Super Fast Adaptive Moving Averages generated by Advanced Engineering Methods

Noldo
https://www.tradingview.com/u/Noldo/
https://github.com/user-Noldo

Abstract. After the spread of the internet in the world, stocks and spot commodities purchased as coupons from banks were transferred to digital platforms, and the products and newly issued financial softwares were made available from anywhere with internet connection and computers and even mobile phones.As a result of this, with the derivative instruments and cryptocurrencies , millions of people started to trade in financial markets.Then the algorithm robots took their place in the trade scene and found themselves in all instruments.Nowadays considerable trading volume is being made with special algorithmic trading robots, and day by day, algorithmic robots continue to replace people.
There are only two groups in the markets.[1]
1 - Commercials : Commercial organizations, banks, investment banks, hedge funds, giant producers that control almost all of the money in the world.There are 3 groups in COT data, but in my opinion there are only two groups.Because those who do not have an institutional structure cannot obtain the opportunities that I would count in commercial organizations.
They have all kinds of high-level human resources,technologic resources (algorithms , special modified indicators) , unlimited sources of information,data and so much larger capital than speculators, credit sources, and most importantly they are in agreement with each other.Because their capital is very large, they must guarantee to find buyers, so they are bearish when prices rising and bullish when prices falling. They play into the reverse market.
They earn low percentages and secure profits, and because their capital is large, their earnings are greater than any speculator trade.And they have regular incomes that feed their capital.
Although some organizations fail in some crises, they always win as a group, even in the bankruptcy of others.Behind the top-level, even governments are behind them, so that they can win from crises.
2 - Speculators : And we're here.
Even though there is very little from the first group, there are strong and successful people among us.But successes are often not sustainable and very rare.You can check the earnings / loss ratios of Forex companies.Regardless of which firms you review, all of these rates are close to each other and are quite low.There is no organization between us.And we're not communicating with each other.Since we do not have an organizational culture and organizational structure, organizations will be limited to unsuccessful pump / dump and signal groups.Because we are not company structures, a total unity will never be achieved.All our motivation will go away in a few chained losses.Let us now assume that we are in this group at first, and that our facilities are limited.In summary, this group has 3 main problems:
1. Small position sizes to reduce capital and consequently reduce motivation.
Which sometimes leads to ambition to trade with all capital.
2. Limited information resources and investment tools in our option:
This has diminished slightly, thanks to social media lately.
And since the largest markets are liquid markets, we still have considerable options with or without leverage.
3.**This third issue is where scripts are activated :**
The technical analysis tools that we use are often the same for everyone.And most importantly, an overly large majority uses **similar fixed** periods (lengths).
While this may seem very positive for those who believe heartily in behavioral economics, my opinion from experiences and observations : It is very negative. Because :
Speculators hunted easily by algorithms in any time frame.
Not everyone can win in an environment where everyone buys and sells according to similar periods.
The aim of this system is to find a valid solution to 3rd problem and increase the cumulative success rate.
Two types of methods are mentioned in this paper: Autonomous LSTM and Relativity Methods .

1. Introduction

I would like to introduce myself first :
I am engineer.Although I am interested in financial markets for a long time, I think that engineering should be a part of the economy as it is in every field.Moreover, this place must be larger than most areas.So I'm going to divide myself into two parts :

My Engineering Background:
I graduated from one of the four-year engineering faculties of the universities.
In short, while my own profession infuses the view of engineering, my personal development efforts outside have allowed me to build systems of my own.So, for the sake of short, I will tell you about my personal development.
My first acquaintance with the codes was in 2016 with the desire to learn how to write mobile games.
I have written small mobile games through Android Studio with Java and physics engines. It was just for satisfaction and I understood what it really meant to produce.That's how I first met the codes.
I developed this by taking various courses from Khan Academy and Udemy.
I recently received my certificate from the Algo Trading Robot course from Udemy and started learning the Tradingview Pinescript Language.About a year ago, when i dominated Tradingview Pinescript language, I implemented the Relativity system with the help of a team,combining quantum equations and various data.
It took me almost a year and the infrastructure is more than 3 years.I'll talk about that in my economic background.
Besides, I have been personally interested in artificial intelligence for about 3 years.
But my acquaintance with artificial neural networks goes back a long time.
We started our deep learning activities with a group of friends from the university for entertainment, but we all got a good basic knowledge there.
My compilation of my neural network scripts began when a friend of mine in the defense industry gave me his own modified system on a program.
Since the defense industry used the most advanced systems in this field, my friend limited his gift.
but it works in limited columns and I learned the network training and the working principle of the program myself and with the help of articles.

My Economic Background :

My interest in financial markets dates back to 2012.
My theoretical knowledge began when I read Warren Buffett's letters and statements.
And from there I explored the methods of Benjamin Graham, the father of value investment.
And I added a lot of quality people to the concept of financial literacy.
I began to learn basic analysis and make plenty of calculations on stocks.
Then I switched to indices and commodity markets.And since the second quarter of 2015, I learned all the technical analysis methods with their formulas. Many books, columns and pdf files helped me to improve this information.But these were only part of the theory.

In November 2016, I started trading as a small-medium-sized investor in the financial markets with my own capital, my own knowledge.
I doubled my capital in two years.
But this was a very difficult and really weary process.
While trading, I always looked for the scientific explanation of trade and took notes.
In December 2018, 10 percent of my all capital melted in just 2 weeks.
And 5 percent melted in a day.
I've been waiting two weeks, but I decided to leave.
Because I used classic indicators and oscillators, and I usually did medium-day trading even if I think about it in the medium term.
My system, based on classical methods, was down.

A 10 percent loss may look less than a 100 percent gain, but it is enough to lose my trust.
And I promised I wouldn't go back until I had a scientific basis for it.
And I started to write my own script, along with the information and engineering equations I took from my trading experience.

