

# THE WALL STREET TRANSCRIPT

Questioning Market Leaders For Long Term Investors

## Relative Strength Investment Strategies



MIKE MOODY, Senior Portfolio Manager at Dorsey Wright Money Management, joined the firm in 1994. Prior to Dorsey Wright, he worked for Smith Barney and Merrill Lynch. Mr. Moody has been a speaker on the subject of technical analysis and has provided commentary for national media such as Investor's Business Daily and Financial News Network/CNBC. He has served on the Board of the Market Technicians Association and is the former editor of the Journal of Technical Analysis. He has also authored several original research papers on the subject of technical analysis. Mr. Moody holds a BA in Psychology and English from Pitzer College.



HAROLD PARKER, Senior Portfolio Manager at Dorsey Wright Money Management, joined the firm in 1994. He began his investment career with E. F. Hutton & Co. in 1978 and later moved to Smith Barney. Mr. Parker was one of the original portfolio managers of Smith Barney's Portfolio Management Program, which provided discretionary institutional portfolio management. He has also authored several original research papers on technical analysis. He graduated with honors from the University of California, Davis with a BS in Agricultural Science and Management.



JOHN LEWIS, Portfolio Manager at Dorsey Wright Money Management, joined the firm in 2002. Prior to Dorsey Wright, he worked for Nicolas-Applegate and Linsco Private Ledger. Mr. Lewis is actively furthering research on the application of relative strength to portfolio management. He holds a Bachelor of Business Administration degree from the University of San Diego and an MBA from the University of Southern California.

**TWST: Would you start by giving us an overview of Dorsey Wright Money Management?**

**Mr. Parker:** There are two parts to Dorsey Wright, which was founded over 20 years ago. There is a publication arm, which is located in Richmond, Virginia. They put out a daily market letter and maintain a very large database of technical research that customers can access on the Web. Many of the major Wall Street firms subscribe to the Daily Equity Report and the research database.

The other part is the money management arm, which is based in Pasadena, California. Mike, John and I are the portfolio managers here. We are currently managing \$1 billion in separate accounts, mutual funds and exchange-traded funds.

how a sector is performing relative to the market or how asset classes are performing relative to each other. They are all measuring relative performance.

A simple way to explain relative performance is with an anecdote. If you were asked, “How did your team do last night?” and you responded with, “Well, we scored 30 points,” that wouldn’t tell someone very much. It tells only what you did, but it doesn’t tell how things went relative to the other team. You need to know how the other team is doing in order to know whether you are winning or losing. Relative strength has some very big benefits. First, it is objective. It takes all of the emotion out of the investment process and that’s a very positive thing. It’s adaptive over time, which keeps you

*Parker: At its core, relative strength basically is the measurement of performance of one security relative to another. Most commonly in our world, that is the measurement of how a stock is performing relative to the market, although it could also be how a sector is performing relative to the market, or how asset classes are performing relative to each other. They are all measuring relative performance.*

**TWST: Tell us about the investment philosophy of your firm.**

**Mr. Lewis:** Our investment philosophy is to make all of our decisions based on relative strength. We don’t do any fundamental work in our shop, which is very different from most other money management firms. We are also focused on building our processes to be very, very systematic and disciplined in nature. We are using this relative strength (RS) factor in our individual stock accounts to buy strong stocks in strong sectors. We also run a mutual fund in which we do global asset allocation, so there we are using relative strength to buy and overweight the very strong asset classes around the world.

Our relative strength process doesn’t involve any forecasting. It’s trend following in nature and that helps us to be very adaptive over time.

**TWST: Would you tell us more about relative strength?**

**Mr. Parker:** At its core, relative strength basically is the measurement of performance of one security relative to another. Most commonly in our world, that is the measurement of how a stock is performing relative to the market, although it could also be

from being stuck in a spot where the world moves on and leaves you behind. Lastly, it tends to be more durable than typical price momentum measurements, so that we can focus on an intermediate to long-term time frame and can ignore the day-to-day market noise.

