure bent.

Granite, which has a market cap of about $1.2 billion, gets approval from the strategy I base on the writings of mutual fund great Peter Lynch--a model that is up about 47% this year and which has produced annualized returns of more than 10% since its 2003 inception (vs. 1.1% for the S&P 500).

My Lynch model considers the stock a "stalwart" because of Granite's multi-billion-dollar annual sales ($2.3 billion) and moderate growth rate of 18.8%. (I use an average of the three-, four- and five-year EPS figures to determine a long-term growth rate.) Lynch liked to keep a few stalwarts in his portfolio at all times because they tend to offer protection during downturns or recessions.

To find strong, cheap stocks, Lynch famously used the P/E/Growth ratio, which divides a stock's price/earnings ratio by its long-term growth rate (adjusting the "G" portion of the equation for yield in the case of stalwarts, which often pay nice dividends). My Lynch-based model considers P/E/Gs below 1.0 acceptable, and those below 0.5 the best case; Granite's yield-adjusted P/E/G of 0.52 passes with flying colors.

Lynch also liked companies that were conservatively financed, and the model I base on his writings targets firms with debt/equity ratios below 80%. At 37.9%, Granite makes the grade.

Comfort Systems USA, Inc.: Based in Houston, Comfort Systems USA is a national heating, ventilation and cooling firm that has 85 locations across the U.S. It performs engineering, design, installation, energy assessment and repair and maintenance services for companies or organizations in a variety of fields, ranging from private businesses to schools to hospitals to industrial plants. It has a market cap of about $450 million.

Comfort Systems gets high marks from the strategy I base on the writings of hedge fund guru Joel Greenblatt. Greenblatt used a remarkably simple, two-step strategy to produce back-tested returns that more than doubled the market over a 17-year span. My 10-stock Greenblatt-based portfolio has been on fire this year, gaining 64% in 2009, and since its late-2005 inception the portfolio is averaging annualized returns of 10.6% while the S&P 500 has lost 4.3% annually.

The two variables this approach uses are return on total capital, which measure the strength of a firm's business, and earnings yield, which measures the cheapness (or lack thereof) of its shares. Comfort Systems has a return on total capital of 35.6%, which comes in 243rd among the 6,000-plus stocks in my database, and its earnings yield is 21.0%, which ranks 16th. Its combined ranking in those two categories makes it the 35th-best stock in the market right now, according to my Greenblatt-based model.

Fluor Corporation: Based in Irving, Texas, Fluor offers design, engineering, construction, project management and maintenance services to clients in a variety of areas, ranging from oil and gas production to power to mining to manufacturing. It has a market cap of about $9.8 billion, and over the past year has taken in almost $23 billion in sales.

My Lynch-based model is high on Fluor. It considers the stock a "fast-grower," Lynch's favorite type of investment--because of its 36.3% long-term growth rate. Fluor's 13.41 P/E ratio and that growth rate make for a very strong P/E/G of 0.37, which falls into the model's best-case (below 0.5) category. That's a sign that this fast-grower is a bargain right now.

Another reason the Lynch approach likes Fluor: the firm's tiny 4.7% debt/equity ratio.

EMCOR Group, Inc.: Based in Connecticut, this construction and facilities services firm does electrical, mechanical, lighting, air conditioning, heating, security, fire protection and power generation systems work for companies in a wide variety of industries. The $1.7 billion market cap company gets high marks from both my Lynch- and Greenblatt-based models.

My Lynch-based model considers EMCOR a "fast-grower" because of its 48.8% long-term growth rate. That growth rate and the stock's 8.94 P/E make for an excellent P/E/G ratio of 0.18, easily falling into this model's best-case (below 0.5) category. While you shouldn't expect the firm to grow at such a fast pace indefinitely, EMCOR is selling at a low enough P/E that it would still be a good value at even half that growth rate.

In addition, EMCOR appears to be conservatively financed. Its debt/equity ratio is just 17.4%, another reason my Lynch-based model is so high on the stock.

My Greenblatt-based model, meanwhile, likes EMCOR's 21.8% earnings yield (which ranks 14th out of the thousands of stocks I screen) and its 45.6% return on total capital (which ranks 139th). The combination of those two scores make EME the 12th-highest-rated stock in the market right now, according to my Greenblatt model.

