Advance-Decline Volume Line

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Introduction

The Advance-Decline Volume Line (AD Volume Line) is a breadth indicator based on Net Advancing Volume, which is the volume of advancing stocks less the volume of declining stocks. Net Advancing Volume is positive when advancing volume exceeds declining volume and negative when declining volume exceeds advancing volume. The AD Volume Line is a cumulative measure of Net Advancing Volume. It rises when Net Advancing Volume is positive and falls when Net Advancing Volume is negative. Chartists plot the AD Volume Line for a specific index and compare it to the performance of that index. The AD Volume Line should confirm an advance or a decline with similar movements. Bullish or bearish divergences in the AD Volume Line signal a change in buying or selling pressure that could foreshadow a reversal in the index.

Calculation

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AD Volume Line (previous value) + Net Advancing Volume (current value)
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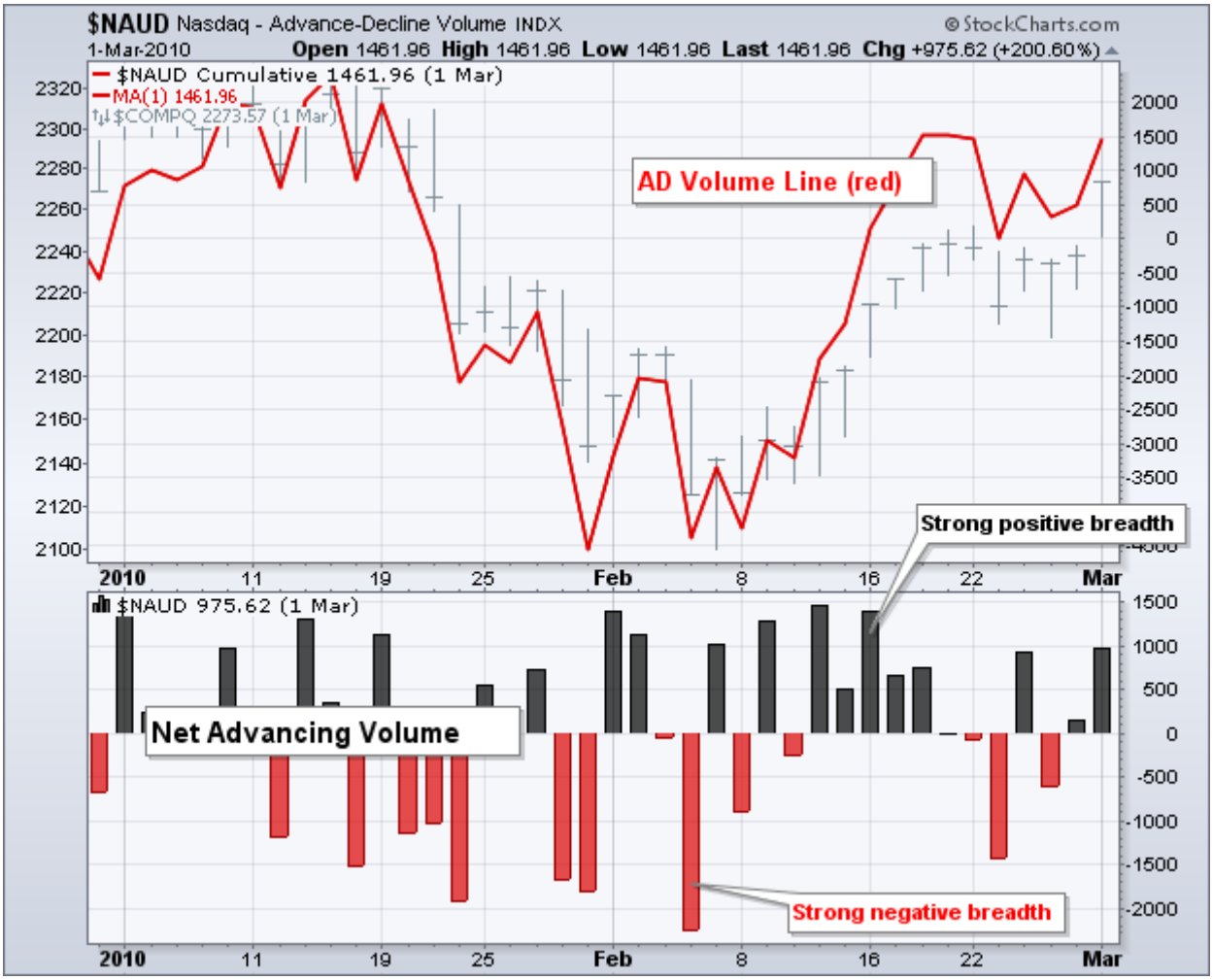
As a cumulative indicator, the AD Volume Line is a running total of each period's Net Advancing Volume. The actual value of the AD Volume Line depends on the starting point for the calculation. The AD Volume Line has to start somewhere so the first value is simply Net Advancing Volume for one period. The next value is the AD Volume Line value for the previous period plus Net Advancing Volume for the current period.

