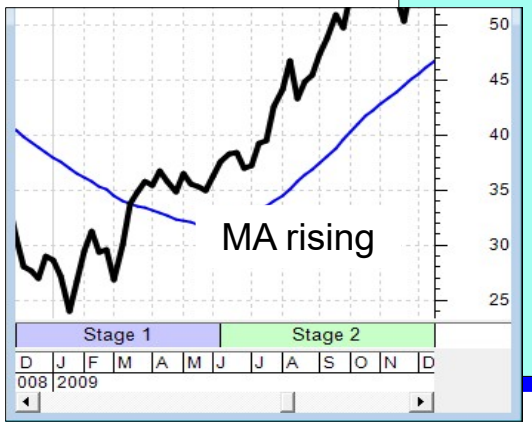
Share Market Toolbox

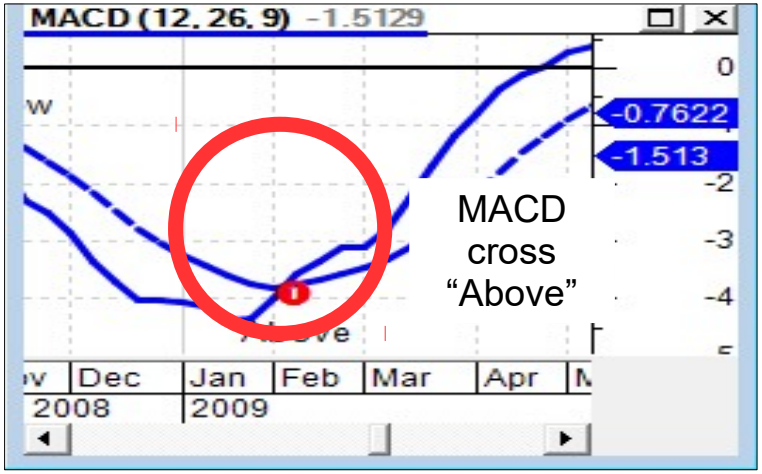
Ranking stocks using key chart indicator features



Robert Brain

November 2017

Price charts summarise the underlying opinions and emotions of the market participants.
Every chart tells a story.
It pays to understand the stories in the price charts.



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Revision: 2

About this presentation

Wouldn't it be good if we could take
a list of stocks, and
sort the list so that the
strongest performing stocks (ie. most bullish)
are at the top of the list?

And then invest
in the stocks at the top of the list
in anticipation of the best price performance?

BUT HOW??

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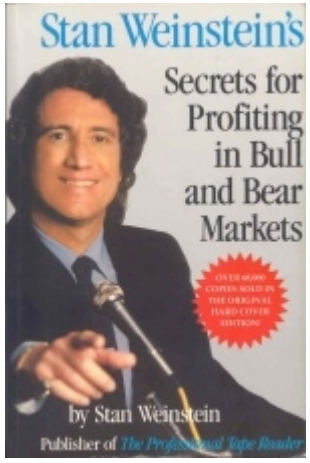
Use T/A indicator observations

We could use observations of technical analysis chart indicators such as:

- "Moving Average (MA) rising for consecutive bars", especially if it is below the share price.

We might use a 30 week SMA on weekly chart (á la Stan Weinstein).

This observation is said to be bullish, and can be readily scanned for using charting or trading software.



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Use T/A indicator observations

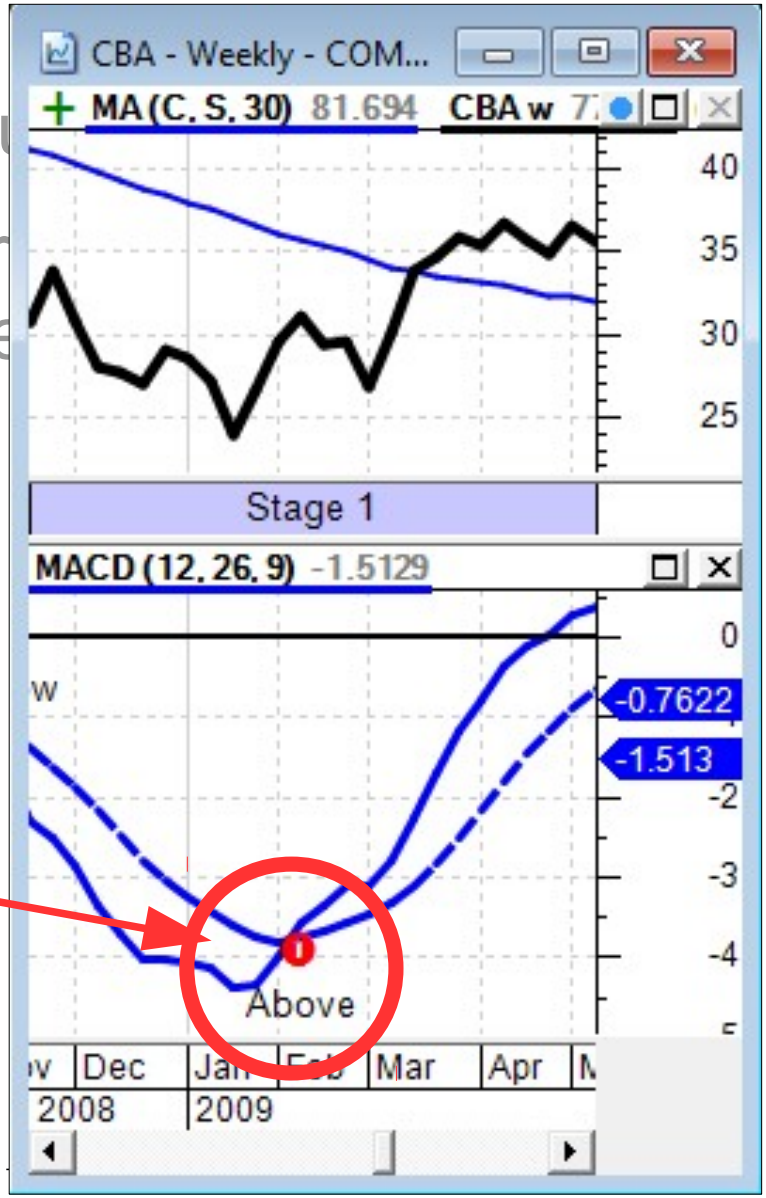
We could use observations of technical analysis chart indicators su

- "Moving Average (MA) rising for
  especially if it is below the share

What other observations?

- MACD crosses "above" when below its own zero line?

Any others?