John P. Reese is founder and CEO of Validea.comand Validea Capital Management, and co-author of the new investing book The Guru Investor: How to Beat the Market Using History's Best Investment Strategies*(John Wiley & Sons). He is also co-author of* The Market Gurus: Stock Investing Strategies You Can Use From Wall Street's Best. *Click here for more of Reese's insights and analysis, and to subscribe to the Validea Hot List.At the time of publication, John Reese was long FIX and EME.*

Guru Screen

Five 'Little Book' Stocks That Beat The Market

John Reese, Validea.com, 03.31.09, 12:05 PM EST

Joel Greenblatt's simple but effective strategy in his for buying good companies at bargain prices has done well in this market.

"Investment must be rational; if you don't understand it, don't do it." --Warren Buffett

Given the bloodbath on Wall Street over the past year or so, investors are probably taking the words of the great **Warren Buffett** to heart. After all, the mess we find ourselves in is largely due to complexities that few understood, both in terms of the complex, flawed risk models that led to the housing bubble and bust, and the complex mortgage-related derivatives that tied just about every stock investor to the housing crash in one way or another.

Well, if you want simple, rational investing, look no further than Joel Greenblatt. Back in 2005, Greenblatt, a successful hedge fund manager, published *The Little Book that Beats the Market*, a small, concise book that shows how investors can produce market-beating returns using a formula that has two--and only two--variables.

Greenblatt's "magic formula" produced back-tested returns of 30.8% per year from 1988 through 2004, more than doubling the S&P 500's 12.4% return during that time. I was so impressed with his book and his formula that I've made it the basis for the newest of my computerized Guru Strategies on Validea.com. I only unveiled my Greenblatt-based approach recently, but I've been tracking it for a while. It has beaten the market in each of the past three years and is continuing to do so again this year, minimizing losses during one of the worst market environments in history.

How does the Greenblatt approach work? On a broad level, it's based on a very simple, sensible notion of Greenblatt's, one that would probably make Buffett smile: "Buying good companies at bargain prices makes sense."

To identify "good companies," Greenblatt uses the first variable of his magic formula: return on capital. Essentially, ROC is a way to see how much money a company is making by using its assets. Greenblatt found that companies with high returns on capital likely had a special advantage over their competition. He writes that the advantage could be a good brand name, such as **Coca-Cola**, which lets a firm charge more than its competitors. Or it could be a strong competitive position such as the one possessed by **eBay**, which has more buyers and sellers than any other auction Web site, making it hard for competitors to offer the same benefits. In any case, the firm is using what it owns to generate some strong profits.

Return on capital is similar, but not identical, to the return on assets rate that Buffett and other gurus like Peter Lynch use. Rather than using a company's reported earnings, as is done when calculating ROA, however, Greenblatt uses *earnings before interest and taxes* (EBIT), so that debt payments and taxes don't obscure how well the firm's actual operating business is doing. (Given the impact

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overleveraging has had on companies lately, this makes more sense than ever.) Greenblatt also doesn't divide the earnings portion of the equation by total assets, as is done when calculating ROA. Instead, he divides it by "tangible capital employed," which is equal to net working capital plus net fixed assets. "The idea here," he writes, "was to figure out how much capital is actually needed to conduct the company's business."

Now, on to the second part of Greenblatt's approach, the "bargain prices" part of his "buying good companies at bargain prices makes sense" principle. To find those bargains, Greenblatt uses earnings yield, which essentially shows "how much a business earns relative to the purchase price of the business." Typically, earnings yield is calculated by dividing a company's trailing 12-month earnings per share by its current price per share--the earnings-price (E/P) ratio, which is essentially the inverse of the P/E ratio.

But Greenblatt also makes some slight adjustments here. He again uses EBIT rather than earnings, and he divides EBIT not by price but by "enterprise value." Enterprise value includes not only the price of the company's shares, but also the amount of debt it uses to generate earnings. Greenblatt is really measuring how much of a return you could expect if you bought the whole business, including all its debt. Looking at a simple E/P ratio can be misleading, he wisely notes, because it doesn't take that debt into account.

And there you have it, Greenblatt's magic formula. Like Greenblatt, my model ranks all stocks in each of those categories. Then, it adds a stock's two rankings together to get its total ranking. (For example, if a stock comes in at No. 30 on earnings yield and No. 100 on return on capital, its total rank would be 130; that would be better than a stock that ranked No. 20 on earnings yield and No. 200 on return on capital, for a combined a rank of 220.) The 10 stocks with the best combined ranking make it into my Greenblatt-based portfolio.

