Coffee Rings, Calculators, And The KFI

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Introduction

This is the third and final short explanatory article on the *Kapital Flow Instrument* (KFI) and the second covering the small MicroPython scripts I wrote for it. This one is concerning *kfitiers.py* which only prints out text as a reference of the *m_divisor* classes and phase state teirs. At some point in time, graphing calculators will come with a text editor without resorting to having to use the MicroPython implementations as text print out programs. The print out from *kfitiers.py* is available in the first article in this unintended series.

I do not need to go into detail or explanations boring the reader on the source code as it is primitive doing a primitive thing. What Iam going to do is refresh from the first article in this series the teirs in the format of the previous article.

Source Code

```
m_divisor = "m_divisor: Equity=1000,ETF=100,Commodity=10"

large_adv = "Large: >=50M ADV"
mid_adv = "Mid: 5M-50M ADV"
small_adv = "Small: 500K-5M ADV"
micro_adv = "Micro: 50K-500K ADV"
nano_adv = "Nano: <50K ADV"

large_t = "Large-L:6, T:6.5, P-F:7, F:7.2, G:8.5"
mid_t = "Mid-L:5, T:5.5, P-F:6, F:6.2, G:7.5"
small_t = "Small-L:4, T:4.5, P-F:5, F:5.2, G:6.5"
micro_t = "Micro-L:3, T:3.5, P-F:4, F:4.2, G:5.5"
nano_t = "Nano-L:2, T:2.5, P-F:3, F:3.2, G:4.5"

print(m_divisor)
print(large_adv)
print(mid_adv)
print(small_adv)
print(micro_adv)
print(nano_adv)

print(large_t)
print(mid_t)
print(small_t)
print(micro_t)
print(nano_t)
```

***Line 1*:** all are factors of 10 because of the final `log10` operation to keep the equation at a sane scale. FX and crypto currencies need testing and observation which divisor to use or for something like Bitcoin may have to increase it. Not my interest but I will accept feedback if someone is inclined to test.

	Equity	**ETF**	**Commodity**
m_divisor	1000	100	10

Lines 3 – 7: ADV is Average Daily Volume. This adjusts the phase threshold table of the flow to align different Volume rates that would skew the threshold through inflation or deflation of scale.

	Large	**Mid**	**Small**	**Micro**	**Nano**
ADV	>= 50M	5M – 50M	500K - 5M	50k – 500K	< 50K

Lines 9 – 13: the phase tresholds as the flow changes state. Smaller volume assets are more sensitive then larger volume assets so the threshold levels have to be reduced as the asset reaches them at a lower *KFI* number.After experimentation and to keep scale, subtracting by 1 from Large worked and is simple.

	Large	**Mid**	**Small**	**Micro**	**Nano**
Sub-Laminar	< 6	< 5	< 4	< 3	< 2
Laminar	6	5	4	3	2
Turbulent	6.5	5.5	4.5	3.5	2.5
Pre-Fracture	7	6	5	4	3
Fracture	7.2	6.2	5.2	4.2	3.2
Gaseous	8.5	7.5	6.5	5.5	4.5

Phase Thresholds

In fluid dynamics there is different states of flow that can be called in Phases in physics generally. With Volume as Mass as the principle I have proven that capital flow or liquidity, behaves along the laws of physics. Price is the effect and behaves accordingly to thes physics of fluids in a conduit. Iam not describing why but how, external causes such as; psychology, institutional moves, insider trading, Fed rates, and etc are whys. This is how when you turn on the water tap and it travels through the garden hose the liquidity is going to behave. Different levels and pressure of flow is going to naturally

create different effects. Iam going to go through short descriptive explanations of the thresholds because without tables and charts it is going to get lost and a waste of our time and attention. I rarely pay attention to them anyways as the relations between the variables is what it sinks in better and is more interesting. For me. From my own observations the phase levels are better suited for programmatic trading as triggers. At times I wonder if it is too finely grained. Your mileage may vary, as I said I usually unintentionally ignore them.

Sub-Laminar

Less then optimal flow rate, on a chart this is where the range is low but the candles are short and choppy if you drew a sine wave through them. When the price is going sideways with very short peaks and troughs this phase and the next level will switch between them. This is a normal stable phase, because the market is rarely optimum when a stock is being traded in volumes that attract traders.

Laminar

Optimal flow rate, the candles have more structure giving a nice smooth sine wave when drawn through their range. The markets can be messy and this is usually a transistionary phase since the markets are not a clean, orderly, and controlled within predefined limits, environment.

Turbulent

Candles start getting longer, trends start forming from this start of a “chaotic” state. That is about all there is too say without tables and charts and such. It is where the ears perk up to be poetic.

Pre-Fracture

A sudden and short-lived phase the same as it is in physics. The turbulent phase has built enough pressure which condenses energy so it has a greater effect, momentum is squeezed through narrowing walls. For algro trading this is usually a hair line trigger to make a move or sit it out.

Fracture

The gauges here dramatically shift, candle structure drastically changes unless there is a strong trend that doesn’t push into the next phase and a breakdown of any state. Standard lagging indicators and statistical analysis using averaging formulae are inaccurate and to various degrees wrong. Up to wrong in high on meth wrong. I have not observed a discernable candle pattern because there is none to observe. It is where

technical analyists are shrugging their shoulders “it is the way it is”. Of course, the physics have changed from standard mathematics and visualizations into chaos. What we can discern from this phase is worth a lifetime of study. Gold when it has it’s bursts of above average volume likes to sit in this phase as an example.

Gaseous

Rare, and very brief, and from observations, it is in high volume and high price stocks. Throw out all knowledge, physics has changed from finite too a state I dare say fractal, and I say dare because Iam probably not technically correct. The guages are fun to watch in fracture and gaseous because how much and fast they change.

When using my Trading View indicator the phases are colour coded where the *KFI* number is so a practioner is not going to be doing much cognitive load on what phase nor do I think will they care much. The guages and their relations give much more information.

Related Links

- Coffee Rings, Markets, Pencils, Mathematics, Physics, And Capital Flows: the first article.
- Calculators, Python, And The KFI: the second article.
- KFI MicroPython Script including tier and threshold information printout script: a zip file for free, I would appreciate a tip, of the MicroPython script stepped through in the previous article and the print out script in this article.
- KFI ML (Machine Learning) Handbook: A long, dense, ML Handbook generated by AI and formatted for ML by AI. It took many iterations and many hours to produce and I wonder how many millions of watts I burned through at Anthropic’s expense. The final formatting and rephrasing I did do with a month paid subscription for Claude. I burned more then the price for the subscription in that month in the final versions of generating the handbook. I now consider the math in it junk or subtly wrong after I fed AI my MicroPython program and doing the calculations by hand. Not that the conclusions are wrong but without knowing exactly the code it generated for the mathematics and from too many experiences of it messing up simple math Iam going to assume it screwed up. To touch this document again or verify the mathematics I bluntly and honestly say I need to be paid. If you use it seriously for research or trading I highly recommend the scripts above to also train the AI on.

- Pallas Boreas on Trading View: I return follows.

Conclusion

With the last two links is a system to read the market better then anything else publicly available to train AI with. These three articles are the introduction to a break through in investing and trading. The next phase in the flow is to program a system utilizing this discovery with a polar prediction system, and to put charts online with the Trading View instrument so the interested can get a deeper understanding. Itself needs some work, like calculating ADV automatically with code refactoring and clean-up.

If you read all three articles thank you for accompanying me on the start of this journey which I have been travelling for about a year now. If you have read less then all three thank you also. This is a long path so more is to come.