	Nasdaq Date	Advancing Volume	Declining Volume	Net Advancing Volume	AD Volume Line
1	19-Jan-10	1598	455	1144	1144
2	20-Jan-10	612	1761	-1150	-6
3	21-Jan-10	922	1964	-1043	-1049
4	22-Jan-10	449	2376	-1927	-2975
5	25-Jan-10	1379	793	585	-2390
6	26-Jan-10	1054	1299	-245	-2635
7	27-Jan-10	1604	865	739	-1895
8	28-Jan-10	574	2320	-1746	-3642
9	29-Jan-10	653	2486	-1833	-5475
10	1-Feb-10	1811	414	1397	-4079
11	2-Feb-10	1804	668	1136	-2942
12	3-Feb-10	1132	1166	-34	-2977
13	4-Feb-10	266	2562	-2295	-5272
14	5-Feb-10	1914	843	1070	-4202
15	8-Feb-10	581	1457	-876	-5077
16	9-Feb-10	1766	462	1304	-3773
17	10-Feb-10	874	1131	-257	-4030
18	11-Feb-10	1807	324	1483	-2547
19	12-Feb-10	1335	822	513	-2034
20	16-Feb-10	1688	301	1387	-648
21	17-Feb-10	1347	689	658	10
22	18-Feb-10	1395	639	757	767
23	19-Feb-10	1062	1060	2	769
24	22-Feb-10	924	997	-73	696
25	23-Feb-10	409	1857	-1448	-752

* volume is shown in millions

The example above shows the AD Volume Line calculation for 25 days beginning on January 19th, 2010. The first value is simply Net Advancing Volume for that day (+1144). Net Advancing Volume for the second day (January 20th) was negative (-1150) so the AD Volume Line fell to -6 (+1144 + -1150 = -6).

Even though the actual value of the AD Volume Line would be different if we began in January 2009, the shape of the line for this calculation period would be exactly the same. It simply rises and falls as Net Advancing Volume rises and falls. The shape and direction of the AD Volume Line are important, not the actual value. Chartists can click this image to see the SharpChart settings used to create this indicator.



Interpretation

Because it is based on volume, the AD Volume Line measures the buying and selling pressure behind an advance or a decline. The volume behind advancing stocks represents buying pressure, while the volume behind declining stocks represents selling pressure.