What stocks currently make the Greenblatt grade? Here's a look at five of the top-ranked companies in my Greenblatt-based portfolio:

Coach: Like most upscale retailers, this New York City-based designer has been pummeled during the recession, with its stock plunging about 65% in the past two years. But my Greenblatt-based method thinks Coach, which has a market cap of about $5.4 billion and has taken in more than $3.2 billion in sales over the past year, has been hit too hard. Its return on total capital is a very healthy 71.75%, which ranks No. 63 of the 7,000-plus stocks in my database, and its earnings yield is a strong 23.03%, which ranks No. 55. Based on those combined ranks, Coach is the No. 8 overall stock in the market according to this model.

DISH Network: This Colorado-based satellite TV provider has been something of a pioneer through its 28 years, being the first satellite TV company to offer local channels to local markets in all 50 states, the first to offer satellite TV with a built-in digital recording system, and even the first to develop a UHF remote control. It has a market cap of about $5.1 billion and has taken in sales of more than $11.6 billion in the past year.

Like Coach, Dish Network has been pounded during this bear market, losing about 60% off its stock price in the past year. But its sales have been good, rising (year-over-year) in each of the past four

quarters, and my Greenblatt-based approach thinks it's a steal. Its return on total capital is almost 99%, which ranks No. 30 in my database, while its earnings yield is 21.49%, which ranks 73rd. The stock's combined ranking in those areas makes it the sixth-best stock in the market, according to this model.

CF Industries Holdings: Based in Illinois, CF provides nutrients to help farmers improve both the yield and quality of their crops, specializing in the production of nitrogen and phosphate fertilizer products. Like other agricultural materials stocks, it boomed from late 2006 to last summer, before falling off a cliff last fall as the seriousness of the world economic slowdown became clear.

CF bounced back strong this year, and my Greenblatt-based approach thinks it has more ground to gain. The $3.5 billion market cap firm has a return on total capital rate of more than 73%, which ranks No. 60 in my database, and its earnings yield is a whopping 40%, which comes in No. 6. Its combined ranking makes it the third-best stock in the market using this approach.

Foster Wheeler: This New Jersey-based firm offers engineering, construction and project management services and supplies power equipment. Foster Wheeler employs more than 14,000 professionals, and its services and products are used by the oil and gas, chemicals and petrochemicals, environmental, pharmaceuticals, biotechnology and health care industries. The firm has a market cap of $2.34 billion.

While its stock has been beaten down by the economic woes, Foster Wheeler has caught the eye of my Greenblatt-based approach because of its healthy return on capital of 54.04% (which ranks No. 105 in my database) and its attractive earnings yield of 33.85% (No. 11). All in all, the model thinks Foster Wheeler is the seventh-best stock in the market right now.

McGraw-Hill: Another company from a beaten-down industry, McGraw-Hill publishes a variety of magazines (including *BusinessWeek*) and a myriad of educational books and tools. It's also the parent of Standard & Poor's. The New York City-based company has a market cap of about $7.2 billion.

McGraw Hill meets both the "good company" standard used by the Greenblatt approach--its return on total capital is about 108%, ranking No. 21 in my database--and the "bargain prices" standard--its earnings yield is almost 17%, which ranks No. 152. Based on those two rankings, the stock is the 21st best in the market, according to this method.

Simple Doesn't Mean Easy

As you can see, there's nothing complex or gimmicky about the Greenblatt approach. But while it may be a simple, straightforward methodology, don't assume that it offers an easy way to make money. It's actually quite difficult for most investors.

The difficulty comes not in the logistics or specifics of the approach, but instead with the mindset it takes to stick with it, because it won't work all the time--and that's OK. "If the magic formula worked all the time, everyone would probably use it," Greenblatt writes. "If everyone used it, it would probably stop working. So many people would be buying the shares of the bargain-prices

stocks selected by the magic formula that the prices of those shares would be pushed higher almost immediately. In other words, if everyone used the formula, the bargains would disappear and the magic formula would be ruined!"

In reality, most investors ditch strategies going through short-term troubles--even good long-term approaches like Greenblatt's. They'll jump on to the latest "hot" stocks or strategy, which usually ends up landing them overpriced duds. By sticking with a good strategy through the short-term pain, however, you allow yourself to pick up the shares of good companies on the cheap. And when Wall Street realizes they've overlooked these firms, your portfolio should reap the benefits. In the end, it is common sense and discipline--not magic--behind that approach.