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Use T/A indicator observations

We might use observations of
technical analysis chart indicators such as:

- Moving Average (MA) rising for consecutive bars, especially if it is below the share price.
- MACD crosses “above” when below its own zero line.
- (and many more?)

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About this presentation

Wouldn't it be good if we could take
a list of stocks, and
study key features of chart indicators
to allocate a ranking or score,
then
sort the list so that the
strongest performing stocks (ie. most bullish)
are at the top of the list?
(and the most bearish at the bottom)

Let's consider how to do this...

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Today's Agenda

1. Identify some technical analysis indicators
2. Identify key observations of the chart indicators — prepare a list
3. Consider how to quantify these observations to produce a ranking or score
4. Consider how to automate this.

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About... Robert Brain

Nimble Short term Investor

consultant, educator and part-time* share trader
web-based sharemarket-support business

- Many years experience as trainer, presenter, conference facilitator (*Scouts*)
- Share Market – active 15++ years* (slowly at first)
- Chartist ie. technical analyst (ATAA member and national director)
- Provide support and tuition to traders and investors
  Brainy's Share Market Toolbox
- Member Mensa

- Engineering Degree (structured thinking with an eye for charts and diagrams)
- 30+ years – professional experience (IT and management)
- **No AFS license! (Can't give advice)**
- **BullCharts software (convenor Australian BullCharts User Group and authorised reseller with special pricing)**

Conflict of interest?

* - Not yet enough capital to live off the proceeds of trading (after trading as a hobby until a career change in 2008).

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Important Notice — No Advice!

- This presentation does not include any advice.
- For proper advice, your personal financial situation needs to be considered.
- This presentation is pure education, only for your general awareness.

- There are no recommendations to take any action, or to invest any money in any way.
- Always consult a properly licensed advisor before making investment decisions.

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Important Notice

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Questions?

- Please ask questions.
- Let's discuss details.
- Any price charts prepared with BullCharts software.

Every chart tells a story.
It pays to understand the stories in the charts.

BullCharts

www.bullcharts.com.au

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Introduction

NOTE...

In this presentation
we focus on a
trend-following approach,
so the indicator observations
are relevant to that approach.

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Study these bullish features...

We might use observations of
technical analysis chart indicators such as:

(a) Moving Average (MA) rising for consecutive bars, especially if it is below the share price

(b) MACD crosses “above” when below its own zero line

(c) Momentum indicator is trending higher (ie. higher peaks and troughs)

(d) Moving Average of Momentum is above the Momentum and rising

(e) ActVest Range+ — indicator cord is rising

(f) Hull ROAR is rising

(g) Volume is above a Moving Average of Volume.

(see details on next slides...)

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(a) Moving Average rising...

Moving Average (MA) rising for consecutive bars, especially if it is below the share price.

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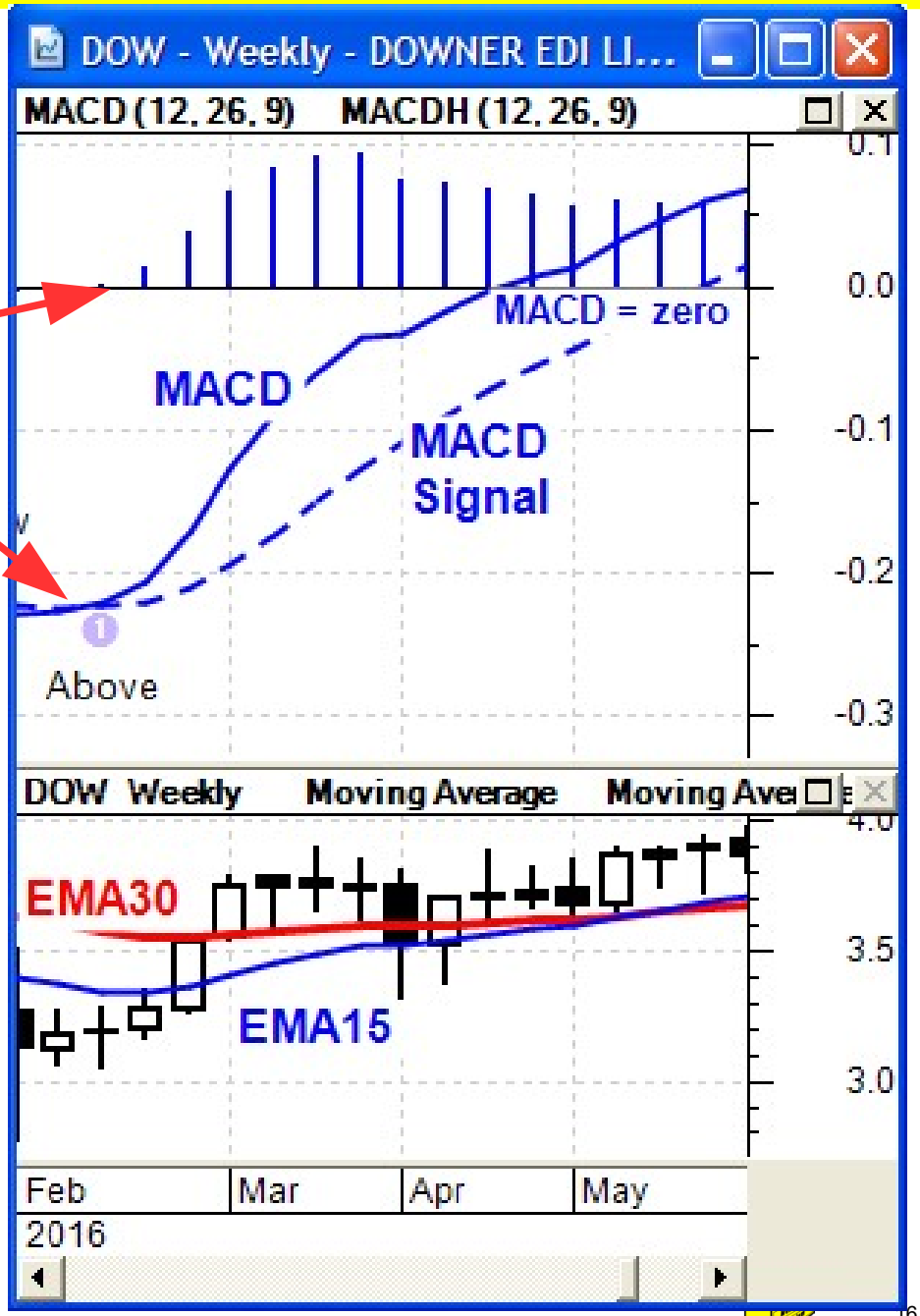
T/A indicator observations

(b) MACD...

