MercenaryTrader

Methodology Report:
INTRODUCTION TO
INTEGRATED MACRO ANALYSIS

INTRODUCTION TO INTEGRATED MACRO ANALYSIS

Table of Contents

INTRODUCTION TO INTEGRATED MACRO ANALYSIS

Legendary poker player David “Chip” Reese, who routinely earned several million dollars a year as a regular in the Bellagio’s “Big Game” before his untimely death at age 56, once said this:

There are levels so advanced they feel like other dimensions.

> *“[Poker is] a very simple game; a five-year-old can learn it. But it’s also highly mathematical. If you never play someone on the next level, you don’t even know that level exists. It’s almost another dimension.”*

As with so many things, what applies in poker has a parallel application in trading. And the beautiful thing is, there are always new levels to explore. Great traders, like great poker players, are thus on a constant path of exploration, evolution and growth.

So with that in mind, this intro will try to answer a question posed on message boards: *“How does macro analysis apply to trading?”* A great question, albeit a broad one. So consider this the first installment of a broad answer.

Thinking in 3-D

A trading portfolio is a three-dimensional structure.

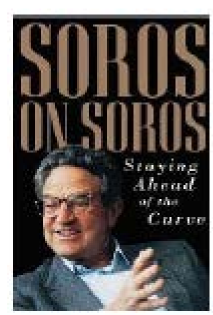
To begin, it feels necessary to digress for a moment and touch on another topic – the importance of viewing one’s portfolio as a *three-dimensional structure* in which all positions are related.

This concept will be important for making sense of what follows. It is also important because, in truth, all of a trader’s positions are truly related, whether that fact is recognized and accounted for or not.

As Bruce Kovner has noted, some of the most serious errors in trading stem from excessive correlation. (And cash is a position too by the way – oftentimes a perfectly justifiable one.)

The master and pioneer of this style is George Soros. From Soros on Soros, his most clarifying work:

> “It is a rather unusual structure, because we use leverage. We position the fund to take advantage of larger trends – and then, within those larger trends we also pick stocks and stock groups. So we operate on many different levels.
>
> I think it is easiest if you think of a normal portfolio as something flat or two-dimensional, as its name implies. **Our portfolio is more like a building. It has a structure; it has leverage.** Using our equity capital as the base, we construct a three-dimensional structure that is supported by the collateral value of the underlying securities.



> I am not sure whether I am making myself clear. Let's say we use our money to buy stocks. We pay 50 percent in cash and we borrow the other 50 percent.
>
> Against bonds we can borrow a lot more. For $1,000 we can buy at least $50,000 worth of long-term bonds. We may also sell stocks or bonds short: we borrow the securities and sell them without owning them in the hope of buying them back later cheaper. Or we take positions – long or short – in currencies or index futures. **The various positions reinforce each other to create this three dimensional structure of risks and profit opportunities.**"

Various positions reinforce or balance each other in order to create the structure.

Soros is also a pioneer in his willingness to truly "go anywhere," versus the far more restricted mandates of most funds and trading styles today. Again from Soros on Soros:

> "There is no fund exactly like ours. There is now a family of funds called hedge funds. But the name "hedge fund" really covers a wide variety of operations. I think it would be a mistake to put all hedge funds into the same basket.
>
> First of all, there are many hedge funds that don't use macro investing techniques or use them differently from the way we do. And there are many hedge funds that use only macro instruments and don't have exposure to particular stocks. **With our three-dimensional approach, we make decisions on different levels.**
>
> There is a macro decision, a certain posture that the fund adopts. **Within that macro posture, there are decisions about stocks to buy or sell and which instruments to use.** Generally speaking, if we can implement a macro decision with a macro instrument, we prefer to do that rather than to do it through more specific investments."

Decisions on individual stocks are made within a macro posture the fund adopts.

So now we have hopefully achieved the first step of clarification. Instead of seeing a trading portfolio as a sort of accidental hodge-podge of unrelated positions, we are looking at the whole thing as a **deliberately crafted structure**… that structure being architected within the context of an ever shifting and evolving comprehensive macro point of view.

Fundamentals, Technicals, and Market Tone

But what about the actual trades? Where do those come from? Again let us first address the question obliquely, rather than plowing into it head on. Before we talk about where trading ideas originate, let's clarify the kind of trades we want exposure to – the specific nature of the trades we are looking for.

