Bloomberg Market Essentials: Technical Analysis

DeMark Indicators
by
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Indicators invented by Tom DeMark (TD) are applied in market timing and technical analysis of financial markets.

http://demark.com/about-demark/
“Tom DeMark,......,is a unique, interesting, and oftentimes iconoclastic technical analyst. Simply put, he thinks about the markets differently from the way you or I do.”

http://bollingerbands.it/images/john_bollinger.jpg

Bollinger
Overview of DeMark’s Basics

Price Flip

Setup

Countdown

Sequential Combo

Trend

Perfection

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Let $C_t$ be a sequence of closing prices. The time $t$ can be daily, weekly, monthly, or even quarterly.

A key component of TD system is $C_t$ versus $C_{t-4}$.

We ask whether $C_{t-4} > C_t$ or $C_{t-4} < C_t$.

Why 4 periods?
Bearish TD Price Flip

A Bearish TD Price Flip occurs when the market records a close greater than the close 4 periods (or bars) earlier, immediately followed by a close less than the close 4 bars earlier.

\[ C_{t-1} > C_{t-5} \text{ followed by } C_t < C_{t-4} \]
Bearish Price Flip
A Bullish TD Price Flip occurs when the market records a close smaller than the close 4 periods earlier, immediately followed by a close greater than the close 4 bars earlier.

\[ C_{t-5} < C_{t-1} \text{ followed by } C_{t-4} > C_t \]
Bullish Price Flip
TD Setup

- The prerequisite for a TD Buy Setup is a Bearish TD Price Flip, which indicates a switch from positive to negative momentum.
- The prerequisite for a TD Sell Setup is a Bullish TD Price Flip, which indicates a switch from negative to positive momentum.
- TD Setup is an indicator that determines whether a market is likely to be confined to a trading range or starting a directional trend.
- TD Setup is to be followed by TD Countdown.
A TD Buy Setup is that, after a bearish TD Price Flip, there must be 9 consecutive closes, each one less than the corresponding close four bars earlier.

If, at any point, the sequence of 9 consecutive closing prices less than the closing price 4 bars earlier (up to and including the close of TD Buy Setup Bar 9) is interrupted, the developing TD Buy Setup must be cancelled and must begin anew.

Once a TD Buy Setup successfully reaches 9, the first phase of TD Sequential is complete.
TD Buy Setup Perfection

TD Buy Setup “perfection” is the prerequisite for entering a long position based on a completed TD Buy Setup.

The low of Bar 8 or Bar 9 of the TD Buy Setup must be less than, or equal to, the lows of Bar 6 and Bar 7 of the TD Buy Setup.

\[ L_9 \leq L_7 \text{ and } L_9 \leq L_6 \]

or

\[ L_8 \leq L_7 \text{ and } L_8 \leq L_6 \]
Perfected Buy Setup

Market completed a perfected TD Buy Setup (as indicated by the up arrow), since the low of bar TD Buy Setup 8 or 9 was beneath the low of TD Buy Setup bars 6 and 7.

TDST resistance

TDST support
Market completed a TD Buy Setup, but it was not perfected because the lows of bars 8 or 9 weren't below the lows of bars 6 and 7. The TD Buy Setup was perfected five days later when the market traded below the low of bar 7.

The up arrow indicates the bar where the TD Buy Setup was perfected, in this instance, when the market traded below the low of TD Buy Setup bar 7.
Once the bullish TD Price Flip occurs, a TD Sell Setup, consisting of 9 consecutive closes, each being greater than the corresponding close 4 bars earlier, can begin.

If at any point, the sequence of nine consecutive closes greater than the close 4 bars earlier is interrupted, up to and including the close of TD Buy Setup Bar 9, then the developing TD Buy Setup will be cancelled and must begin anew.
TD Sell Setup Perfection

- TD Sell Setup “perfection” is the prerequisite for entering a short position based on a completed TD Sell Setup.