2. A Script System with Optimum Efficiency

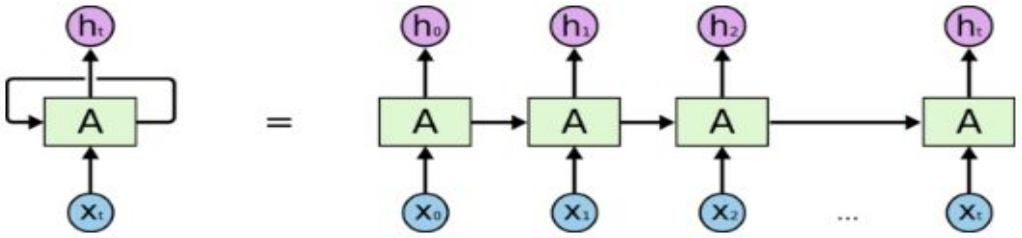
Luckily, my colleagues working in financial companies as professional traders helped me a lot.
In addition, the contribution of quality people who make video commentary via the bloomberg terminal is undeniable.
But the biggest contribution was made by articles about CFTC, COT data.
From here I realized that I have three things to solve:

1 - Don't stick to only statistics, add real-life data to these instruments.**Add something real-life to your trade.**
2 - Don't forget that the movements of the big markets, which affect the world, should confirm each other. Try to establish the invisible correlation between the indicators, oscillators, volume.
3 - Minimize volatility, ie noise.
Because a buy signal can tell you a big profit, you can also make hundreds of transactions you needlessly open positions.Although there are many theories put forward as obstacles, none of them has been able to provide solutions.
Moving averages are the basic concepts of technical analysis, and the closest idea to solving volatility is adaptive moving averages.
However, the current famous adaptive moving averages are formed with certain coefficients.
You can observe that these averages are not even better than the exponential moving average.
Because they use certain patterns.
It is not something that can only be solved by normal mathematical calculations.
The best solution is mathematics again.
And if neural networks are properly trained with the relationship between variables,it will give a proper formula.
And if this formula is put into an appropriate algorithm, the main technical analysis methods: Support - Resistances, Channels, Trend lines, Stop-Loss of traders who know how to use the trade will provide a cumulative success.But this is still not enough.As above technical analysis:
Position Size, Risk / Reward Ratio, interpreting the global economy and following the agenda, monitoring the relationship between the indices, for medium - long term investments: Traders who interpret COT data will increase their success rates with my paid scripts.In other words, the main customer base of this scripts is the investors who have basic knowledge about them.We can start now.

3. Neural Networks , Artificial Neural Networks (ANN) , Recurrent Neural Networks (RNN) and Long Short Term Memory (LSTM)

Neural Networks are set of algorithms which closely resemble the human brain and are designed to recognize patterns. They interpret sensory data through a machine perception, labelling or clustering raw input. They can recognize numerical patterns, contained in vectors, into which all real-world data (images, sound, text or time series), must be translated. Artificial neural networks are composed of a large number of highly interconnected processing elements (neuron) working together to solve a problem
An ANN usually involves a large number of processors operating in parallel and arranged in tiers. The first tier receives the raw input information — analogous to optic nerves in human visual processing. Each successive tier receives the output from the tier preceding it, rather than from the raw input — in the same way neurons further from the optic nerve receive signals from those closer to it. The last tier produces the output of the system..
What is Recurrent Neural Network (RNN)?
Recurrent Neural Network is a generalization of feedforward neural network that has an internal memory. RNN is recurrent in nature as it performs the same function for every input of data while the output of the

current input depends on the past one computation. After producing the output, it is copied and sent back into the recurrent network. For making a decision, it considers the current input and the output that it has learned from the previous input.
Unlike feedforward neural networks, RNNs can use their internal state (memory) to process sequences of inputs. This makes them applicable to tasks such as unsegmented, connected handwriting recognition or speech recognition. In other neural networks, all the inputs are independent of each other. But in RNN, all the inputs are related to each other.

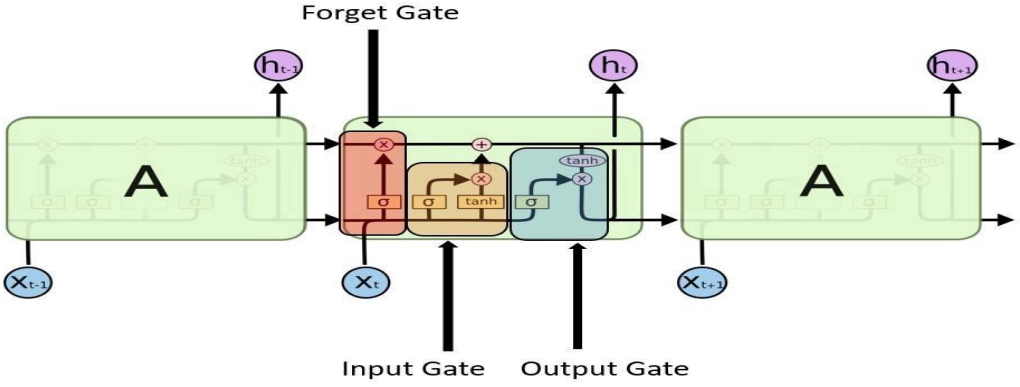


An unrolled recurrent neural network.

Advantages of Recurrent Neural Network
RNN can model sequence of data so that each sample can be assumed to be dependent on previous ones
Recurrent neural network are even used with convolutional layers to extend the effective pixel neighbourhood.
Disadvantages of Recurrent Neural Network
Gradient vanishing and exploding problems.
Training an RNN is a very difficult task.
It cannot process very long sequences if using tanh or relu as an activation function.

What is Long Short Term Memory (LSTM)?

Long Short-Term Memory (LSTM) networks are a modified version of recurrent neural networks, which makes it easier to remember past data in memory. The vanishing gradient problem of RNN is resolved here. LSTM is well-suited to classify, process and predict time series given time lags of unknown duration. It trains the model by using back-propagation. In an LSTM network, three gates are present:



1.Input gate — discover which value from input should be used to modify the memory. Sigmoid function decides which values to let through 0,1. and tanh function gives weightage to the values which are passed deciding their level of importance ranging from-1 to 1.