As often is the case, the old masters say it best. Here is Michael Marcus – who turned $30,000 into more than $80 million and served as a mentor to Bruce Kovner, who went on to make billions – via his original *Market Wizards* interview, describing the general characteristics of an excellent trade:

The best trades have a convergence of strength in three areas: Fundamentals, technicals and market tone.

> "The best trades are the ones in which you have all three things going for you: **fundamentals, technicals, and market tone.** First, the fundamentals should suggest that there is an imbalance of supply and demand, which could result in a major move.
>
> Second, the chart must show that the market is moving in the direction that the fundamentals suggest.
>
> Third, when news comes out, the market should act in a way that reflects the right psychological tone. For example, a bull market should shrug off bearish news and respond vigorously to bullish news."

In an interview from January 2000, Paul Tudor Jones (aka "the Michael Jordan of trading") expressed the same concept in a different way:

Analysis applies across all ideas and asset classes, whether it's pork bellies or Yahoo (neither which trade anymore).

> "You pick an instrument and there's a whole variety of benchmarks, things that you look at when trading a particular instrument whether it's a stock or a commodity or a bond. There's a **fundamental information set** that you acquire with regard to each particular asset class and then you overlay a whole host of technical indicators and that's how you make a decision. It doesn't make any difference whether it's pork bellies or Yahoo. At the end of the day, it's all the same. You need to understand **what factors you need to have at your disposal** to develop a core competency to make a legitimate investment decision in that particular asset class."

Okay. So if we recognize that "fundamentals, technicals, and market tone (i.e. sentiment)" are the key drivers of a strong trade, where does "macro" or "top down" analysis come into play?

It comes in via the fact that *top down factors are a critical subset of fundamentals and sentiment.*

The surrounding environment always plays a role. Nothing happens in a vacuum.

In other words, a stock, a bond, a currency or what have you should NOT be analyzed in a vacuum because nothing trades in a vacuum! The **surrounding environment always plays a role**, sometimes a critical role.

For example, consider these questions:

> Is risk appetite *waxing* or *waning*?
>
> Are credit flows *expanding* or *contracting*?
>
> Is the general backdrop sunny with blue skies and a refreshing breeze…
>
> Or dark and brooding, with thunder rumbling and a full-force gale on the way?

Sizing Up General Conditions

Before George Soros was even born (in 1930), the importance of top down analysis as a fundamental input was hammered home by another trading legend: Jesse Livermore.

Livermore's number one consideration and message was the importance of studying general conditions.

Jesse Livermore was the original global macro guy. He traded everything from long / short equities to wheat and cotton and coffee, and did it all on razor thin margins, and no doubt would have traded currencies too, had floating currencies been available.

In *Reminiscences of a Stock Operator*, the pseudonymous account of Livermore's trading life and times, the importance of top down macro analysis – what's referred to as *general conditions* – is touched on time and time again:

> …like the physician who keeps up with the advances of science, the wise trader **never ceases to study general conditions**, to keep track of
> developments everywhere that are likely to affect or influence the course of the various markets.
>
> …I still had much to learn but I knew what to do. No more floundering, no more half-right methods. Tape reading was an important part of the game; so was beginning at the right time; so was sticking to your position. But my greatest discovery was that **a man must study general conditions**, to size them so as to be able to anticipate probabilities.
>
> …But I can tell you after the market began to go my way I felt for the first time in my life that I had allies — **the strongest and truest in the world: underlying conditions.** They were helping me with all their might. Perhaps they were a trifle slow at times in bringing up the reserves, but they were dependable, provided I did not get too impatient.
>
> …From then on I **began to think of basic conditions** instead of individual stocks. I promoted myself to a higher grade in the hard school of speculation. It was a long and difficult step to take.
>
> …Without faith in his own judgment no man can go very far in this game. That is about all I have learned — to **study general conditions**, to take a position and stick with it.
>
> …Disregarding the big swing and trying to jump in and out was fatal to me. Nobody can catch all the fluctuations. In a bull market your game is to buy and hold until you believe that the bull market is near its end. To do this you must **study general conditions** and not tips or special factors affecting individual stocks.
>
> …But not even a world war can keep the stock market from being a bull market when conditions are bullish, or a bear market when conditions are bearish. And all a man needs to know to make money is **to appraise conditions.**

The ultimate goal is simple: Ability to take a good position and stick with it.

