Dynamic Money Flow

RezzaHmt　**Apr 19, 2020**

Tesla, Inc. · 1W · NASDAQ · TradingView　O710.17 H719.03 L701.88 C707.82 +8.72 (+1.25%)　　USD

DMF 0.12 0.12 0.12

Oscillators　　　Trend Analysis　　　Volume　　　marcchaikin

💬 27　　🏷️　　🔗　　👍 1203

Apr 19, 2020

Dynamic Money Flow is a volume indicator based on Marc Chaikin's Money Flow with a few improvements.
It can be used to confirm break-outs and trends.
Zero line crosses and divergences can provide useful signals while considering chart analysis as well.

Two weaknesses of CMF have been already fixed by Colin Twiggs (IncredibleCharts)...

1. CMF uses Chaikin's accumulation / distribution line to calculate the flow of money

1. CMF uses Chaikin's accumulation/distribution line to calculate the flow of money.
Accumulation/distribution line does not take the gaps into account. This can be solved using true range.
I call it true accumulation/distribution .

2.Oscillators have a tendency to center because of averaging calculations.
DMF is average of flowing volume divided by average of total volume . This means indicator plots the change of first factor compared to the other one. In Simple Averaging method every data is given an equal weight thus when the last data drops it will have heavy impact on the averages and the change of them.
It is much easier to identity these impacts after the drop of very high or very low data... So reducing the weight exponentially is a better option.

3.There is something else with CMF ... changes of close price is ignored, because the formula only compares close price to its range.
To include the movements of close beside the close to range comparison, the distance between two last close prices should be compared to true range as well.
So volume can be distributed between close to range comparison (True Accumulation/Distribution) and close to close comparison automatically. And then results are summed to have a single multiplier.

An example for how close to close comparison affects DMF ...

Or here you can see how lower wicks keep TMF (same as CMF in this case) from crossing zero line while price is trending down.

Jul 10, 2020   **Release Notes:** 1. Added an optional moving average: The main purpose is to receive a smoother form of oscillator while also having the original line.

It can reduce excessive false center crosses on volatile market situations, and it will help traders to develop new strategies.

User can choose between simple and exponential moving averages.

2. Volume simulation: If this option is enabled, indicator will use formation of candles to simulate an alternative volume. It is very helpful when volume is not provided for a security or the volume is not proper (for example it can be very low which can prevent indicator from adopting to price movements). Otherwise it is suggested to disable this option.

Jul 24, 2020   **Release Notes:** Default Period input changed to 26.

Simple moving average type replaced with WMA.

Added another moving average.

Moving averages can be turned off by setting their length to zero:0.

Some visual changes.

Aug 12, 2021   **Release Notes:** New indicator mode - Cumulative: I just kept up with my old fashion of making scripts a bit complicated instead of going for a new one. However, thanks to TradingView I could put the other new stuff into a different section.

This mode represents the cumulative form of DMF.

This mode represents the cumulative form of DMF.

Note that Line changes color on slow MA cross on this mode. I will try to work more on theming next time.

Experimental options: this section includes options that are better to be left unchanged unless there is no better choice or unless the changes are tested.

Open-source script ⓘ

In true TradingView spirit, the author of this script has published it open-source, so traders can understand and verify it. Cheers to the author! You may use it for free, but reuse of this code in a publication is governed by House Rules. You can favorite it to use it on a chart.

