

# Determining Market Direction

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## Importance of market timing

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As an investor, it is important to constantly be aware of the market's direction and be alert for a change in that direction. Anyone who was long stocks late in 1997 or short stocks early in 1998 knows how hard it is to pick winning stocks when the general market is moving against you. It can be like trying to swim upstream.

Market timing will not only lower portfolio risk but can also increase portfolio returns. A study performed at the University of Michigan shows that being out of the market for the worst 90 days from 1963 to 1993 increased the annual return of a market index to 21.7% per annum from 11.8% for buy-and-hold. No one can perfectly time the market but a timer that missed both the worst and the best 90 days still saw a higher return than a buy-and-hold strategy.

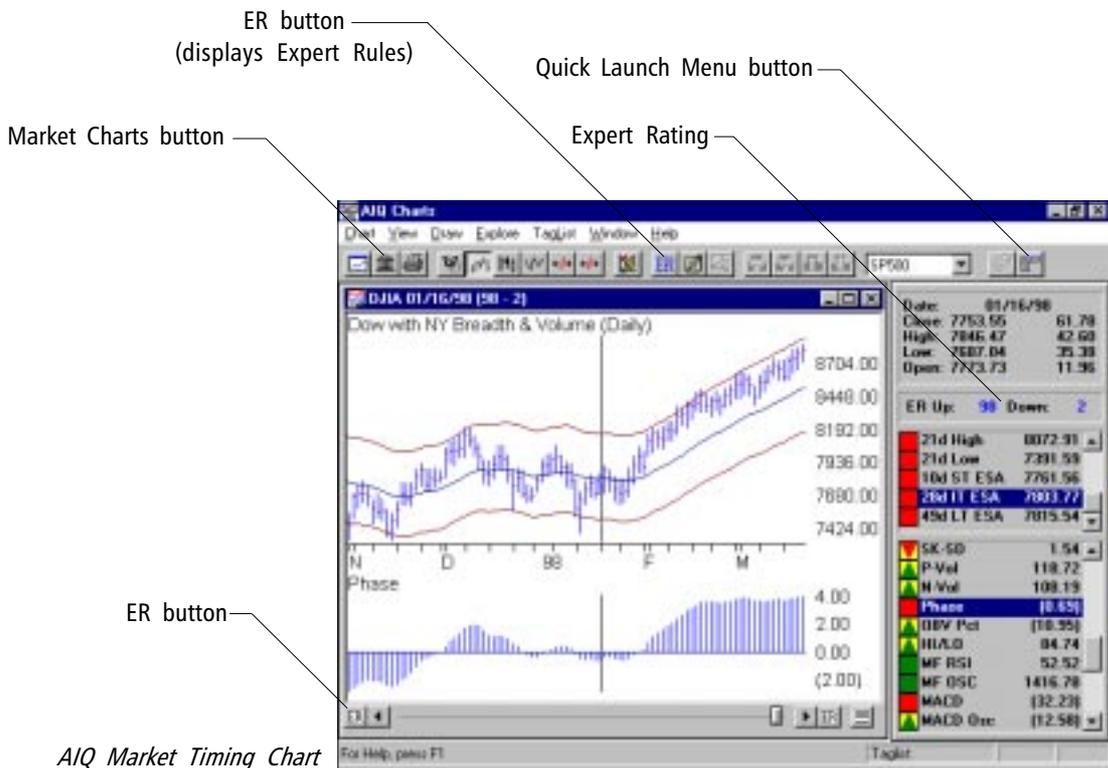
The first step in any stock selection process is always to determine the direction of the market. TradingExpert for Windows provides several tools for determining market direction and for anticipating changes (reversals) in market direction. The most important is the AIQ Expert Rating which signals changes in market direction; this Expert Rating is found on the TradingExpert market timing screen.