The Market Tower

Next we'll introduce *the Market Tower*, a metaphor for the macro analysis process.

Think of a giant solar updraft tower in the middle of the desert, except, the goal is not to produce electricity but trading profit.

The value is in the integrated nature of the tower. The whole structure, in concert with the environment, does the work: You need all the elements (top, bottom, middle) for the turbines to generate electricity (profit).

The top, bottom and middle of the solar tower are all integral to making it work (the production of profitable output).

Per Wikipedia:

> "The generating ability of a solar updraft power plant depends primarily on two factors: the size of the collector area and chimney height. With a larger collector area, a greater volume of air is warmed to flow up the chimney; collector areas as large as 7 km in diameter have been considered. With a larger chimney height, the pressure difference increases the stack effect; chimneys as tall as 1000 meters have been considered."

In our metaphor the height of the tower, or chimney height, reflects the impact of "top down" alignment. The more support one can draw from the 10,000 foot view, the taller the Market Tower becomes.

The more supportive the big picture, the taller the Market Tower becomes (in terms of profit potential).

Here are a few off-the-cuff examples of top down factors that would contribute to the height of a Market Tower:

A weak US dollar boosting corporate earnings from profits overseas

China capital flight fueling real estate bubbles in Canada and Australia

A subprime loan boom increasing auto sales to the benefit of auto makers

Falling production costs for solar panels fueling a renewable energy boom

Meanwhile, the size of the collector area close to the ground represents **the impact of "bottom up" fundamental inputs.**

The core fundamentals are like the base-collector panels at ground level.

The stronger the fundamentals of the individual security in question (or supply / demand specifics in the case of commodities or currencies), the greater the amount of latent profit potential embedded in the trade. For example:

An exceptionally strong balance sheet and efficient business model (for a long)

An exceptionally leveraged balance sheet and weak business model (for a short)

Improving earnings potential and a compressed valuation (for a long)

Low quality earnings, likely peaking and an overhyped valuation (for a short)

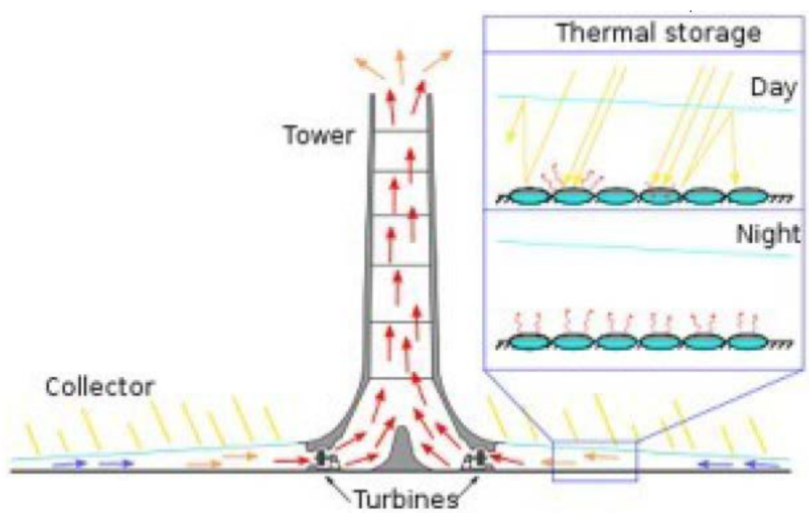
Everything must work together in synch to get a truly great result.

In an actual solar updraft tower, the chimney and the surface-level collector area **work together and in concert** to generate power. Similarly, for an excellent high conviction trade, **top down factors and bottom up fundamentals work together** in the Market Tower to increase the probability of profit.

Stacking the Components

Furthermore, when thinking in terms of the Market Tower, one can “stack” or “layer” the various components of a high-conviction trading opportunity.

The most abstract, high-level concepts go at the top, with the elements becoming increasingly concrete and “boots on the ground” with each rung lower. The tower structure connects the highest top down elements with the lowest bottom up foundational factors, creating a vertical structure that harnesses natural forces.