MACD crosses “above” when below its own zero line.



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(c) Momentum...

Momentum indicator is trending higher (ie. higher peaks and higher troughs),

AND

(d) MA of MOM is rising.

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(e) ActVest Range+ ...

The Range+ indicator cord is rising.

Either the Upper cord, and/or the Central cord.

(f) Hull ROAR ...

The Hull ROAR indicator is rising.

Could use ActVest or ActTrade!!

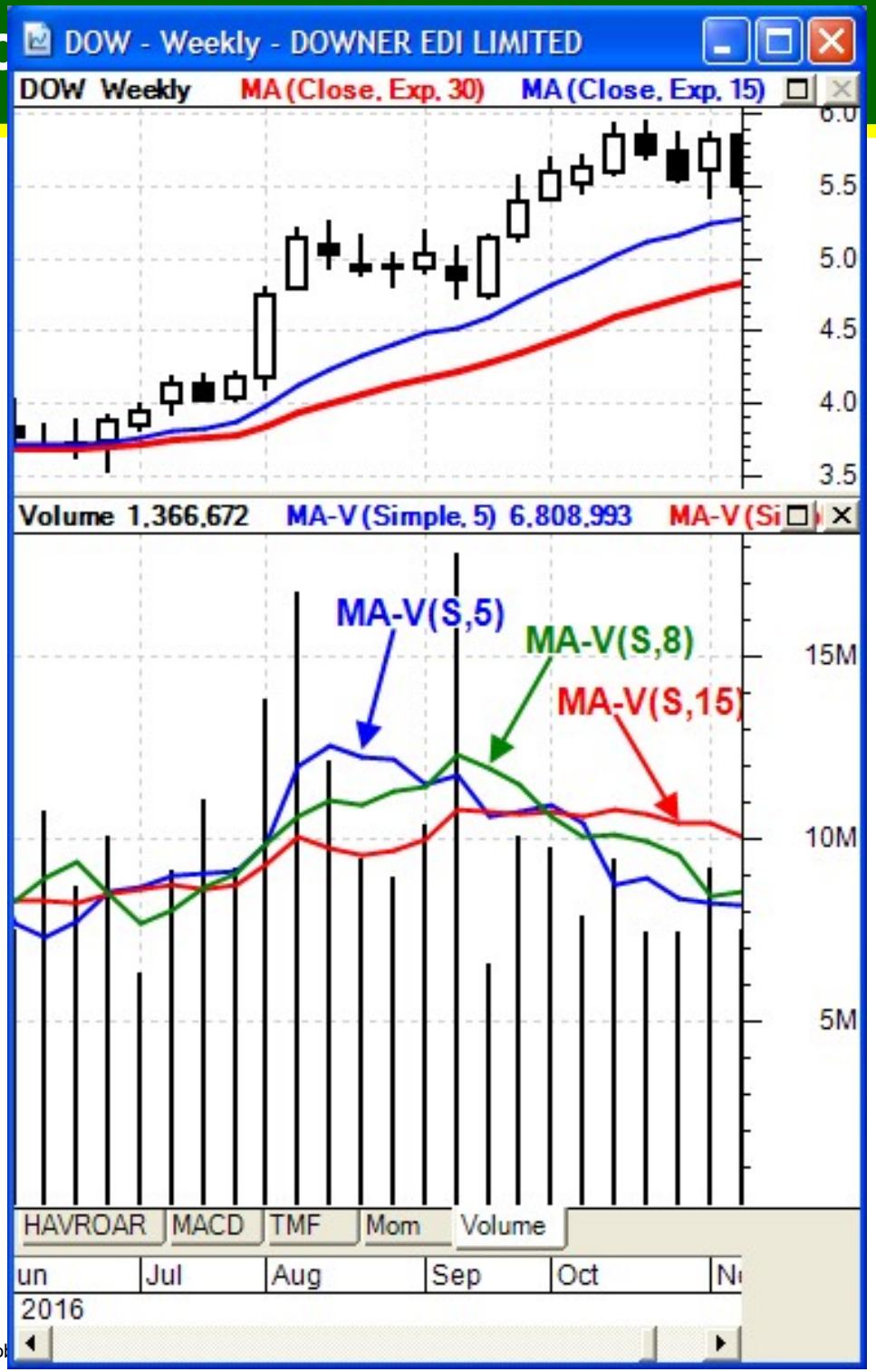
(g) Volume ...

Volume is above a Moving Average of Volume (MA-V) and MA-V is rising.

But which MA-V?

Is this one useful?

(MA-V = VMA)



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T/A indicator observations

EXAMPLES

Consider the following sample charts and the T/A indicators ...

Could we have “predicted” the bullish uptrends?

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T/A indicator observations

Could we have "predicted" this rally?

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T/A indicator observations

Moving Averages:
Faster one
is above
slower one.

Momentum:
Higher Low

MA of Mom:
Was heading down,
then turned up, and
Mom crossed Above.

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T/A indicator observations

TMF:
Crossed above Zero.
Formed a trough above Zero.

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T/A indicator observations

MACD:
Crossed “Above”

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T/A indicator observations

Could we have "predicted" this rally?

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T/A indicator observations

Moving Averages:
Faster one
is above
slower one.

MACD:
Crossed “Above”
when below Zero

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T/A indicator observations

MA of Mom:
Was heading down, then turned up, and Mom crossed Above.

Momentum:
Higher Low

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T/A indicator observations

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T/A indicator observations

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T/A indicator observations

Moving Averages:
Faster one
is clearly above
slower one.

MA of Mom:
Was heading down,
then turned up, and
Mom crossed Above.