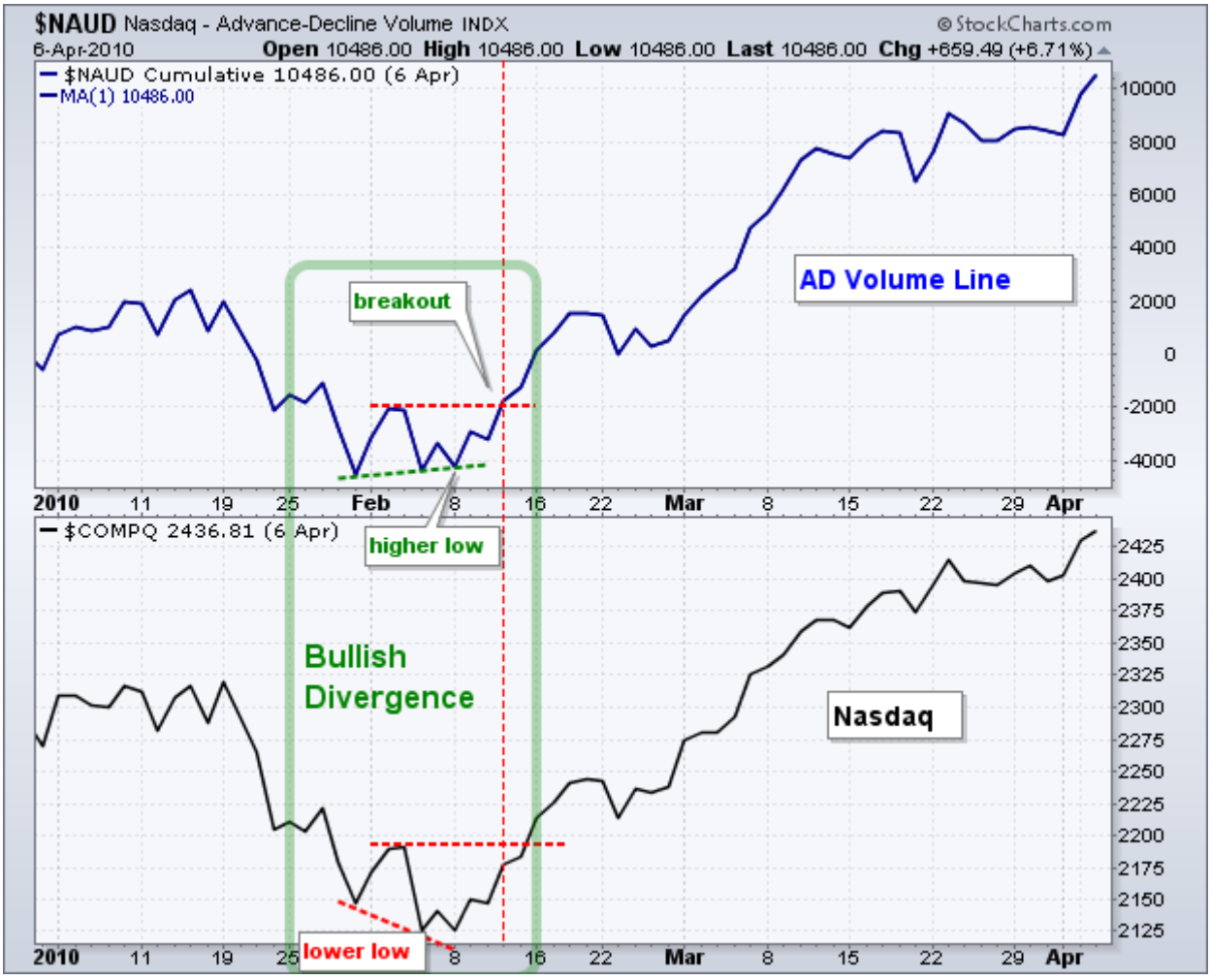
An AD Volume Line that rises and records new highs along with the underlying index shows strong buying pressure. This is bullish. An AD Volume Line that fails to keep up with the underlying index and fails to confirm new highs reflects weakness in buying pressure. Market strength is undermined when buying pressure fails to confirm an advance. Weakness in buying pressure can be identified with a bearish divergence between the AD Volume Line and the underlying index.

On the downside, the market is considered weak when the AD Volume Line moves to new lows along with the underlying index. This shows strong selling pressure. A bullish divergence forms when the AD Volume Line fails to record a lower low along with the index. This means selling pressure is waning and the decline may be nearing an end.