John P. Reese is founder and CEO of Validea.com and Validea Capital Management and co-author of the new investing book The Guru Investor: How to Beat the Market Using History's Best Investment Strategies *(John Wiley & Sons). He is also co-author of* The Market Gurus: Stock Investing Strategies You Can Use From Wall Street's Best. *Click here for more of Reese's insights and analysis and to subscribe to the Validea Hot List. At the time of publication,* John Reese *owned all five of the stocks mentioned in this article.*

Guru Screen

Beat The Market With 'Magic' Stocks
John Reese, Validea Hot List 01.30.07, 12:00 PM ET

Regular readers of this column know that I follow the strategies developed by some of history's best investors. The gurus I follow all have long-term real-world or back-tested track records, and all of these individuals have publicly disclosed their stock selection techniques (or, in the case of Warren Buffett, had a book written about his strategy). My belief is that investors don't need to reinvent the wheel to be successful in the stock market.

One guru who is well known in many investing circles, but not yet a household name, is Joel Greenblatt. Greenblatt is the founder and managing partner at Gotham Capital and author of the best-selling book *The Little Book That Beats the Market*. In Greenblatt's little book, he describes a " magic formula." While magic is usually thought of in terms of children or entertainment, Greenblatt's magic is anything but. Instead, it's a simple strategy that requires discipline and patience.

Greenblatt's magic formula, which I'll discuss in a moment, has helped Gotham Capital produced an average annualized return of 40% for more than 20 years, according to Greenblatt's Web site. Equally impressive is the back-test that Greenblatt ran on this strategy. Over a 17-year period, his "magic formula" produced returns of 30.8% annually versus the Standard & Poor's 500 average annual return over the same time frame of only 12.4%. Greenblatt tested the approach on a varying universe of stocks based on market capitalization, and each back-test showed significant outperformance versus the market.

Greenblatt's goal is to provide average investors with an investment strategy (the magic formula) that's easy to use, easy to understand and easy to implement. His formula is all of those things, and it has proven results. I've outlined Greenblatt's strategy below and also listed some of the stocks that pass my understanding of his magic formula.

Two Rules: Return On Capital & Earning Yields

At its core, Greenblatt's magic formula involves two simple rules. One is to focus on companies with high returns on invested capital. This is a way of looking at the operating profits earned on tangible investment capital, or the assets used by the company to produce that profit. These tangible investments include inventories, property, plants and equipment. High returns are desirable, because they enable a company to expand and otherwise increase its profits.

Ideally, companies with high returns on invested capital have some kind of competitive advantage, such as a strong brand name or patents; otherwise, competitors are likely to come in and take away some of the company's high profitability. In this regard, Greenblatt is somewhat reminiscent of Warren Buffett, who also favors companies with a competitive advantage. (See the article I wrote on Buffett's strategy in July 2006.)

Return on capital is calculated by dividing earnings before interest and taxes (EBIT) by the tangible capital employed, which is net working capital plus net fixed assets. Net working capital includes accounts receivable (less accounts payable), inventory and cash, while net fixed assets includes property, plants and equipment minus depreciation.

In addition to seeking high returns on invested capital, the magic formula also looks for stocks with prices low enough to provide high earnings yields. The earnings yield is EBIT divided by enterprise value. Enterprise value, for Greenblatt, is a company's market cap plus interest-bearing debt minus excess cash. He includes debt because it has to be paid back (and therefore lowers the earnings yield) and includes cash because it effectively lowers the cost of buying a business (and thereby increases the earnings yield).

A Universe of 3,500 Stocks

In addition to these two variables, Greenblatt limits the companies he considers to the largest 3,500 publicly traded U.S. companies (because of the liquidity of their stocks), which are roughly those with market caps greater than $50 million. He also eliminates utilities, financial companies and foreign corporations.

Within this universe of 3,500 companies, Greenblatt ranks (separately) companies based on their return on capital and earnings yield, from best to worst, with the best getting a ranking of 1 and the worst, 3,500. These two rankings are then combined. If a company is ranked 598 for return on capital and 347 for earnings yield, the combined ranking is 945. The combined figures are then ranked from best to worst.

Greenblatt recommends buying the 20 to 30 companies with the lowest rankings. He also points out that to be successful with this type of approach, you need to follow it through the good times and bad. Greenblatt does a masterful job of showing that there may be periods, for whatever reason, that the strategy stops producing returns. This shakes investors out of following the approach, but over the long term, the magic formula produced returns that were 2.5 times the market's return.

Out of the top 50 stocks that pass my interpretation of Greenblatt magic's formula, I've highlighted five of them below. These stocks all score well based on a combined ranking using the return on capital and earnings yield magic formula outlined above.