2. Forget gate — discover what details to be discarded from the block. It is decided by the sigmoid function. it looks at the previous state(ht-1) and the content input(Xt) and outputs a number between 0(omit this)and 1(keep this)for each number in the cell state Ct−1.

3.Output gate — the input and the memory of the block is used to decide the output. Sigmoid function decides which values to let through 0,1. and tanh function gives weightage to the values which are passed deciding their level of importance ranging from-1 to 1 and multiplied with output of Sigmoid.[3]

*NOTE : Almost all of the information in this topic is taken from **Aditi Mittal**'s article on Medium.com. Frankly, I think it is one of the most useful articles on this topic.*
Don't forget to browse for detailed information :
https://towardsdatascience.com/understanding-rnn-and-lstm-f7cdf6dfc14e

4 - GROUP 1 : Autonomous LSTM Methods : Autonomous LSTM and Autonomous LSTM Stop-Loss

What is Autonomous LSTM ?

Autonomous LSTM: A smart, adaptive period with special formulas by training technical analysis methods that measure volatility such as Bollinger bandwidth, ATR (Average True Range) and various volume methods according to price change and stopping at the lowest error rate creation system.
The system, which uses this adaptive period, was subjected to deep learning test with the price change of various instruments and the appropriate coefficients were determined and reflected back to the period.

In short; a self-learning system is created by re-testing the trained and established smart period with price change.And this is the LSTM system.
But the name is Autonomous LSTM because it is almost impossible to do this inside of Tradingview Pinescript system with Tradingview Pine codes, which allows us to use our scripts.
The reason for the fact that its name is *Autonomous LSTM* is that the relation is found from outside programs' calculations.
If this system had it been done by calculating with insider codes using Tradingview's pinescript system, it would have been a fully independent LSTM that was not autonomous.
But I think that is impossible with the current means and tools.

Because even 25 instruments' Artificial Neural Networks at the same time gives a tremendous load to the system.Its formula structure can already take hundreds of lines, and my own adaptive average takes hundreds of lines.And on top of that: when we retraining the new adaptive period found through training, it's really hard for systems to lift that load.I think it is impossible for now. **Moreover, just like the defense industry companies, we have to do with billions of data to be sure for all timeframes.**
Unlike my ANN commands, which I share with my own *forecast indicators* free of charge, I use my forecast algorithm, which makes it possible to open the system in close to 2 minutes.
So I worked result-oriented and made the calculations thanks to the possibilities I had and non-Tradingview programs.So, I used Artificial Neural Networks (ANN) only to find correlations, and I formulated that correlation to form an adaptive moving average.

4.1Structure of Autonomous LSTM

There are four important features that make autonomous LSTM different from others.

Feature Layer 1 : Special formulation :

The Autonomous LSTM smart period equation is a multivariate equation created by averaging a table based on market weights and optimizing it for each time period, by specially training and taking note of the instruments chosen from foreign exchange, stock markets all over the world.

Feature Layer 2: Special Forecast Algorithm :

When we apply only the first item, we only get the buy and sell signals in reverse.
In other words, since we measure the expectation, the positive signal informs the bear market and the negative scenario informs the bull market.
If we only act according to the expectations market, our system will be very sensitive.
When we associate this with real prices, both our accuracy increases and the reverse market returns to the normal market.
In other words, as in the indicators with standard average, the upward crosses are buy and the downward crosses are sell signal.
Examples:
a -) The normal deep learning script (ANN), which is only created according to expectations:

Unlike standard market, it gives reverse signals.

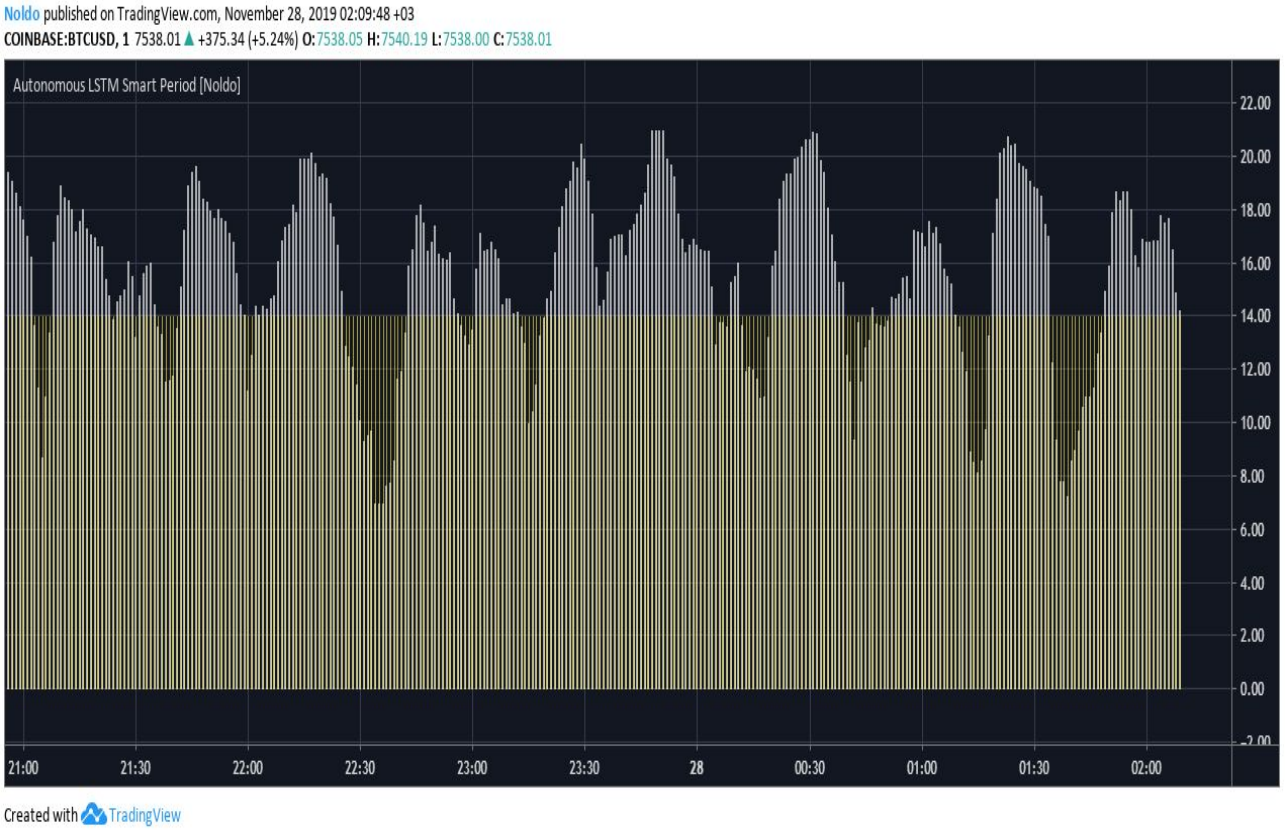
Original script : https://www.tradingview.com/script/U2QcUFhe-ANN-MACD-25-IN-1-SCRIPT/