- The high of Bar 8 or Bar 9 of the TD Sell Setup must be more than, or equal to, the highs of Bar 6 and Bar 7 of the TD Sell Setup.

\[ H_9 \geq H_7 \quad \text{and} \quad H_9 \geq H_6 \]

or

\[ H_8 \geq H_7 \quad \text{and} \quad H_8 \geq H_6 \]
Market completed a perfected TD Sell Setup (as indicated by the down arrow), since the high of bar TD Buy Setup 8 or 9 was above the high of TD Buy Setup bars 6 and 7.
Market completed a TD Sell Setup, but it was not perfected since the high of TD Sell Setup bar 8 or 9 was below the high of TD Sell Setup bars 6 and 7. A down arrow appeared the next day to indicate the TD Sell Setup had been perfected.
Sequential Countdown
To Initiate TD Sequential Buy Countdown

- If Bar 9 of a TD Buy Setup also has a close less than, or equal to, the low two bars earlier,

- Then, Bar 9 of a TD Buy Setup becomes Bar 1 of a TD Buy Countdown.

- If That condition is not met,

- Then TD Buy Countdown Bar 1 is postponed until it does, and the TD Buy Countdown continues until there are a total of 13 closes, each being less than, or equal to, the low 2 bars earlier.
To Complete a TD Sequential Buy Countdown

Two conditions must be met.

1. The low of TD Buy Countdown Bar 13 must be less than, or equal to, the close of TD Buy Countdown Bar 8.

2. The close of TD Buy Countdown Bar 13 must be less than, or equal to, the low 2 bars earlier.
Completed Sequential Buy Countdown

TD Buy Setup starts.

TD Buy Setup ends.

TD Buy Countdown stops counting temporarily between bars 9 and 10, as none of these bars have a close that is less than or equal to the low 2 bars earlier.

TD Sequential Buy Countdown begins.

Completed TD Sequential Buy Countdown
Completed Sequential Buy Countdown

TD Buy Setup starts.

TD Buy Setup ends.

Having completed a TD Sequential Buy Setup, a TD Buy Countdown can begin. In this instance, the TD Buy Countdown starts on the same bar that the TD Buy Setup finishes.
Deferred Sequential Buy Countdown

Each bar marked with + has a close that is less than, or equal to, the low two price bars earlier, but doesn’t meet the second and additional qualifier for a valid 13, i.e., the low of bar 13 must also be less than or equal to the close of bar 8. The 13 appears finally, when both conditions are met on the same price bar.
Completed Sequential Sell Countdown

TD Sell Setup starts.  
TD Sell Setup ends.  
Completed TD Sell Countdown starts.  
Completed TD Sell Countdown
Completed Sequential Sell Countdown

TD Sell Setup ends.  TD Sell Countdown starts.  Completed TD Sell Countdown

TD Sell Setup starts.


1  2  3  4  5  6  7  8  9  1  2  3  4  5  6  7  8  9  10  11  12  13
Deferred TD Sequential Sell Countdown

Each bar marked with + has a close that is higher than or equal to the high two price bars earlier, but doesn’t meet the second and additional qualifier for a valid 13, i.e., the high of bar 13 must also be greater than or equal to the close of bar 8. The 13 appears finally, when both conditions are met on the same price bar.
TD Setup Trend
TDST Levels

- Each time the market completes a TD Setup, the true price extreme of that move—known as the TD Setup Trend (TDST)—redefines the range in terms of price levels.

- The ensuing price response to that TD Setup Trend level helps to determine the directional bias.
TD Setup Scenario I: Consolidation/Reversal

If A price fails to record a close beyond the absolute high or low of the most recently completed TD Setup in the opposite direction—that is, the TDST Level—up to and including the completion of Bar 9 of the current active TD Setup.

Then The market is deemed to have insufficient momentum to break out of the range.
Market completed a TD Buy Setup ahead of TDST support, indicating the move lower was most likely corrective.

Although downside momentum in the RSI was tailing off, it didn’t provide a definitive buy signal.
TD Setup Scenario II: Confirmed Trend Extension

- If Price exceeds the extreme absolute high or low of a previous TD Setup in the opposite direction on a closing basis

- Then The market is deemed to have sufficient momentum to facilitate a sustained break out of the range.
Trend Extension

Note how at the time of the TDST resistance violation, momentum in the form of the RSI was already approaching overbought territory even though the uptrend was just starting to accelerate.

