



# NEW IDEAS IN QUANT INVESTING STRATEGIES: STOCKS

## JANUARY

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

### KEY HIGHLIGHTS

#### For the New Year, what's new in stock investing?

- Can Stock Trading Volume and Liquidity Predict Stock Returns?
- Investors Treating Stocks like Lottery Tickets Tend to Lose
- "Overvalued" Equities Can Be Good Investments
- When a Recession Looms, Bank Stocks Are Among the First to Suffer
- International Diversification Still Works, and Works Well

## CAN STOCK TRADING VOLUME AND LIQUIDITY PREDICT STOCK RETURNS?

**M**any non-quantitative equity analysts or “chartists” incorporate stock volume as predictors of future stock prices. Does quantitative investing consider volume and liquidity as predictive variables, and if so, how?

Trading volume measures the cumulative size of all trades completed in a particular financial instrument. According to Simon Gervais, Ron Kaniel, and Dan Mingelgrin (*Journal of Finance*, 2001), stock volume serves as a quantitative predictor of future stock returns for an interesting reason. High stock volume increases the visibility of a particular stock and attracts new investors, whose demand in turn raises the stock price.

Market liquidity is a close cousin of trading volume. Liquidity is a measure of how many buyers and sellers are present in the market at any given time. According to the latest research of Randi Næs, Johannes A. Skjeltorp and Bernt Arne Ødegaard (*Journal of Finance*, 2010), low liquidity often precedes recessions and market crashes. The authors hypothesize that when a recession or a market crash is in the cards, advanced investors leave the markets in a phenomenon known as a “flight to quality.”

Changes in trading volume and liquidity, however, can be caused by a variety of factors. One of these factors is risk: Companies facing a higher degree of uncertainty may have stocks trading with a higher volume. These riskier stocks may include growth stocks as well as stocks reacting to adverse news. Another driver of trading volume and liquidity can be a change in the attention a company receives in the press. Stocks with a lot of press coverage tend to incorporate news faster than stocks with low publicity. Yet, according to a study by Lily Fang and Joel Peress (*Journal of Finance*, 2009), stocks with no media coverage tend to deliver higher returns than stocks with ample publicity.

Yet, publicity and trading volume have a complicated quantitative relationship. Publicity resulting from higher volume tends to raise stock prices, while high volume resulting from publicity depresses long-term stock returns. Investors need to exercise caution and due diligence in assessing the causes of high volume and liquidity prior to buying or selling stocks.

**JANUARY 3-9, 2011**

**Events this week:**

- Pending Home Sales Index
- Challenger, Gray & Christmas Employment Report
- Unit Auto and Truck Sales for December 2010
- Job Opening and Labor Turnover Survey (JOLTS)
- Manufacturers' Shipments, Inventories, and Orders for November 2010

**Monday, January 3, 2011**

New Year's Day, observed (Markets Closed)

**Notes:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



\_\_\_\_\_

\_\_\_\_\_

**Tuesday, January 4, 2011**

-  7:45 A.M. ICSC Retail Sales Index
-  8:55 A.M. Johnson Redbook Report
-  10:00 A.M. ISM Report on Business—Manufacturing for December 2010
-  10:00 A.M. Construction Spending for November 2010
-  5:00 P.M. ABC News Consumer Comfort Index

**Wednesday, January 5, 2011**

-  7:00 A.M. U.S. Mortgage Application Indexes
-  8:15 A.M. ADP National Employment Report

**Thursday, January 6, 2011**

-  6:00 A.M. Monster Employment Index
-  8:30 A.M. U.S. Unemployment Insurance Claims
-  10:00 A.M. ISM Report on Business—Non-Manufacturing for December 2010
-  11:00 A.M. 13- and 26-Week U.S. T-Bill Auction Announcements
-  4:30 P.M. U.S. Monetary Aggregates
-  4:30 P.M. U.S. Monetary Base

**Friday, January 7, 2011**

-  8:30 A.M. The Employment Situation

## INVESTORS TREATING STOCKS LIKE LOTTERY TICKETS TEND TO LOSE

**D**o you believe that a particular stock may bring you luck? It may be a good time to stop. According to research by Alok Kumar, published in the *Journal of Finance* in 2009, investors with a lottery approach to stocks significantly underperform those with a more scientific approach to choosing equities.

Kumar examines stocks with characteristics similar to the simplest state lotteries that have the following traits.

- Lottery tickets cost little relative to the lottery's jackpot (low price to potential payoff ratio).
- Probability of winning a jackpot is very low.
- The value of the jackpot varies highly from one lottery to the next (the payoff is very risky).
- The average returns on lottery tickets are mildly negative.