b-) Script with Forecast Algorithm but it only uses valid and standard periods for certain instruments.

Original script : https://www.tradingview.com/script/YYw2DY9i-ANN-Forecast-Stochastic-Oscillator-Noldo/

Feature Layer 3 ：Composite of Two Layers： Smart Adaptive Periods

This layer is the most important layer.
Outputs the period.
It adjusts itself to market conditions and provides a more agile trading environment under all circumstances.
Display of smart period function and standard period:



Where the market is stagnant, the period increases and reduces unnecessary trade, while in trendy markets the period decreases and allows to see positions first.
The degree of stagnation of the instrument concerned is not calculated solely by volatility.
I can tell you without detail here.
What is calculated here is a **3D Notion**.
And I leave the success to the users, but I am very assertive about authenticity!
I say this not only to Tradingview but also to my own financial readership.
It took me about a year to make it, and in my Relativity script, I'm going to do the actual show after the company will founded.
But I have processed the average value of artificial neural networks in the form of interconnected pulleys.
Each value works interdependently and they all adapt to each other.
A coefficient was used here, but the system using the adaptive period and item 4 was put back into the deep learning test.
Now the coefficients are gone!

And in doing so, I received assistance and approval from real traders (individuals managing positions or private bankers on behalf of an institution).
I hope they agree to write their articles on the blog I will set up.

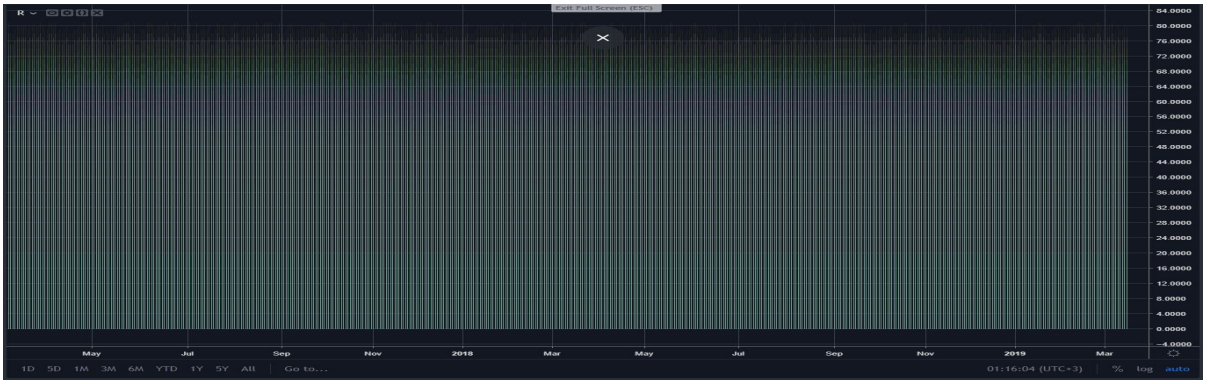
And now I'm going to be my second most important feature on layer 4.
This feature is also completely unique.

Feature Layer 4 : Smart High - Low selection Algorithm

When I put the script system under the MACD (Moving Average Convergence Divergence) roof, I did the tests.
Where both averages were positive, they could report accurate harsh trend news, or vice versa.
But I decided to give it up and put it on the Stochastic Money Flow Index.
First of all , Stochastic Money Flow Index function takes the volume into account.
The reason for this is a very important factor, which is naturally contained in the structure of high - low prices related codes.
And by using this factor, it could be superfast adaptive in both stagnant and trendy markets.

What is Smart High - Low Selection Algorithm ?