Bullish Divergence

Chart 2 shows a bullish divergence in the Nasdaq AD Volume Line. Because the Nasdaq AD Volume Line is based on the advance-decline volume statistics from the Nasdaq, it makes sense to compare its performance to the Nasdaq Composite. A bullish divergence formed in January-February 2010 when the Nasdaq moved below its January low, but the

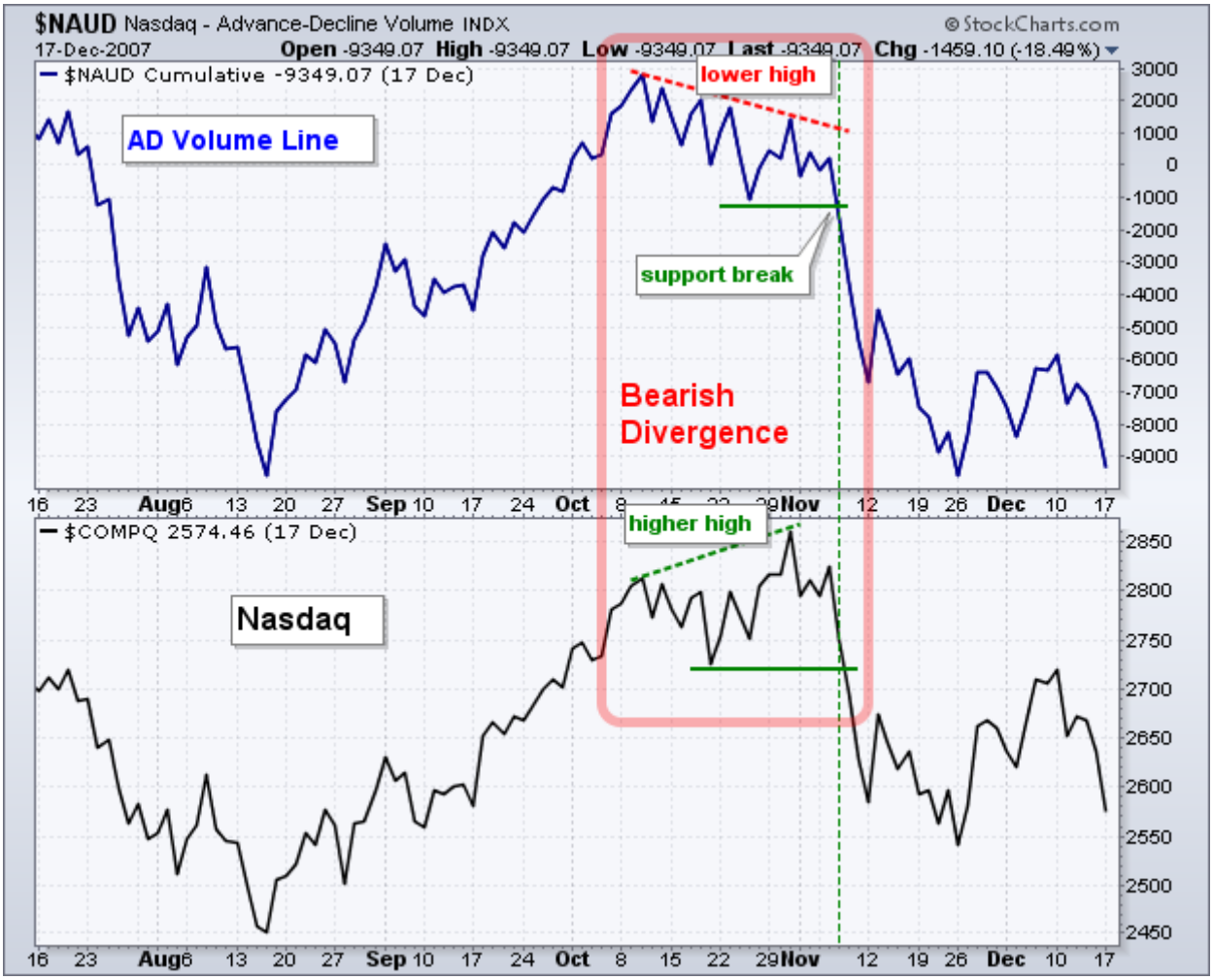
Nasdaq AD Volume Line formed a higher low. This bullish divergence showed less selling pressure as the Nasdaq forged a lower low. Even though this bullish divergence is rather small and only encompasses a few weeks, it foreshadowed an important low in February 2010. The Nasdaq subsequently advanced over 10% from its February low to its April high.