**TWST: I understand that you just completed a three-year track record for the systematic relative strength accounts. What has the performance been like these first three years?**

**Mr. Moody:** The performance of the accounts in real time has been outstanding. We’ve been very pleased with it. The aggressive and the core portfolios have outperformed the S&P 500, net after all fees and expenses, anywhere from 400 to 800 basis points, 4% to 8% a year. One of the reasons we are excited about the performance is that it’s very much in line with the extensive testing we did using a point-in-time database. We’ve been able to replicate it with the live performance, obviously.

As you know, the investment management industry is very competitive. Over time, approximately 80% of the managers are unable to outperform the benchmarks at all, so you are a hero if you can outperform by a couple percent a year. We think that the kind of outperformance we’ve been able to achieve so far is just the begin-

ning. Based on the testing we've done, we think that our edge is going to continue to be large and also very durable over time.

**TWST: You've had excellent performance, but we're having problems now in the economy and turbulent times in the stock market. How does the relative strength hold up in this climate?**

**Mr. Moody:** Maybe the best way to address that would be to have John talk about the modeling process, so you can understand how the portfolios adapt as economies and investment themes change.

**TWST: How do you construct the accounts?**

**Mr. Moody:** We approach portfolio construction as a three-part process. There is a top-down piece, where we look at the relative strength of all the major macroeconomic sectors, as well as all of the industry groups that comprise those macroeconomic sectors. We are determining where the strongest areas in the market are. As I think John mentioned, last year financials were a very weak area, so we had very little exposure there. There is also a bottom-up piece, where we rank our entire universe of individual stocks each day so we can see where the strength is.

*Moody: Relative strength is a very durable factor. There has been a lot of academic research done on it. Ken French, who is a professor at Dartmouth University, has shown that for over 80 years it's been an effective return factor, and it's been the strongest of all the various return factors that he has studied. We are willing to try to exploit that factor, and we are not afraid to deviate from the benchmark to do it. We are not afraid to be different from our peers.*

**Mr. Lewis:** The modeling process we use is designed to be very, very adaptive over time. When we have turbulent markets like we've had, RS will slowly adapt to the new themes that are emerging. Last year, for example, financials performed very poorly. Our RS strategy is going to underweight stocks in financial areas, investment banks, commercial banks, mortgage companies and things like that. When you get turbulent markets, relative strength is very good at keeping you out of those areas that are performing poorly. When we are doing the modeling, we are looking to put the portfolios into strong stocks in strong sectors, but that's not where it stops. It's equally important to avoid weak areas of the market. Your performance is determined not only by what you own, but also by what you don't own. We rank the securities in our universe every day on relative strength, which really helps the portfolio to move around and adapt to what's working. You can think of the ranking system as something like the PGA rankings or the BCS rankings, where the strongest players or the strongest teams get the highest ranks.

We are simply assigning each stock a numbered rank, so that we can very objectively go through our universe and determine which stock is stronger than another stock.

Our goal is to put together a portfolio of strong stocks in strong sectors. It's not unlike, for example, the way you would run your business if you were the owner of a stable of racehorses. The horses you want to put on the track are the fastest ones you have, as opposed to an investor who is more fundamentally oriented who might put a slow horse out there, believing it to be undervalued and then hope it gets faster. We are looking for speed and strength right now.

The third and very important piece to the process of constructing these accounts is the sell discipline. The risk management process adds a lot of value to the portfolios. We have a mechanical and unemotional sell discipline, so that if a stock falls too far in the rankings it comes out of the portfolio, no questions asked. That allows us to put together a portfolio of 20 to 25 stocks diversified by industry sector, where we can deliver high returns over time with a very reasonable risk profile.

**TWST: Over these past three years, you've made some shifts and changes in your modeling. Would you give us some examples?**

**Mr. Parker:** Actually over the last three years, we have not made any changes in the models, nor do we anticipate the need to

make any changes. Bear in mind that the models are designed to be adaptive. The model is constant, but it reacts and adapts to changes in the investment environment. That makes it unnecessary to make any changes in the underlying model. It is also helpful that our models are not optimized. Optimized models tend to require a lot of tweaking as time goes on, whereas adaptive models just chug along and do their job month after month and year after year.