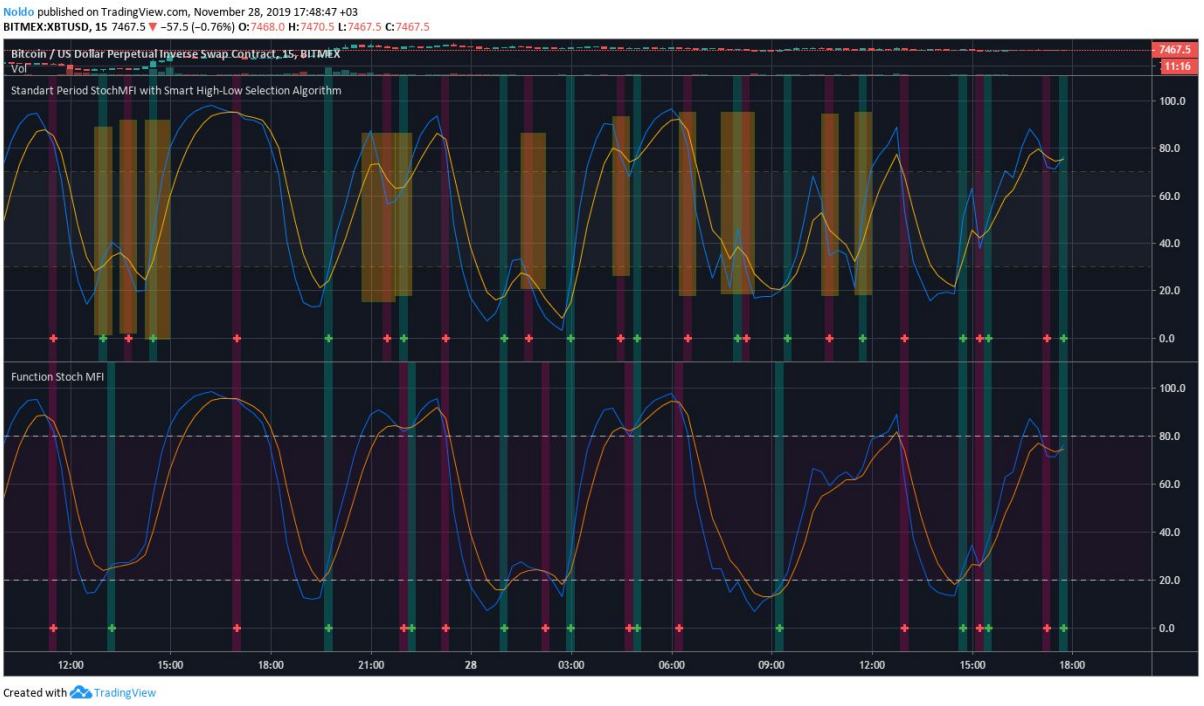
The Smart High-Low Selection Algorithm does not depend on a specific period but scans all periods backwards.(Lookback Function - Lkb)
Outputs the lowest or highest values in the specified new period.
This algorithm was written by me with the concern that if everyone trades according to the same threshold values, it will cause problems and choosing between values of the whole period length will slow down the signals.
This algorithm consists of two functions.
a - Lkb (Lookback Function) :



As shown in the diagram, the lookback function scans back all periods from 0 to Smart Period bars at the same time.
In order to show the effect of the function, it was done between 0 and 84 days.
However, the scan period of the function is normally at the same time: 0 to intelligent period time.
If the smart period includes a fractional day, it can also scan it.
There is no need to be an integer.
All functions are written to make mutable variables appropriate.
And what this function will scan depends on the second feature.
The special selection algorithm is in this function.**And the output is given in this function.**

b-) Smart High - Low Selection Algorithm

Outputs the lowest or highest values in the specified **new period**.
This function allows you to select the most advantageous low or high values, even though the adaptive period remains the same.
And the signals are even more accurate.



This is a comparison of the special high-low selection algorithm and the Function: Stochastic Money Flow Index in the ***standard period.***
For the codes of the Stochastic Money Flow Index function:
https://www.tradingview.com/script/Dcbz7r3p-Function-Stochastic-Money-Flow-Index/

Speed may not be clear here.
So let's take a look at on chart.
So I would like to show a comparison of the standard and special selection algorithms on Function: Highest - Lowest. (This function is taken from RicardoSantos' script : https://www.tradingview.com/script/32ohT5SQ-Function-Highest-Lowest/.)
Note: This function is the standard function and freed from integer loads.
And in this way, high-low commands like rsi are made in accordance with mutable variables.
My goal certainly is not to disparage.It's a very useful function.
My goal is just to show the difference.

Blue = Function Highest - Lowest (length = 10)
Yellow = Smart High-Low Selection Algorithm (length = 10)
You can better observe the different results in the same period on the chart.

CONCLUSION
The Autonomous LSTM algorithm gives us signals as a result of these four factors.
These 4 factors are interdependent.
Before use and menu features, let's go to our Autonomous LSTM Stop-Loss indicator.

4.2 Indicator 2 : Autonomous LSTM Stop-Loss

After studying the Autonomous LSTM thoroughly, our work became easier.
Autonomous LSTM Stoploss is a stop-loss technique that uses the Autonomous LSTM algorithm.
This structure is different from normal stops.
The base frame is based on "Market Adaptive Stop-Loss" script.

What is Market Adaptive Stop-Loss ?

The standard market adaptive stop-loss is similar to the volatility stop-loss in one item, but its main feature is that it is compatible with the intersection of another moving average indicator.

So, not only is the comparison of volatility and closing sufficient,
the signal of an intersection indicator.
If all possibilities are positive, it is in every respect equal to a normal trade.
And red and green coloring is done.
If one of the parameters is incompatible, it is subject to: maroon and teal coloring.
This signal is ignored.
Of course, you can see the closest support resistance here.
This only looks for consistency with a selected intersection method.
I shared the standard version of this as an open-source for the benefit of the public library, as I knew it would adapt to the normal indicator in live trading.
Market Adaptive Stop-Loss:https://www.tradingview.com/script/z9bPYhxa-Market-Adaptive-Stop-Loss/

So, as I mentioned above, the only difference is the use of Autonomous LSTM as moving average methods.
And this provides an integrity between the methods.

5 - Use of Autonomous LSTM and Autonomous LSTM Stop-Loss

Autonomous LSTM and Autonomous LSTM Stop-Loss (On Chart) :

The Stop-Loss indicator can slide on the chart.
Unfortunately, this is a general problem.
It is observed in all indicators on the chart.
So you have to make sure you put it in place.
Since this is a region scan from the OHLC levels, I drew small blue dots to the ohlc levels and made it serve as a guide.
However, since we cannot know the OHLC values precisely, it is best to use them as follows:
Because it is often forgotten to put it in place:
(OHLC : Average of Open, High, Low, and Closing prices for each period)

Recommended use:Stop-Loss does not slip.The values are selected from the alignment.

5.1 Settings

Autonomous LSTM Settings :

It is just the barcolor to be colored according to the crossover and crossunder conditions or not (I / 0) option.