In practice, going from top to bottom, the order might look like this:

- **Macro Climate: Credit Flows, Liquidity, Risk Appetite**
- Valuation Risk, Geopolitical Risk, Broad Market Sentiment
- Major Themes, Catalysts & Drivers, Secular Trends
- Bellwethers and Indices: Bull or Bear? Emphasis long or short?
- “Pockets of clarity” for various sectors, industries, commodities etc.
- Odds of directional movement for a given theme or group
- Micro-level catalysts and drivers for a given theme or group
- Industry and valuation knowledge for a given theme or group
- Selection of individual names and trading vehicles
- Tracking, isolating and targeting various trade opportunities
- **Integration, execution and management of actual trades**

There is an order of progression from top to bottom (or vice versa) that defines the entire structure.

if you think of the above as a sort of “solar updraft tower,” you see that the turbines, which produce electricity, reside at the bottom level… but it is actually the ENTIRE STRUCTURE that is responsible for the desired outcome – profit!

Construction and Timing

It doesn't matter where an idea begins. Bottom up can lead to top down (or vice versa), or one can even choose to start in the middle.

Also note something else. It doesn't matter where an idea BEGINS on the Market Tower… all that matters is that the FINAL RESULT is what's integrated. That is to say:

- A new Market Tower could have top down OR bottom up origins.
- The seed might originate with bottom-up analysis of an individual security.
- Or, it might start with a high-level observation regarding supply and demand.
- All that matters, in the end, is ultimate integration of the full structure.
- Wherever an idea starts, it always extends out in both directions.
- The ideas to swing hardest at are the ones with FULL TOWER SUPPORT.

The Market Tower concept can also be useful in terms of identifying the **timeliness** of ideas. That is to say:

- Oftentimes an idea or trading theme will be "early."
- By doing a "tower assessment," we can see the state of readiness for an idea.
- Sometimes the pieces for a theme won't be in place for action yet…
- But later on those pieces may come together via catalyst, missing factor, etc.

If an idea is not fully aligned top and bottom, it may go on a watchlist for later development.

So, for this reason, we maintain a warehouse of "partially built" Market Towers in our stable. These are watchlist type ideas not yet ready to harvest or participate in, but with potential for action in future (when conditions or events move in their favor).

A Few Words on Price Action

Price action deserves some special attention, as it plays multiple roles in this process:

> **Price action in and of itself is an important fundamental input.** You get an idea of what is happening, from both a top down and bottom up perspective, via what Mr. Market is telling you. (With awareness that the message is not always rational.)

Price action plays a significant and multi-varied role in macro analysis.

> **Price action is a timing tool.** As the great Stanley Druckenmiller has said, "I never use valuation to time a market." Valuation gives a sense of the potential for a move, but price action determines when to act.

> **Price action is a filtering tool.** If you have a bullish or bearish opinion on, say, three different industry groups, price action may give you the green light to go ahead and act on one of those three, but to leave the other two alone. Once you have developed a roster of bullish and bearish opportunities based on your assessment of top down and bottom up fundamental inputs, price action then acts as a triggering mechanism for discerning when to go to certain names on your list, versus which names to leave in the stable.

> **Price action is a position management tool.** Once you are in a trade, you still have an ongoing series of decisions to make. Should the size of the trade be increased or reduced? When to take

> profits? When to tighten stops? How to assess the opportunity cost of this trade relative to other positions (or potential positions) in the portfolio? Price action acts as a counselor and a guide in all these matters.
>
> With all the above said, price action (in this approach) **is not a standalone justification for action**. Price action is always analyzed within the context of some greater level of awareness – hence the construction of the Market Tower for recognizing and implementing the highest conviction trades.

At the end of the day, the skilled practitioner's actions are fluid and intuitive. When the various elements are fully internalized and built into the natural structure of day-to-day routine, it all becomes second nature.

The conceptual process of constructing the Market Tower may also give you a better idea of what it means to say that skillful trading is both an art and a science – being hard to say where one starts and the other stops. As Einstein said, which also holds in trading:

Great traders, like Einstein's scientists, are also artists at the highest levels.

> *"After a certain high level of technical skill is achieved, science and art tend to coalesce in aesthetics, plasticity, and form. The greatest scientists are artists as well."*

Horizontal and Vertical Exposure

For a long time, one of the mental images that has compelled us is the idea of "the market symphony" — conducting and coordinating the various elements of a portfolio as if they were the skillfully played instruments of a world-class orchestra. As expressed in some very old trading journal notes:

The "market symphony" symbolizes the music of markets and positions working together in harmony.