**TWST: In what ways is this investment approach distinctive compared with peer firms?**

**Mr. Moody:** I think that's a very interesting question. From what we've seen, there are no other firms out there that are trying to exploit relative strength in the way that we've done it. Relative strength is a very durable factor. There has been a lot of academic research done on it. Ken French, who is a professor at Dartmouth University, has shown that for over 80 years it's been an effective return factor, and it's

**TWST: How do you see financial advisers incorporate your strategies into their clients' asset allocations?**

**Mr. Lewis:** What we are seeing on the financial adviser side with our portfolios is that a lot of advisers are taking a core-satellite approach to portfolio construction. Our systematic RS portfolios are ideally suited to this type of approach. As Mike mentioned, we are willing to deviate from the benchmark and in practice that means that we have a low R-squared, a low correlation to the benchmark, and a low correlation to other managers as well. By mixing our strategies together with other strategies you can very easily deliver superior returns with lower volatility.

One example of this might be mixing our trend-following strategy with a manager who is looking to exploit long-term mean reversion. By mixing us with that type of manager, you can reduce your overall portfolio variability while still providing returns above the benchmark.

*Moody: For our systematic relative strength domestic portfolios, the individual positions typically number 20 to 25. We will willingly overweight sectors that are strong and underweight sectors that are weak, but there is still a fair amount of sector and industry diversification there. For the international systematic relative strength portfolios, it's typically 30 to 40 names, a little bit more spread out.*

been the strongest of all the various return factors that he has studied. We are willing to try to exploit that factor, and we are not afraid to deviate from the benchmark to do it. We are not afraid to be different from our peers. We've been willing to accept more tracking error from the S&P 500 in order to get the higher returns. Our approach does generate a very high information ratio, which is simply a measurement of the excess return you are getting over the risk-free rate of return, adjusted for the amount of tracking error your portfolio has.

Another thing that's quite different is that our approach is technical and quantitative, not fundamentally oriented. The modeling process removes the subjectivity in investment decision-making that takes place at most firms. The modeling process we use is not optimized. It will get out of sync temporarily from time to time, but because it's built to be adaptive, it goes back in line and adapts. We think that through the disciplined application of our systematic process and our commitment to that discipline, we will earn excellent returns over time, although the profile of returns will be different from our peers.

**TWST: What is your investment outlook for 2008?**

**Mr. Moody:** We are extremely positive about the investment outlook for the market overall for a couple of reasons. One reason is that the valuations are quite low in terms of earnings yields on stocks versus interest rate yields on bonds. There is a real advantage to owning equities versus fixed income. Still, I think the most critical factor here is that investor sentiment is extremely poor. We've reached these levels of investor concern only once in the last five years. If you look at the Investors Intelligence Survey, the last time sentiment was this poor was within a week or two of the bottom in 2002. We think the market could have quite a good year and could definitely surprise the consensus to the upside. That being said, in terms of running these systematic portfolios, we rely on operating the models. The forecasting is kind of fun, and we think that we are going to have a good year, but we are primarily bullish on the ability of these models to adapt to any investment environment. In terms of running the portfolios, we let it go at that.

**TWST: Who are your typical clients? Are they mostly individuals or do you also do institutional accounts?**

**Mr. Parker:** We have primarily high net worth individuals, as well as a few institutional accounts. We run some Taft-Hartley money and also corporate retirement plans, IRAs and so on in separate accounts. Separate account management is very much our flagship product. We also manage a global allocation mutual fund, the Arrow DWA Balanced Fund. We are in the quiet period right now for the Arrow DWA Tactical Fund. We also provide the underlying rela-

problems of buying shares on local exchanges and things of that nature. In some of the larger institutional accounts that we subadvise, like the two international PowerShares Technical Leaders ETFs, we do try to buy shares on local exchanges wherever possible, so the institutional accounts are a little different in that respect. In the Arrow DWA Balanced Fund, our global asset allocation vehicle, we will use exchange-traded funds to get overseas exposure. We do it in a number of different ways depending on the type of account that we are managing.