Plot Rules

Blue Zones = Crossover condition where the average of long and short lines is less than 50.
Orange Zones = Crossunder condition where long and short lines averages more than 50.
Green Zones = Crossover condition where the average of long and short lines is greater than 50.
Red Zones = Crossunder condition where long and short lines averages less than 50.

Autonomous LSTM Alerts :

As an alert, it only reports crossover and crossunder status as "Long Signal" and "Short Signal" as a warning after the first bar closure.

Autonomous LSTM Stop-Loss Settings :

The only option here is the ATR multiplier.
The normal use value of this multiplier, which is of the nature of stop-loss, is 2.
My personal suggestion should be used between 2 and 3.
You can set it from the menu.
No alert is set.
Because the positive and negative regions are the same as Autonomous LSTM.
Since the traders can trade according to the support and resistance outside the definite regions, the unnecessary signal was confused and the alarm was removed.

6. The most important part: Trade with Autonomous LSTM and Autonomous LSTM Stop-Loss

Dear potential customers, I'm writing the most important part of this article right now:
These two systems are used together.
However, if you trade with all capital or all position size according to the signals of a position size or capital completely, you will sink like any other system.

Customers with these two indicators do not need another system, yes it is absolutely true.
But it should definitely be used together with the following elements :

1. **Support and Resistance Levels :** I manually draw from the points I have determined according to supply and demand.You can also benefit from levels like this or Fibonacci Retracement Levels.

2. **Various trend lines**: Major and/or minor.It depends on the situtation.

3. **Parallel Channels** : This is not essential, but it is highly recommended to draw where the major and / or minor trend lines are uncertain.
   I would always recommend, it is imperative for me to find and draw the current price channel except for the new ones.

4. **Position Size :** I think this is the one of the most important.
But the difference in these systems emerges as follows.
Normally, experts always suggest 1 percent:
My suggestion to those who will use these systems:
TF <= 4H = 1% (That's my absolute proposition.)
TF = 1D = 2%
TF = 1W = 3% to 4%
But it depends on your capital.
Weekly charts are the safest charts.
Because the financial quarters are every 13-14 weeks.
Since company reports lead the world, I recommend the weekly timeframe to look at the harmony of the indices, both in terms of time and to go with company reports and developments.
You can open a 2 percent position 1W timeframe.
These are entirely up to you.
But if you go to a certain position management, small mistakes or sudden news do you little damage.
And when the movement you think comes, you still have a great position opportunity.
I think position management is a separate area in itself.
However, with these systems being more accurate, you can use larger positions for 1D and larger 1W time-frames instead of using 1 percent for each time slot.

But I have a definite judgment in this matter:
TF < 1D ===> Position Size = %1

Leverage Issue :

- For leveraged trades, my personal opinion is that your maximum leverage should be 7.
The leverage for crypto coins must be 3.
But I think it is best to make trades without leverage on Cryptocurrency trades.

5. **Following the Economic Agenda and create an idea for a term in mind :**

This can now be done for free with thriving social media.
Not everyone needs to own the terminal.
However, especially in agricultural products, resources are still insufficient.
Generally speaking,free sources that can be commented on liquid instruments are currently available on social media.

6. **Risk/Reward Ratio :** This ratio should be at least **two** in your trade.
I personally prefer the ones **close to 3 and 3.**
According to position type: Below support (for short position) places that have made certain closing,The places with definite price closure as the closure above the resistance (for long position) are the most suitable regions in terms of risk / reward ratio.
In liquid markets you can sometimes expect the second closure under these conditions.
The Autonomous LSTM Stop-Loss will be of great help on the Risk/Reward Ratio issue.
An example of successful trading with these elements:

https://www.tradingview.com/chart/ETHUSDT/PQLJUBkV-ETHUSD-LONG-TF-1H/

Since it is considered profitable especially in terms of risk / reward ratio, the entered and ongoing trade.For example, although the position will explode here, I will bring short opportunities in the upper regions,
it will still be available due to the good adjustment of my position size.
In fact, if I base it on a certain development, maybe I could open a 2 percent position size.

Autonomous LSTM Stop-Loss levels and colors (red and green) become your biggest guide.

https://www.tradingview.com/chart/XAUUSD/5JRTuNAj-GOLD-may-test-1400-levels/

Example of an overview:

https://www.tradingview.com/chart/CL1!/9GmCgVE2-WTI-Strategic-Overview-before-new-week/

I've always shown the truth, which is an example of **my wrong trade**, but my risk / reward ratio makes me head-to-head with 33 percent right from instruments of similar volatility.
In short, I have the right to make three wrongs for one right.
But every rate above 33% gives me a big profit thanks to my high risk / reward ratio :

https://www.tradingview.com/chart/USDCHF/jxXkCWRy-USDCHF-SHORT-TF-2H/

But thanks to the good risk / reward ratio it contains, I would do it again if I see it today, because my loss rate is low.
And for 1 loss, it contains 3 gains.

Dear customers, I tried to explain the basic logic.
All the factors here vary according to the person, but I have explained with my example positions as a guide.

Now these methods can also be performed in conventional methods.You can do with standard period all free indicators , oscillators , centered oscillators, too .
Why should we choose Autonomous LSTM methods? What kind of problem do Autonomous LSTM methods solve? And will it be worth it when we pay the Autonomous LSTM methods?

7. Advantages of Autonomous LSTM methods over classical methods (What exactly do customers pay?)

- Autonomous LSTM allows you to make **snowball trades** as a summary of all this.
  Your cumulative losses are reduced while your steady earnings are increases.
  In cumulative, you switch from classical methods to a clear difference.
  This difference scissors increases positively as time passes.

- Millions of dollars of special algorithms cannot hunt you easily.
  Because you do not operate according to classical periods and variables.
  In the markets where everyone buys and sells similarly, someone will disrupt the game.
  Not only the algorithms, but the very big lot size, the two contracted parties to make a trend-distorting trades finishes the game.Manipulations do less harm to you.