In the hunt for lottery-like stocks, stock market gamblers search for lottery characteristics against the entire stock universe. Kumar conjectures that gamblers are mostly looking for cheap bets, and are likely to find low cost stocks (penny stocks) attractive. Furthermore, gamblers are seeking stocks with low prices and high volatility, so that despite much likelihood of a loss, there exists some probability of a very high gain. As a result, gamblers focus on stocks with the following features: high volatility pertaining to the stock only (independent of the market); stock tendency to end up with a negative return; and low stock price.

The author of the study finds that individuals are much more prone to gamble than professional investors. The percent of individual (retail) investors' aggregate wealth invested in lottery stocks is 3.74 percent, and only 0.76 percent of professional investors' money is allocated to lottery equities.

Furthermore, it turns out that investors who allocate at least one-third of their total investable wealth to lottery stocks on average lose at least 2.5 percent per year, after adjusting for risk. A typical investor who gambles a part of his portfolio can improve his performance by over 2.8 percent per year just by reallocating his stock gambling capital to non-lottery stocks.


**JANUARY 10-16, 2011**

**Events this week:**

- Bank of Canada Target Bank Rate Announcement
- NFIB Small Business Optimism Index for December 2010
- U.S. Industrial Production and Capacity Utilization for December 2010
- U.S. Retail Sales for December 2010
- Manufacturing and Trade Inventories and Sales for November 2010
- Treasury International Capital Flows for November 2010
- Consumer Price Index
- Producer Price Index
- Housing Starts and Building Permits for December 2010
- International Trade Balance for November 2010
- Job Opening and Labor Turnover Survey (JOLTS)
- Import and Export Prices
- Productivity and Costs

**Monday, January 10, 2011**

Adults' Day (Japan Markets Closed)

 11:00 A.M. U.S. Treasury Bill Auction Announcement

**Notes:** \_\_\_\_\_

**Tuesday, January 11, 2011**

 7:45 A.M. ICSC Retail Sales Index

 8:55 A.M. Johnson Redbook Report

 5:00 P.M. ABC News Consumer Comfort Index

**Wednesday, January 12, 2011**

 7:00 A.M. U.S. Mortgage Application Indexes

 2:00 P.M. U.S. Federal Budget Balance

 2:00 P.M. Current Economic Conditions ("Beige Book")

**Thursday, January 13, 2011**

 7:00 A.M. Bank of England Rate Decision

 7:45 A.M. European Central Bank Interest Rate Announcement

 8:30 A.M. U.S. Unemployment Insurance Claims

 11:00 A.M. 13- and 26-Week U.S. T-Bill Auction Announcements

 4:30 P.M. U.S. Monetary Aggregates

 4:30 P.M. U.S. Monetary Base

**Friday, January 14, 2011**

 10:00 A.M. U.S. Consumer Sentiment, preliminary data

http://www.pbookshop.com

## “OVERVALUED” EQUITIES CAN BE GOOD INVESTMENTS

The “fair price” of a stock is in the eyes of the beholder. Investors base their equity pricing on various approaches, including but not limited to technical analysis, fundamental analysis, or a variety of other more and less quantitative techniques. The outcome of such pricing is always the same: If a stock is deemed overpriced, a sell order is placed, while a stock that is lower than the model’s prediction is bought with the expectation that the price will rise to its assessed fair value.

In reaching conclusions on whether stocks are overvalued, many traders and analysts take into account growth prospects of the firms under consideration. Firms facing few organic growth prospects with stocks priced above those of their peers are often considered overvalued.

New research shows, however, that seemingly overvalued firms frequently find outlets for strong nonorganic growth. In a June 2009 *Journal of Finance* article, Pavel Savor and Qi Lu, of the Wharton School and Kellogg School, respectively, argue that stocks deemed overvalued by conventional measures are naturally bound to grow through acquiring other firms, and specifically by paying with their own stock, not cash. According to Savor and Lu, the firms that are deemed overvalued, yet are able to successfully complete a stock-for-firm acquisition, fare much better in subsequent years than do firms that are deemed overvalued but failed to acquire other firms using their stock. If a firm seems to be overvalued, an investor should consider the likelihood that it will make a successful acquisition; if so, the firm’s stock may be attractively priced.

Rather than relying on company growth prospects, another team of researchers recommends looking at the volatility of the firm’s cash flows in valuing the company’s stock. Randolph Cohen, Christopher Polk, and Tuomo Vuolteenaho (*Journal of Finance*, December 2009) find that firms with strong and consistent cash flows significantly outperform firms with weak or volatile cash flows over 5- and even 15-year investment horizons.