> *If one perceives the ability to craft exposure on vertical and horizontal lines, then one can see how a trading portfolio – specifically a multi-position portfolio – becomes a sort of market symphony, in which total returns rely not just on quality of analysis and initial trade selection, but on the skillful management of inter-related positions, based on a combination of clear-cut mechanical rules, logical discretionary overlays, fluid situational awareness, and the trader's well-honed intuitive feel for points at which "adding" or "subtracting" make sense — much as the conductor brings forth diminuendos and crescendos with a masterful wave of the baton…*

This is "the music of the markets," in relation to what we think of as horizontal and vertical exposure (H&V).

So let's begin by defining our terms (which are really quite simple).

> **Horizontal Exposure** refers to adding or subtracting from the total number of positions, e.g. going from 7 positions to 12 positions or going from 16 positions to 10 positions.

> **Vertical Exposure** refers to increasing or decreasing the size of existing positions, e.g. adding large size to a trade, taking profits and reducing exposure in yet another trade, and in a third trade cashing out completely (reducing size to zero).

Horizontal and Vertical Exposure (H&V) represent two ways to change the structure of a portfolio.

Say, for example, you are bullish on fertilizer names, and your thematic exposure to the ferts is concentrated in two names: Potash Corp (POT) and Mosaic (MOS).

If you were to add a third name to your roster, that would count as an increase in horizontal exposure.

If, instead, you decided to stick with POT and MOS but increase share count / total position size (i.e. pyramid one or both names), that would count as an increase in vertical exposure.

It also works in reverse by reducing the total number of positions, lightening up on total size and exposure, and so on.

Simple, Yet Complex

The ability to control H&V (horizontal and vertical exposure) is where truly stellar trading returns come from. Great discretionary traders are masters of H&V.

Great discretionary traders are masters of the H&V craft (both art and science).

Of course, they probably don't call it that. (To the best of our knowledge, it's an original term.) But they practice the strategic discipline of horizontal and vertical exposure (H&V) by fluidly altering exposure levels in response to opportunities, risks, and prevailing market conditions.

Some examples:

> When a top macro trader spends six months trading lightly, nimbly, carefully, avoiding heavy commitments or excessive risk, and then perceives an opportune moment to take a home run cut, followed up by a period of heavy and aggressive activity that contributes to a 40% return on the year — *that is H&V at work.*
>
> When a seasoned investor or trader sees an incredible opportunity to "load the boat, "and takes an outsized position appropriate to an extremely favorable reward to risk situation, *that is H&V at work.*

There are multiple ways to witness the power of H&V at work.

> When a trader perceives a "rolling top" process, in which risk appetite dissipates and various overstretched names run out of gas one by one, allowing for incremental addition to the roster as tactical conditions confirm, that is *H&V at work.*
>
> When the market presents conditions of high uncertainty, in which a big move could break out either way, and the skilled trader employs a sort of "zone" coverage that allows for hedged bets in both directions until the line of least resistance resolves itself, that is (you guessed it) *H&V at work.*

As you may now imagine, the ability to “increase” or “decrease” along two axes (the “H”and the “V”) leads to an incredibly wide range of possibilities.

The dynamics of how much exposure, what kind of exposure, and most importantly when and where, are as critical to the end goal (outsized profits with minimized risk) as is the coordination of instruments in a well-played symphony piece.

An incredibly wide range of possibility exists, not just in picking trades but sizing them and combining them.

Key point: Trading “picks,” individual setups and the like — the areas that beginning traders remain fixated on in their profit quest — are of course still an important part of the process. But they are only the beginning.

Horizontal & Vertical Inputs

So how do you make decisions along the two axes? What are the inputs, broadly speaking, that influence one’s adjustment of horizontal and vertical exposure (H&V)? In essence there are three:

- **The state of the markets**
- **The state of one’s portfolio**
- **The state of one’s convictions**

Making decisions based on the intertwined input of the above three is very much a “dynamic” process, in the sense that all three are constantly shifting in real time. This is contrasted to a more “static” method of portfolio management, in which decisions are taken from a rigid (possibly computerized) list of rules, or where various aspects are left out of the decision making process entirely.

This is a very dynamic process, whereas more static approaches rely on fewer inputs and a more rigid set of rules.

But, really, once you think about it, how can one trade wisely and responsibly without the following types of consideration kept in mind?