- Special stop-loss and indicator at the time of double approval, support - resistance levels, and trend lines with the help of opening the position prevents unnecessary.
  And so you avoid unnecessary commissions and labor.
  This element also has a positive effect on **snowball trades**.

What are “Snowball Trades” ?

To deepen this, let's first look at the snowball effect:

Metaphorically, a snowball effect is a process that starts from an initial state of small significance and builds upon itself, becoming larger (graver, more serious), and also perhaps potentially dangerous or disastrous (a vicious circle), though it might be beneficial instead (a virtuous circle). This is a cliché in cartoons and modern theatrics and it is also used in psychology.

The common analogy is with the rolling of a snowball down a snow-covered hillside. As it rolls the ball will pick up more snow, gaining more mass and surface area, and picking up even more snow and momentum as it rolls along.[4]

SUMMARY OF AUTONOMOUS LSTM METHODS

This indicator uses artificial intelligence methods and specific functions.
We have basically tried to explain the elements we are targeting, the engineering structure and use of the system.
Now we move to Relativity methods.
There are many common points between Relativity and Autonomous LSTM methods.
But there are many differences.Now let's briefly explain them.

8- RELATIVITY METHODS : The Perfect Blend of Artificial Intelligence, Data Analysis, Quantum Physics and Beyond Technical Analysis Concepts

The relativity method is a method of trade inspired by the theory of relativity of Albert Einstein, which argues that trade is a relative concept and, according to the case it advocates, creates the values to be evaluated relatively by using high-level engineering methods, and converts these values to factors to ensure the highest efficiency.

The relativity method was created by me.
In creating: valuable opinions of engineers, economists, financial market traders were taken.
I would like to thank everyone who contributed to the Relativity project.
It took 1 year to code.
Many layers are common with Autonomous LSTM.

But there are additional layers that are much higher than that.
These systems use real-life data positively in trade and significantly increase the hit rate compared to conventional methods.

And in all traded instruments, it decides the degree of scoring by linking with global markets.
The more liquidity of the selected parities, the higher the success rate, the higher the liquidity in the markets.
Crypto coins do not claim a very high success.
But he claims to be much more successful than classical methods.
It is much more successful in regulated markets.

There are dozens of different types of Relativity.
The release version is one of the most valuable versions.
Only used in 1 Week (1W) time-frame.
It should not be operated in any time period except 1 week.

It claims to be one of the most successful systems in 1W bars.
The type of product to be offered to customers is: Relativity Autonomous Distribution Blocks.

8.1 Structure of Relativity Autonomous Distribution Blocks

There are seven important features that make Relativity different from others, even Autonomous LSTM indicators.
I said 7 because I can convert Autonomous LSTM into Distribution Blocks if there are many requests.
The price will remain the same.

Four of these features are common to the Autonomous LSTM.
The other 3 features are built on these features.And Relativity methods were born.

Note: Here the contents of the Relativity's custom functions will never be explained.
(Excludes: in commercial relations with full-service global investment banks only!)
Although Autonomous LSTM is also very valuable, he is a small child born of Relativity method..
Autonomous LSTM is a version of Relativity that is suitable for any time frame but does not capture real-life data.

Feature Layer 1 : Special formulation (Common)
Feature Layer 2: Special Forecast Algorithm (Common)
Feature Layer 3 : Composite of Two Layers : Smart Adaptive Periods (Common)
Feature Layer 4 : Smart High - Low selection Algorithm (Common)
Feature Layer 5 : Intelligent Volume - Open Interest power factor according to Global Markets and Related instrument
Feature Layer 6 : Special quantum function including COT Commercial Positions (Communicate with layer 5)
Feature Layer 7 : World's Price/Earnings Ratio (Eliminates fundamental analysis.)
Feature Layer 8 : Distribution Blocks : The design of the command as a histogram, with intelligent distributional buying and selling points and positive/negative zone coloring, with alerts.
Uses the relativity algorithm. This will contribute not only to leveraged transactions but also to portfolio management and will give a more realistic perspective.**With Feature Layer 8, you can get opportunities that will affect almost 100 percent of your position.**
Visuals from the site with some examples of **standard periodicals** and my educational idea that entered the mailing list last week:

https://www.tradingview.com/script/21OymH51-Whale-Trading-System/
https://www.tradingview.com/chart/XAUUSD/FugtEMGZ-How-Do-Whales-Trade/:

8.2 Settings of Relativity Autonomous Distribution Blocks

Menu

The menu is divided into 5 different algorithms and covers all instruments around the world.
For example, one or two examples of each option:

1. **Futures :** XAUUSD , GC , XAGUSD , SUGARUSD , SB1!
2. **Stocks :** All Stocks and Modified Parities (Example : AAPL/EUR , XAU/XAG)

3. **Forex Excluding USD/X :** CHFUSD , EURUSD
4. **Forex USD/X :** USDJPY , USDTRY , USDMXN
5. **Crypto :** BTCUSD , ETHUSD , ADAUSD or BTCETH , ETHBTC

Note : In the Crypto option, X/USD parities have much more success than modified crosses. At the moment, bitcoin goes with a much more connected understanding.
But I can bring the update to the system in a future time when the price data increases and the success rate is higher.

8.3 Relativity Autonomous Stop-Loss

Just as I described in Autonomous LSTM Stop-Loss, Relativity is the version of the Market Adaptive Stop-Loss command that uses the relativity algorithm in Autonomous Stop-Loss.

SUMMARY OF RELATIVITY METHOD

The remaining operating characteristics are the similar as for Autonomous LSTM.
Only position size is different .

Position Size :

Due to the high accuracy of relativity, 1W time-frame (mandatory) position size can be used more than 1%.
Minimum 2% for professionals,
I recommend a minimum of 3% - 4% for those traders who love risk.

Relativity Pack

9 . WHO SHOULD RENT THE SPECIAL SCRIPTS?

- Investors and traders whose total investment capital is not less than $ 10000 and at least one year real trading experience.Those who use the following or similar terms to trade:
  Page 12 : Trade with Autonomous LSTM and Autonomous LSTM Stop-Loss
  (This applies only to those who make money from financial market trading.)