The market timing screen can be launched by double clicking the *Market Charts* icon on the AIQ Main Menu. You can also launch the market timing screen by clicking the **Market** icon on the Quick Launch Menu or by clicking the **Market** button on the toolbar of any chart screen. By default, the market timing screen displays charts of four market indices: Dow Jones Industrial Average, S&P 500 Index, S&P 100 Index, and OTC Exchange. The chart of the Dow Jones with NYSE Volume and Breadth is the AIQ Market Timing Chart where AIQ's Expert Ratings are found (see chart next page).



*Market icon*

AIQ's market timing model compares the Dow, a narrow measure of market activity, to the activity in the broad market. Broader market activity is measured by the New York Stock Exchange market breadth figures and the number of NYSE stocks reaching new highs and new lows. Typically, an Expert Rating down signal is registered when the Dow is showing strength but the broader market numbers are lagging badly. The opposite is true for a buy signal.



AIQ Market Timing Chart

To see the Expert Rating for the overall market, the Dow Jones chart must be the active chart (chart with highlighted title bar). To make a chart active, click with your mouse anywhere on the chart. To increase the size of the Dow Jones chart, double click its Title Bar or click its **Maximize** button (upper right corner).

The Expert Rating (ER), which is found in the upper section of the panel on the right, above the technical indicators, consists of two values: an upside value (left number) and a downside value (right number). Both the upside and downside values range from 0 to 100. Any value greater than 95, upside or downside, is considered a significant signal. A value of 90 to 94 is a warning signal. You can scan for ER's greater than 95 by clicking on either **ER** button on the scroll bar at the bottom of the chart screen. The Market Timing Chart displayed shows a 98 buy on January 16, 1998.

### Note

To see the reasons behind a buy or sell signal, click the **ER** button on the toolbar. Rules that "fired" to cause the Expert Rating will be displayed.

## Signal confirmation recommended

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Expert Rating signals can be early (i.e., the signal occurs one or more days before price reverses direction). To lower the risk of acting on a signal before the market actually changes direction, many users employ a technique called signal confirmation. Signal confirmation techniques use special price direction indicators to confirm that price is moving in the direction of the Expert Rating signal. When a signal confirmation strategy is employed, an Expert Rating signal is not acted upon until it is confirmed by the appropriate price direction indicator (or indicators).

The Price Phase Indicator (Phase) is the indicator used most often for signal confirmation. A buy signal on the market is not confirmed until the Price Phase increases from one day to the next. A sell signal on the market is not confirmed until the Price Phase decreases from one day to the next. We see in the displayed Market Timing Chart (previous page) that the 98 buy signal is confirmed since the Price Phase Indicator, plotted below the price plot of the Dow, increased on that day.

### Note

AIQ highly recommends waiting for confirmation of Expert Rating signals. A complete Signal Confirmation Guide can be found in the Technical Indicators Reference Manual.

The Price Phase Indicator is a “fast” confirmation technique. (Fast, in this sense, is a relative term meaning that the Price Phase Indicator will confirm some signals one or more days sooner than most other confirmation techniques.) Fast confirmation is helpful to shorter-term traders who want to move in and out of the market quickly. For those who want to trade less frequently, a slower technique such as the MACD crossover can be employed. (The MACD indicator is composed of two components, a Price Phase Line and a Signal Line. A crossover is when the Price Phase Line crosses the Signal Line.)

## Effectiveness of AIQ market signals

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Important to the developers as well as the users of AIQ software is the answer to the question: What is AIQ’s effectiveness in calling market turns? This is a hard question to answer because there are many possible trading techniques that can be used, depending on whether the user is a short-term or an intermediate term trader. Also, if two buy signals are registered in a row and the market goes up, are they both good signals or is the second one confirming the first?

A study was conducted to measure Expert Rating effectiveness, utilizing a simple analysis technique: Buy after a buy signal and sell after a sell signal. For this study, the trader buys the Standard & Poor’s 500 on an Expert Rating up signal of 95 or greater, and

switches to cash on an Expert Rating down signal of 95 or greater. Since this is a test of the accuracy of Expert Ratings, no confirmation technique is used. Data from the Wall Street Journal is used.