Once the Nasdaq moved below its January low and the AD Volume Line was still above its January low, the possibility of a bullish divergence surfaced. This possibility served as an alert to watch for a potential bullish reversal in the Nasdaq because the AD Volume Line showed less selling pressure. Some other form of technical analysis is then needed to confirm the higher low in the AD Volume Line and signal an upturn. Normal chart analysis can be applied to the AD Volume Line. Notice how the AD Volume Line broke resistance a few days ahead of the Nasdaq. This breakout signaled a trend reversal in the AD Volume Line and the Nasdaq followed a few days later.

Bearish Divergence

Chart 3 shows a bearish divergence in the Nasdaq AD Volume Line in October 2007. The AD Volume Line peaked in early October, but the Nasdaq forged a higher high in late October. The lower high in the AD Volume Line showed weakness in buying pressure as the Nasdaq moved to a new high for the move. Weak buying pressure gave way to increased selling pressure that pushed the Nasdaq lower in November. Notice that the AD Volume Line broke support a day before the Nasdaq broke its corresponding support level.



As noted above, basic chart analysis can be applied to the AD Volume Line. A moving average can be overlaid on the indicator to identify upturns and downturns. Chartists can also use the AD Volume Line to confirm support or resistance breaks in the underlying index. The AD Volume Line and the Nasdaq bounced from late November to late December. Both moved step-for-step during this period and then both broke support in early January. The support break in the AD Volume Line showed a notable increase in selling pressure and confirmed the support break in the Nasdaq.

Large-Cap Bias

The advance-decline volume statistics favor large-cap stocks over small-cap and mid-cap stocks. Thousands of stocks trade on the Nasdaq and NYSE every day and the vast majority of these stocks are small and mid caps. Relatively few are large-caps. Despite fewer large-caps, the largest companies account for the most volume. Large-caps such as Microsoft, Intel, Cisco, and Apple regularly appear on the most active list. Small stocks occasionally make it, but volume is still dominated by large-caps. Microsoft averages over 70 million shares per day. Imperial Sugar (IPSU), on the other hand, averages just over 100,000 shares per day. An advance in Microsoft adds some 70 million shares to Net Advancing Volume, while an advance in Imperial Sugar adds just 100,000 shares. It takes a lot of Imperial Sugars to make up for one Microsoft. The same logic is true for the NYSE. ExxonMobil (XOM) averages over 20 million shares volume per day, but Vector Group (VGR) averages around 300,000 shares volume per day.

While the Nasdaq AD Line has a long-term downward bias, the AD Volume Line does not share this characteristic. Nasdaq listing requirements are not as strict as NYSE listing requirements. As a result, the Nasdaq is full of upstarts in industries ranging from biotech to technology to alternative energy. Even though more Nasdaq stocks are prone to failure, these failures are usually small-caps. The negative impact on the AD Volume Line is minimal because large-caps drive the AD Volume Line. In contrast to small-caps and mid-caps, large-caps are much less likely to go out of business or fail to meet listing requirements on the Nasdaq. There will, however, be a few exceptions along the way (such as WorldCom).