Momentum:
Higher Low

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T/A indicator observations

MACD:
Crossed "Above"

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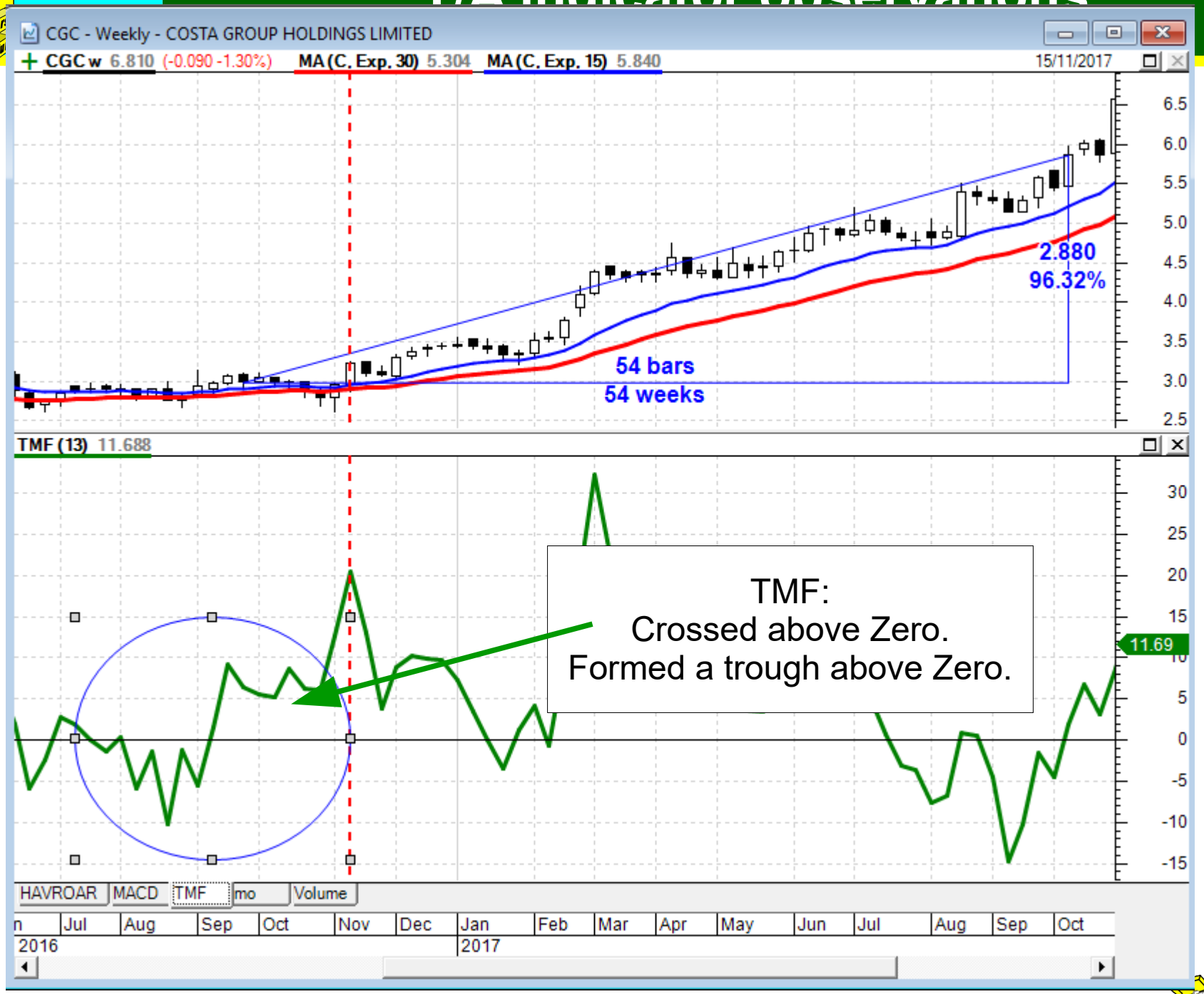
T/A indicator observations



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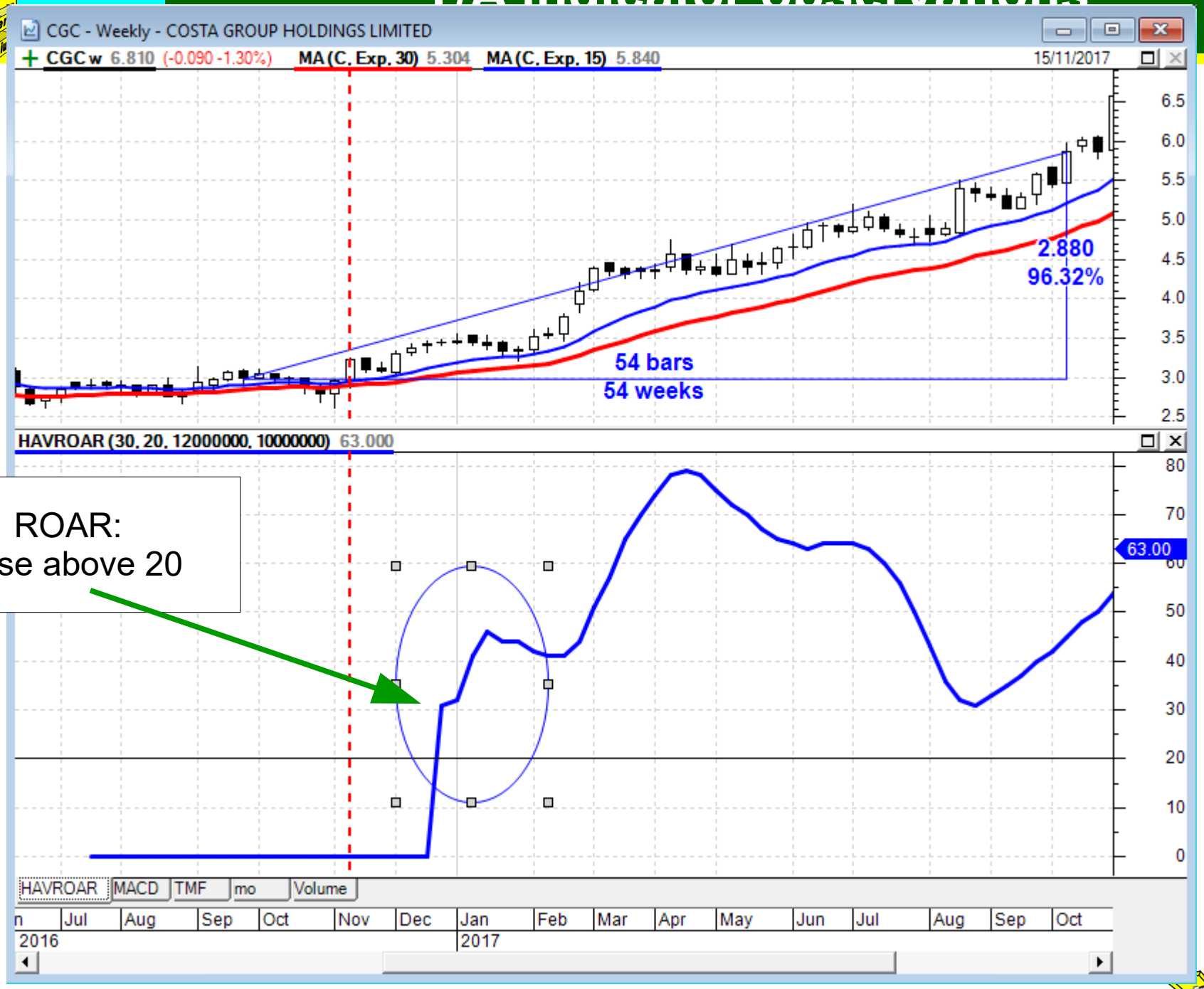
T/A indicator observations