Company (Symbol)	Industry	P/E
Nucor Corporation (nyse: NUE - news - people)	Iron & Steel	10.89
Ingersoll-Rand Company (nyse: IR - news - people)	Misc. Capital Goods	12.35
Black & Decker Corporation (nyse: BDK - news - people)	Appliances & Tools	12.89
Quest Diagnostics (nyse: DGX - news - people)	Healthcare Facilities	16.72
Valero Energy Corporation (nyse: VLO - news -people)	Oil & Gas Operations	5.95

Source: Validea.com

John P. Reese is founder and CEO of Validea.com and Validea Capital Management. He is also co-author of The Market Gurus: Stock Investing Strategies You Can Use From Wall Street's Best .
Click here for more of Reese's insights and analysis, and to learn about subscribing to the Validea Hot List.

THE GREENBLATT INTERVIEW

Intelligent Investing with Steve Forbes

Beating The Markets

Steve Forbes: Joel, good to have you with us. Let's begin by having you describe this magic formula that enables you to do so well in the stock market. And you actually wrote a book on it, *The Little Book That Beats the Market*. And this was several years ago and you're still alive and you're still beating the market. So can you describe it for us, please?

Joel Greenblatt: Sure. It's really basic value investing, you know, based on both Benjamin Graham and Warren Buffett. I started investing back in the early '80s and we were quite successful for a period of time.

And some of the things that I teach over at Columbia, and the reasons why we were able to make money, I kind of put down in this book. And there were two main principles, one from Graham, one from Buffett. Graham's was, "Figure out what something's worth and pay a lot less for it." You know, so if you can buy it cheap, that's a good thing. And so we measure cheap by getting a lot of earnings for the price we pay. So it's really the inverse of the P/E ratio -- earnings to price. We don't use simple earnings and we don't use simple price, but that's the same concept. We take into account, different tax rates and different amount of debt that companies have and things of that nature. But basically, all we're trying to do is get a lot of earnings for the price.

Forbes: Just quickly describe enterprise value as you see it.

Greenblatt: Right. So the concept, what we look at is EBIT, Earnings Before Interest and Taxes, to take out companies with different amounts of debt and tax levels, which is Earnings Before Interest and Taxes. And we compare that to enterprise value, which is basically the stock price plus the amount of debt per share that a company has. So we're just sort of leveling the playing field for companies that take on debt and companies that don't. But when you buy a share of stock, what you're really doing is paying for the equity, but you're also assuming the debt that the company took on. So we're taking that into account. But really, all we're doing is comparing the earnings of a company to the price that we're paying.

The other concept, sort of what Warren Buffett brought to the table I think from his teacher Ben Graham, was, "Well, cheap is great. But if I can buy something that's also good in addition to cheap, so if I can buy a good company at a cheap price, that's even better than just looking at cheap alone." And so we use a concept, which is return on tangible capital, really also learned from Buffett, which basically says, "A business to operate needs working capital and it needs fixed assets." And the question is, how well does a company turn that working capital and fixed assets into earnings? So we compare earnings to

network and capital plus fixed assets to see what kind of return on tangible capital a company can earn. So, the higher, the better. I gave an example in the book. I was actually trying to explain this concept to my son and we were going to school one day.

Get Gum-Like Returns

Forbes: The gum?

Greenblatt: Yes. And we saw one of his friends and, you know, my son starts telling me this story that his friend goes to the candy store every morning, buys a few packs of gum. He pays 25 cents for a pack. There's five sticks of gum in a pack. And in school, since it's tough to get the gum, he can sell each stick for about 25 cents each. So he collects $1 and a quarter for a pack that he paid a quarter for and he earns $1 for each pack that he can sell in school. So he's making $3 to $5 a day, you know, just selling gum in school.

So I told my son, "Imagine that this kid Jason grows up and he opens a gum store and calls it Jason's Gum Store." And each one of those gum stores cost $400,000 to open for inventory, for the displays and the store itself, it's $400,000. Each year, that store earns $200,000. So, we look at that as a 50% return on capital. If he can lay out $400,000 once and it spins out $200,000 a year, that's a 50% return on capital for each store that he can open. Then, I told my son to imagine another store. We'll call it Just Broccoli. And all it sells is broccoli. And it still costs, unfortunately, $400,000 to open that store. But each year, that store only earns, don't ask me how, $10,000 a year. And that, we said $10,000 divided by $400,000, it's a 2.5% return on capital. And when we rank businesses, we say 50% return on capital's better than a 2.5% return on capital.