*Lewis: We are very focused on letting the portfolio adapt and that adaptation really helps the overall risk profile over time. People don't often think about the process of adaptation as being a risk reduction measure, but it helps keep you out of areas that are very poor performers, such as homebuilders over the last few years, technology during 2000 and 2001, and things like that.*

tive-strength-weighted indexes for the Technical Leaders series of PowerShares exchange-traded funds, which are comprised of a domestic stock ETF, an international developed markets ETF and an international emerging markets ETF.

**TWST: How many holdings do you generally have in a portfolio? Is it concentrated or broadly diversified?**

**Mr. Moody:** For our systematic relative strength domestic portfolios, the individual positions typically number 20 to 25. We will willingly overweight sectors that are strong and underweight sectors that are weak, but there is still a fair amount of sector and industry diversification there. For the international systematic relative strength portfolios, it's typically 30 to 40 names, a little bit more spread out.

With the Arrow DWA Balanced Fund, which is implemented using exchange-traded funds, there are generally only 15 positions. Obviously, within each exchange-traded fund there is a very diversified group of holdings.

**TWST: How do you invest in international stocks? Is it through ADRs or by ETFs?**

**Mr. Lewis:** Our systematic relative strength international accounts are generally marketed toward retail investors, so we use American Depository Receipts to get our exposure in international stocks. We don't have all of the currency exchange issues and the

**TWST: Since you focus on how the stock is performing in the marketplace, does that generally mean you have more turnover than average portfolios at other firms?**

**Mr. Moody:** It turns out that the turnover is, surprisingly, much lower than people expect. The turnover is also very tax efficient. In a relative strength portfolio, the idea is to hold the winners and cut the losers out. The winners often are held for a very long time, so most of the gains that are distributed turn out to be long-term capital gains. Oftentimes people ask questions about turnover because they are concerned about tax efficiency and the tax efficiency is actually very high.

According to Morningstar, turnover in the average domestic equity fund is about 130% a year. Our systematic core account averages about 70% annual turnover. It can range from 50% to 100% per year depending on leadership changes in the market. The aggressive systematic portfolio averages about 120% turnover per year, still lower than the average domestic equity fund. The turnover there might range from 100% to 150% a year. In 2007, turnover was about 120% for the aggressive portfolio and about 50% for the core portfolio.

**TWST: You mentioned your sell process, which is an essential part of your risk management, but are there other ways that you try to control risk at the business level or portfolio level?**

**Mr. Lewis:** We think there are a couple of things we do that are essential to controlling the risk in the overall portfolio. One thing is really just the systematic nature of the process. We are very focused on letting the portfolio adapt and that adaptation really helps the overall risk profile over time. People don't often think about the process of adaptation as being a risk reduction measure, but it helps keep you out of areas that are very poor performers, such as homebuilders over the last few years, technology during 2000 and 2001, and things like that.

Another thing we do is force some sort of diversification among industry groups and macro sectors. That helps reduce some of the overall portfolio volatility. If you are not careful, one thing that happens very easily in a relative strength strategy is that you wind up with a "diversified" portfolio of energy stocks or technology stocks because that's what's performing and what's driving the market. We have some overlays on the macro sector level that help us to spread our purchases out over a number of different sectors and industries and that does reduce a lot of the volatility in the overall strategy.

**Mr. Moody:** Some interesting things happen within the portfolios in terms of risk. I was looking at this yesterday for our

out, the overall portfolio volatility is actually lower than you would think. The risk is managed surprisingly well, given the kinds of securities that we tend to own.

**TWST: What about the correlation between the relative strength performance of your portfolios and the benchmark? Are there times, for example, when the S&P goes down, but your portfolios would go up?**

**Mr. Lewis:** That is definitely true. The correlation to a relative strength strategy and a broad market benchmark like the S&P 500 is actually quite low. Over a long period of time, for example, the aggressive portfolio has an R-squared of about 0.46 and a correlation of about 0.68 to the S&P 500. It's very low when compared to most other domestic equity strategies. That makes it easier to combine us with other portfolio strategies.