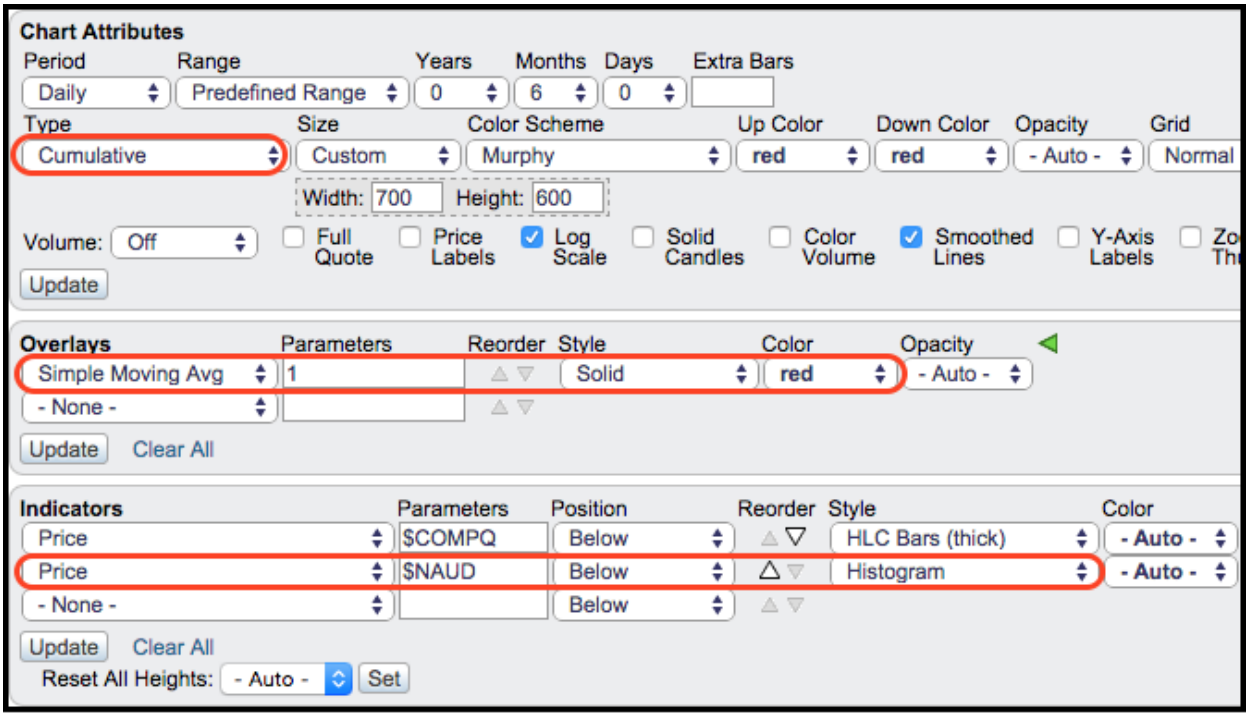
Conclusions

The AD Volume Line is a breadth indicator that reflects buying and selling pressure in large-caps, which are the volume leaders on the major exchanges. A rise in the AD Volume Line shows more money flowing into advancing stocks than declining stocks. This also provides a means to quantify total volume. While an advance on relatively low volume may appear weak, a look at Net Advancing Volume and the AD Volume Line may prove otherwise. Total volume is important, but the balance of volume is more important. Net Advancing Volume shows when more money is moving into stocks (buying pressure) or out of stocks (selling pressure).