Market closes above TDST resistance before completing a TD Sell Setup, indicating an increased probability that the uptrend continues towards a TD Countdown 13.
Market completes a TD Buy Setup, without having first closed beneath TDST support.
TDST Resistance

Market completes a TD Sell Setup, without having first closed above TDST resistance.
Market closes beneath TDST support before completing a TD Buy Setup, indicating an increased probability that the downtrend continues towards a TD Countdown 13.
Market closes above TDST resistance before completing a TD Sell Setup, indicating an increased probability that the uptrend continues towards a TD Countdown 13.
Trading a TD Buy Setup: Perl’s Rules

Buy when the following three conditions are fulfilled:

1. When the TD Buy Setup has been perfected, that is, the low of TD Buy Setup Bar 8 or Bar 9 is less than the lows of TD Buy Setup Bar 6 and Bar 7, respectively

2. When none of the bars within the TD Buy Setup has closed below TDST support

3. When the close of TD Buy Setup Bar 9 is in close proximity to TDST support.
Trading
Market completed a perfected TD Buy Setup ahead of TDST support. Given the proximity of TDST support, one would buy on the close of TD Buy Setup bar 9. In this instance, since bar 8 was the lowest low in the Setup, one would take the true range of bar 8 and subtract that from the low of bar 8 to determine a stop-loss on the long position.
An R appears where a TD Buy Countdown would have otherwise been. The R is there because the TD Buy Setup, which began prior to the completion of the TD Buy Countdown, extended beyond eighteen consecutive closes less than the close four price bars earlier.
Entering a Long Position: Aggressive

TD Buy Setup starts.

TD Buy Setup ends.

TD Sequential Buy Countdown begins.

Completed TD Sequential Buy Countdown

The more conservative approach waits for the first instance when, subsequent to a 13 Buy, the market records a close above the close four price bars earlier.
Risk Level of a Sequential Buy Signal

TD Buy Setup starts.

TD Buy Setup ends.

TD Sequential Buy Countdown begins.

TD Buy Countdown bar 12 has the lowest true low, so the risk level in this instance is derived from the true range of TD Buy Countdown bar 12 subtracted from the true low of TD Buy Countdown bar 12.

Completed TD Sequential Buy Countdown
Qualified Sequential 9-13-9 Buy Signal

This is a valid TD Sequential 9-13-9 Buy Countdown because subsequent to the TD Countdown 13, there was a TD Price Flip (close above the close four bars earlier), then a new TD Buy Setup.
Disqualified Sequential 9-13-9 Buy Signal

This does not qualify as a valid TD Sequential 9-13-9 buy countdown because the TD Buy Setup began prior to the completion of the TD Buy Countdown.
Disqualified Sequential 9-13-9 Buy Signal

This does not qualify as a valid TD Sequential 9-13-9 buy countdown because there was a TD Sell Setup between the TD Buy Countdown and the TD Buy Setup.
Trading a Perfected Sell Setup

Market completed a perfected TD Sell Setup ahead of TDST resistance. Given the proximity of TDST resistance, one would sell on the close of TD Sell Setup bar 9. Since bar 9 was the highest high in the Setup, one would take the true range of bar 9 and add it to the high of bar 9 to determine a stop-loss on the short position.
Alternative Strategy for Entering a Buy Sequential Long Position

TD’s Indicators

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<tr>
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<th>Clop</th>
<th>Clopwin</th>
<th>Open</th>
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TD Camouflage Buy

1. The close of the current price bar must be below the close of the previous price bar,
2. The close of the current price bar must be above the open of the current price bar, and
3. The low of the current price bar must be lower than true low two price bars earlier.

When this pattern is confirmed, you would initiate long positions on the close.
TD Clop Buy Signal

A TD Clop buy signal works on the assumption that upside momentum will continue when the market exceeds the open and close price of the prior price bar.

Requirements for a TD Clop Buy Signal

1. The open of the current price bar must be below the close and open of the previous price bar, and
2. The market must subsequently trade above both the open and close of the previous bar.

If these conditions are met, there is a greater chance that upside momentum will continue into the close.
TD Clopwin Buy Signal

A TD Clopwin buy signal examines the relationship between the open and close of the current price bar and the open and close of the previous price bar.

Requirements for a TD Clopwin Buy Signal

1. The open and close of the current price bar must be contained within the open and close range of the previous price bar, and
2. The close of the current price bar must be above the close of the prior price bar.