So what we did for what I call the magic formula in the book is, we rank all companies based on their return on capital and we also rank all companies based on how cheaply we can buy them relative to their earnings. The more earnings, the better. Then we combine those rankings. And the companies that have the best combination of that ranking go to the top. So we're not looking for the cheapest company. We're not looking for the highest return-on-capital company. We're looking for the companies that have the best combinations of those two attributes. And this is what I've been teaching for years and years, but I never really had a proof of concept, really. I'd never statistically proved out, does this make sense. And so about seven or eight years ago, I started a project, you know, I had the resources to start a project to actually go back and test. What if we did this on a consistent basis over time?

And the way it worked out was that you could basically, if you just bought the top stocks, you know, and we're talking, you know, top thousand stocks, you could basically double the returns of the S&P 500, just sticking with this formula over a long period of time.

Forbes: By the way, how large is the universe? What kind of liquidity factors do you --

Greenblatt: Right. So we did two tests. We did smaller-cap stocks, you know, probably the top 3,500 stocks. But then we said, "Well, what if you can't really buy these?" So, we

also did a study, which I just mentioned, on the top thousand companies, the largest thousand companies roughly, usually about 20% of the actual publicly traded universe.

Financials Are Animals

Forbes: How do you account for quality of earnings and things like financial companies which once looked very cheap in 2006, 2007, but there was a reason why they were cheap?

Greenblatt: Right. Well that's a good point and it's going to be tough for me to answer because one thing, we look at EBIT as one of our earnings, Earnings Before Interest and Taxes. If you look at a bank before interest, it kind of doesn't make a lot of sense. So in our analysis, we eliminated certain types of companies, really two types. One were financials. They're different animals.

And there's nothing wrong with investing in financials in general, but our metrics don't cover financials. They're kind of viewed in a different way. And this formula does not apply to them. I wrote the book in 2005, not anticipating any financial crisis or anything like that. It was really eliminated because they weren't really appropriate for financials. The other are utilities, because utilities are regulated entities where their returns are regulated. They're not really capitalist companies. And so they don't follow the same rules as what we're looking for. So we also eliminated those in our study. It's just not appropriate, the measures we were using. So with the exception of those two. Now, over the time period that we looked at back to 1988 through, you know, this year, if you take out financials or include financials, the return of the S&P would've been within one-tenth of a percent the same.

So the results are pretty robust; meaning, you know, it didn't matter whether we used financials or not. I think the most exciting thing we found in our research, though, was not that this just worked for finding the best stocks. We said, "Well, maybe you get lucky picking the top 30 stocks that meet these criteria." So we actually did an experiment. And we divided the top 2,500 companies into deciles. The best 250 according to our formula, the next 250 according to our formula, the next 250, and we tested this over 18 years.

Forbes: Your version of the old value line.

Greenblatt: And what actually happened was the same thing, meaning the top decile beat the second decile, beat the third decile all the way down to the tenth decile in order. So we're doing something very powerful here. We're sort of saying, "Which group of stocks will do best next year?" That's kind of valuable information if you can put together a group of stocks and say, "Which ones will do the best?" And, you know, this followed through no matter how large the companies we used. So it's very reproducible, you know, for institutions or, you know, for a great many individuals. Obviously, individuals have an advantage because they can buy smaller stocks, but even institutions can take advantage of this.

Forbes: Now, you've had actual experience with this now?

Greenblatt: Well, yes. Well, two things. One, I wrote the book five years ago. So we actually did a test and we set up a new test to update the book over the last 10 years. We opened a firm called Formula Investing, because I got so many e-mails from people saying, "Thanks so much for writing a book, thanks so much for the formula, but can you just do this for me?" So, we got enough of those. And I teamed up with a gentleman named Blake Darcy who founded DLJ Direct and we put together a firm to make it easy for people to do this. And we did a study saying, "If you follow this principle on the largest 20% of stocks over the last 10 years, what would've happened?" So the S&P was actually down over the last 10 years ending September. If you had followed the strategy, you would've been up about 288%, according to our study, which is almost quadrupling your money during a period where the market was down. More importantly, I wrote the book five years ago.

So during the last five years, this also continued to do very well. Meaning, the market was only up about 5% during that period. And following the strategy, you would've been up about 72%. So you would've beaten the market by more than 10% a year during that period -- after I gave away the secret.

Formula Won't Be Diluted

Forbes: Now that you're applying it yourself, do you think as more and more people apply it that it's going to become less effective?