With those kinds of correlation numbers, there are definitely times when the S&P is doing well and a relative strength strategy is not, or vice versa when the S&P is down and we might be up. That's just a function of letting the portfolio drive itself toward strength. There are times when the laggards perform better than the leaders, but over time the leaders tend to do much, much better than the laggards.

*Parker: Our flagship area is our separately managed accounts, which invest in individual equities. We offer several Systematic Relative Strength portfolios: aggressive, core, balanced, international core and socially responsible investment core. All of these products are focused on relative performance, with individual equities as the holdings. The second way to access our management is through the Arrow DWA Balanced Fund. This global allocation fund is divided among four major investment classes — domestic equities, foreign equities, fixed income and alternative investments such as commodities, TIPS, real estate, gold and so on.*

aggressive portfolio. The beta of the individual securities in the portfolio ranged from 1.88 on the high end to 0.15 on the low end. When they were all combined, the weighted portfolio beta was about 1.05. You would think, "Well, the portfolio should be a little bit more volatile than the market." What's interesting is that when we look at the volatility over the last three years, the aggressive portfolio strategy beta has been only 0.80. Although there may be some individually volatile securities in our portfolios, because of the way that they interact with one another in that systematic process, as John points

**TWST: How can investors access products managed by Dorsey Wright?**

**Mr. Parker:** There are basically three general ways that investors can invest in vehicles managed by Dorsey Wright. Our flagship area, of course, is our separately managed accounts, which invest in individual equities. We offer several Systematic Relative Strength portfolios: aggressive, core, balanced, international core and socially responsible investment core. All of these products are focused on relative performance, with individual equities as the holdings.

The second way to access our management is through the Arrow DWA Balanced Fund. This global allocation fund is divided among four major investment classes — domestic equities, foreign equities, fixed income and alternative investments such as commodities, TIPS, real estates, gold and so on. We are also now in the quiet period for a new fund called the Arrow DWA Tactical Fund.

The third way is through New York Stock Exchange listed exchange-traded funds. These are sponsored by PowerShares and there are three — domestic equities, foreign equities in developed markets and foreign equities in emerging markets. Those are the major ways that people can access our relative strength management expertise.

**TWST: Your systematic relative strength approach takes out any forecasting of where the market will be, because it adapts to whatever it is. Is there a risk in it always being reactive rather than proactive?**

**Mr. Moody:** We think that being reactive and trend-following is actually a strength rather than a liability. One of the difficulties of forecasting is that in a large percentage of situations, you are going to find yourself incorrect. When you look at interest rate forecasts, for example, that *The Wall Street Journal* panel of economists make, historically they have been far off base. They tend to be incorrect not only about the level of rates, but even about the direction in which rates will move. Because forecasting is so difficult, it's hard to put together a portfolio to fit a certain market environment that you anticipate. By eliminating the forecast and just letting the model adapt to the environment, relative strength deals quite well with outcomes that you wouldn't expect, like a market that can see oil go from \$40 to \$100 and still move higher.

Those are situations that forecasting approaches find very difficult to handle, but a trend-following approach has no problem with it. We think it's a strength rather than a weakness to not have to worry about being proactive or to concern ourselves with where markets might be going. We need only 20 to 25 strong names in a

portfolio to do well. Even if a lot of the market is not doing well, we can generally find that small subsection that is doing well and that can really benefit the portfolio.

**TWST: Is there anything that you would like to add?**

**Mr. Parker:** I think one of the things that we could touch on is what we bring to the table that others don't. The real key is that we have a very strong three-member team here that has over six decades of combined experience, along with significant expertise in adaptive modeling.

We also have a deep background and a wealth of experience in relative strength research. Mike and I wrote our first paper on relative strength almost 20 years ago. Over time we've refined the approach. More recently, with John leading the way, we have been able to rigorously quantify it. The result is a team that has enough experience and expertise to build an adaptive model and enough discipline to leave the model alone and allow it to operate.

**TWST: Thank you.**

*Note: Opinions and recommendations are as of 4/15/08.*

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