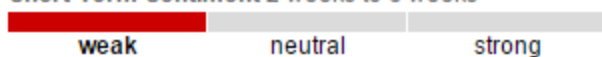# Introducing Recognia® Technical Analysis
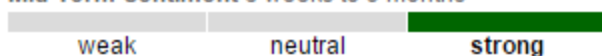
Recognia Technical Analysis

PROVIDED BY RECOGNIA AS OF 12/03/2015
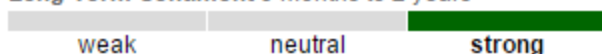
Short-Term Sentiment 2 weeks to 6 weeks

weak   neutral   strong

Mid-Term Sentiment 6 weeks to 9 months

weak   neutral   **strong**

Long-Term Sentiment 9 months to 2 years

weak   neutral   **strong**

Learn about technical analysis

Technical analysis can be used by investors with other types of research as a way to determine whether it may be an advantageous time to buy or sell a security. Typically, this kind of research involves using multiple technical indicators or analyzing historical chart patterns. For those who are not familiar with technical analysis, this type of research can be difficult.

Fidelity has partnered with Recognia to make technical analysis easier for you. The Recognia Technical Summary allows you to quickly determine the current technical outlook of a security over short, intermediate, and long-term timeframes based on Recognia's process for analyzing technical events and patterns.

What is it?

Recognia provides Fidelity with a set of technical events and patterns for a given security for short, intermediate, and long-term timeframes. Recognia calculates a score for each timeframe with heavier weighting given to more recent technical events and patterns.

Recognia created multiple models and found that rather than simply determining whether there were more bullish or bearish events over a given timeframe to decide whether the stock is weak (bearish), neutral, or strong (bullish), on a technical basis, that weighting the event or pattern on how recently it occurred created a more accurate outlook when compared with how 3 expert technical analysts would rate the stock.

Time horizon of events	Simple count model	Recognia recency-weighted model
Short-term (2 weeks to 6 weeks)	60-63% agreement	74-77% agreement
Intermediate-term (6 weeks to 9 months)	51-57% agreement	77-83% agreement
Long-term (9 months to 2 years)	74-77% agreement	77-80% agreement

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How does it work?

The Recognia model uses currently active technical events and patterns. Bullish events are assigned a positive score, and bearish events are assigned a negative score. Each event or pattern is given a score based on how recently it occurred. The short, intermediate, and long-term timeframes each have different scales for what constitutes "recent". For example, if an investor is looking at the short-term timeframe, events that occurred 3 days ago or less gets a higher score than events that happened between 3 and 8 days, or more than 8 days ago. The intermediate and long-term events use longer time periods for scoring.

Recognia then issues an outlook for each time period based on the sum of the scores. If the sum of the events is positive, the view is Strong (bullish). If the sum is zero then the view is Neutral. If the sum is negative, the view is Weak (bearish).

Example:

A security has the following technical events on May 14, 2015 (short-term)

Technical event	Direction	DateRecognized
MACD	Bearish	05/13/15
Price Crosses Moving Average	Bearish	05/13/15
Momentum	Bearish	05/08/15
Momentum	Bullish	05/08/15
Double Moving Average Crossover	Bullish	05/06/15
Gap Up	Undefined	05/04/15
Short Term KST	Bullish	04/22/15

Using the references for the Recognia recency-weighted model, the sum for all events should be:

Technical event	Direction	Date Recognized	Weighted Contribution
MACD	Bearish	05/13/15	-3
Price Crosses Moving Average	Bearish	05/13/15	-3
Momentum	Bearish	05/08/15	-2
Momentum	Bullish	05/08/15	2
Double Moving Average Crossover	Bullish	05/06/15	1
Gap Up	Undefined	05/04/15	0
Short Term KST	Bullish	04/22/15	1
Total			-4

Technical Opinion: Weak (bearish)

*Note: All *undefined* events (e.g. gaps) are ignored by the model as these are for information purposes only.

Making it work for you

There are several ways to use the Recognia Technical Summary. You can use it as a criterion to help identify stocks you may want to include or exclude for further analysis with other types of research. You can also use it to monitor the technical view of stocks your currently hold in your portfolio or are part of a watchlist you are following. You can use it to help determine whether it may be an advantageous time to buy or sell a security.