Greenblatt: No. I think, this is really just a twist on value investing. And people have known for years, you know, and there were studies done for the last 40 years on whether it's low P/E investing or low price/book investing or whatever. And these things work over time. And if I had written a formula up that worked every week and every month and every year, it would stop working. Fortunately, this formula's not so great. And there are --

Not A Perfect Formula

Forbes: Explain that you can have years where it's not going to work.

Greenblatt: Right. So, in other words, over the last 22 years, there have been one-year periods, two-year periods, and an occasional three-year period where the formula has not beaten the market. Most people give up on a formula that hasn't beaten the market for the last year or two. You know, I sit on a couple of endowment boards and, you know, there are some studies that clearly show that you can predict 90% of the money flows just on who did well last year. And that's where their money goes.

So there's two reasons. One, the formula doesn't always work, even though it works over long periods of time. Because when you think about it, what I think you're doing is buying above-average companies at below-average prices. So you're buying above-average companies only when they're available at below-average prices. And that makes sense

over time. Just doesn't work all the time. It doesn't work every year. The other thing is, if you actually look at the names that you're buying, and you read the paper, you wouldn't buy any of them. There might be construction-engineering firms now. Everyone knows the building boom's open. There might be pharmaceutical firms. We know health care reform might come and the government might pay a little less for the pharmaceuticals.

Dog-Like Investments

Forbes: So what are the seemingly looking doggie stocks and industries now?

Greenblatt: Well, right now, still, there's consumer stocks, there's construction-engineering stocks, there's healthcare-related stocks, there's pharmaceutical stocks, anumber of retailers with question. Actually, if you go through the whole list of top-ranked companies, there is a reason, and you know it because you just read the paper, why you wouldn't buy any one of them. And everyone would know the reason why you wouldn't want to buy them. So it's actually very hard to do.

So the computer is telling you to buy these things that do get high returns on capital and are available cheap, but everyone thinks they're, you know, maybe the future won't be as bright. But what happens in reality is, only about 60% of the companies actually end up outperforming. You're not sure which ones are going to. But you didn't pay much.

Forbes: So, the minimum number you figure is 24, 25 stocks?

Greenblatt: Yeah. What I suggest in the book was 20 to 30 stocks at a minimum is what you should do. And do this over a long period of time, since you're not doing the individual stock.

Use Formula For Long-Term

Forbes: Have you noticed differences in how the formula works in up markets and down markets?

Greenblatt: Yes, we've actually looked at that. And it outperforms quite well in up markets. In down markets, it outperforms better than the market in most periods, but not all. In other words, for instance, in 2008 when we did our latest study, and here's another problem with the formula. You're 100% long in the market if you just buy these. So the S&P was down, I think 37% in 2008. This was down 36%. So it's a little solace to anyone that we beat the market.

There's two things you have to do, make money; beating market's only part of it. So in this case, if you have a long-term horizon over the last three, five, 10 years, this formula has done amazingly well. But there are periods when it either loses money because the market's down or it underperforms the market. Very hard for people to stick with a formula that is telling you to buy out-of-favor stocks that were spit out by a computer, you know, nonetheless, and to stick with that when it's not working. So I'm not particularly worried

that I wrote a book or that so many people will do this that it'll stop working. That's also something we have to fight, starting a firm that says, you know, "Go follow this formula." And, you know, I have no huge expectations that people are going to change their stripes over time. I hope people see the results and like what they see and that's how it's successful. I don't expect --

Forbes: So what role do emotions play in this? Can we have a period like we had with the panic where this is just not going to work? Or is your point is, a time it may not but eventually it's going to come back and come back more?

Greenblatt: Right. Well we really haven't had to be that patient, even during this bad period. In other words, over the last five years, which haven't been good, you would've been up 72% since I wrote the book, versus up five for the market. There have been some tough periods in between. Without those tough periods, every single person would do this. If I printed a formula and it worked all the time and there were no volatility to it, you know, you'd have Bernie Madoff and everyone would want to do it but it really wouldn't continue to work over time.

Forbes: So your club's not going to get overcrowded precisely because of emotions?

Greenblatt: I think so. I think it's very difficult to buy these stocks. They're all out of favor. Think of an insurance bet. If you insure 1,000 lives, you know there'll be some unfortunate people who bought, you know, term life insurance, that next year won't work out for them, but you don't know which ones they will be. So here, you have to buy a group of stocks that on average are cheap and good, or above-average stocks at below-average prices. I can't tell you which ones are going to work out. But I can tell you, the group of stocks that don't work out, you didn't pay very much for them. So even if they don't do so well, they don't usually fall that much.