In addition, the following rules were followed:

- After the first buy signal, all subsequent buy signals are ignored until a sell signal is registered.
- Analysis assumes you can buy and sell at the close on day of signal.
- Interest received when holding cash is not factored in.

### AIQ Market Timing Effectiveness Study

	<b>Buy &amp; Hold</b> (% Gain/Loss)	<b>Trading with AIQ</b> (% Gain/Loss)
1985	26.33	28.51
1986	14.62	27.24
1987	2.03	44.28
1988	12.40	17.53
1989	27.25	26.95
1990	-6.56	5.00
1991	26.30	33.27
1992	4.40	6.45
1993	7.06	4.70
1994	-1.52	3.89
1995	34.11	23.80
1996	20.26	25.96
1997	31.01	29.69
1998	26.67	28.47

### Summary Statistics 1985 through 1998

#### Buy and Hold Strategy

Average gain per year 16.02%

#### Market Timing Strategy Using AIQ Software

Average gain per year 21.74%

Round trip trades per year 5

Average gain per trade 4.19%

## Use *Up-Down Signal Ratio* for day-by-day reading of the market

The Expert Ratings give a good indication of the future direction of the market but important signals (values of 95 and above) are not registered often. For a day-by-day reading of the health of the overall market, you can use the Weighted Action List report to see the percentage of stocks in your data base that are giving confirmed buy and sell signals. The *Up-Down Signal Ratio* displayed at the top of the report gives this reading. The left number represents the percentage of stocks with recent confirmed buy signals. The right number represents the percentage of stocks with recent confirmed sell signals.

### Note

The *Up-Down Signal Ratio* can also be found at the top of the Market Log report, in the section labeled WAL.

Displayed is a Weighted Action List for January 16, 1998. We see that of all the stocks with recent confirmed signals, 80% are on the buy side. A number greater than 80% typically reveals that a strong trend is developing. Watch this ratio not only for extreme readings but for day-to-day movement. A ratio that is decreasing implies a weakening market. An extremely bearish reading is indicated when at least 80% of the stocks giving confirmed signals are on the sell side.

Up-Down Signal Ratio

Ticker	Stock	Wt	EP	Price
EMC	EMC Corp	99	96	29 1/2
TCOMA	Tele Communica...	72	92	29 21/32
KBH	Kaufman & Broa...	70	92	24 29/32
OAT	Quaker Oats Co	67	100	52 1/2
DEC	Digital Equip Corp	65	95	39 29/32
CPQ	Compaq Comput...	62	95	29 17/32
KM	K Mart Corp	60	95	11
KRB	MBNA Corp	58	92	28 29/32
CNS	Consolidated Sto...	58	97	43 3/8
MCIC	MCI Communic...	56	98	43 29/32
MEL	Mellan Bk Corp	56	99	60 1/8
BMG	Battle Mountain ...	55	98	5 9/16
PCAR	Paccar Inc	54	96	51

*Weighted Action List report*

## Trendlines show support and resistance

The final element of market timing is simply your own interpretation of the market indexes and their technical indicators. Trendlines connecting a series of high points and a series of low points on a market index chart show support and resistance levels. Shown is a chart of the S&P 500 along with a support trendline that connects the October and December high points. Once the market broke above this resistance level, it never looked back.

Buying historically increases when the market is near a support trendline. Selling typically increases when the market nears a resistance trendline. A break below a support trendline is bearish, especially when accompanied by a market timing sell signal. A break above a resistance trendline is bullish.



*S&P 500 Index with support trendline*

### Note

More detailed information about the technical indicators mentioned in this Working Guide can be found in the Technical Indicators Reference Manual.

By incorporating market timing into your analysis, you can lower the risk of your portfolio and increase returns. Depending on how aggressive you are, you can simply reduce the number of new purchases during bearish time periods, raise cash levels, or sell the market short. In any case, you'll find TradingExpert is extremely valuable in helping to determine the health of the overall market.