ROAR:
Rose above 20

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T/A indicator observations

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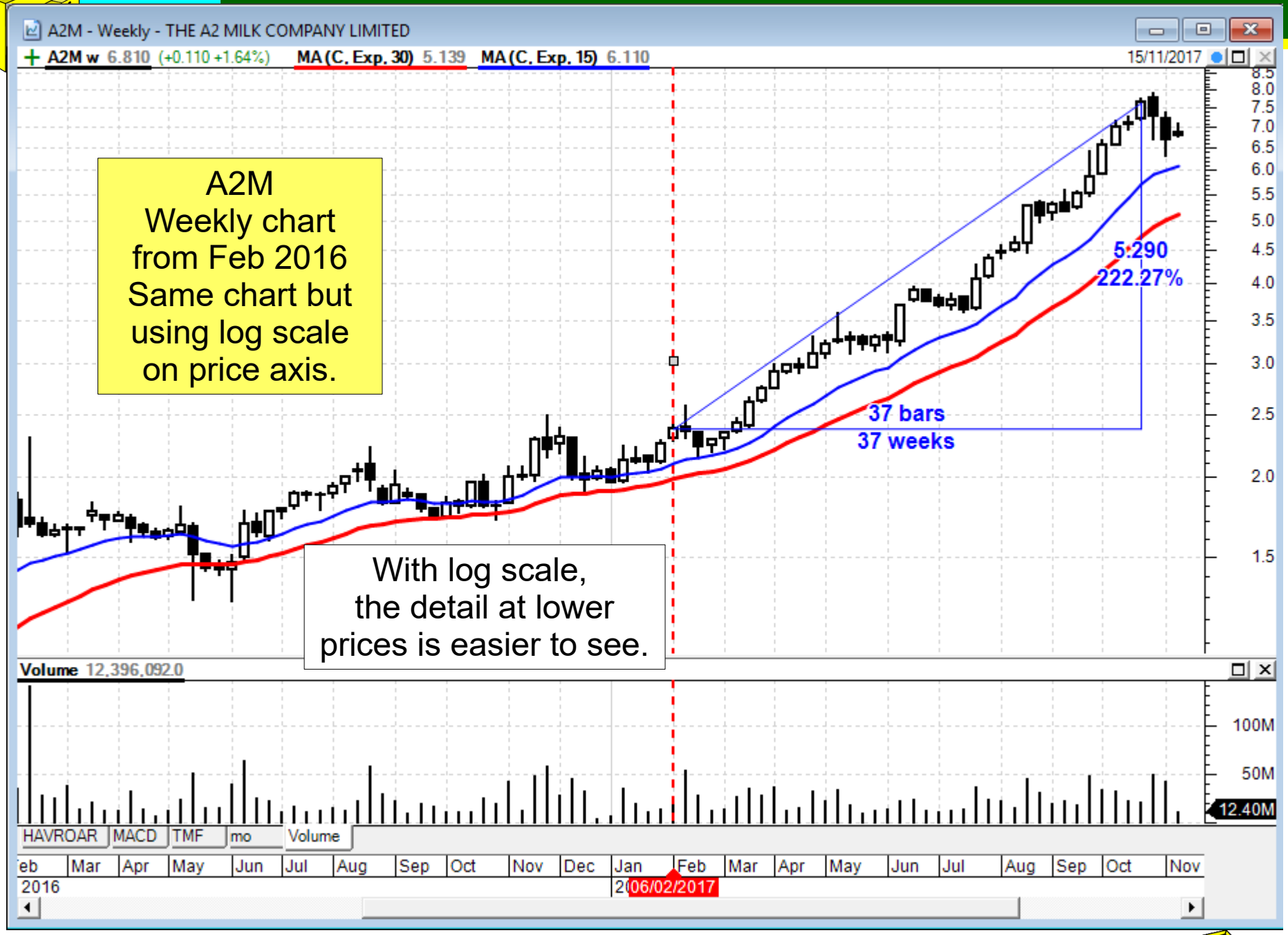
T/A indicator observations



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T/A indicator observations

MA of Mom:
Was heading down, then turned up, and Mom crossed Above.

Momentum:
Higher Low

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T/A indicator observations

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T/A indicator observations

TMF:
Crossed above Zero.
Formed a trough above Zero.