- Idea sharers who want to increase their popularity.

- SMEs, Manufacturers, Industrialists, Farmers , Jewellers etc. (Mostly Relativity)

- Economists who comment on financial markets in the press and social media (medium term : :Relativity, all maturities: Autonomous LSTM)

- **Anyone interested in the economy and financial markets without budget problems**

10 - Free test option

Until the company is established, there will be a free test option for at least 15 days.

Anyone can join for free.

11 - PRICING

Autonomous LSTM Pack :

Autonomous LSTM + Autonomous LSTM Stop-Loss = 420 $ / year

Relativity Pack :

Relativity Autonomous Distribution Blocks + Relativity Stop-Loss = 1440 $ / year

Terminal Pack (NEW) (Page 21 for Detailed Information):

1 Mini Terminal = 60 $ / year

ALL (7) Mini Terminals = 240 $ / year

NOTE : ALL TERMINAL PACKS ARE FREE FOR RELATIVITY PACK USERS !

- The test period is not included in the membership time.
  When the test periods are over, satisfied users request the system.
  As soon as the system is turned on, the 365-day period starts.

- **There is no refund for users who have paid and purchased the system after the test period has expired.**

- Only stop-loss or only the main indicator is not sold.
  Sales are in bundles.
  Two systems are integrated.
  They were created for use together.

- These prices are discounted prices.
  Since it is our first year, 30% discount is made for each package.
  And no money was taken from Stop-Loss.
  In the second year pack prices will become 30 percent expensive to normal level.

  Prices are fixed during the year and there will be no discount.

12 - PAYING OPTIONS :

- Once the company is established, payment methods are known and credit card is highly probable.
- Cryptocurrencies not be charged.
- Since these systems cover all the world markets and are considered to be the most effective products, personalized scripts will never be made.

13 - SPEED TEST AND RESULTS

This list of test results will be given separately as it takes up a lot of space independent of the presentation. The period was used on heikin ashi bars on the **intermediate form (IF) of Autonomous LSTM and Relativity** subjected to the comparative rate test with the standard period Function Stochastic MFI.

- Intermediate form (**IF**) : I created it a few months ago at the level I acquired when creating relativity and recorded it comparatively.
  It was a form with two layers of common methods and a beautiful document reflecting the power of both systems.

The only purpose of the speed test is to show customers the difference from the standard period scientifically.
It has nothing to do with success .

You can see this in my open source public scripts, even though I use the same periods, but they have fast results from standard methods:

https://www.tradingview.com/script/YYw2DY9i-ANN-Forecast-Stochastic-Oscillator-Noldo/
https://www.tradingview.com/script/NMpXw3Z8-ANN-Forecast-MACD-Noldo/

.Because test script uses Heikin-Ashi bars in the speed test and performs every operation with all of the balance.
This has nothing to do with real trade.
The reason for being useful in real trade is that it will have a big impact on the cumulative success of users who are able to provide accurate signals, technical analysis and interpretation capability by avoiding volatility and horizontal (stagnant) markets as much as possible.

Speed Test Results :

- Forex Comparison Test
- Futures Comparison Test
- Global Stocks Comparison Test
- Summary of Test Results

SCRIPTS ON TRADINGVIEW :

1 - AUTONOMOUS LSTM PACK :

- Autonomous LSTM :

https://www.tradingview.com/script/ExPy48mQ-Autonomous-LSTM-Noldo/

- Autonomous LSTM Stop-Loss :

https://www.tradingview.com/script/5J2sM1Xb-Autonomous-LSTM-Stop-Loss/

2 - RELATIVITY PACK :

- Relativity Autonomous Distribution Blocks :

https://www.tradingview.com/script/XbTPge5E-Relativity-Autonomous-Distribution-Blocks/

- Relativity Adaptive Stop-Loss :

https://www.tradingview.com/script/eSwD1aeS-Relativity-Adaptive-Stop-Loss/

3 - TERMINAL PACK : (NEW)

- Live Mini Terminal 1 : Relative General Change Data

https://www.tradingview.com/script/PtU2RW0L-Live-Mini-Terminal-1-Relative-General-Data-Change/

- Live Mini Terminal 2 : Relative USD Based Markets Stock Markets Change:

https://www.tradingview.com/script/Ybd6VHlZ-Live-Mini-Terminal-2-Relative-USD-Based-Stock-Markets-Change/

- Live Mini Terminal 3 : Relative Forex and Futures Change Data :

https://www.tradingview.com/script/jd9timZg-Live-Mini-Terminal-3-Relative-Forex-Futures-Change-Data/

- Live Mini Terminal 4 : G10 Developed Countries Change Data :

https://www.tradingview.com/script/BchQ4UAp-Live-Mini-Terminal-4-G10-Developed-Countries-Change-Data/

- Live Mini Terminal 5 : MSCI Emerging Countries Change Data :

https://www.tradingview.com/script/30arPxW2-Live-Mini-Terminal-5-MSCI-Emerging-Countries-Change-Data/

- Live Mini Terminal 6 : Major U.S Indices Change Data :

https://www.tradingview.com/script/5JnkKGfU-Live-Mini-Terminal-6-Major-U-S-Indices-Change-Data/

- Live Mini Terminal 7 : Major Cryptocurrencies Change Data :

https://www.tradingview.com/script/wlVsgz38-Live-Mini-Terminal-7-Major-Cryptocurrencies-Change-Data/

NOTE :
The Autonomous LSTM indicator can be converted to multi-timeframe signals if there is a high demand.

Supporting data terminals are currently being written and will be given free of charge to users of the relativity package.

EVERYBODY CAN JOIN FREE TEST MINIMUM 15 DAYS FOR ALL PROFESSIONAL PAID SCRIPTS !

NOTE : FIRST YEAR PROMOTION

In honor of our first year, a 30% discount was applied on all package annual usage fees.

Our customers who registered for the first year will be able to benefit from these prices for a lifetime !