In reaching their conclusions, the authors of the study considered various potential predictors: prior monthly and annual stock returns, a proportion of the firm’s balance sheet allocated to debt, relative changes in

**JANUARY 17-23, 2011**

**Events this week:**

- Bank of Canada Target Bank Rate Announcement
- U.S. Durable Goods Orders for December 2010
- Composite Index of Leading Economic Indicators for December 2010
- Housing Starts and Building Permits for December 2010

**Monday, January 17, 2011**

Martin Luther King Day (U.S. Markets Closed)

**Notes:** \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

**Tuesday, January 18, 2011**

-  7:45 A.M. ICSC Retail Sales Index
-  8:30 A.M. Empire State Manufacturing Survey
-  8:55 A.M. Johnson Redbook Report
-  10:00 A.M. ISM Report on Manufacturing
-  5:00 P.M. ABC News Consumer Comfort Index






\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Wednesday, January 19, 2011**

-  7:00 A.M. U.S. Mortgage Application Indexes

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Thursday, January 20, 2011**

-  8:30 A.M. U.S. Unemployment Insurance Claims
-  10:00 A.M. Philadelphia Fed Business Outlook Survey
-  11:00 A.M. 13- and 26-Week U.S. T-Bill Auction Announcements
-  4:30 P.M. U.S. Monetary Aggregates
-  4:30 P.M. U.S. Monetary Base

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Friday, January 21, 2011**

-  12:00 P.M. January 2011 options expire

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

*http://www.pbookshop.com*

the firm's accounting assets, and stock riskiness with respect to that of the markets. The size and stability of the firm's cash flows proved to be the most significant factor behind predictions of stock prices in the long run.

## WHEN A RECESSION LOOMS, BANK STOCKS ARE AMONG THE FIRST TO SUFFER

**W**hen a recession hits a particular sector of the economy, most companies within that sector begin to feel the pain. Shrunken prospects of one firm often signify bad news and lower the stock prices for their peer group. As some firms default, so do the others.

The infectious spread of corporate defaults is known as “default clustering” or “credit contagion.” It is often overlooked in equity pricing, and may have accounted for a fair share of risk miscalculations resulting in the credit crisis of 2007–2008.

Credit contagion is useful to consider when pricing all stocks, and not just those in the industry most affected by the recession. When companies begin to default, they immediately damage their creditors' balance sheets, according to a study by Philippe Jorion and Gaiyan Zhang (*Journal of Finance*, October 2009). Since banks are the primary creditors across industries their prospects and stock prices falter as soon as any corner of the economy falls ill.

Yet, not all credit to industrial firms is extended by banks. Jorion and Zhang point out that industrial firms are also likely to borrow from their suppliers in the form of trade credit. If a firm defaults, its suppliers are likely to feel a financial stress as well, potentially extending contagion to the supplier's industry, and lowering equity prices there.

As a result, when valuing equities, pay attention to the credit relationships of the firm. When credit data of a specific firm is not available, data on the company's industry peers should be used to establish the financial exposure and the health of the firm.

Understanding the nature of a firm's clientele is equally important. If a firm's clients are spread out across the country or in various industries, it



is more likely to weather a storm should one or several of their customers default. On the other hand, firms with one or a few large customers heavily concentrated in specific industries are more likely to experience financial distress as a result of their customers' ills. The same applies to banks and other financial lenders: Well-diversified institutions are more likely to weather their customer crises than smaller specialized outfits targeting niche industries and having a limited array of borrowers.

## INTERNATIONAL DIVERSIFICATION STILL WORKS, AND WORKS WELL

Classical financial theory recommends diversification of assets as a means to reduce risk (volatility) in one's portfolio. To successfully diversify a portfolio, an investor needs to combine stocks with returns exhibiting the least co-movement or correlation.

What stocks are more likely to have low correlation? Prices of stocks driven by different events tend to exhibit less correlation than stocks driven by the same occurrences. Stocks in disparate industries, for example, are often less correlated than stocks in the same industry, as the latter are prone to have similar responses to events, such as supply shocks. According to new research by Geert Bekaert, Robert Hodrick, and Xiaoyan Zhang (*Journal of Finance*, December 2009), stocks trading in different countries are also not very well correlated and are good candidates for diversifying one's portfolio.

While one can buy a Big Mac virtually everywhere, stock markets appear to remain at the same level of global integration as they were 10 years ago. According to the authors of the study, stock markets in different international jurisdictions seldom move in the same direction, even in the today's globalized environment. Advances in U.S. stocks do not translate into rising prices in Europe or Asia, for example.

The lack of correlation across international stock markets can be partially explained by differences in the types of companies that are listed across the globe. Bekaert and his co-authors note that the average size of a publicly traded firm in Japan is \$1,538 million, while it is only \$218 million in Greece.



Furthermore, the authors of the study detect few trends in stock correlations across various markets. That is, stock correlations do not appear to persistently change much over time. The only exception to this observation is the interrelation of the European markets: Those exhibit more and more correlation, probably under the effect of the increasingly cohesive regulatory regime across Europe.

In short, stocks in different regions of the world present attractive diversification benefits for investors' portfolios. And as many brokerages offer increasingly seamless trading connections to various international exchanges, accessing foreign markets and diversifying using foreign stocks has never been easier.

<http://www.pbookshop.com>