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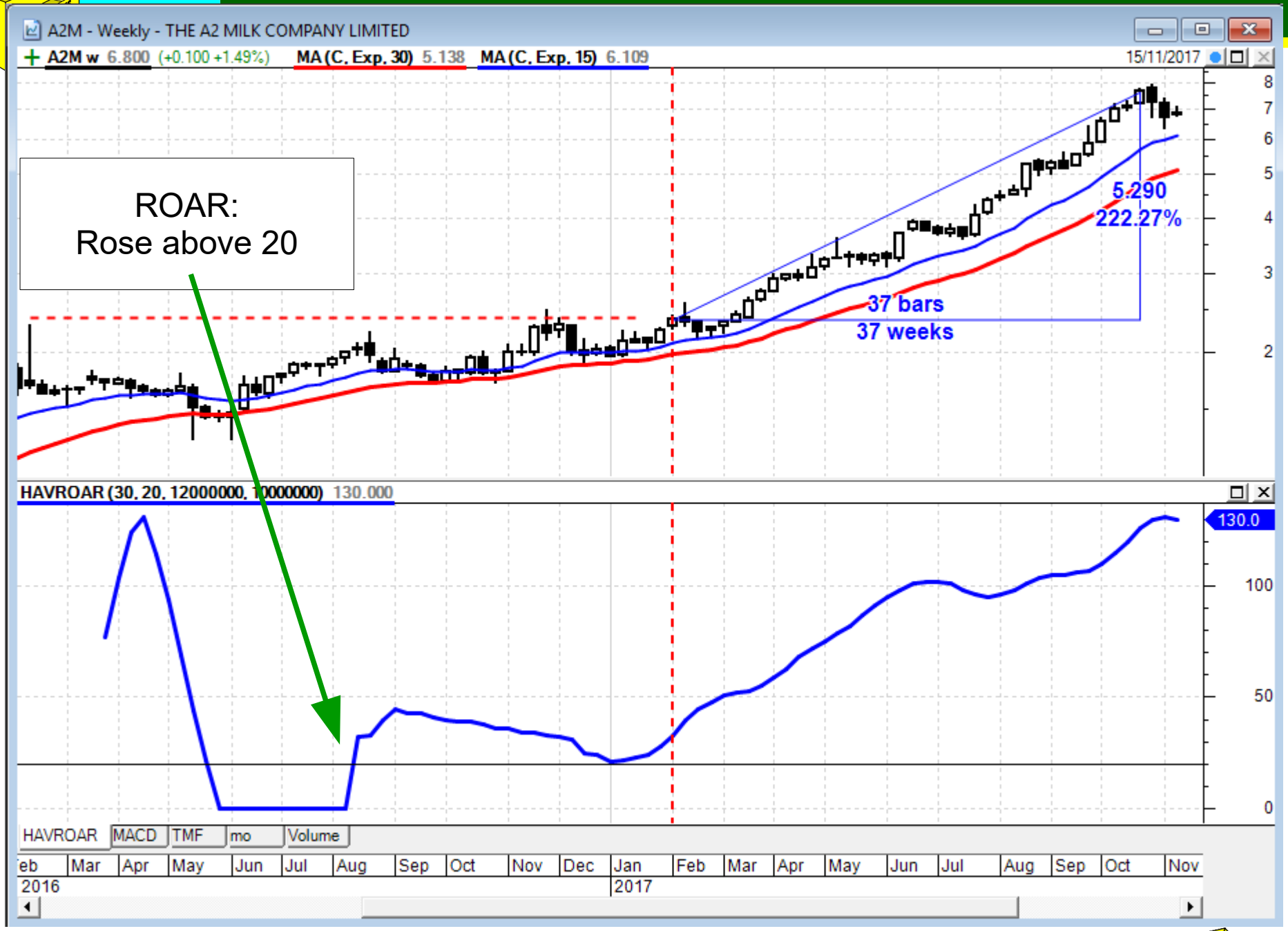
T/A indicator observations



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Summary of bullish features...

We might use observations of
technical analysis chart indicators such as:

(a) Moving Average (MA) rising for consecutive bars, especially if it is below the share price

(b) MACD crosses “above” when below its own zero line

(c) Momentum indicator is trending higher (ie. higher peaks and troughs)

(d) Moving Average of Momentum is above the Momentum and rising

(e) ActVest Range+ — indicator cord is rising

(f) Hull ROAR is rising

(g) Volume is above a Moving Average of Volume.

See summary price chart on next slide.

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T/A indica

Identify the indicator observations in this price chart.

- HAVROAR
- MACD
- TMF
- Momentum (and its MA)
- MA of price
- Volume (and VMA)

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Allocating a Score value

So how to rank the stocks?

Let's allocate
a "Score value"
for each
bullish indicator observation
that is true.

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(a) Moving Average rising...

Moving Average (MA) rising for consecutive bars, especially if it is below the share price.

We could allocate a “score”...

Ref.	Technical analysis indicator observation	Score Value
1	15-week EMA has increased every week for 3 weeks	1
2	30-week EMA has increased every week for 3 weeks	1
3	If EMA (30) has risen every bar for 5 bars	1
4	If EMA (30) has risen every bar for 8 bars	1

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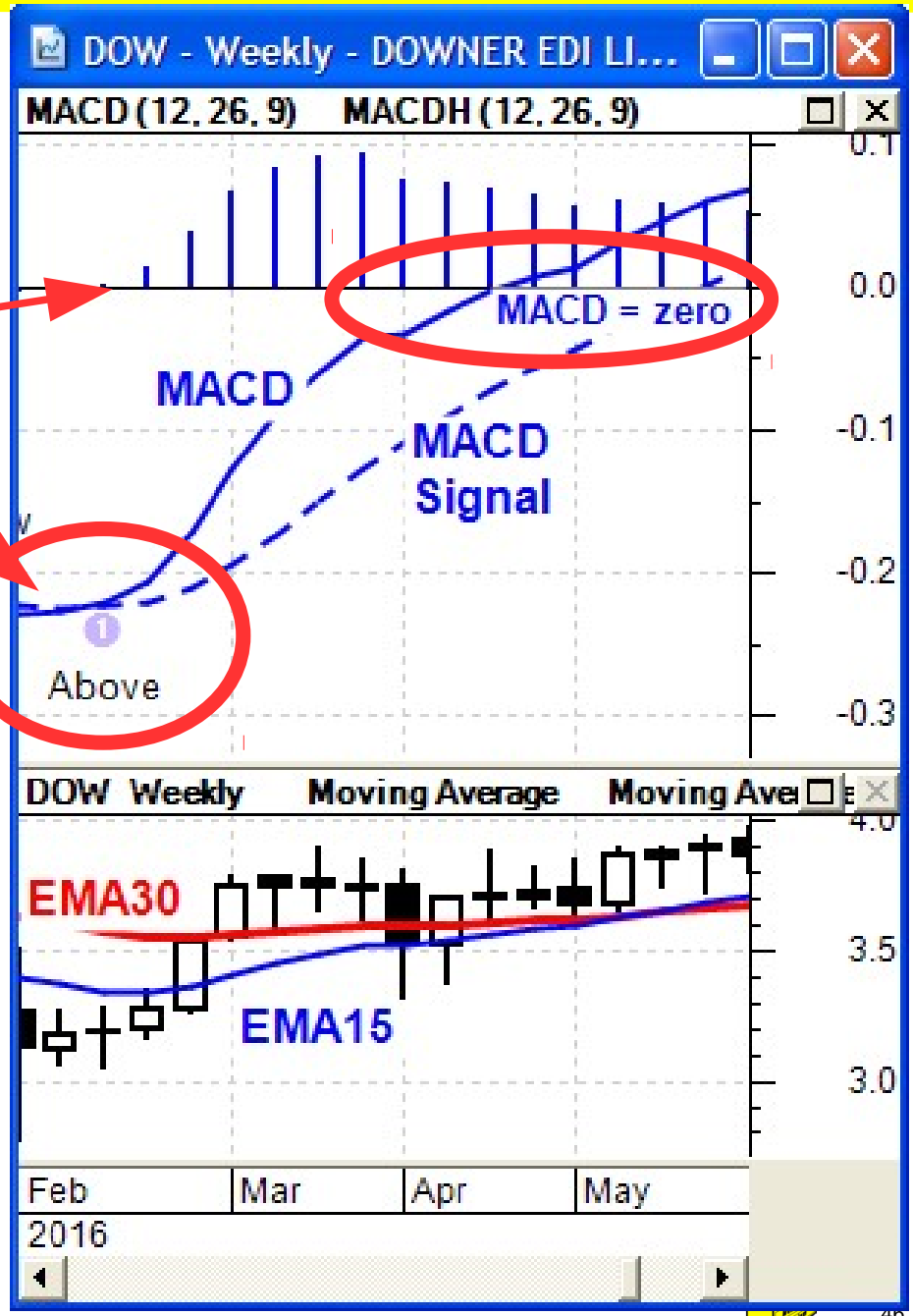
Allocating a Score value

(b) MACD...