Meeting these conditions increases the probability that upside momentum will be sustained into the next price bar, thereby reinforcing the TD Sequential buy signal.
The current price bar’s open must be less than the low of the prior price bar, and it must then trade above that low.
TD Trap Buy Signal

- The open of the current price bar must be within the range of the previous price bar, and

- The open of the current price bar must then break above the high of that range.
An R appears where a TD Sell Countdown would have otherwise been. The R is there because the TD Sell Setup, which began prior to the completion of the TD Sell Countdown, extended beyond eighteen consecutive closes greater than the close four price bars earlier.
Entering a Short Position: Aggressive

The more conservative approach waits for the first instance when, subsequent to a 13 Sell, the market records a close below the close four price bars earlier.

Completed TD Sequential Sell Countdown

TD Sell Setup ends.

TD Sequential Sell Countdown begins.

TD Sell Setup starts.
Risk Level of a Sequential Sell Signal

TD Buy Countdown bar 12 has the highest true high, so the risk level in this instance is derived from the true range of TD Buy Countdown bar 12 added to the true high of TD Sell Countdown bar 12.

TD Sell Setup ends.

TD Sell Countdown starts.

TD Sell Setup starts.
Qualified TD Sequential 9-13-9 Sell Signal

This is a valid TD Sequential 9-13-9 Sell Countdown because subsequent to the TD Countdown 13, there was a TD Price Flip (below the close four bars earlier), then a new TD Sell Setup.
Disqualified TD Sequential 9-13-9 Sell Signal

This does not qualify as a valid TD Sequential 9-13-9 Sell Countdown because the TD Sell Setup began prior to the completion of the TD Sell Countdown.
Brainstorming

- DeMark’s system is designed for daily or longer time periods.

- Trading is infrequent when using DeMark’s system.

- Is it applicable to intra-day frequency?

- Which other charts complement DeMark’s system?

- Which other indicators complement DeMark’s system?
TD Combo

A Variation of the Same Theme
TD Combo Buy Countdown Version I

1. The close must be less than, or equal to, the low two price bars earlier;
2. Each TD Combo Buy Countdown low must be less than, or equal to, the low of the prior price bar;
3. Each TD Combo Buy Countdown close must be less than the previous TD Combo Buy Countdown close; and
4. Each TD Combo Buy Countdown close must be less than the close of the prior price bar.
TD Combo Buy Countdown Version I

Completed TD Buy Setup

Completed TD Combo Buy Countdown
The first four requirements are the same as for Version I

However, for TD Combo Buy Countdown bars eleven, twelve, and thirteen only,

5. The closes need only be successively lower, and it is not necessary to apply the more-stringent conditions listed earlier.
TD Combo Long Position

To Enter a Long Position

1. Wait for a successfully completed TD Combo Buy Countdown, and
2. Establish a long position on the close of Bar 13.

Risk Management

1. Look for the bar that has the lowest true low within the TD Combo Buy Countdown process (every bar from 1 to 13 inclusive, regardless of whether it is a numbered bar), and
2. Subtract the true range of that bar from its true low.
Risk Level Following a TD Combo Version I Buy Signal

TD Buy Combo bar 13 has the lowest true low, so the risk level in this instance is derived from the true range of TD Buy Combo bar 13 subtracted from the true low of TD Buy Combo bar 13.
TD Combo Sell Countdown Version I

1. The close must be greater than, or equal to, the high two price bars earlier;

2. Each TD Combo Sell Countdown high must be greater than, or equal to, the high of the previous price bar;

3. Each TD Combo Sell Countdown close must be greater than the close of the previous TD Combo Sell Countdown close; and

4. Each TD Combo Sell Countdown close must be greater than the close of the previous price bar.
TD Combo Sell Countdown Version I

Completed TD Combo Sell Countdown

Completed TD Sell Setup
The first four requirements are the same as for Version I.

However, TD Combo Sell Countdown Bars 11, 12, and 13 only need to be successively higher.
TD Combo Short Position

To Enter a Short Position

1. Wait for a successfully completed TD Combo Sell Countdown, and
2. Establish a short position on the close of Bar 13.

Risk Management

1. Identify the bar that has the highest true high within the TD Combo Sell Countdown process (every bar from 1 to 13 inclusive, as well as those that aren’t numbered), and
2. Add the true range of that bar to its true high.
Risk Level Following a TD Combo Version I Sell Signal

TD Sell Combo bar 13 has the highest true high, so the risk level in this instance is derived from the true range of TD Sell Combo bar 13 added to the true high of TD Sell Combo bar 13.