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```
1    //@version=4
2
3    // This source code is subject to the terms of the Mozilla Public License 2.0 at https://mozilla.org/MPL/2.0/
4    // © RezzaHmt
5
6    //...DMF...
7    study("Dynamic Money Flow", "DMF", format=format.volume, precision=2, resolution="")
8
9    mode              = input("Index", "Mode", options=["Index", "Cumulative"])
10   period            = input(26, "Period", minval=1, tooltip="Only applies to index mode.")
11   ma_switch         = input("EMA", "Moving Averages", options=["OFF", "EMA", "WMA"], tooltip="Set the type of Moving Averages added on DMF or turn them off. MAs can also be turned off individuall
12   fast_len          = input(8, "Fast Length", minval=0)
13   slow_len          = input(20, "Slow Length", minval=0)
14   simulative_vol    = input(false, "Simulative Volume", group="Experimental Options", tooltip="Use this option if volume is not provided for the security or it's inappropriate.")
15   vol_power         = input(1.0, "Power", minval=0, maxval=5, group="Experimental Options", tooltip="The power to which volume is raised. Numbers below 1 reduce the significance of volume in calc
16   weight_distribution = input("Dynamic", "Weight Distribution Method", options=["Dynamic", "Static"], group="Experimental Options", tooltip="This is from where Dynamic Money Flow derives its name.
17   static_dist_bias  = input(50, "Static Weight Distribution Bias", minval=0, maxval=100, group="Experimental Options", tooltip="After setting the previous option to Static, you can set a bias fac
18
19   vol    = if simulative_vol
20       pow(abs(close - close[1])
21         + abs(high - max(open, close)) * 2
22         + abs(min(open, close) - low) * 2, vol_power)
23   else
24       pow(volume, vol_power)
25   alpha  = if weight_distribution == "Dynamic"
26       tr == 0 ? 0 : abs((close - close[1]) / tr)
27   else
28       static_dist_bias / 100
```