MACD crosses “above” when below its own zero line.

We could allocate a “score”...



Ref.	Technical analysis indicator observation	Score Value
8	MACD indicator value is less than zero, any bar in the last 8 bars	1
9	MACD has crossed "Above" the signal line, any bar in last 8 bars	1
10	MACD value has increased every bar for 3 bars	1

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(c)-(d) Momentum...

Mom is trending higher,
AND
MA of MOM is rising.

Ref.	Technical analysis indicator observation	Score Value
11	Mom(14) is > Mom of any of the last 5 bars	1
12	Mom(14) has "crossed above" the MA of Mom for any of the last 5 bars	1
13	Mom(14) is > MA of Mom for every bar in the last 3 bars	1
14	The MA(14) of Mom has increased every bar for the last 5 bars	1

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Allocating a Score value

(e) ActVest Range+ ...

The Range+ indicator cord is rising

Not yet included; but exactly what might the score criteria be?

"... cord is rising...?"

(f) Hull ROAR ...

The Hull ActVest ROAR (Rate of Annual Return) indicator is rising

Ref.	Technical analysis indicator observation	Score Value
5	ActVest ROAR > 20	1
6	ROAR >= previous ROAR	1

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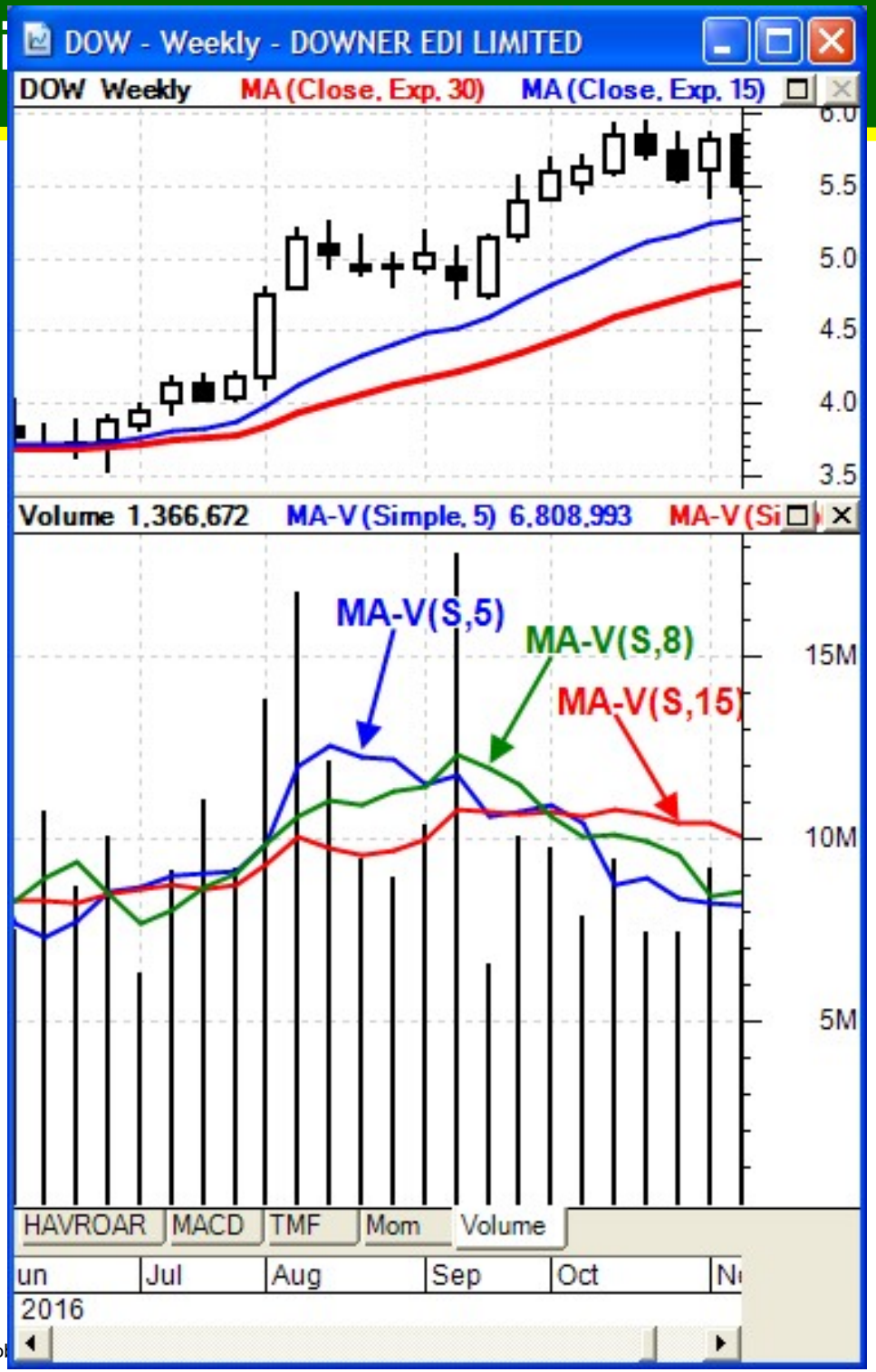
(g) Volume ...

Volume is above VMA and VMA is rising.

This condition occurs on this sample chart in some weeks, and not others.

Ref.	Technical analysis indicator observation	Score Value
18	If Vol > 5-period VMA	1
19	If Vol > 15-period VMA	1
20	If 8-period VMA has increased every bar for 3 bars	1



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What about price?

Might it be useful to include an observation of the pure share price?

Ought this sequence of candles be recognised, and classed as “bullish”?

ie. a sequence of Higher Highs, and/or Higher Closes, and/or Higher Lows, etc...