> **Markets:** Sometimes market conditions are risky and dangerous. At other times the backdrop is immensely favorable. Dialing down exposure in adverse conditions is critical to survival. Dialing up exposure in favorable conditions is critical to success.
>
> **Portfolio:** “Trading one’s equity curve” is a very old and potentially very wise idea, as long as it is done correctly —and a topic worthy of separate and distinct attention. At minimum one should be aware of P&L impacts on survivability and psychology.
>
> **Conviction:** “Why do it,” i.e. why trade? From Ocean’s 11: *“Because the house always wins. Play long enough, the house takes you. Unless, when that perfect hand comes, you bet big. Then you take the house.”* Conviction enables size, which, applied at the right time, enables breakthrough.

A Few Quick Words on Pyramiding

Most traders and investors are less than comfortable with pyramiding.

Again speaking to the majority — though not necessarily you! — most traders and investors are uncomfortable with *pyramiding*, i.e. the discipline of strategically adding to positions.

Horizontal and Vertical exposure, then, has the potential to create even more discomfort, because H&V can be classified as an advanced treatment of pyramiding.

Except of course, this is not your run-of-the-mill pyramiding, but a discipline that exists not just on one axis, but three (regarding new positions and existing positions and their relation to each other), and that further includes the concept of “reverse” pyramiding (de-leveraging as well as leveraging) as circumstances warrant.

The whole topic can go much deeper – this is, after all, an “introduction” – but given that, some quick thoughts on what a successful pyramiding methodology entails:

Some of the requirements are conviction, a willingness to sacrifice capital, and tactical confirmation of an attractive entry point.

The first requirement is conviction — a firm belief in the trade. The second requirement is sacrifice — a willingness to risk additional capital, whether in the form of accrued profits or initial risk capital. The third requirement is tactical confirmation — a strategic entry point based on price, information developments, sentiment shifts or other factors.

This is where the dynamic aspect of portfolio management comes into horizontal and vertical exposure (H&V) decisions. As stated earlier, it is a function of multiple inputs: the state of the markets, the portfolio, conviction levels, and the positions themselves.
A few additional observations regarding the intersection of H&V and pyramiding:

- Horizontal exposure is about increasing exposure via new trades.
- One could call it ‘thematic pyramiding’; adding diverse new eggs to a basket.
- With sufficiently large themes, different vehicles respond at different times.
- For instance, first vehicle ‘A’ goes… then ‘B’… then ‘C’, and so on.
- This sort of staggered participation lends itself nicely to horizontal build-up.
- Horizontal exposure also interplays nicely with “doing more of what works.”
- Adding vertical exposure, in contrast, means increasing size in a position.

- Skillful position management is not just about leveraging, but de-leveraging.
- The skilled trader does not always add. Sometimes she takes away.
- When to increase a position that is working? When to take partial profits?
- The “vertical exposure” concept encompasses both.
- To increase vertical exposure is to traditionally ‘pyramid,’ i.e. add size.
- To decrease vertical exposure is to partially cash out, i.e. book partial profits.
- (One could say reducing vertical exposure to zero = closing out entirely.)

With H&V awareness, the potential exists to cultivate virtuosity (elegant technical skill) in the real time management of positions and exposures.

H&V enables virtuosity, which in turn enables outsized profits.

Via Merriam-Webster:

> Virtuosity is used particularly to describe musicians, but also often for writers, actors, dancers, and athletes. A virtuoso is a highly skilled performer, and a virtuoso performance is one that astonishes the audience by its feats. In ancient Greece the cities would hold male competitions in acrobatics, conjuring, public reciting, blowing the trumpet, and acting out scenes from Homer's epics, the winners of which would have been praised as virtuous, or "full of manly virtues".

This virtuosity is then overlaid on top of high quality market analysis, that is to say, awareness and exploitation of ever-changing conditions.

These ideas dovetail with the theories of John Boyd (see "The Boydian framework").

Via this process, new heights of virtuosity then become accessible in the realms of scenario building… model analysis… trade construction… probability weightings, reward to risk profiling, and so on.

There are significantly more "degrees of freedom" – different configurations of decisions that can be made – than the average practitioner realizes. This realization can be daunting, but it is also an opportunity source. The utilization of H&V enables performance generation capabilities that the typical investor or trader does not have access to, and may not even know exists.

H&V concepts also dovetail with the observations and theories of John Boyd and our "Boydian Framework" (theory report available here).