```
29  trh     = max(high, close[1])
30  trl     = min(low , close[1])
31  ctr     = tr == 0 ? 0 :
32            ((close - trl) + (close - trh)) / tr * (1 - alpha) * vol
33  ctc     = close - close[1] == 0 ? 0 :
34            close > close[1] ? alpha * vol : -alpha * vol
35  dmf     = if mode == "Index"
36      rma(ctr + ctc, period) / rma(vol, period)
37  else
38      cum(ctr + ctc)
39
40  fast_ma = if fast_len!=0
41      if ma_switch=="EMA"
42          ema(dmf, fast_len)
43      else if ma_switch=="WMA"
44          wma(dmf, fast_len)
45  slow_ma = if slow_len!=0
46      if ma_switch=="EMA"
47          ema(dmf, slow_len)
48      else if ma_switch=="WMA"
49          wma(dmf, slow_len)
50
51  var color main_color = na
52  if mode == "Index" and dmf > 0
53      main_color := #00D8A0
54  else if  mode == "Index" and dmf < 0
55      main_color := #F82060
56  else if  mode == "Cumulative" and slow_ma and dmf > slow_ma
57      main_color := #00D8A0
58  else if  mode == "Cumulative" and slow_ma and dmf < slow_ma
59      main_color := #F82060
60  else
61      main_color := #00D8A0
62
63  pMain   = plot(dmf, "DMF", color=main_color, linewidth=2)
64  pZero   = plot(mode == "Index" ? 0 : na, editable=false, display=display.none)
65  pFastMA = plot(fast_ma, "Fast MA", color=#08E0A800, linewidth=1)
66  pSlowMA = plot(slow_ma, "Slow MA", color=#FF286800, linewidth=1)
67
68  fill(pMain, pZero, title="Oscillator Background",
69          color=iff(dmf > 0, #00D8A006, #F8206006))
70  fill(pFastMA, pSlowMA, title="Moving Average Fill",
71          color=iff(fast_ma > slow_ma, #08E0A858, #FF286858))
72
73  hline(mode == "Index" ? 0 : na,    "Zero Line",  color=#787B86FF, linestyle=hline.style_dashed)
74  hline(mode == "Index" ? 0.1 : na,  "Level",      color=#787B8680, linestyle=hline.style_dashed)
75  hline(mode == "Index" ? -0.1 : na, "Level",      color=#787B8680, linestyle=hline.style_dashed)
76
```

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PineCoders MOD · Jan 4, 2021

500 coins

▲ Reply

RezzaHmt · Jan 8, 2021

@PineCoders, Thank You :)

▲ Reply

horizantal PREMIUM · May 23, 2020

It is become one of my fixed indicator, thank you.

+3 ▲ Reply

RezzaHmt · May 23, 2020

@ufukdoganufuk, you're welcome :)

+1 ▲ Reply

manishwadian PRO+ · Jul 25, 2021

@ufukdoganufuk,
Hi. seems you are very much deep into this. please care to share your wisdom with us.
Regards.

▲ Reply

PineCoders MOD · Apr 19, 2020

This publication will be featured in our "Best Scripts of The Month" selection. Thank you for your valuable contribution to the TradingView community, and congrats!

+2 ▲ Reply

N **NicolaeHarabor** · Mar 27 · TradingView for Android 🔗 ⚑

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PineCoders MOD · Mar 28 🔗 ⚑

@NicolaeHarabor, Hello! This and other featured scripts can be seen in the Editors' Picks section: tradingview.com/scripts/editors-picks/

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E **emrahdorterler** PREMIUM · Sep 2, 2021 🔗 ⚑

game changer indicator - amazing work!

+1 ▲ Reply

allanster PREMIUM · May 1, 2020 🔗 ⚑

Superb idea and thoroughly enjoyed your presentation of it, keep up the great work!

+1 ▲ Reply

F **fitch1x** · Nov 14, 2021 🔗 ⚑

This indicator is gold, thank you bro!!! :D

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N **notsimilar** · Oct 20, 2021 · TradingView for Android 🔗 ⚑

This indicator just killing it. Well done

▲ Reply

N **notsimilar** · Oct 18, 2021 · TradingView for Android 🔗 ⚑

Absolutely amazing indicator, thanks

▲ Reply

A **AmarShinde** · Oct 6, 2021 🔗 ⚑

Dear Sir,

Thanks for sharing this indictor, only one request to you add diversion part this indictor.

Amar

▲ Reply

A **AmarShinde** · Oct 7, 2021 🔗 ⚑

@AmarShinde, sir can you add divergence on dmf indictor?

Thanks

Amar

▲ Reply

M **manishwadian** PRO+ · Jul 25, 2021 🔗 ⚑

Hi. First of all I would like to thank you for sharing your valuable creation with us. I will be more greatfut if you share more info about it like how to use it in a pro way. I tried finding you on twitter but seems you are not active there. thanks

▲ Reply

RezzaHmt · Jul 26, 2021 🔗 ⚑

@manishwadian, Since the fundamental idea behind DMF is just the same as CMF, every strategy that works with CMF should work with DMF as well (or even better).
You can develop your own strategies by looking back at the market that you want to analyze and trade, or look for other strategies in the web or books.

But you should know that there are few common strategies that work with almost all oscillators. DMF is no different in this case.
1. Centeral Line/Zone Cross
On most of oscillators, there is a center line that crossing it signals possible change of trend. However you may use a zone instead of a single level depending on the conditions (which will be same as the neutral zone most of the times).
2. Oversold/Overbought Zone
Indexed oscillators have OB/OS zone which signals extreme momentum. Something that you should note about OB and OS levels is that they should be set specifically for each market based on the market conditions and your trading style. (It would be nice to mention that the same applies to length/period input of indicators)
3. Divergences
Most of oscillators, when the trend gets weaker, produce something that we call it Divergence (it has different types which I'm sure every TA website has explained them clearly).

Besides the main oscillator line I have also added two moving averages for DMF so you can use more of your creativity while working with it.
For example, you can use them to get a much smother version of the main oscillator line, if you like to act a bit more conservative. Or use them for more aggressive trading by following DMF-MA cross signals.

Finally I have to say that strategies based on indicators work more often, when they are used along with simple chart analysis.

+4 ▲   Reply

bento11　·　Jul 9, 2021　🔗　⚑

first day using this and im up 17% day trading a few stocks, may i say this is incredible is their anyway i can support you directly? like a paypal or btc donation? thank you!

▲   Reply

RezzaHmt　·　Jul 9, 2021　🔗　⚑

@bento11, It's really grateful to see the script has been useful.
I will DM you my BTC address. not sure if it is fine to share it here.

▲   Reply

H　**Hyper85**　PRO　·　May 1, 2021　🔗　⚑

Hi, awesome job, do I need to use in combination with CMF or just DMF is fine? Thx

▲   Reply

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