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The Total Score

- Take the individual Scores in the previous slides and examples, and simply tally them up to arrive at the “Total Score” value for each stock.
- For the list of stocks and their own Score values, sort the list with the highest scoring stock at the top of the list.

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Tally up the scores for this stock

Ref.	Technical analysis indicator observation	Score Value
1	15-week EMA has increased every week for 3 weeks	1
2	30-week EMA has increased every week for 3 weeks	1
3	If EMA (30) has risen every bar for 5 bars	1
4	If EMA (30) has risen every bar for 8 bars	1
5	ActVest ROAR (Rate of Annual Return) greater than 20	(N/A)
6	ActVest ROAR >= previous ActVest ROAR	(N/A)
7	Latest Close >= Previous Close	(N/A)
8	MACD indicator value is less than zero, any bar in the last 8 bars	1
9	MACD has crossed "Above" the signal line, any bar in last 8 bars	1
10	MACD value has increased very bar for 3 bars	1
	TOTAL score (this page):	**7**

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Allocating a Score value

Ref.	Technical analysis indicator observation	Score Value
11	Momentum (14) > the Momentum of any of the last 5 bars	1
12	Momentum(14) has "crossed above" the Moving Average of Momentum for any of the last 5 bars	1
13	Momentum(14) is greater than the Moving Average of Momentum for every bar in the last 3 bars	1
14	The MA of Momentum(14) has increased every bar for the 5 bars	1
15	If Twiggs Money Flow (TMF - 13 period) is now the highest it has been in the last 5 bars	(N/A)
16	If TMF(13) is greater than zero	(N/A)
17	If TMF(13) is greater than TMF(13) for any bar in the last 5 bars	(N/A)
18	If Volume > 5-period Moving Average of Volume	1
19	If Volume > 15-period Moving Average of Volume	1
20	If 8-period MA of Volume has increased every bar for 3 bars	1
	TOTAL score (this page):	**7**
	TOTAL score (previous page):	**7**
	TOTAL score:	**14**

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Allocating a Score value

Might this be useful?

- With careful use of specific chart indicators, might this be a useful approach?
- Which chart indicators to use?
- Can we foresee any issues?

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Allocating a Score value

Possible PROBLEM!

What if we choose several indicators that are all Trend indicators, or all Momentum indicators?

It is likely that all indicators of a particular type will be bullish together.

Momentum indicators
Momentum
On Balance Volume
RSI

Trend indicators
MA
MACD
ADX

Volume indicators
Volume MA (VMA)
Money Flow
Volume Oscillator

Volatility indicators
Bollinger Bands
ATR

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Another Problem!

In our case study we have listed about 20 criteria. What if:

- If each criteria is allocated one point, and
- Ten of these criteria are all based on observations of **trend indicators**, and
- Five are based on **momentum indicators**, &
- Five are based on **volume observations.**

Won't this result in a bias towards the trend observations?

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Allocating a Score value

A solution to this bias...

- Instead of allocating one point to each observation, we can allocate different amounts (eg. 2 points or 3 points)
  [we refer to this as the “criteria importance”]
- For example, allocate a percentage of the total score to each category (20% each?):
  - Trend
  - Momentum
  - Price
  - Volatility
  - Volume

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What Other Indicators??

What other chart indicators could we use?

1. Stochastic?
2. OBV?
3. RSI?
4. Bollinger Bands?
5. ...

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Some tips

In the examples shown, we have selected parameters which could be tweaked:

1. “periods” for MOM, MA, etc.
   (we used the default value of 14).
2. Scan criteria:- “... if the condition has occurred any time in the last X number of bars”.
3. Change the “importance” of each scan criteria.

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How to automate?

Once we decide
which indicators to use,
and which observations
of these indicators to use,
how can we automate the process
of calculating the score
for each stock?

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How to automate

My favourite...

- In BullCharts software...
- Set up a scan with "Match All Criteria" turned off;
- Create the required criteria;
- Then set "Importance" and "Required" options for each scan criteria.

Scan Criteria:

Match All Criteria

Criteria	Importance	Required
Open is greater than or equal to previous Open every bar for the last 3 bars.	1	No
Close is greater than or equal to previous Close every bar for the last 3 bars.	1	No
30 bar exponential MA of Close has increased every bar for the last 5 bars.	2	No
30 bar exponential MA of Close has increased every bar for the last 8 bars.	2	No
MACD (12, 26, 9) is less than 0 any bar in the last 8 bars.	2	No
MACD (12, 26, 9) Above is true any bar in the last 8 bars.	2	No

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Scan Criteria — for how many bars?

In a scan, we could say that this condition must have been in place, "...For ANY bar in the last X bars", or "...For EVERY bar...":

(a) Moving Average (MA) rising for consecutive bars **(For HOW MANY bars?)**, especially if it is below the share price

(b) MACD crosses "above" when below its own zero line (**Any time in the last X bars**)

(c) Momentum indicator is trending higher (ie. higher peaks and troughs) — **(For HOW MANY bars?)**

(d) Moving Average of Momentum is above the Momentum and rising **(For HOW MANY bars?)**

(e) ActVest Range+ — indicator cord is rising

(f) Hull ROAR is rising **(For HOW MANY bars?)**

(g) Volume is above a Moving Average of Volume.

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Summary & Wrap up

Useful?

Might this approach be useful
to rank a list of stocks
in order of bullishness?
and

likelihood to perform?

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Ranking stocks — chart indicators

Key observations of chart indicators can be used to produce a ranked list of stocks.

Every chart tells a story.
It pays to understand the stories in the charts.

Summary & Wrap up

BTW

- I send occasional email to interested people
- My ***Share Market Toolbox*** web site:
  - Toolbox Members receive weekly email with (charts) analysis of our market
  - And there's lots more (stop loss, trends, etc...)
- Register for free and not miss out.
- Send me an email request: robert@robertbrain.com

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Summary & Wrap up

Don't forget my Toolbox

- Brainy's ***Share Market Toolbox***
  - www.robertbrain.com
  - Loads of eBook (PDF) Articles
  - Info: share market, charting, BullCharts
  - Weekly Market Updates and Watch List
  - monthly e-Newsletters
- Good software – BullCharts
  www.robertbrain.com/bullcharts/
- My contact details:
  web site above, or phone: 0438 355 910

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ATAA — networking, etc.

For totally unbiased and broad support:

Australian
Technical Analysts
Association

- Eight locations around Australia
- Monthly meetings
- Lots of resources — www.ataa.asn.au

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Summary & Wrap up

Q & A ?

Any questions?

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Summary & Wrap up

THE END

See free stuff here:
www.robertbrain.com/free

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