SharpCharts

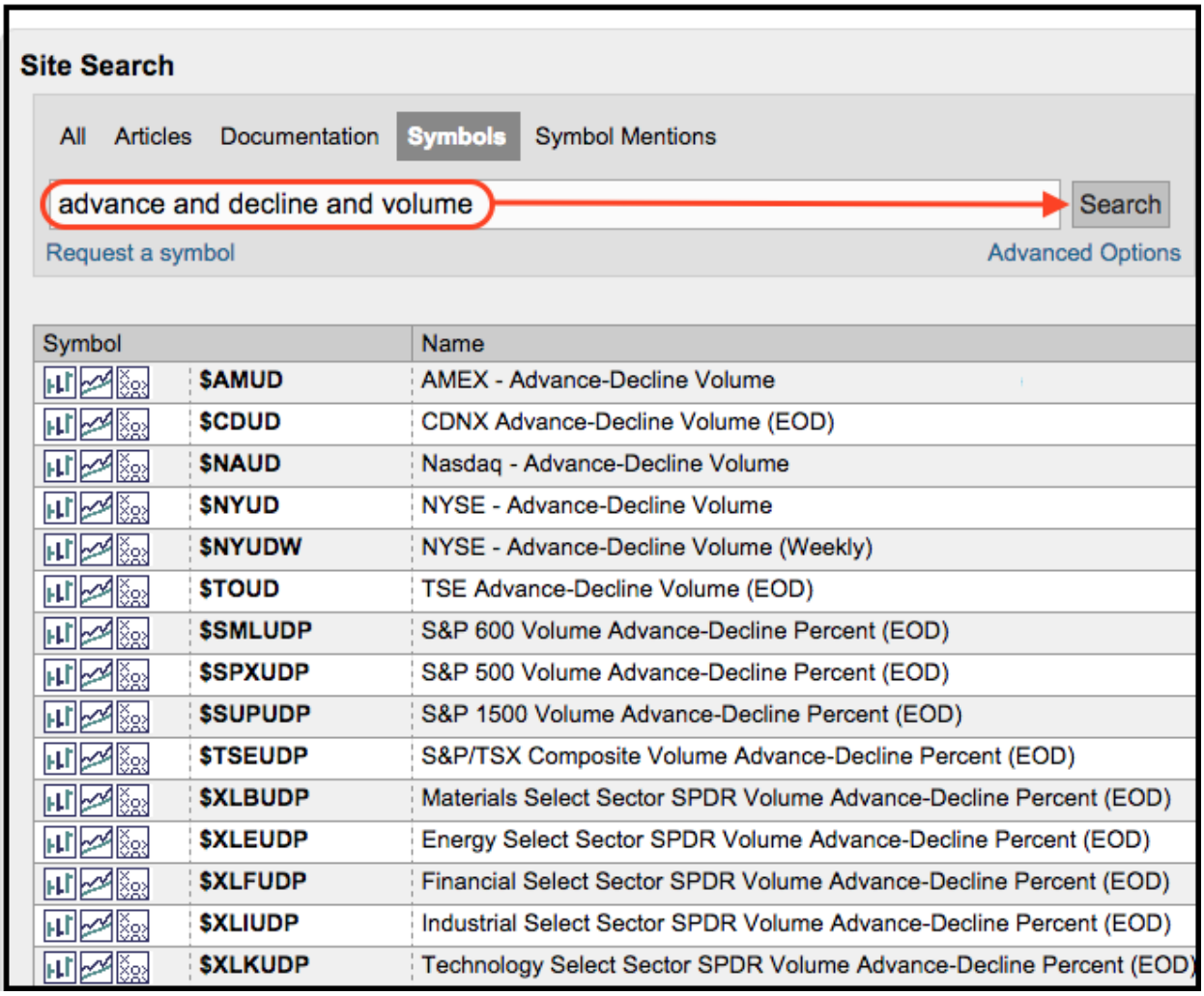
The AD Volume Line can be created on Sharpcharts for the Amex, Vancouver, Nasdaq, NYSE or Toronto stock exchanges. A list of symbols for Net Advancing Volume can be found below the chart. First, enter the symbol for Net Advancing Volume. Second, change the chart “type” to ”cumulative” and click “update” to create the AD Volume Line. A solid 1-day moving average was added to better highlight the AD Volume Line.

Sharpcharts users can also add the underlying index by selecting “price” as an indicator and entering the index symbol in the “parameters” box. Net Advancing Volume is also shown as a separate indicator in histogram format to see the daily fluctuations. Click here for a live example.



Symbols

StockCharts.com users can find a list of symbols for Net Advancing Volume indicators and AD Volume Percent using the symbol catalog. Both indicators can be used to create AD Volume Lines. Simply search the symbol catalog for “advance and decline and volume” (without quotation marks). The “and” means both terms are required. The image below shows a partial list of symbols. Click here for an up-to-date list.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$XLBUDP
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Industrial Select Sector SPDR Volume Advance-Decline Percent (EOD)
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