And you get asymmetric returns on any companies that actually do a little better than the low expectations or for them. So for the companies that do work out, that they do a little better or a lot better than people's expectations, you can make a lot of money on those. And that's really how this tends to keep working.

Forbes: So are there housing stocks that are in your list now?

Greenblatt: Other construction-engineering companies, you know, that do commercial building, things of that nature. No housing stocks have really come up recently. I think we still want high earnings and they don't have them.

Formula Investing

Forbes: Now you have a mutual fund that people can get?

Greenblatt: I don't. The way FormulaInvesting.com is set up is that you can open an account online either professionally-managed where you put in, let's say, 25 or $100,000.

And for 1% a year, including all commissions, we'll follow the formula for you. The difference between this and a mutual fund would be the day you come in, you get your own unique formula. We do run the formula every 15 minutes. There's two reasons why stocks move up and down in rankings. One is their prices change. So you get them cheaper or more expensive.

The other is earnings change. So over time, each person every day that comes in will get a different list based on what is the cheapest for the day they come in. And we update the portfolio every quarter so that based on the day you came in, you'll be updated on a different day than someone else so that you're not buying it to somebody else's portfolio. And you're really getting fresh, up-to-date information, the most recent information on your own. So it's pretty unique that way. We also have something which is self-managed, which is if you don't want us to do it, or you have opinions, this really started out as a benevolent brokerage firm, was my concept, where I sort of say you can't buy on margin, you have to buy at least 20 or 30 stocks, but you can only pick from this pre-approved list: companies that rank high as cheap and good. And anything you don't want to buy you can uncheck.

You don't want to buy a tobacco stock, uncheck it, or you don't really like this industry, you uncheck that. You know, I'm pretty good at managing money. I started Gotham Capital in 1985 and we returned all our outside capital at the end of 1994 after 10 years. And we had a good run. We averaged 50% a year while we were running money. And then we returned all our outside capital at that time. So, I think we're pretty good at my firm at picking stocks. And we couldn't pick out, we couldn't improve on the formula by un-checking the boxes that we thought would do better. So I think really, like I said, it's really best as an insurance bet, to take a group of stocks that in general are cheap and good and invest that way.

Forbes: You have a hedge fund as well?

Greenblatt: We now run a hedge fund called Gotham Capital but it's really for our proprietary money. In other words, we don't run outside money in that.
Forbes: So of course it would seem to make no sense for an outsider to watch your hedge fund if they can get it online at 1%, right?

Greenblatt: Well, this isn't really a hedge fund. This is 100% net-long strategy. It's not a hedge strategy. Basically, for that portion of your portfolio that you'd want to put into equities, this is a nice alternative. Another thing that will be launching this quarter which is really interesting is a global fund, which looks at 40 different countries across the world. We created our own database, analyzing those companies.

Going Global

Forbes: Have your, going back in time, found that this works as well as with foreign companies as U.S. companies? Can you trust those numbers?

Greenblatt: Well that's a great question. We've looked at the databases internationally and decided that we have to create our own. So going back and looking, there have, people who've done studies after I wrote the book. There are a number of Wall Street firms that did studies that showed it worked in every country. You know, they tested about 12 different countries.

And these principles, value investing, for instance, buying cheap, buying good, works in all these countries, according to their research. We haven't bothered to do that because a) we have no doubt that these principles work, but b) the data are not very good outside of the U.S. The U.S. is pretty good. Compustat, for instance, has a great product and a number of others. Outside the U.S., the data's not so good, so that if you use bad data, garbage in, garbage out, you'll have some of the outliers coming to the top. We decided two years ago that we had to create our own database for the global and we did. We also have our own database for the domestic. And we're going to launch something for Formula Investing and make it accessible to people to invest in 40 different countries in a group project, in a group with about 45 companies in that portfolio. And so that will be a unique, fun product that we're launching this quarter.

Forbes: Are you going to have a formula that can work for financials and utilities?

Greenblatt: If I get time. I really started this project about seven or eight years ago with one person. We now have, just in research, we have 17 people working on this now. And so it's on our list, I would say. But this thing kind of snowballed much larger than I ever imagined when we started with one person. And it was sort of just a proof of concept, you know, of the things I've been teaching and using over the years. And so it's kind of snowballed into a big deal. And that's certainly one of the things that we want to develop but we haven't. We haven't even attempted it yet, we have so much on our plate.

Forbes: Joel, thank you very much.

Greenblatt: No, thank you. Appreciate the time.